

velops. The first portion of the bonus will be paid on the completion of the first section, and the balance on the completion of the dock, or the second section. The work will all be done locally by the company's own men, and if the dock, when completed, comes within the Government's requirements, a subsidy will be applied for under the Dry Dock Subsidy Act.

At the recent annual meeting of the Muskoka Lakes Navigation and Hotel Co. in Toronto, a dividend of 5% for the past year was declared. This is the first dividend paid for 13 years, though the company has been materially improving its financial position year by year. The report was considered satisfactory. W. F. Wasley, Traffic Manager, stated that though the season was notoriously a poor one, the company's traffic had been practically equal to the previous year. It was stated that though there would be no immediate additions to the fleet, two vessels would be added in 1914, if the forthcoming season's traffic appeared to warrant it. The officers and directors were re-elected for the current year as follows:—President, H. C. MacLean; Vice Presidents, G. T. Somers and W. K. George; other directors, R. S. Wilson, F. F. Brintnell and A. McL. Macdonnell. The Traffic Manager is W. F. Wasley, and the Manager of the Royal Muskoka Hotel is L. W. Maxson.

Manitoba, Saskatchewan and Alberta.

The statistics of shipping passing through the St. Andrews locks, on the Red River, during the 1912 season of navigation, show a tonnage of 95,549 against 47,135 for the previous year, an increase of 48,414 tons. There was considerable increase in general shipping in the neighborhood of Winnipeg during the year. The total tonnage of steam vessels plying up the river was 48,748, and of sailing vessels 55,437, a total of 104,385, while down the river the tonnage was 106,538. The tons of freight carried up to Winnipeg were 94,866, and 683 tons were carried down.

British Columbia and Pacific Coast Marine.

The C.P.R. s.s. Princess Maquinna, which is under construction at Esquimalt, was fitted with her boilers early in January. They were brought from Great Britain.

The contract for the construction of a breakwater at Victoria has been awarded by the Dominion Public Works Department to Sir John Jackson (Canada), Ltd., Montreal, of which company A. Brooks is the resident director.

The C.P.R. s.s. Princess Sophia was recently taken off her route for an overhauling, and at the same time to have complete oil burning equipment installed. Oil tanks had already been installed at the time of building the vessel. It was anticipated that she would be ready to relieve the s.s. Princess May on the Skagway run, Jan. 24.

The Continental Shipping and Trading Co., Ltd., has been incorporated under the British Columbia Companies Act, with \$200,000 capital, and office at Vancouver, to carry on the general business of merchant carrier by land and water, and in connection therewith to own and operate steam and other vessels, aeroplanes, airships, etc.

The work of surveying the harbors and making test borings, at Victoria and Vancouver, which has been undertaken by the Dominion Public Works department, and which is under the charge of H. M. Davy, engineer of the department, was completed, Jan. 8, so far as Vancouver is concerned, that in connection with Victoria, it was announced, would probably be completed

early in February, and that before leaving for the east the party would make a survey of Prince Rupert harbor.

An Ottawa dispatch of Jan. 7 states that the Dominion Government is to proceed at once with the construction of a public wharf at Vancouver. It is stated that instructions have been given for the expropriation of several lots in the vicinity of the sugar refinery, and as soon as this is effected, the building of the dock will be proceeded with. The cost is estimated at \$500,000.

A press report from Vancouver states that an English syndicate, with Mexican connections, is making an investigation of the wharfage facilities at Vancouver, Puget Sound, Californian and Mexican ports, with a view to the establishment of a steamship line. It is stated that a report is to be made to the Mexican Government in the matter, and certain land grants are to be made there in connection with the project.

J. W. Troup, Manager, C.P.R. British Columbia Coast Service, who sailed for England Jan. 10, is reported to have stated in Montreal that two additional vessels are to be ordered in Great Britain for the Coast Service, to be placed on the routes now covered by the steamships Princess Charlotte and Princess Victoria, which will be transferred to other routes. It is reported that the new vessels will be driven by turbines.

The Union Steamship Co.'s s.s. Cheslakee sank, Jan. 7, at the wharf at Van Anda, Texada Island, and four lives were lost. It is stated that the accident was due to the leaving open of an ash chute. The Cheslakee was built at Dublin, Ireland, in 1910, her dimensions being:—Length, 126 ft.; breadth, 28.1 ft.; depth, 17 ft.; tonnage, 526 gross, 261 register. She is equipped with engine of 65 n.h.p., driving a screw. Arrangements are being made for salvaging the vessel.

