

Public Works of the Dominion.

CANALS, WORKS ON NAVIGABLE RIVERS, HARBOURS & PIERS, SLIDES & BOOMS, ROADS & BRIDGES, PUBLIC BUILDINGS, GOVERNMENT RAILWAYS, NORTH WEST COMMUNICATION, PACIFIC RAILWAY SURVEY, TELEGRAPH IN B. COLUMBIA.

CANALS.

1. St. Lawrence & Western Lakes.—This navigation extends 2384 miles from the Straits of Belle-Isle, Newfoundland, to Duluth, U. S., at the head of Lake Superior. This lake is about 600 feet above the highest tidal flow of the St. Lawrence. The canals are Lachine, Beauharnois, Cornwall, Farran's Point, Rapide Plat, Galops and Welland. Total length 70 83-100 miles. Total lockage 536½ feet. No. of locks 51. Between Lakes Huron and Superior, on the U. S. side, is the St. Mary's Canal, 1.1-17 miles long, 18 feet lockage.

These canals are all to be enlarged to 12 ft. deep, 100 ft. wide at bottom, with locks 270 ft. long and 45 ft. wide. Surveys are being carried on with much care, both for the canals and to determine the extent of improvements required in the river itself, removing shoals &c.

The Lachine Canal is 8½ miles long, extending from the city of Montreal to the village of Lachine around the St. Louis Rapids; some bridges, piers and a wharf were erected during the past year. It is proposed to make this canal a part of the distance from Montreal Harbour 200 ft. at bottom, the demand for space being very great, as it forms the first link of connection with the sea-going vessel. There being such an immense amount of traffic passing through this canal, it is designed to make the enlargement by forming an independent cut by the side of the existing one, with a small interval of distance between them.

The Beauharnois Canal 1¼ miles long, is on the S. side of the St. Lawrence, connecting Lakes St. Louis and St. Francis, and avoiding the Cascades, Cedars and Coteau rapids. It was put in thorough order during the season of 1873, and is reported to be throughout in excellent condition.

The Cornwall Canal 1½ miles long, avoids the Long Saut Rapids; some small repairs were made in 1873 to keep it in a thoroughly efficient state.

Williamsburgh Canals, (Farran's Point, Rapide & Galops) 1½, 4, and 7½ miles long, were kept in perfect repair and navigation was uninterrupted throughout the season.

Welland Canal, connecting Lakes Erie and Ontario, 23 miles and 1,099 ft. long. A number of repairs were made and the supply of water has been excellent. Works are in progress for deepening and clearing out the feeder so as to obtain an increased supply of water from the Junction to Port Maitland. Tenders have been given out for the enlargement of sections of the canal, and the plans for the rest are nearly complete.

Burlington Bay Canal, ¼ mile long through the sand bar which separates Burlington Bay from Lake Ontario, no repairs were required during 1873.

TUG SERVICE.

For a number of years a line of tug steamers has been subsidized by the Government on the navigable reaches between the St.

Lawrence canals. The subsidy was \$12,000, the contractor agreeing to tow vessels at certain fixed rates, providing 9 vessels for the service, making two trips a day between Lachine and Beauharnois, and one daily on the other reaches. From 1st July, 1872, to 1st July, 1873, 1,803 vessels were towed up and 1,420 down. The contract expires on the 1st May, 1875, and it is understood it is not to be renewed.

MONTREAL, OTTAWA & KINGSTON NAVIGATION.

St. Anne's, Carillon, Chute a Blondeau, Grenville, and Rideau Canals, 1¼ miles long, 59 locks. **St. Anne's Lock**, ¼ mile long surmounting the St. Ann's Rapids at the outlet of the Lake of Two Mountains. The works have been kept in an efficient state. A new canal and lock, 1800 ft. long, is to be constructed between the present lock and the north shore, and a channel cut about 1,100 ft. to connect with the natural channel. The River Ottawa is to be deepened throughout to 9 feet with locks 200 by 45 feet.

Carillon Canal, 2½ miles long, avoiding the Carillon Rapids. Greater expense than usual was necessary on this canal, during the year.

Chute a Blondeau Canal, ¼ mile. This canal is cut through solid rock, and is only used by vessels going up the river. Instead of enlarging these canals, it is designed to construct a dam to turn both falls into a reach of smooth water. This will extend across the river a width of 1800 feet, and have a timber slide. The side canal will be ½ mile long, with two locks. The work was commenced in the summer of 1873, and is being prosecuted.

Grenville Canal, 5½ miles long with 7 locks, avoids the Long Saut Rapids. The works are rather dilapidated, having been only kept in working order. The reach above the Guard Lock has been deepened, some new locks built, and the process of enlarging and deepening has been carried on.

Culbute Rapids—Tenders were advertised for in June, 1873, for the construction of a canal around these rapids. When it is completed, navigation on the Ottawa will be open from Havelock to the foot of the Joachim rapids, a distance of 80 miles, and there will be only 8 miles not navigable from Aylmer, 8 miles above Ottawa city to the western end of Deep River.

Rideau Navigation connecting the city of Ottawa by the Rideau River with Kingston, on Lake Ontario, 126½ miles long, with 33 locks. The Canal is in a fair state of repair, but many of the structures are old and require careful watching. Some improvement is necessary in the care of the reserves for supplying water during the season of low water, it being very much wasted by lumbermen and millers. The appointment of an Inspector is recommended with the duty of watching the dams and regulating the discharge through the lateral sluices.