

corded at 37 Light Houses and at upwards of a hundred ordinary stations throughout the Dominion, and arrangements will soon be made for the establishment of one or more stations in British Columbia. The observations will then extend over about 150 stations, and the results cannot but be very important.

**HARBOR IMPROVEMENT.**

There is a tonnage duty of ten cents per ton levied on vessels entering the harbors of Bathurst and Richibucto, N. B., and Amherst and House, Magdalen Islands. The amount collected during the two last fiscal years was \$7,096, and the expenditure \$6,350.

**HARBOR AND RIVER POLICE.**

The total strength of this force was fifty persons; one half at Montreal, the other at Quebec. The revenue collected was \$22,235, and the total expenditure \$17,400. In three years the excess of receipts over expenditure has amounted to \$8,968.

**SICK AND DISTRESSED MARINERS.**

The total amount collected for this service during the year was \$29,683; of which Quebec contributed \$15,316, New Brunswick, \$7,698 and Nova Scotia, \$6,668. The expenditure for sick mariners at the ports of Quebec was \$15,438, in those of New Brunswick, \$6,516, and in those of Nova Scotia, \$7,023. Total for Dominion \$28,978. The receipts for the last three years were \$92,447; expenditure do, \$32,994; Balance to the credit of the fund, \$9,453.

**STEAMBOAT INSPECTION.**

The total number of steamers inspected during the calendar year 1871 was 438, showing an increase of 35 over the preceding year. Of these, 157 were passenger steamers, 87 freight steamers, and 194 tug steamers; 236 were paddle steamers, 78 were propellers and 124 screw tugs.

The amount of collections on account of inspection dues was \$9,297; for engineers' certificates, \$1,074; showing a total of \$10,370. The total expenditure was \$8,321. The total receipts for three years have been \$34,805. Total expenditure do, \$23,719. Leaving a balance of \$11,086 reverting to the Consolidated Fund.

625 engineers' certificates were issued; 460 for renewal and 165 for examinations.

A few steamboat accidents occurred during the year; but it is a just subject for satisfaction, that with the immense passenger traffic there was no loss of life through any defect in the steamers or their machinery. Twenty-nine steamers were lost, broken up and laid aside during the year. Fifty-eight new ones were built, at an average value of \$20,000; giving an aggregate addition of the value of \$1,160,000 to the Dominion shipping.

**SHIPPING MASTERS, &c.**

There are Shipping Masters at Quebec and St. John, N. B. At St. John 4,471 men were shipped, and 1,492 at Quebec. No charge for shipping is made at Quebec on Colonial or New vessels.

**CERTIFICATES TO MASTERS AND MATES.**

Boards of examination have been established at Quebec, St. John and Halifax. Certificates of competency, granted by the Minister of Marine, are, by order of Her

Majesty in Council, to be recognized by the British Government and its officers as of equal value with those granted by the Board of Trade in Great Britain. Twenty-eight Masters and nine Mates had passed their examination at St. John, N. B., before the close of the year, and a number were under instruction at Quebec and Halifax. The fees are \$10 for a Master's certificate and \$5 for a Mate's. After the 1st July, 1872, no ship over 150 tons register is to be cleared from any place out of Canada, not being a port of Newfoundland, Prince Edward's Island, or the United States, unless the Master and Mate possess either certificates of competency or service from the Board of the United Kingdom, Minister of Marine, or the authorities of any British possessions whose certificates are recognized by the Imperial Government. Certificates of service are granted to elderly Ship Masters serving as such prior to January, 1870, and bringing satisfactory evidence as to character and ability.

**WRECKS AND REWARDS FOR SAVING LIFE.**

The weather during the latter part of 1871 was unusually stormy. A number of vessels were lost at sea, and there were numerous wrecks on the coast of the Dominion and in the Lower St. Lawrence. Many of the Government buoys were also frozen in, causing considerable loss. Every effort has been made to obtain accurate returns of each wreck.

The Minister of Marine recommends that the act relating to Masters and Mates shall be extended to the sea-going coasting trade, and a compulsory act requiring all vessels registered in Canada to be surveyed and classed by Government Inspectors in the same manner as steam vessels. Until this is done, no amount of expenditure on Light Houses, &c., will prevent serious disasters from the use of defective vessels or overloading. The returns show seventy-five lives lost in Canadian vessels on our coasts, but the actual number was probably many more. The number of sea-going casualties during the year, so far as information could be obtained, was 209, viz.:-

- 61 ships and barges,
- 44 brigantines and brigs,
- 101 schooners,
- 4 steamers.

Total.. 209

The probable loss is estimated at \$1,800,000. Of lake and inland vessels the casualties were :-

- 15 steamers,
- 42 schooner,
- 7 brigantines and barques,
- 1 barge.

Total.. 65

And the loss about \$300,000.

\$292 were expended between 1st July and 31st December as rewards for saving life. A new life-boat was placed at Salmon Point, Ontario, and another at Nottawasaga Island, Georgian Bay. It is also intended to place one on Lake Huron. Rewards for assistance to Canadian vessels and crews have been given in a number of instances. The Minister of Marine recommends that this should