

second trip. The Tyrrell is a composite vessel of wood & iron, & was built last year by the Polson Iron Works, Toronto, & put together at Vancouver for the C.P.R. Co. to ply on the Stikine. She was a very good vessel, & like the Anglian, equipped with all modern conveniences. When the Stikine business fell off she was taken to the Yukon, & has only completed one or two trips on the river. She was probably worth on the lakes \$80,000, although of course she did not cost that to build. At the latest advices both steamers had been raised & left on Aug. 6 for Dawson, neither being very badly damaged.

On July 31, the Alaska Commercial Co.'s str. Louise was wrecked on the Yukon, a short distance above St. Michael, resulting in the total loss of a government cargo, amounting to about \$100,000. She was chartered by the U. S. Government to haul 3 barges, containing cargoes of government supplies for Rampart & Circle City, up the Yukon. She left St. Michael on the day before the disaster, with one barge lashed to each side, & fastened by means of guy-ropes in front. When 24 hours out one of the guy-ropes broke & the barge swinging around loosened the others. The shock in striking the side of the boat turned one of the barges upside down, & the entire contents were lost. The other two barges, after drifting about among the rocks, were finally beached. A fraction of the cargo had gone into the river, & what still remained on board was so thoroughly damaged as to be of little or no value. In the meantime the big steamer, while trying to save the barges from destruction, went on a rock. A huge hole was punched through her bottom, & she settled rapidly in 10 ft. of water. When the str. Alliance left St. Michael on Aug. 6 the Louise had been raised, & a crew was engaged in pumping her out. Beyond the water damage to her appointments, & the hole in her bottom, she was all right. No effort had been made to pick up a salvage on the cargo, as it was not considered worth the trouble.

& unitedly, present questions of grave, national & international importance in connection with the economical navigation of the Great Lakes, their connecting waterways & harbors. An able U. S. engineer estimated that the Chicago drainage canal alone would cause a reduction of 7 ins. in the Lake Erie levels. In almost all of the communications upon the subject it is assumed that small lowerings of levels caused by such works as the Chicago drainage canal, for example, are unimportant because the changes in level due to natural causes are so much greater. This may be a serious mistake. The important lake levels to the modern navigator are the lowest levels resulting from natural causes. Vessels are so loaded as to utilize every inch of available

whatever in comparison with the uncertainty & variability & the great importance of the rainfall & evaporation." The latest of the proposed projects affecting lake levels appears to be an open cut canal from Lake St. Clair to Lake Erie. It is time for those interested in maintaining, and, if possible, increasing the lake levels, to advocate & obtain the appointment of an international commission of able U. S. & Canadian engineers to carefully investigate & consider this entire question, recommending to their respective governments a permanent policy that may protect the interests of lake navigators without needlessly restricting important private enterprises desiring to utilize for power or other useful purposes the waters of the Great Lakes. It is a

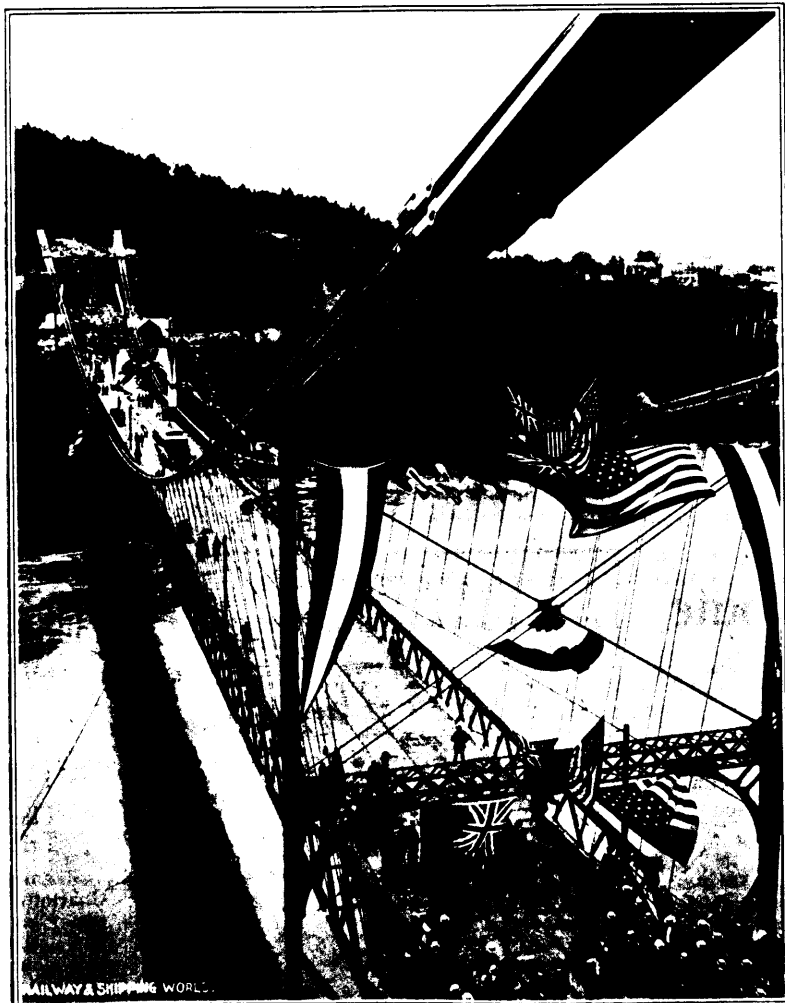
question affecting all the producers & consumers of grain, ore, lumber, coal & other staples depending upon the Great Lakes for their cheap movement to the home & foreign markets.

