

OCEAN TRAFFIC BY THE ERIE CANAL.

THE Hon. George H. Ely, of Cleveland, presented statistics at the Deep-Waterways Convention, held last December at Detroit, showing that about thirty-six million registered net tons of shipping passed that city during the two hundred and thirty-five days that the navigation of the Great Lakes was open. The aggregate tonnage entering and clearing from the ports of London and Liverpool during an entire year does not equal that passing Detroit in seven months, and this is a growing commerce. General Poe, the engineer officer in charge of the Government works on these channels, says : "For nearly thirty-five years I have watched its increase, but neither I nor any one else within my knowledge has been able to expand at the same rate. The wildest expectations of one year seem tame the next."

This traffic has been growing nearly ten per cent a year, but this rate of increase will not be continued in the near future, as the restricted depths and widths at several places already crowd the channels with boats nearly to the danger point. Neither a marked increase in freight tonnage nor any material decrease in freight charges can be expected until a minimum depth of twenty feet from Buffalo to Chicago and Duluth is obtained, as asked for by the Deep Waterways Convention. This may be obtained by 1896 and, it is claimed, will reduce freight rates on the Lakes by one-half.

Although, on account of the practice of vessels going "up" light, only about 30,299,006 tons of freight were transported during the season of 1890, they were carried an average distance of five hundred and sixty-six miles ; so that, multiplying the tons carried by the distance in miles, we have more than seventeen thousand million ton-miles, or a freight distribution equal to almost one-fourth of the ton-mileage of all our railroads. This lake freighting has been done at an average charge to shippers of 1.3 mills per ton-mile. The shipments by railroad, on the contrary, are averaged by the Interstate Commerce Commission at 9.22 mills per ton-mile ; so that there was a saving on each ton transported by this water road over the average charges by railroad, for an equal distance, of \$4.48, or an aggregate

saving, to be divided between the producers and consumers of this country, of more than \$135,800,000.

As the Government has not appropriated quite \$30,000,000 for the improvement of the Great Lakes, their harbors, and the rivers that run into them, the people of this country received through the cheapened distribution made possible by this expenditure, in the single year of 1890, four and a half times the total cost of the improvements; or, to state the advantages of this improved waterway in another way, the cost of lake freight was six and one-half per cent of the value of the goods transported, whereas if they had been transported at the average charge for railroad freight, the cost would have been fully forty-six per cent of their value. This percentage would have obviously taken so large a part of the value of a considerable proportion of the goods that the labor and profits of their production and distribution must have been lost to the community if dependence had been placed on railroads alone.

It will be noticed that the above-mentioned difference between the cost of railroad and lake freight is equivalent to the income at five per cent on a capital of \$2,700,000,000, or more than ninety times the expenditure made by the Government to secure this cheapening in transportation. In addition to this direct beneficence, it is known that the improvement of our water routes has been influential in giving us cheaper railroad freight rates than are enjoyed by the people of any other country. No exact statement can be made showing their influence, or even the absolute reduction since a more liberal policy toward internal improvements has been adopted by the Government. But the editors of "Poor's Manual" returned the ton-mileage and freight receipts on the following seven trunk lines for 1865 and subsequent years, viz.: The Boston and Albany; New York Central; Erie; Pennsylvania; Lake Shore; Fort Wayne, and the Michigan Central, and since 1882 these figures are given for all the roads of the country.

From these returns we learn that in 1865 the average charge for carrying one ton one mile on these seven roads was 2.9 cents, and in 1890 the charge had been reduced to 6.8 mills. A comparison of this rate with the average rate charged on all roads given in "Poor's Manual" for 1890, 9.3 mills,¹ leads to the inference that the average rate in 1865 was nearly 4 cents; and an average of like comparisons for the nine years for which data are available points to 4.3 cents as the

¹ Poor's returning for the fiscal year of the companies and the Interstate Commission for the fiscal year of the Government.

probable average freight rate in 1865. This may be thought too high, but it cannot be doubted that the average rate was equal to that charged on the great trunk lines of the country; and at this rate the freight transported on our railroads in 1890 would have paid over \$2,200,000,000; but the total receipts from freights on all our railroads were but little over \$740,000,000, leaving a difference of nearly \$1,500,000,000, or a five per cent income on over \$30,000,000,000.

