

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 and between the years 1831 and 1833 the canal was extended along a route from Port Robinson to Port Colborne. The present canal, $26\frac{1}{2}$ miles in length and with locks of the same dimensions as those of the St. Lawrence canals, was completed in 1887. Construction of the Welland ship canal was commenced in 1913; when completed this canal will have a length of only 25 miles with seven lift locks having dimensions of 800 feet by 80 feet, with 30 feet of water over sills. Entrance to the canal will be made at Port Weller, about 3 miles east of Port Dalhousie, and between this point and Allanburg an entirely new route will be followed, but the line of the present canal will be adhered to between Allanburg and Port Colborne.

Sault Ste. Marie Canal.—The Canadian lock at Sault Ste. Marie was constructed to overcome the difference in level of 19 feet between lakes Huron and Superior. The earliest canal at this point was built in 1797-98 by the Northwest Fur Company. It consisted of one lock, 38 feet long, and had 9 feet of water on the sills. This lock was destroyed in 1814 by United States troops and was not reconstructed until 1853-55, when one lock was built on the United States side of the river. This has since been superseded by four more modern locks, constructed at intervals between the years 1881 and 1919. The Canadian canal was completed in 1895 and consists of a single lock, 900 feet by 60 feet, with a minimum depth of water on sills of 18 feet, 3 inches.

Chambly Canal.

The inland water route between Montreal and New York is down the St. Lawrence river, up the Richelieu river through lake Champlain and the Champlain canal and down the Hudson river. Rapids on the Richelieu river at St. Ours are passed by a lock, 200 feet by 45 feet, with 7 feet of water on the sills, constructed in 1844-49, while a canal with 9 locks, the smallest of which is 118 feet by $22\frac{1}{2}$ feet, with $6\frac{1}{2}$ feet of water on the sills, joins Chambly and St. Johns. Construction of this canal was commenced in 1831 and completed in 1858.

Ottawa Canals.

The navigation of the Ottawa river between the port of Montreal and the city of Ottawa is effected by means of the Lachine canal, the Ste. Anne lock and the Carillon and Grenville canals. The Ste. Anne lock surmounts the Ste. Anne rapids at the junction of the Ottawa river with lake St. Louis. Between the years 1840 and 1843, the first lock was constructed, its dimensions being 190 feet by 45 feet, with 6 feet of water, and an additional lock, 10 feet longer and 3 feet deeper, was constructed between the years 1880 and 1883. Both locks are now in operation. Between Carillon and Grenville there were originally three canals, constructed by the Imperial Government between the years 1825 and 1833. The second of the three, the Chute à Blondeau, was abandoned after the completion of the Carillon dam in 1881. At this time also, the Carillon and Grenville canals were reconstructed, the work being fully completed in 1884. The locks on these canals are of the same dimensions as the newer of the two locks at Ste. Anne.