The North Vancouver Ferries, Ltd., for 1912 showed earnings of \$137,794.16, an increase of \$13,318.55 over those of the previous year, notwithstanding that a lower tariff came into force in April, 1912. There was a surplus over transportation charges of \$61,417.84. The general charges and office expenses were \$36,522.64, and the net profit was \$7,467.06. During the year the company installed new boilers in ferry no. 2, and made general improvements to ferries nos. 2 and 3, equipped the vessels for burning oil fuel, and made extensions to its wharf at Vancouver.

The Georgian Bay Canal Project.—The Dominion Parliament is being asked to extend the time within which this projected waterway from Montreal to the Georgian bay at the mouth of the French river may be built, and to authorize the company, in lieu of the provisions of sec. 22, chap. 103 of the statutes of 1894 to issue bonds for \$175,000,000.

John F. Pierce has been appointed District Passenger Agent of the Richelieu and Ontario Navigation, Niagara Navigation Co., Thousand Island Steamboat Co., and R. & O.N. Co. of the United States, with territory covering the New England states and the maritime provinces. His office is at Boston, Mass.

The Canadian Marconi Wireless Telegraph Co. has announced that it has completed a new agreement with the Newfoundland government, whereby the number of stations operated by it there will be increased from five to ten, until 1926, under an annual subsidy of \$4,500 and other considerations involving exclusive rights during that period.

White Pass and Yukon Railway's River Service.

In his report for the year ended June 30, 1912, President O. L. Dickeson gives the following particulars of the company's river division:—

The fleet in 1911 carried 4,912 passengers and 15,825 tons of revenue freight. Eight steamboats and 10 barges were in operation on the river and lakes during the season, the remaining steamboats and barges being held in reserve for emergencies. The first boat left Hootalinqua for Dawson May 19, and the first through boat left Whitehorse for Dawson June 8. The first boat for Atlin left Caribou June 10. The last boat from Dawson reached Whitehorse Oct. 30, which is considerably later than the River Division steamers have operated since this service was established. The last boat from Atlin reached Caribou Oct. 28.

Some special work was done at the Whitehorse shipyards to facilitate the placing of the fleet in winter quarters and to carry on the necessary repair work before the opening of navigation. A new lathe was installed in the shops to replace the old one.

The River Division was operated without any accidents and there were, therefore, no repairs or renewals out of the ordinary to any of the boats except the Whitehorse and Selkirk. The repairs to the latter consisted of new cylinder timbers and about 35 ft. of her after hull was rebuilt. New cutoffs were installed in the engine of the Whitehorse at a slight cost, which resulted in a saving of approximately \$3,000 in her fuel consumption during the past season.

The construction of the new Casca was commenced late in the season of 1910 and completed in 1911. She was launched Oct. 15, making a trial trip Sept. 2 from Whitehorse to Lower LeBarge and return, which proved successful. Her maiden voyage was made Sept. 15, carrying 250 tons of freight and mail. Her draft leaving Whitehorse was 3 ft. 5 ins. aft, 3½ ft. amidship and 3 ft. 10 ins. forward. Other steamboats on the same draft could only carry approximately 150 tons, illustrating the economical value of changes applied in the construction of the new boat. On this trip no special effort was put forth to make fast time, it being necessary for the captain and pilot to become familiar with handling her, but the speed was very satisfactory. Subsequent performances prove the Casca the most economical and best steamboat in the fleet. Following are brief particulars:—Length, 161 ft.; beam, 37 ft.; depth of hold, 5½ ft.; draft, light, 24 ins.; rooms for officers and crew, 11; rooms for passengers, 34; berths, 64; table seats for 40 passengers; registered tonnage, 790.

In respect to passenger arrangement and appearance she is practically a duplicate of the Whitehorse, except that she shows more breadth. There is an extra foot of width on each side of her promenade deck, making her an attractive boat for tourists.

A saving in operation of \$77,994.72 was effected, as compared with 1910.

The company's fleet consists of 19 steamboats, 14 barges and one launch.

Pressures of from 4 to 35 lbs. per sq. in. of surface on work being ground on a disc wheel have been determined by experiments to be the proper pressures for grinding. A less pressure than 4 lbs. per sq. in. results in polishing and burnishing the work. For this reason it is necessary, when grinding light pieces on a horizontal disc wheel, to load them with weights when the weight of the piece does not impose a pressure of more than 4 lbs. per sq. in.