

apply to ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, & to carry goods & passengers from one port or place to another in such country. The Parliament of Canada was empowered to pass the Act alluded to under the provisions of the Imperial Act, 32 Vic., chap. 11, intituled: "An Act for amending the Law relating to the Coasting Trade & Merchant Shipping in British Possessions," which came into operation in this country on its proclamation by the Governor General, Oct. 23, 1869. It was ascertained that the following countries, viz., Italy, Germany, the Netherlands, Sweden and Norway, Austro-Hungary, Denmark, Belgium, & the Argentine Republic, allowed British ships or vessels to participate in their coasting trade on the same footing as their own national vessels, & these countries were by order in council admitted to the coasting trade of Canada.

The hydrographic survey of the Canadian shores of the great lakes has made fair progress during the past season. Mr. Stewart, with his assistants & the str. Bayfield completed the survey of the south shore of Manitoulin Island, making connection with the work done by Capt. Boulton, R.N., in 1884, at the entrance to Georgian Bay. He then surveyed the north-east shore of Lake Huron between Cape Hurd & Lyal Island at the entrance to Stokes Bay. A fair sheet of the work done between False Detour Channel & Duck Islands, Lake Huron, was drafted last winter & forwarded to the Hydrographer of the Admiralty. No new engraved charts of the work done have been issued since my last report. The old Admiralty chart of Lake Erie has been revised and all our recent work engraved thereon. The U.S. Hydrographic Office has issued a very complete new chart of Lake Erie, embodying all our recent survey. During the coming season it is hoped to complete the survey of Lake Huron as far as necessary at present.

Mr. Stewart says in his report—"Stokes Bay is really the only safe harbour on the Canadian shore of Lake Huron from St. Clair River to Tobermory, a distance of 160 miles. It is quite large, the anchorage is both good & safe, and were the beacons replaced by lights it could be made by any ordinary vessel in any weather. I also placed buoys to mark the south end of the shoal off Duck Islands, Lake Huron; the south end of Bears Rump shoal, Georgian Bay; and the entrance to South Bay, Manitoulin Island.

### A Canada Atlantic Freighter.

The steel bulk cargo steamer mentioned in our last issue as under construction for the Canada Atlantic Ry., will be of the following dimensions:—Length, forward side of stem to after side of stern post, 245 ft. 6 ins.; length over all, 257 ft.; beam moulded, 43 ft.; depth moulded at side, 25 ft. 6 ins. She will be built with a complete steel upper deck, & with main deck beams fitted, but no deck laid except from the bow to 6 ft. past collision bulkhead, & from 2 ft. forward of fire hold bulkhead to extreme stern of vessel. A steel plated fore-castle deck will extend about 42 ft. aft of stern. A double bottom 4 ft. deep in centre of boat for water ballast will extend from collision bulkhead to engine room bulkhead on frame no. 93, to be divided by centre keelson & solid floors into 6 water tight compartments. The boiler & engine will be in the stern, the boiler on main deck with coal bunker on each side. The engine will be of the vertical triple expansion jet condensing type, with 3 cylinders working on 3 cranks, cylinders to be 17 ins., 28 ins., 46 ins. x 32 ins. stroke, to pass government inspection for a working pressure of 170 lbs. per sq. in., & for a speed of not over 100 revolutions a minute.

There will be 1 main boiler fitted with hot draft, boiler to be 13 ft. 6 ins. mean diameter, by 12 ft. over heads, to have two 50 ins. inside diameter furnaces, combustion chamber separate for each furnace. There will also be a small donkey boiler 5 ft. 6 ins. diameter by 6 ft. long, with 1 furnace. Both boilers to pass government inspection for 170 lbs. working pressure of steam.

The steamer will have 1 mast & 1 hoisting engine for shifting purposes. The captain's office & sleeping room will be on the fore-castle deck aft of pilot house, the cabin below fore-castle deck will have 2 spare rooms & toilet room, mates' & wheelmen's rooms, mates' locker & sitting room for mates & wheelmen. The deck house amidships will contain watchmen's, deck hands', firemen's & lamp room. Deck house aft of boiler house will contain dining room, kitchen, pantry, mess room, steward's, engineer's, & 2nd engineer's rooms, spare state room, toilet room and stairway to 'tween decks.

The hull will be built on the transverse system, with solid channel cross floors, with longitudinals to be run on top of floors supporting the inner bottom, the 2nd longitudinal being intercostalled to shell. The hull plating will be carried up to fore-castle rail forward & to main rail from abreast of boiler house aft. The hull will be of open hearth steel throughout, except the rudder frame, which will be hammered iron forging, & the stern post to be steel casting.

Steam steering gear will be placed in stern. The auxiliaries will include a duplex donkey pump 7½ ins. x 4½ ins. x 10 to feed boiler; a steel plate fan with 6 ins. x 6 ins. vertical engine to furnish air for the hot draft; 2 deck hoisting engines 6 ins. x 8 ins. There will be an electric light plant of 120 lights capacity.

