

NIAGARA FALLS SHIP RAILWAY.

The estimate is made on the Twelve Mile Creek route of Col. Blunt's surveys, beginning east of Cayuga Island, Niagara River, and ending at the mouth of Twelve Mile Creek. The length of the line is  $18\frac{1}{2}$  miles. The maximum grade surmounting the Niagara Terrace is 50 feet per mile, a continuous grade of  $4\frac{3}{4}$  miles. The total estimate on the same basis as the Hurontario Ship Railway, namely, for vessels of 5000 tons displacement weight, 20 feet draught, and an annual traffic of 8,000,000 tons, is \$10,731,613.71, fully equipped.

MICHIGAN PENINSULA SHIP CANAL AND RAILWAY.

It is proposed to build a ship canal of the standard dimensions above given across the Michigan Peninsula, from Benton Harbour on Lake Michigan to near Monroe on Lake Erie, a distance of about 160 miles. It would require 65 locks and the crossing of 19 railroads. The estimate is \$138,405,432.

A ship railway across this peninsula fully equipped will cost not over \$39,000,000, and the grades will not be heavy. The height to be surmounted at the summit is 475 feet.

LAKE CHAMPLAIN ROUTE BY WAY OF THE CAUGHNAWAGA RIVER.

The estimates made at various times for a canal with locks 270 feet by 45 feet by 12 feet, from the St. Lawrence River about 8 miles above Montreal to Albany on the Hudson River, is about \$20,000,000. To build this on the plan of the enlarged water-way now designed, and to deepen the Hudson from Albany to Hudson City, and to deepen Lake Champlain over long reaches, where there is now sufficient depth of water for a 12 foot navigation, but not for 20 feet, would cost at least \$50,000,000, and for the purposes of an unrestricted adequate water-way for deep draught vessels from the Great Lakes to the seaboard, is apparently impracticable.

ERIE CANAL AND OSWEGO CANAL ENLARGEMENTS.

To build such a water-way as is now proposed between Buffalo and Albany would cost probably \$250,000,000, and we would then have nothing but a continuous canal where the speed of vessels would be