10,844 tons, used the port. Of the 26 vessels, 4 were steamboats, the balance being sailing vessels, and all the traffic was for U.S. and Cuban ports.

Since the opening of winter navigation the new pilotage regulations for the port of Sydney, N.S., have been put into operation, providing that steamships employed in trading between any one or more of the provinces of Quebec, New Brunswick, Nova Scotia and Prince Edward Island, and any other or others of them, or employed between any port or ports in these provinces and the port of New York or any port of the U.S. on the Atlantic north of New York, will not hereafter be either wholly or partially exempt from the compulsory payment of pilotage dues, except steamships registered in Canada of not more than 120 tons register.

The Insular Steamship Co. announced recently that it had withdrawn its s. s. Westport III from service between St. John, N. B., and Yarmouth, N. S., and way ports, as the subsidy paid by the Dominion Government was not sufficient. The agreement with the Government provides for a service of 44 trips between Apr. 1, 1914 and Mar. 31, 1915, between St. John, N. B., Westport and Yarmouth, N. S., calling each trip both ways at Freeport, Tiverton, Little River, Mink Cove, Sandy Cove, Weymouth and Meteghan, unless ice prevents. The vessel is not to be taken off the route during December, January, February or March, unless for necessary repairs, in which case the contractors must supply a substitute vessel of about equal capacity, provided that such substitute be employed at a gross expense of not more than \$1,000 a month. The amount of the subsidy is \$5,500, payable in four equal instalments. This is an increase of \$500 more than was paid for the previous year.

Province of Quebec Marine.

The Gaspe and Baie des Chaleurs Steamship has increased the number of its directors to five, and has changed its head office from Fraserville, Que., to Quebec, Que.

During the 1914 season 615 vessels of 229,-255 tons passed through the Lachine Canal, against 664 vessels of 239,377 tons during the 1913 season. There were 9,049 vessel passages, 1,148 less than in 1913, but 4,989,-972 tons of freight were handled, an increase of 12,413 tons over the previous year. The decrease in the number of vessels passing through the canal was caused by the lack of U.S. vessels, as there was an increase in the number of Canadian vessels.

Reports are current to the effect that the Bethlehem Steel Co., of the United States, is negotiating for the acquirement of the Canadian Vickers, Ltd., plant at Montreal, to enable it to execute orders stated to have been received from the British Government for submarine and other war vessels, for delivery during 1915. It is stated that the consent of the parent company in England has been obtained for the sale, subject to the concurrence of the Canadian directors. Conflicting statements have been made on the subject, both as to such orders having been placed, and as to any negotiations for the Vickers plant. A United States official statement was issued recently to the effect that the building of any such craft for belligerent powers by U.S. concerns was not consistent with that country's neutral position, and it was not believed that any such vessels were under consruction in the U.S. for any of the powers. Press reports in the U.S. state that a number of light war vessels and submarines are being built for Great Britain in Massachusetts.

Ontario and the Great Lakes.

The Welland Canal was closed for the winter, Dec. 18, the last vessel to pass through being the s. s. Carleton, owned by F. E. Hall and Co., Montreal.

The Montreal, Georgian Bay and Ottawa Canal Co. is applying to the Dominion Parliament for an extension of time for the commencement and completion of canals, etc., which it is authorized to construct, and for other purposes.

The whole of the Montreal Transportation Co.'s vessels with the exception of the Stormont, comprising 10 steamboats, 7 steam tugs and 30 barges, have been berthed for the winter at Kingston. The Stormont is wintering at Midland.

The lightship at Corsica Shoal has been removed from her position and taken to Port Huron for the winter. On the reopening of navigation she will be replaced by a new steel vessel, which is being fitted out at Detroit. Mich.

The St. Lawrence and Chicago Steam Navigation Co. has declared a dividend of 3%, payable Jan. 2, to shareholders of record Dec. 18, 1914. Some of the previous dividends were: 1904, 8%; 1905 to 1907, 10% a year; 1908, 7%; 1909, 8%; 1910, 3%; 1911, 5%; 1912 and 1913, 8% a year.

The Canadian canal at Sault Ste. Marie was closed to navigation for the winter, Dec. 14, and the U.S. canals, Dec. 16. One of the locks was kept open for a few days longer to permit the passing of some Government tugs to be used in certain works in progress.