The steamer, which will be called the Ottawa, is expected to be completed early in May.

### Notices to Mariners.

The Dominion Department of Marine has issued the following notices:—

No. 6. Feb. 6, Nova Scotia, sunken wreck in Halifax Harbor.

No. 7. Feb. 19, British Columbia, 1. Brocton Ledge beacon lighted; 2. Walker Rock light.

No. 8. Feb. 21, Nova Scotia, shoal in north entrance to Canso Harbor.

No. 9. Feb. 23, British Columbia, 1. Disappearance of Sturgeon Bank beacons; 2. State of Washington, signal station removed from Tatoosh Island to Neah Bay.

The U.S. Hydrographic Office has issued the following notices relating to the Great Lakes:—

No. 201. Mar. 3, Lake St. Clair, 20 ft. channel, lights damaged, caution.

No. 202. Mar. 3, Lake Ontario, St. Lawrence River, Tibbets Point light station, intended alteration in fog signal.

No. 257. Mar. 17, Lake Superior, Wisconsin, Portwing (Flag River), general information.

### Canadian Pacific Steamships.

Following is a list of the C.P.R. Co.'s steamships as at Dec. 31, 1899:

Ocean steamships—Empress of China, Empress of Japan, Empress of India, Athenian, Tartar.

Lake steamers—Alberta, Athabasca, Manitoba.

Ferry steamers—Ontario, Michigan.

River steamers—Ogilvie, Hamlin, McConnell, Schwatka, Dalton, Walsh, Dawson, Kootenay, Rossland, Lytton, Kokanee, Slocan, Illicilliwaet, Aberdeen, Trail, Nelson, Moyie, Minto, Wm. Hunter.

Tugs—Columbia, Sandon, Ymir.

### CANADA LIFE ASSURANCE CO.

#### Fifty-third Annual Report.

The applications for assurance during 1899 were 4,176 for \$8,662,924.83, of which 401, for \$695,298, were either declined or not carried out, leaving the actual issue of the year 3,775 policies for \$7,967,626.83. This is the largest amount of business ever transacted by the Company in its history of over half a century, & it is also a matter of satisfaction that the increase is due almost entirely to purely Canadian business, which exceeded that of any other Company doing business in the Dominion. The total business in force now amounts to \$80,229,688.25, under 37,100 policies, being an increase of almost \$5,000,000 over that of a year ago. This is the largest increase ever made by the Company in any one year. The total payments to policy-holders during the year (details of which will be found in the Financial Statement), were \$1,357,350.85, which is \$61,980.40 greater than for the previous year. A careful revaluation of the properties owned by or mortgaged to the Company has been made, not only by our own valuers, but also by independent valuers, & after making all reasonable provision against loss, the assets now stand at \$21,364,062.06, being an increase of \$1,325,244.73 over the amount as reported a year ago.

A valuation of the Company's policy liabilities has been made by the Actuary upon the Actuaries' Table of Mortality & interest at 4 per cent., this being the basis of valuation required by some of the States in which the Company does business. This valuation, which amounts to \$18,964,390.00, has been confirmed by certificate of the Commissioner of Insurance for Michigan. After providing for these & all other liabilities, there is a surplus of \$1,968,712.85, but last year it was decided, on the recommendation of the President, to set aside a special reserve of \$225,000 towards a 3½ per cent. standard. Since then the Dominion Government, recognizing the permanent fall in interest rates, has wisely amended the Insurance Act, so that all companies must now proceed to make provision for placing their policy liabilities upon a 3½ per cent. basis. Until the transition is effected it will be necessary for the companies to apply a considerable percentage of their surplus on old policies in this way. The Directors have, therefore, recommended that an additional sum of \$275,000 be set aside for this purpose, making in all a special reserve of \$500,000 in excess of the Actuaries' 4 per cent. basis. Deducting this amount from the above-mentioned surplus there remains a surplus over all liabilities of \$1,468,712.85. Of this amount it is proposed to set aside to policy-holders \$1,381,132.05 as surplus to them, and to shareholders \$87,580.80, out of which dividends for the next five years may be paid.

The Directors, keeping in view the unusually large amounts of profits distributed to policy-holders in the past, & the fact that interest rates have so fallen as to make it imperative that the Canada Life should be placed upon an actuarial valuation basis relatively comparable with that of leading companies in the United States, Australia & Great Britain, have unanimously recommended that at this quinquennial division the permanent interests of the policy-holders would be conserved by declaring a Bonus Addition of ½ of one per cent. per annum, and a slightly less amount upon life policies which have been paid up for a period of ten years. This decision has been arrived at only after the most careful investigation into, & deliberation upon, the many phases of this extremely important matter. It is believed that within the present quinquennial period this decision will be heartily approved by any who may not at present recognize its importance. Indeed