

Although the Government officials who examined the wreck of the railway bridge at Cornwall, Ont., have been very reticent about the matter, it is the general impression that the cause of the disaster was established to be the defective foundation of the piers. Warned by the disaster at the United States end of the Cornwall bridge, the chief engineer of railways and canals has decided to have the foundations of the piers at the Canadian end of the bridge tested by boring. This will determine whether the concrete has properly set under water, and whether the river bottom on which it rests is sufficiently solid to make the foundation of the piers secure.

Regarding the renewal of bridges the semi-annual report of the Grand Trunk Railway says: The president reported to the proprietors, at the last general meeting, that in addition to the reconstruction of the Victoria bridge at Montreal, it had been deemed necessary to the more efficient and economical conduct of the traffic to authorize the renewal during the next two or three years of the bridges on the section of the line between Montreal and Portland, and it has also been determined to renew certain bridges on the southern division used jointly by the Wabash Company. The proportion of the expenditure for reconstruction of the Victoria bridge properly chargeable to revenue has been fixed at £110,000, which together with the cost of renewing the bridges between Montreal and Portland, and on the southern division, it is proposed to charge to revenue account, spread over a period of at least five years, so as to obviate any undue increase in the maintenance charges in any one year. The reconstruction of the Victoria Jubilee Bridge has progressed satisfactorily, and it is expected that the new double track will be available for traffic by the 1st January next. Meanwhile the traffic is being conducted over the single track as heretofore.

The semi-annual report of the directors of the Grand Trunk Railway Company, which was presented at the half-yearly meeting in London, Oct. 13th, showed: Gross receipts for 1898, £1,871,733, as against £1,756,566 for 1897; working expenses were, 1898, £1,243,833; 1897, £1,195,643; leaving a gross profit of £627,850 for 1898, as against £559,923 for 1897. Receipts from subsidiary companies raised the net revenue to £730,672 for the 1898 half-year, compared with £654,395 in 1897. The net revenue charges for the half-year were £624,020, leaving a surplus of £106,651. The directors recommend the payment of the full half-year's dividend on the 4 per cent. guaranteed stock, which will absorb £104,395 17s. 6d., leaving a balance of £2,271 3s. 11d. The result of the past half-year's operations show an improvement of £103,943 5s. 9d. The comparative table of receipts for the half-years ending 30th June, 1898, and 1897, represents for 1898 a decrease of £23,656 in passenger receipts, and an increase for mails and express of £1,752, for freight and live stock of £99,270, and for miscellaneous of £115,168. The net increase is £115,168. The statements show that the Grand Trunk gross receipts for the half year show an increase of £115,168, or 6.56 per cent.; the working expenses, including taxes, an increase of £47,240, or 3.95, and the train mileage an increase of 430,171, or 5.17 per cent.

## Marine News.

A dry dock to cost \$1,000,000 is talked of at St. John, N.B.

The Montreal & Cornwall Navigation Co. have purchased the steamer Filgate.

The Steamship Pharsalia Co., Ltd., has received a New Brunswick charter; capital, \$200,000.

The Government has awarded a contract for a new steel steamer for the P. E. Island service, to a Dundee, Scotland firm.

Clifford Lewis will build another steamer for the Lake of the Woods-Rainy River line. The craft is to be somewhat larger than the Edna Brydges, to carry about forty cabin passengers.

General Manager Gildersleeve, of the Richelieu & Ontario Navigation Co., recently stated that the history of the company during the season beat the record for freedom from accident. No boat had to be retired from active service, and not a single mishap occurred to a passenger.

Lyman J. Rogers, superintendent of the marine railway, Yarmouth, N.S., met with a serious accident by being crushed under a schooner, which was being hauled out for repairs recently.

The most important alteration contemplated by the Richelieu & Ontario Navigation Company in the matter of repairs to steamers will be for the placing of four new boilers in the Quebec.

The Richelieu & Ontario Navigation Company proposes to extend its Lake Ontario service from Toronto next season. The daily steamers between Toronto and Montreal will call at Charlotte, on the American side, both up and down.

Three seventeen knot steamships have been purchased for the Canadian line between Milford Haven and Paspébiac, Que., the first sailing in November. Satisfactory arrangements have been made for a special service of trains between London and Milford Haven.

Louis Lacouture, Sorel; J. O. Blondin, La Baie des Pères, Que.; D. Gillies, M.P.P., Carleton Place, Ont.; James Gillies, Carleton Place, Ont.; John Gillies, Braieside, Ont., have applied for Ontario incorporation as the Lac Temiscamingue Navigation Company, Ltd.; capital, \$50,000.

Inventor Knapp, of Prescott, of the roller boat fame, has returned from Chicago, where, he states, he has succeeded in forming a strong company to carry out his roller boat patents. It will be called the Lakes Roller Boat Transportation Co., and will this winter construct a large roller boat 120 feet long. There is no reason, we believe, that if one Ottawa man financed a small roller boat several Chicago men should not finance a large one.

The manager of the Atlantic Transportation Company, W. S. Besse, New York, is buying a fleet of lake vessels for ocean service. The company was organized about a year ago, with a paid-up capital of \$3,000,000, with the intention of engaging, on a more elaborate scale than any existing company was doing, in the coal-carrying trade of the Atlantic Coast. A large fleet was secured and now it is being added to by the purchase of nine steamers, at an average cost of \$50,000, and thirty-five schooners, at an average cost of \$20,000, or a total investment of \$1,150,000. The vessels are as follows: Steamers Aragon, Kataloive, Murphy, Moore, Viking, Gettysburg and Lindsay; barges, Bacon, Georgia, Alverston, Crossthwaite, Moonlight, Verona, S. H. Foster, Sheldon and Watson; bought from J. G. Gilchrist & Co.; Redwing, Santiago, Iron State and S. V. L. Watson, bought from Parke & Miller; Wadena, Becker and Ash, bought from W. D. Becker & Co.; O'Neill & Wall, bought from C. R. Jones & Co.; Camden, Massa, Soit, Page, Sage, Milacomet, bought from Drake & Mathan; Fitzpatrick, Brown, McGregor, Parker, Rutter, Porter, Halloran, Helvetia, Wallace, Hawgood, Ewen and Shawnee bought from various companies.

## Personal.

A. F. Genest, C.E., is now engaged upon work in connection with the Cornwall Canal.

Peter Brass, architect, Hamilton, Ont., has been appointed building inspector of the Grand Trunk Railway.

R. K. Oliver, who has been filling the position of C.P.R. locomotive foreman at Chapleau, Ont., for some years, has been transferred to Hochelaga.

Town Engineer C. H. Mitchell, of Niagara Falls, Ont., has recently been in Potsdam, N.Y., engaged upon extensive works to generate electric power.

N. R. Carmichael, lecturer in mathematics and electrical engineering in Queen's University, Kingston, Ont., recently married Miss M. A. Jenkins, of Strange, Ont.

Arthur Graham, who has been with the MacGregor-Gourlay Co., Galt, Ont., for some years, has gone to Sherbrooke, Que., to enter the draughting rooms of the Jencks Machine Co.

Mr. Cowles, a locomotive engineer on the Leamington, Ont., division of the M.C.R., and Thomas Reid, foreman of the round house there, have both been sick for some time, and both died on October 8th.