

The length of the main line is 27 miles and 1,099 feet, and the lockage 330 feet. It closed 9th Dec., 1871, and re-opened 22nd April, 1872.

Navigation was not interrupted during the season except for three days, by the breaking of the head gates of one of the locks by a schooner. Extensive repairs were made, and the work commenced of deepening the harbors at Ports Dalhousie and Colborne and increasing the supply of water.

The Chief Engineer, Mr. Page, appointed by the Board of Works, to examine and report upon the best manner of enlarging the Welland Canal, and the probable cost, and whose recommendations have been accepted by the Minister of Public Works and the Privy Council, advises that the ports now used on Lakes Erie and Ontario as termini of the canal, should be retained. From Port Colborne on Lake Erie to Thorold, the line of the present canal is generally to be followed and the cost of enlargement is estimated at \$4,060,000, from Thorold to Port Dalhousie on Lake Ontario, it is intended to make a new and more direct line, making the whole length of the canal 26½ miles. The cost of this new branch is estimated at \$5,180,000, making the total cost \$9,240,000. It is thought the work may be done in about four years, but this must in a great measure depend upon the practicability of securing a sufficient supply of labour. It is hoped that the work may be accomplished without interfering with the passage of vessels.

BURLINGTON BAY CANAL.

Through the sand bar separating Burlington Bay Canal, from Lake Ontario is ½ mile long—no locks. No repairs were required in 1872.

TUG SERVICE.

By the tug service on the St. Lawrence, from the 1st July, 1871, to 30th June 1872, 2,087 vessels were towed up, and 1,624 down.

MONTREAL, OTTAWA AND KINGSTON.

This line of navigation extends from Montreal to Ottawa and thence to Kingston, on Lake Ontario, a distance of 246½ miles. The length of the five canals on the route is 134½ miles, and the total lockage 533½ feet. Extensive repairs were made on the Ottawa canals during the year, and the work of enlargement is being proceeded with. Navigation was not obstructed during the season. The canals closed on the 27th Nov. 1871, and Ste Anne's Lock was re-opened on the 29th April, 1872, Carillon and Chute a Blondeau Canals on the 2nd May, and Grenville Canal on the 23rd May.

THE RIDEAU CANAL.

From Ottawa to Kingston is 126½ miles long with a lockage of 446½ feet, (232½ rise and 164 fall.) This canal is formed by converting the Rideau, a branch of the Ottawa and the Cataracts flowing into the lower end of Lake Ontario into a continuous navigable channel, the two being connected near their sources by an artificial channel at the summit level. This canal was closed 29th Nov. 1871, and re-opened 1st May, 1872. The freight traffic on this canal is annually increasing, but passenger traffic, in consequence of the increase of the railways, is decreasing. Navigation was twice interrupted during the season of 1872, by repairs to one of the locks. The largest vessels

which at present pass through the Rideau, are 110 feet in length, 31½ in breadth, drawing when loaded 4½ feet of water and with a tonnage of 250.

RICHELIEU AND LAKE CHAMPLAIN CANALS.

Consisting of the St. Ours Lock and Dams and Chambly Canal open the navigation by the Richelieu river from Sorel 46 miles below Montreal, to the outlet of Lake Champlain, a distance of 81 miles: The St Ours Lock is ¼ of a mile long, with a rise of 5 feet. The Dams are 300 feet in the Eastern and 600 in the Western channel giving a depth of 7 feet for 32 miles to Chambly Basin. The Chambly Canal is 12 miles long with a lockage of 74 feet. These canals closed 28th Nov. and opened 1st May. The trade by this route is rapidly increasing; during the season of 1872, the canal was taxed to its utmost capacity.

THE ST. PETER'S CANAL.

Between St. Peter's Bay, on the S. coast of Cape Breton and the Bras d'Or lakes, crosses an isthmus half a mile long, and gives access to and from the Atlantic Ocean. The length is about 2,400 feet, and the rise and fall of the tide about 9 feet. It closed 23rd December, 1871 (a month earlier than usual, owing to the unusually severe weather) and re-opened 2nd May, 1872.

BAY VERTE CANAL.

A supplementary report of the Minister of Public Works gives the reports of the Engineers on the route and construction of the proposed Bay Verte Canal, between Bay Verte and Cumberland Basin, connecting the waters of the Gulf of St. Lawrence with those of the Bay of Fundy. The line chosen is that called the Laplanche and Tidnish, starting from the mouth of the Laplanche River, and running in a straight line to Fox's Point, crossing the Intercolonial Railway at the bend of the Laplanche. Thence it passes westward over low wet ground to Long Lake; thence through a mossy swamp, forming the watershed and Black Ash Swamp, by the west branch of the Tidnish to the main stream of that river. The total length of the canal will be 20½ miles; 4 locks will be required. The general depth of cutting through the marshes will be 22 feet, but on the watershed, a mile and a half across, below the deep spongy moss, from 10 to 20 feet deep, filling the bed of a lake, there lies a barrier of soft red sand stone which will have to be cut to the depth of 15 feet. The canal is to be 100 feet at bottom, with 16 feet of water. The mean level of the sea was found to be the same in Bay Verte and the Bay of Fundy. The water supply will be furnished by the high water of the Bay of Fundy and the freshwater lakes at the sources of the Laplanche. The estimate of the cost is \$5,000,000. The total amount of excavation required is 9,600,000 cubic yards, of which 440,000 are rock. This is exclusive of the moss excavation, which amounts to 1,090,000 yards, and which, it is calculated, may be drained and burned. The highest elevation above the bottom of the canal to the top of the watershed is 48 feet.

TONNAGE.

The tonnage of vessels of all kinds that passed through the Welland Canal during