The Marine Department has awarded a contract for the breaking of ice in the harbors of Port Arthur and Fort William, to the Canadian Towing and Wrecking Co., Port Arthur, for three years. The vessels to be used are the icebreaker St. Ignace, and the icebreaking tugs James Whalen, E. C. Whalen, A. F. Bowman, J. D. Morrison, Sarnia, Salvor and Gorman.

The contract for the erection of the steel superstructure of the St. Paul St. high level bridge over the old Welland canal at St. Catharines, Ont., has been awarded to the Canadian Bridge Co., for \$91,000, which is stated to be nearly \$20,000 below the local engineers' estimate. According to present plans, the projected hydro-electric railway will run over this bridge.

J. L. Weller, Engineer in Charge, Welland Ship Canal who was in Ottawa, early in December, for a conference with the Minister of Railways and Canals stated that good progress was being made in the construction of the new canal. Five sections are under contract and nearly 3,000 men are engaged. An article descriptive of the progress being made was given in Canadian Railway and Marine World for Dec. 1914.

The U.S. Lake Survey reports the levels of the Great Lakes in feet above tidewater, for November, as follows:—Superior, 602.45; Michigan and Huron, 579.92; Erie, 571.44; Ontario, 245.25. As compared with the average November levels for the past ten years Superior was 0.09 ft. below; Michigan and Huron, 0.47 ft. below; Erie, 0.43 ft. below, and Ontario, 0.49 ft. below. It was anticipated that Superior, Michigan and Huron would be 0.2 ft. lower, and Erie and Ontario 0.1 ft. lower during December.

A press report from Sarnia, Nov. 18, stated that the Northern Navigation Co.'s s.s. Noronic had been drydocked at Lorain, Ohio, for extensive changes in her hull. It is stated that 2 ft. is being added to each side of the hull below the water line, thus giving her an extra width of 4 ft. below the

water line. It is also stated that the reason for this alteration is that she is somewhat top heavy and she has to carry a large quantity of pig iron ballast to keep her steady.

The Ottawa and Hull town planning commission is recommending to the Government that the headway for vessels on the Rideau canal be reduced to 12 ft., and that large vessels which require greater headway be required to dock at Dows Lake at the foot of Bronson Ave., where an extension of the Ottawa Electric Ry. be made to take care of people travelling to and from the passenger vessels; that fixed bridges be permitted, giving a clearance of 12 ft., between Bronson Ave. and the Ottawa River, and that above Bronson Ave., if any bridges are built that they be movable, or high level.

Manitoba, Saskatchewan and Alberta.

The Northern Alberta Steamship Co., Grouard, Alta., has assigned to J. A. Mac-Kinnon, Edmonton, Alta., for the benefit of creditors.

The Dominion Public Works Department did a considerable amount of work during 1914 in surveying and charting the Red River, between Selkirk and Lake Winnipeg, and this, in conjunction with that already done in the neighborhood of St. Andrew's locks, etc., will give a complete chart for navigation between the International Boundary and the lake.

It was announced in Winnipeg, Dec. 4, that the Dominion Public Works Department would commence work almost immediately on the construction of ore of the three wharves on the Red River, which were recommended by the Winnipeg Harbor Commission recently. The one which will be taken in hand first is known as the Rover St. wharf, located between Annabelic and Macfarlane Sts. It will be 400 ft. long and about 30 ft. wide, and built on piles. It will cost about \$90,000, which includes the necessary dredging, etc.

British Columbia and Pacific Coast Marine.

The Dominion Government has changed the German name of the dredge Fruhling, to number 303

The Yukon River was closed Dec. 4, which is said to be the latest date for closing on record, except in 1905, when it was closed Dec. 17.

The Dominion Marine Department is arranging to have obstructions in the Fraser River, caused by blasting in connection with the construction of the Canadian Northern Ry., near Yale, removed. It is stated that the Government intends to try and hold the company responsible for the cost.

J. S. MacLachlan, Resident Engineer, Department of Public Works, Victoria, B. C., read a paper before the Canadian Society of Civil Engineers, Victoria and Vancouver branches, at Victoria, Dec. 11, on harbors generally, with special reference to Victoria harbor and the works now in progress there.

The Marine Department has issued a new edition of tide tables for the Pacific coast for 1915, with an abridged edition giving tables for Vancouver and the Sandheads, with slack water for the First Narrows and Active Pass. The complete edition includes a record of the results obtained in determining the time of slack water in the more important passes.

The Marine Department has issued a notice providing that every vessel entering the