

### The St. Clair Tunnel.

The American Society of Civil Engineers met at Detroit, Mich., during the last week in July, & during the meeting paid a visit to the St. Clair Tunnel. The Grand Trunk provided a special train which took members to Port Huron, & there they were taken on a train of new gondola cars & pushed through the tunnel by one of the famous engines used for working the tunnel. Considering the stories that have recently gone about concerning the destructive action of engine gases, this visit to the tunnel was of special interest to some members of the party. It was learned from Chief Engineer Hobson, of the G.T.R., that the only corrosion that has been serious enough to be considered at all was that of the steel bolts through the flanges of the cast iron segments making up the tube. The tube itself has not been appreciably affected. These bolts have been renewed where corroded & the bolt heads & nuts covered by concrete, which has been put in to fill the angle made by the flange with the cylindrical surface of the tube. It will be remembered, doubtless, that the lower half of the tube was bricked up at the outset & faced with concrete, flush with the flanges. The return trip through the tunnel was made within 5 minutes or less after the first trip, & there was very little gas or smoke in the tunnel; it could not have been disagreeable except to an unusually sensitive nose. The engines burn anthracite. The scheme of working requires a minimum interval of 10 minutes between the passage of engines. There is no doubt that the loss of the lives of 2 men a year ago or so, because of the breaking-in-two of a freight train in the tunnel, was due to the carelessness of the engineman & his disregard of the definite instructions for working in the tunnel. Nevertheless, the consequences of an accident of any sort which should keep a trainload of passengers & an engine or two in the tunnel would be so terrible that some other motive power will probably be adopted, if it can be done with reasonable cost & efficiency of working. The Co. is now considering compressed air motors. Obviously, the problem is novel in some particulars, as there is no precedent for motors of the powers which must be used in this tunnel.—*Railroad Gazette.*

### A Candid Railway President.

J. J. Hill, President of the Great Northern (U.S.), which recently acquired the Corbin system of lines running north from Spokane Falls, Wash., has no use for that city, if newspaper reports of a recent interview with him are to be depended on. This is what he is credited with saying: "As far as I am concerned, I do not care whether the road ever builds through Spokane or not. We come into the city now all right & get out all right. We have all the depot facilities in the city that we want, & we always expect to have all we want. The Great Northern cares nothing for Spokane. It handles the business it gets from here, but if Spokane did not exist the road would be just as well off. Spokane does not appreciate a railroad & never did. Spokane is the worst hole from the Atlantic to the Pacific. I would not care if the Great Northern did not come within 50 miles of Spokane. The road would be just as well off. When I come to the city I keep away from the business men. I have no desire to see them."

Collingwood Schreiber, Deputy Minister of Railways & Canals, will be the host next month to a party of pleasant people who will accompany him to the Pacific coast. Hon. Mr. Dobell, Mrs. Dobell, E. L. & Mrs. Newcombe, & L. K. & Mrs. Jones, of Ottawa, will be of the party,

### SHIPPING.

#### Thousand Island Steamboat War.

The latest move on the part of the R. & O. Co. has been to put on the steamer *Richelieu* between Kingston & Cape Vincent, N.Y., & to reduce the fare to 25c. for the round trip, against \$1, which has been charged by the American Line. A Kingston correspondent says: The citizens have never had such cheap outings. They can have a 60-mile ride for 25c. & the distance covered in less than 5 hours. They can have an all-day sail to Ogdensburg for 50c. The R. & O. Co. has the steamers *Caspian* & *Columbian* on the Thousand Island route, & they secure great patronage. "I never had such terms," said an excursion manager, "as I have had this year. I can get half the receipts on the *Columbian* any time I want to put on an excursion. I have, of course, to pay for the advertising. Heretofore I got one-fifth the receipts. The opposition is a good thing for me." The boats have handled large crowds, & promise to do so as long as hot weather lasts. The American Line people are satisfied, so they say. Their business is not disturbed. What the R. & O. people do is an extra, & above their service. Meantime the people get better river opportunities than they have enjoyed for years. The schemes to secure passengers for the boats are novel & numerous. The American line has offered, in addition to a ride of 60 miles for 25c., to give its patrons a free ride on the electric belt line about Kingston, giving a view of the chief interesting points in the city. The R. & O. Co. will, it is expected, meet the new feature by giving free cab service.

At Cape Vincent, Aug. 16, the New York Central Ry. refused to allow the R. & O. steamer *Richelieu* to land at the railway dock. A person interested says this is the same kind of treatment accorded to it by the G.T.R., & the N.Y.C. is only giving tit for tat.

#### Hudson's Bay Company's Steamers.

On the Stikine River the Co. has 2 stern-wheel steamers of modern type, the *Strathcona* & the *Caledonia*, built at Vancouver this year. They are each 140 ft. long, & 34 ft. wide, with accommodation for 60 to 100 first-class passengers. They are lighted by electricity. Weekly trips are made between Wrangell & Glenora. During the season of navigation one of these boats is taken over to the Skeena River & several trips are made as far as Hazelton, the head of navigation, & the point where the pack-trails to the Stuart's Lake & Omenica countries start.

