

American commissioners' report was promptly published and sent to the Canadian Government, but the Canadian report, though rendered last June before Parliament prorogued, has not yet seen the light. This is much to be regretted, because apart from the fact that the Canadian public should be in a position to study this question, it is demanded by international courtesy that the American Government and public should have the same prompt access to the information gathered by the Canadian commissioners as they have given us of theirs. To delay the Canadian report would appear all the more strange, seeing that the Minister of Railways and Canals has himself reprinted the American commissioners' report in his own departmental blue book.

Following up their commissioners' report, the United States Congress has appropriated a further sum of \$150,000 for new surveys bearing on the contemplated international deep water channel to the seaboard. These new surveys will be in charge of a commission more exclusively composed of engineers, the commercial aspect of the case having already been fully gone into in the last report. It is thought that the Canadian Government will co-operate in these new surveys, and then the question of the cost of the deepening and the further question of control and regulation of the proposed great water route will be considered. It is to be hoped that our Government will not lose any more valuable time in dealing with a subject of such great importance to the marine interests of Canada.

Meantime, it may be observed that a commission of military engineers appointed by the U.S. Government have enquired into the question as to how the levels of the Upper Lakes will be affected by the Chicago drainage canal, and have condemned the scheme as likely to have a serious effect on the navigation of the Great Lakes. If it is found that the City of Chicago, by creating a large river here—*for that is what the new canal means*—causes the lowering of the lake levels, the Government will step in and compel the city to reduce the flow of water to the limits of safety. Happily for Canada, there are more populous cities on the American shores of the Great Lakes that would be damaged or ruined by the Chicago canal than on the Canadian shores, and the international riparian rights, as well as the local commercial interests all along the lakes and rivers, combine to make an influence that will outweigh the selfish interests of even a Chicago. So we may hope that the American Government will not allow Chicago to lower the lakes by a single inch; for the deepening of the canals from the Great Lakes to the ocean will be as important for that emporium as for the other cities and towns scattered along the shores of these vast fresh water seas.

Last month the American Government received a report from Major T. W. Symons, of the U. S. Corps of Engineers, a preliminary report on the question of a ship canal to the sea exclusively through United States territory. A synopsis of the report will be found in another column.

#### THE VICTORIA JUBILEE BRIDGE AT MONTREAL.

When the present Victoria Tubular Bridge across the River St. Lawrence at Montreal was built, it created at the time universal admiration for its noble proportions and the skill displayed by its engineers, as well as amazement at its gigantic size and stability—in fact it was looked upon as one of the wonders of the world. Built between 1854 and 1859, and with little or no precedent for many important details connected with the structure, one is bound, even at this day, to acknowledge the wisdom and

foresight of the engineers and contractors who planned and built it. Far-sighted, however, as the promoters of this bridge were, in regard to details of construction, the most sanguine of them, in all probability, never realized that within thirty years from its opening the demands upon its capacity would be so great as to make a larger structure a necessity. This need has been specially felt in recent years, as the traffic of the Grand Trunk Railway developed and increased so enormously, and, as far as the bridge itself is concerned, will the more easily be understood when it is considered that over eighty trains pass through the bridge during the twenty-four hours. It is well known that the passage of trains through the bridge has always been conducted on the absolute block system, and no train received orders to proceed through until the preceding one had reported to the telegraph station at either end.

This famous bridge will soon only be a matter of history, for it is about to be replaced by one modern in design, built in accordance with the best practice of the present day, and of accommodation sufficient probably to meet all future requirements. The superstructure of the bridge which is to replace the present tubes, will consist of twenty-four spans of pin-connected, through, steel trusses, each of a length of 254 feet between centres of end pins, and one span of 348 feet over the steamboat channel. The trusses will carry two railway tracks to be used by ordinary steam railway trains, as well as by electric railways, and the floor beam system will be extended beyond the trusses of sufficient length for an ordinary vehicle roadway and sidewalk on either side. The clear width between the trusses will be 28 feet. For each railway track there will be four lines of stringers, spaced two feet five and a half inches from centre to centre. There will also be two lines of stringers for each roadway, and one line placed at the ends of the projecting beams for the support of the outer edge of the sidewalk. The clear headway from the base of track rails to the struts under the overhead lateral bracing will be 22 feet.

The trusses have been proportioned to carry the undermentioned loads:—

First.—The total weight of metal in them.

Second.—The weight of the wooden floor beams, planking, sidewalks, guard timbers, railings, rails and fastenings, etc., amounting in the aggregate to 2,800 lbs. per lineal foot.

Third.—A moving load in either direction on each side of the two tracks, of two consolidation engines and tenders, coupled, followed by a uniformly distributed load weighing 4,000 lbs. per lineal foot, or 100,000 lbs. equally distributed on two pairs of driving wheels spaced  $7\frac{1}{2}$  feet centre to centre.

Fourth.—A moving load in either direction on each of the roadways of 1,100 lbs. per lineal foot.

Fifth.—A live load on each foot-walk of 200 lbs. per lineal foot.

The trusses are now under construction by the Detroit Bridge and Iron Works, and the Dominion Bridge Company. Of the 25 spans, 19 will be turned out by the former company, and six by the latter.

At the present time the masonry of the piers is undergoing the extension necessary to meet the requirements of the enlarged bridge. It is expected that work will be commenced on the erection of the new bridge about the middle of August, and it is the intention to have the whole of the work completed by the 1st June, 1898.

On the application of Edward Major, a creditor, an order of the court has been granted for the winding up of the Canadian Mineral Wool Co., of Toronto, as insolvent.