

ing by that Lake and the Champlain Canal with the Hudson River 331 miles to New York. Fourteen miles from Sorel is the *St. Ours Lock and Dam* of a mile long, beyond which the river has a navigable depth of 7 feet to Chambly Basin. Here the *Chambly Canal*, 12 miles long, overcomes the rapids of St. John and Chambly. The smallest locks on this navigation admit vessels of 240 feet tonnage.

THE ST. PETER'S CANAL

connects the St. Peter's Bay on the south coast of Cape Breton, N. S., with the Bras d'Or Lake, crossing an isthmus half a mile long, and giving access to the Atlantic Ocean. It is being widened to 48 feet at bottom, with a depth of 15 feet below the summer level of the Bras d'Or, and a lock 200 by 45 feet. The canal has been closed since June, 1876, to admit of the completion of this work.

During the fiscal year, 1876-77, 21,526 vessels passed through the Canadian Canals, having a tonnage of 4,193,776 tons. Of these, 20,857 were Canadian, and 5,669 United States. The average tonnage of Canadian vessels was 158 tons, of United States, 123 tons. The expenditure on Canals during the fiscal year was

For construction.....	\$4,181,306
Repairs.....	130,277
Staff and maintenance.....	179,588
Total.....	\$4,491,171

FORT FRANCIS CANAL

is located near the outlet of Rainy Lake, 237 miles from Thunder Bay and 215 miles east of Winnipeg. It is intended to connect the navigable water of Rainy Lake with Rainy River and Lake of the Woods, making an uninterrupted navigation of 164 miles, with 7 feet of water. The canal is to be 800 feet long by 3½ wide at the narrowest part, with a lock 200 by 36 feet with 7 feet of water.

WORKS ON NAVIGABLE RIVERS.

The rivers under the control of the Dominion Government are the St. Lawrence, Ottawa, St. Croix, Restigouche, St. John, Tidnish, Missisquoi, Fraser and Red. *St. Lawrence*—A graving dock is being constructed in the Harbour of Quebec, by the Quebec Harbour Commissioners with aid from the Imperial and Dominion Governments. The site was established by Order-in-Council of May, 1877 to be at Point Lévis. Obstructions in the Harbour of Quebec have been removed by the Lifting Barge. The channel between Quebec and Montreal is being deepened to 22 feet, 300 feet wide, under the supervision of the Montreal Harbour Commissioners. The channel of the Galops Rapids is being deepened by drilling, by means of a chain tug, specially constructed for the purpose. The *Neebish Rapids*, half way between the Bruce Mines and Sault St. Marie are the most trying and dangerous reach of navigation between the Welland Canal and Lake Superior. A channel is being constructed through them 200 feet wide,

and over 14 feet deep at the lowest range. It is expected this will be nearly completed in 1878.

HARBOURS AND PIERS.

On the *Atlantic Coast* repairs and improvements were made in 16 harbours, and dredging done in eight. Several surveys of other harbours on this coast were made with a view to their improvement. On the *River St. Lawrence*, surveys were made at Matane and Trois Pistoles on the south shore, and repairs made to works at River Blanche, River du Loup (en bas), River Ouelle, St. Jean Port Joli, L'Islet, and Berthier, all on the south shore. Dredging was done in the harbours of *Belleville* and *Trenton* on the *Bay of Quinte*, on *Lake Ontario*. A new pier was finished at Cobourg, repairs made at Port Hope, dredging done at Toronto and Newcastle harbours, and a survey of that of Oakville made. On *Lake Erie*, the harbour of Port Burwell was dredged and a shoal at the entrance removed, and surveys made of the harbours of Port Stanley and Rondeau. On *Lake St. Clair*, the north branch of the River Sydenham was surveyed, with a view to deepen it throughout to 8 feet.

On *Lake Huron*, the harbour of Bayfield was dredged to a depth of 10 feet, that of Goderich improved, repairs and dredging done in Kincardine harbour, extensive works completed at Chantry Island, in the mouth of the River Saugeen, improvements made at Owen Sound and Colpoys Bay, *Georgian Bay*, and a survey in Parry Sound. On *Lake Superior*, a survey of Prince Arthur's Landing, Thunder Bay, has been made, and work done at the Kaministiquia, so as to afford a depth of 13 feet up to the Pacific Railway Station.

There are belonging to the Public Works Department, on the Atlantic Coast, 2 elevator and three dipper dredges, with 22 scows; on the St. Lawrence Canals, 2 dipper dredges, with 3 scows; on the Lakes, 1 dipper dredge, a tug and 3 scows, and in British Columbia, 1 dipper dredge. The total expenditure on the Rivers and Harbours for the fiscal year was

	Construction	Repairs.
Ontario.....	\$209,903	\$4,400
Quebec.....	144,417	10,104
New Brunswick...	111,140	1,054
Nova Scotia.....	86,734	1,838
P. E. Island.....	24,621	500
British Columbia.	556	..
Total.....	\$577,364	\$17,896
Dredge vessels....	3,143	
	\$580,527	

SLIDES AND BOOMS.

The Government slides were constructed for the passage of timber where impediments to navigation prevent it. The booms are artificially closed bays at the two ends of the slide. On the *River Saguenay* there is a slide 5,840 feet long with a boom of 1,314 feet, and dams, piers and bulkhead. The works extend over a distance of about six miles. On the *St. Maurice* there are 7 stations, and on the *Vermillion*, one of its tributaries two, the last 121 miles from the mouth of the St.