Commenting on the foregoing, Col. W. P. Anderson, Chief Engineer of the Dominion Department of Marine, writes: "I am sorry I have not time at present to go fully into this important subject, but I endorse most emphatically Mr. Firth's view, that comparatively small reductions in lake levels are of vital importance, especially to modern U. S. lake freighters, & I also agree with Mr. Firth in urging a permanent policy which may protect the interests of lake navigators without needlessly restricting private enterprises."

Q., H. & F. W. Navigation Co.

The directors of this recently incorporated company are A. T. Wood, M.P., R. A. Lucas, W. Southam, C. E. Doolittle, C. S. Wilcox, W. D. Long & A. B. McKay, all of Hamilton. The prospectus is as follows: This Co. is being formed for the purpose of constructing, acquiring & navigating steam & other vessels for the conveyance of passengers, goods & merchandise between the ports of Canada & any port of any other country, & of carrying on the business of common carriers of passengers & goods, & of forwarders, wharfingers & warehousemen, & of dealing in goods, wares & merchandise. The new canals between Prescott

& Montreal are expected to be opened this autumn. These waterways will allow steamers to go down to 14 ft. instead of to 9 which is the present capacity of the canals. It is believed there is a good opening for a line of large steel vessels to run in connection with the railways operating between Quebec, Montreal, Fort William & Duluth & other intermediate ports, carrying grain & ore down & general merchandise up. The down cargoes of grain & ore are unlimited & the return loads only require the boats to work up the business, because every year increases the quantity of goods passing westward from Montreal. This tonnage is increasing from 10 to 20 % a year, & with the opening of the new canals, when large vessels can go through from Fort William to the



THE QUEENSTON-LEWISTON BRIDGE OVER THE NIAGARA RIVER.

The photograph, taken from the U. S. side, shows the first electric car crossing on July 21. A full description & plans of the bridge appeared in our Aug. issue, pg. 248.

Lowering the Lake Levels.

F. J. Firth, of Philadelphia, President of the U. S. Lake Carriers Association, recently wrote the Marine Record as follows: During the many years in which the important questions of lake levels has received much intelligent consideration there has been a practically universal assent to the conclusion that the governing factors are rainfall & evaporation. It is also well understood that these factors cause wide variations in levels between seasons & between different periods in the same season. Of late years new factors have called for investigation & careful consideration. The construction of the American & Canadian locks at the "Soo" with no remedial works in the river to offset their draft upon Lake Superior; the "Soo" power canals upon the Canadian & U. S. sides of the river; the power canals at Niagara Falls; & the Chicago drainage canal; all, separately

depth of water. Lowering of levels from natural causes will often hold a fleet of deeply laden vessels at the head of a strait or the entrance of a harbor, until the conditions change & there is a sufficient depth of water to enable the vessel to proceed with safety. If artificial constructions, such as drainage & power canals, are to still further & permanently reduce the lowest natural levels it becomes a very serious matter, & one that may involve hundreds of thousands of dollars added each season to the cost of carrying the ore, grain or other staple products of our country.

It is a mistake to assert, as was done in a recent communication on lake levels in your paper, that comparatively small reductions in lake levels are "of no practical importance