

The contract for the lengthening of locks 1 and 2 of the Lachine canal has been let to Coulson, Quinlan & Robertson, of Montreal. The new locks are to be 270 ft. in length, with a width of 45 ft., and a depth of 14 ft. of water on the sills.

Shipping-men at Quebec are anxious that the Government should have a new survey made of the St. Lawrence to the ocean. The part from Quebec to Point des Monts has not been surveyed since 1885, and from Point des Monts to the ocean the last survey was made by Capt. Bayfield over 50 years ago.

The Montreal Harbor Commissioners are considering an application from the C.P.R. for the privilege of running its cars on the high level tracks during the winter. The Co. offers 50c. a car for the privilege. The G.T.R. now uses the inside track, and the C.P.R. wishes to use the outside track.

The Minister of Marine, Mr. Prefontaine, proposes to continue the experiments and investigations of his predecessor in office, Mr. Sutherland, in regard to the lighting and buoying of the St. Lawrence, so as to enable navigation to be carried on by night as well as by day. It is expected that the work taken in hand by Mr. Sutherland will be completed by the end of the season of 1903.

L. Lacoste, of the Dominion Department of Public Works, Ottawa, has invented a marine brake, which was recently tested in Montreal. The apparatus consists of a fin fixed to each side of the vessel, which are opened when it is desired to stop or slow down suddenly. The test was made on the Government str. Eureka both in Montreal harbor and in St. Mary's rapids, and the steamer was brought to a stop within 100 ft. By using one of the fins only the Eureka was turned in about her own length.

### Ontario and the Great Lakes.

The Hamilton Steamboat Co. has declared a dividend of 10%.

The str. Althea, of Kingston, built in 1901, recently ran ashore in the Bay of Quinte during a snow storm, and was badly damaged.

The Sylvanus J. Macy, a U.S. steamer, sank with her crew of 15 men off Port Burwell, Ont., during a heavy storm, at the end of Nov.

The str. Winona, owned by the Port Stanley Navigation Co., is to have \$1,000 expended on her in repairs and improvements during the winter.

The str. Edith, trading on the Lake of the Woods, for the Black Eagle Gold Mining Co., has been sold by the Sheriff to T. Smith, Rat Portage, for \$1,400.

The Collins Bay Rafting and Forwarding Co.'s schooner Neelon was recently towed into Kingston leaking. She had only been repaired a short time previously.

The Collingwood Board of Trade has passed a resolution calling upon the Government to place gas buoys and other aids to navigation along the shores of Georgian bay.

The Northwest Transportation Co.'s str. Huronic will be laid up at Collingwood, and during the winter a number of changes and improvements will be made to her interior arrangements.

A. Stephen, C.E., recently in charge of the harbor works at Port Colborne for the Dominion Government, has been removed to Collingwood to make surveys and plans for harbor improvements there.

The str. Jubilee, owned by Mrs. A. Roys, of Kingston, has been sold and will be placed

on Lake Timiskaming in the spring. The Jubilee's dimensions are: length, 65.8 ft.; breadth, 14.4 ft.; depth, 5.4 ft.; tonnage, gross, 54; register, 37.

The U.S. str. Hecla had to be repaired at Kingston recently, owing to there not being a dock on the U.S. side of the lake large enough, but on her return to Ogdensburg the customs authorities assessed a duty of 50% ad valorem on the cost of the repairs.

The schooner Jessie Drummond, owned in Toronto and Oakville, with 600 tons of coal, ran aground near Cobourg Dec. 3, and became a total wreck. The crew were saved by the lifeboat. The Jessie Drummond was built in 1864, and was 292 tons register.

Everything possible was done to prolong the season of navigation on the Great Lakes last season. The Department of Marine directed the lights, etc., to be left in position until Dec. 12, if necessary, and the marine insurance underwriters granted an extension of insurances.

Two new bridges, to replace the old central swing bridges, swinging the whole width of the canal, are being built on the Welland canal, and it is proposed to similarly replace the remainder of the central swing bridges, of which there are 12. It is also proposed to light the canal by electricity, 400 lights being used, of which 150 will be placed at the locks.

The Montreal Transportation Co. has placed an order for the construction, at Newcastle-on-Tyne, Eng., of a steel freight steamer to trade between Kingston and Fort William, to be ready in April. The steamer will be 248 ft. long, 48 ft. beam, with a depth of 23 ft., flush decks. The engines will be placed aft, and will be triple expansion cylinders 22, 35 and 58 in. diameter, with 39 in. stroke. Two Scotch boilers, with a working pressure of 180 lbs. to the square inch, will be installed.

The Inland Lakes Transportation Co. of Ontario (Ltd.), has been organized with the following directors and officers: President, J. W. Curry, Toronto; Vice-President, M. Straus, Chicago; other directors: H. Pedwell, Thornbury; F. A. Bassett, Collingwood; J. R. Bond, Toronto; Secretary-Treasurer, F. V. Clisdal, Toronto; General Manager, J. J. Daly, Collingwood. Mr. Daly states that three steel freight steamers, with a capacity of 150,000 bush., will be put on the route at the opening of the season of navigation.