Upon the Athabasca River the Co. has 2 well-equipped stern-wheel steamers, somewhat similar to the above-mentioned. The one on the upper part of the river, the *Athabasca*, runs as far as the Grand Rapids, & the other, the *Grahame*, from below that point to Fort Smith on the Slave River, where connection with the Co.'s screw steamer, the *Wrigley*, is made. This boat runs as far as the mouth of the McKenzie River. These latter boats are intended for the service of the Co. only, but outside freight & passengers are taken as far as possible.

The Co.'s vessels going from London, Eng., to Hudson's Bay are the *Erik* & the *Lady Head*. These are both barque rigged, the former having auxiliary steam power, & both are specially built to contend with the difficulties of navigation through the ice in Hudson's Straits. The *Erik* goes to Ungava, Churchill & York Factory, & the *Lady Head* to Moose Factory, both vessels being fully required by the Co.'s own shipments. They leave London in the early part of June each year, returning there in September or October.

### Realizing the Facts.

The American Elevator & Grain Trade, Chicago, says: "Buffalo, as the gateway of the grain movement from the Northwest, is no longer without rivals. The Canadian routes are numerous, & during thus far this season have not been without their share of patronage. From Duluth & Chicago, the Chicago, Duluth & Parry Sound line of boats are carrying corn & wheat to the elevator at Parry Sound. The upper lake boats running in connection with the G. T. Ry. carry wheat & corn to the elevator at Midland. By the C. P. Ry. Co.'s vessels grain is carried to Owen Sound. Other lake carriers, as the Georgian Bay & Lake Superior Steamboat Line, bring down wheat & corn from the Western ports to the various terminal elevators on Georgian & Lake Huron. But the three Georgian Bay ports—Midland, Parry Sound & Owen Sound—are the main gateways. From the first the G. T. Ry., from the second the O., A. & P. S. Ry., & from the third the C. P. Ry., carry the grain onward across Ontario to tidewater & the ocean steamers at Montreal, where, within a month after the opening of navigation this year, 8,000,000 bushels of grain had been loaded at her wharves."

### The Galops Canal.

This canal extends from Iroquois, Ont., to the head of the Galops Rapids, a distance of about 6 miles. The work of enlargement now in progress is designed to raise the normal level of the existing canal 6 ft.—that is, to the height of the lowest known stage of water in the St. Lawrence River, above the guard lock at the head of the Galops Rapids. The prism of canal will have a width of 80 ft. on bottom, with slopes of 2 to 1 throughout, & a depth of 15 ft. at lowest water.

A lock will be built at Iroquois about 200 ft. south of the present one. The masonry will be of the best class of limestone, peck faced, laid in cement, & in courses varying from 18 to 30 ins. in height. The lock will have two chambers, the lower to be 530 ft. in the clear & the upper 270 ft. by 50 ft. in width, with a lift of 11½ ft. at normal water, which, at the lowest stage of the river, is increased to 17 ft. It is expected that one-half of the prism will be completed so that vessels with a draft of 15 ft. may pass through with the opening of navigation in 1899. About 1,200 men are now engaged in this work. This enlargement will cost the Government at least \$2,000,000.

### Maritime Province Ports.

Wm. Thomson & Co., steamship brokers, St. John, N.B., supply the following information about ports in New Brunswick & Nova Scotia:

Loading Port.	Depth Water on Bar at High Tide.	Depth Water in Harbor.	How Cargo Delivered to Vessels.	Cost of Stowing per Standard in 1896.
St. John, N.B.	42 ft.	50 ft.	Lighters.	0 70
Musquash, N.B.	20 to 22 ft.	30 "	Rafts.	80
Herring Cove, N.B.	No Bar.	30 "	Lighters.	80
Grindstone Is., N.B.	No Bar.	30 "	Lighters.	80
Hopewell Cape, N.B.	No Bar.	30 "	Lighters.	80
West Bay, N.S.	No Bar.	30 "	Lighters.	80
Tusket, N.S.	No Bar.	30 "	Rafts.	90
Margarets Bay, N.S.	No Bar.	30 "	Rafts.	80
Halifax, N.S.	No Bar.	40 "	Wharf.	90
Sheet Harbor, N.S.	No Bar.	30 "	Rafts.	90
Liscomb, N.S.	No Bar.	40 "	Rafts.	90
Pictou, N.S.	22 ft.	30 "	Wharf.	1 00
Pugwash, N.S.	20 to 21 ft.	25 "	Whf & Rafts	90
Baie Verte, N.S.	No Bar.	30 "	Rafts.	1 00
Shediac, N.B.	17 ft.	20 "	Whf & Rafts	80
Miramichi, N.B.	18 to 22 ft.	30 "	Wharf.	1 50
Bathurst, N.B.	No Bar.	30 "	Lighters.	90
Campbellton, N.B.	20½ to 21 ft.	21 "	Whf & Lighters	75