

The U.S. Deep Waterways Commission has reported in favor of a system of dams in the upper Niagara River to raise the lake levels. It is said the Dominion Government will object on the ground that the dams may not only maintain the lake levels, but may raise them. If they should do this, the lower lands in Essex & Kent counties might be submerged. It is claimed that a great deal has been expended in draining these lands. Speaking on the subject recently, the U.S. Secretary of War said: "The Deep Waterways Board informs me that the structure will not cost over \$1,000,000 at the most, & probably not more than \$800,000. Yet this dam will save the government over \$1,000,000 already appropriated for deepening harbors & channels in Lake Erie & Detroit River. The Board has informed me that by its plans & surveys it will recommend a dam that will raise the lower end of Lake Erie from $2\frac{1}{2}$ to 3 ft. This will deepen all the harbors on that lake about that much & will add from 20 ins. to 2 ft. to the depth of the water at the Limekiln Crossing. It will even raise the water of St. Clair Flats & Lake St. Clair about 1 ft., & will tend to hold back any permanent lowering of the level of Lake Huron by the washing out of St. Clair River, a process which has already done much damage. The dam will do away with the necessity for appropriations for deepening channels & harbors which have been growing greater & greater from year to year. For the Detroit River alone an appropriation of over \$500,000 is now awaiting expenditure, & we are led to believe by recent publications that this is merely the beginning of an unending expenditure for dredging & blasting."

Province of Quebec Shipping.

The St. Lawrence channel between Montreal & Quebec is being dredged to a depth of 29 ft. in low water.

The str. Princess Louise, recently burned near St. John's, Que., was built at Wolfe Island, Ont., in 1879. Her dimensions were: Length, 94 ft.; breadth, 18 ft. 5 in.; depth, 4 ft. 9 in.; gross tonnage, 115.

The enlargement of the Lorne graving dock at Quebec will extend it to 600 ft. in length, which will make it capable of receiving any vessel entering the St. Lawrence. The pres-

ent dimensions are: Length, 445 ft.; width at coping level, 100 ft.; width at bottom, 73 ft.; width at entrance, 62 ft.; depth of water on sill at high-water spring tides, $26\frac{1}{2}$ ft.; neap tides, $20\frac{1}{2}$ ft. The cost was \$910,000. The extended dock will be large enough to accommodate such huge ocean liners as the Teutonic, which is 582 ft. long, or the New York, which is 580 ft. It could not, however, accommodate the Oceanic, which is 704 ft. over all.

During the season of navigation recently closed there has been a decrease, not only in the number of steamships making the port of Montreal, but also in the tonnage. The 801 seagoing vessels making the port this year had a tonnage of 1,517,611, as compared with 868 vessels last year, with a tonnage of 1,584,072. The decrease is accounted for very largely by the fact that in the spring of 1898 there was a very large influx of steamships which came to take out grain & lumber, particularly the former. This year the trade in this line, which was largely made up of foreign grains, has been lacking. Another factor which had a tendency to decrease the tonnage this year was the putting off of a number of steamers & engaging them transporting troops, etc., to South Africa.

Maritime Provinces & Newfoundland.

The Lunenburg, N.S., Marine Ry. Co.'s capital stock has been increased from \$25,000 to \$40,000.

The Reform Shipping Co., Ltd., has been incorporated by Dominion letters patent, with a capital of \$21,000, W. L. Lovitt, of Yarmouth, N.S., & others being the incorporators.

H. M. Whitney, of Boston, Mass., & A. J. Moxham, General Manager of the projected iron works at Sydney, N.S., are said to be making arrangements for locating a steel ship-building plant at North Sydney.

Incorporation has been secured for separate companies to own the ships Kings County, Kambira, Harvest Queen, Canada, Skoda & Conductor, a fleet managed & heretofore principally owned by R. Burgess, of Wolfville, N.S.

Between Halifax & Shelburne, N.S., there are 45 vessels, mostly schooners, being built,

the aggregate value being estimated at about \$225,000. A large number of Lunenburg schooners have recently been sold to St. Pierre parties, hence the demand for new ones.

In Prince Edward Island recently one of the leading Liberals hoisted a series of ships' flags to welcome Sir Louis Davies, who was visiting his town. The flags were signals, & they read "Alter your course." The foregoing may not be true, but it is a good story anyway.

The Dominion Atlantic Ry.'s str. Prince Arthur has taken the Prince Edward's place on the Boston-St. John, N.B., route for the winter. She was turned out of the Hull shipyards on June 10 last. She is 308 ft. long by 38 ft. beam. Her registered speed is 19 knots, but on her final trial trip she made a speed of $20\frac{3}{4}$ for 300 miles. She furnishes accommodation for 600 passengers—550 1st class & 50 steerage. She has 4 decks.

Arrangement has been made between the Plant Line & the Newfoundland Ry., which will give Halifax a new steamship service between Halifax & St. John's. It will be operated by the Plant Line in conjunction with its Boston & Halifax service. The steamer, which has been built to the order of R. G. Reid for the Newfoundland Ry. Steamship Line, has been named Glencoe. She has made a satisfactory trial trip on the Clyde & started for Canada Dec. 11. She is to perform a regular winter weekly service.

ELECTRIC RAILWAYS.

Pavements Between Street Railway Tracks.

By C. H. Rust, City Engineer, Toronto.

In 1891 the exclusive privilege of operating the street railways in the city of Toronto, for 30 years, was disposed of to a company now known as the Toronto Ry. Co. The clauses of the agreement, made between the city & the Co., that refer more particularly to this paper, read as follows:

"The purchaser shall maintain the ties, stringers, rails, turnouts, curves, etc., in a state of thorough efficiency & to the satisfaction of the city engineer, & shall remove, renew or replace the same as circumstances may require, & as the city engineer may direct.

This illustration represents a group of Boston & Maine Railway yardmen demonstrating the practical part of the

U. S. CAR PUSHER

by testing the device, which proved very satisfactory. Biggest part of those present are perfectly familiar with car moving by hand power, and this cut shows how many there were who said our pusher was all right. This device is manufactured by

F. E. CAME,

17 Place d'Armes Hill, Montreal.

Factory, Moreau Street.