At a fire which started in a lumber yard at Norman, Ont., recently, four steamers and two barges were totally destroyed, and one steamer was partially burned. The steamers are small ones, and were laid up for the winter in a ship yard adjoining the lumber yard. The burned steamers were as follows: Phantom, 55 ft. long, owned by C. Lewis, Rat Portage; Rambler, 46 ft. long, owned by J. S. Whiting and others, Rat Portage; Daystar, 34.5 ft. long, owned by the Presbyterian Foreign Mission Committee, Rat Portage; Spray, 32 ft. long, owned by W. A. Carter, Rat Portage; Kennia, 57 ft. long, owned by L. R. Mackey, Keewatin.

The traffic passing through the Canadian and the U.S. canals at Sault Ste. Marie, from the opening of navigation to Oct. 31, was 35,064,254 tons, against 27,817,811 tons in 1901. The following are the figures for the Canadian canal:

	1902.	1901.	Increase or Decrease.
April 5 to May 31.....	5,32,188	151,679	380,509+
June.....	1,118,564	1,235,055	116,491-
July.....	523,936	276,624	247,312+
Aug.....	639,868	295,175	344,683+
Sept.....	560,021	201,229	358,802+
Oct.....	604,713	354,383	250,330+
Nov.....	635,314	277,144	358,170+
	4,614,604	2,791,289	1,823,315+
+ Increase.    - Decrease.			

The Montreal Transportation Co.'s str. Bannockburn, from Fort William to Kingston, has been given up as lost, with her crew of about 20 men. She was last seen about 50 miles south of Passage Island, Nov. 21. The steamer was built at Middlesborough-on-Tees, Eng., 1893, entirely of steel, and equipped with the most modern machinery for loading and unloading, as well as for propulsion. Her dimensions were: length, 245 ft., breadth, 40.1 ft., depth, 18.1 ft. She was fitted with triple expansion engines, to which steam was supplied from boilers tested to a pressure of 160 lbs. to the square inch. The gross tonnage was 1620 and register 1035, and she could carry 80,000 bush. of grain. She was insured for \$100,000.

The Minister of Railways and Canals recently inspected the work being done on the Trent Valley canal, in company with C. Schrieber, Deputy Minister. Mr. Schrieber stated that during last season the work done was simply the finishing up of the previous season's contracts, and that during the season of 1903 it was expected to have completed the waterway from Peterboro' to Lake Simcoe. The important feature of the work was the liftlock at Peterboro', the steel work of which is being put in by the Dominion Bridge Works, Montreal. The lock is designed to transfer vessels from one reach of the canal to another in one lift, overcoming a difference of 65 ft. in level. The lock consists of two water-tight steel chambers or boxes 140 ft. in length, 33 ft. wide, and giving a depth of 8 ft. of water in the clear, and closed at the ends by gates, similar gates also close the ends of the reaches of the canal. These chambers are carried by means of heavy trusses supported on the top of two hydraulic rams, which work in two steel water-tight presses, one under each chamber. One chamber is at the high level and the other is at the low level. When a vessel has to be transferred from one level to the other it enters the chamber, and the gates are closed, thus confining the water in the canal and the water in the chamber. The hydraulic lift is then operated and the position of the chambers is reversed, the one at the lower level being transferred to the higher, and the upper chamber descending to the lower reach. The gates are then opened and the vessel passes into the canal again. The time occupied in passing one vessel, either up or down, or two going in opposite directions, will be 15 minutes. The weight of the chamber, rams, presses, etc., will be about 1,500 tons, and the total weight on the foundation of the presses will be 3,000 tons.

### Manitoba and the Northwest Territories.

The Pioneer Navigation and Sand Co. (Ltd.) is making application for incorporation under the Manitoba Joint Stock Companies' Act, with a capital of \$75,000, to build, buy and operate steamships, vessels, tugs, barges, etc., and to carry on a general navigation and forwarding business, and to deal in sand, gravel and other builders' material. The provisional directors of the Co. will be J. S. Hall, R. Hall, W. H. Hall, McP. Howatt, J. H. Leach, and A. I. Davidson, of Winnipeg.

The advent of a railway at Athabaska Landing, Sask., will bring into prominence a great chain of inland navigation nearly as extensive as that of the Great Lakes and St. Lawrence river. From Athabaska Landing to the Arctic ocean, at the mouth of the Mackenzie river, 165° north latitude, 135° west longitude, is about 1,300 miles, and in all this stretch there are but two obstructions to continuous navigation, one of 47 miles in the Athabaska river, and the other of 20 miles, in the Slave river, connecting Athabaska lake and Great