Any claim that these reductions in freight rates are not consequent on, as they were concurrent with, the improvement of our waterways seems to throw the claimant upon a recognition of that fiscal policy which is so thoroughly and distinctively American. For this unparalleled decrease in freight charges did not commence until our protective policy had commenced to be operative, and there is no claim made that there was any alleviation of railroad freight rates in this country between 1850 and 1865. In England, on the contrary, where free trade was adopted forty years ago and the canals and waterways have gone without substantial improvements since the inauguration of their railways, there has been, as testified before a parliamentary commission on canals in 1883, no material reduction in freight rates for thirty years. Mr. J. S. Jeans, in his "Railway Problems," continues the statement with emphasis down to 1887.

The English trader is losing his hold, greatly through the fact that he pays English railways more for assembling and distributing his products than manufacturers of any other country. No known English authority puts the average ton-mile rate at a lower figure than one and one-eighth pence; the weight of evidence puts it at one and one-fourth pence, or two and five-tenths cents. It will not do to assign a difference of one hundred and seventy per cent in charges for an equal service in a land where the cost of railroad labor is about half the cost here to the superior resources of this country; for the developed resources, both mineral and agricultural, of England are greater per square mile than those of the United States. The superiority of this country lies in the larger wages paid for labor, a resource within the command of any country.

In spite, however, of these facts, which are not mentioned as heretofore unknown, all of our best thought (possibly because the newspapers which furnish its ultimate convictions have their business eye on railroad and banking advertisements) objects strongly to internal improvements. Demagogues in Congress inveigh against the prodigal expenditures under river and harbor bills, and a President of the

United States refused his signature to a river and harbor bill in the interests of economy !

Nearly all of this traffic on the Great Lakes is American ; all of it except about six per cent is conducted in "vessels built in the United States, and owned by a citizen or citizens thereof." It is probable that very nearly ninety per cent of this large cargo tonnage, with the capital, employments, and profits engaged in its production, distribution, and consumption, is American. It has built up the lake cities from Duluth and Chicago to Buffalo, and the freight transferred at Buffalo to the Erie Canal is an important factor in developing the wealth of central New York and giving New York City the important position it holds in the manufacturing and trading world. Besides which, for a long time this freight paid tolls to the State averaging \$4,000,000 per annum.

Among other things developed by the lake traffic is a land-locked marine, valued for insurance purposes at over \$60,000,000. In this marine are one hundred and twenty-six vessels, registering one thousand five hundred net tons or more, eighty-nine of which are built of steel, and thirty-two additional steel vessels of large tonnage are now being built. These vessels have no superiors for strength in the world, and some of them, freight-carriers, in their regular business between Chicago and Buffalo, maintain a higher speed than the steamers of the Peninsular and Oriental line are required to maintain, which carry the mails between England, India, Hong Kong, and Australia, receiving £350,000 therefor from the British government and £60,000 from colonial governments, or \$2,000,000 per annum.

There has long been a desire for an adequate outlet to the sea for this great commerce and the shipping which carries it. This was thought impossible, by the way of the Erie Canal, until Elnathan Sweet, then State engineer, read his paper, "The Radical Enlargement of the Erie Canal," before the American Society of Civil Engineers in 1885, showing that it was perfectly feasible to build a canal from Buffalo to the Hudson, of any desirable depth and width, to be fed by the water of Lake Erie, which would aid the transport of the bulky products of the West, as it flowed ever onward toward their market. And now the demand for some adequate outlet is increasing in volume and intensity, and will continue to increase until the improvement has been made, unless some adverse influence succeeds in substituting a measure, probably in the asserted service of economy, that shall fail to make an adequate or convenient waterway.

The wishes and demands for any great improvement are always obstructed by conservatism that cannot appreciate the advantages which would accrue, and the water-road between the Great Lakes and the sea is also opposed by the force of the capital invested in our railroads. Any route through the United States will also be vigorously opposed by the Canadian influence, which wishes to see the gains made by the distribution of the products and consumption of the West enriching the valley of the St. Lawrence and Montreal rather than New York, with the valleys of the Mohawk and Hudson. Canada also desires the political power and commercial influence that would go with the control of our principal road to the sea.

It is very difficult to arrive at a satisfactory estimate of the commercial value of a watercourse through the State of New York sufficient in size to carry conveniently the traffic originating and ending in the Great Lakes; for the question involved is as to the value of additional length to any traffic route. This is a question which none of the great masters of transportation known to the writer seem able to answer. There are instances enough of extensions into undeveloped territory, and also of extensions into territory other roads have developed, but no company has yet reached out for thirty million tons of freight, and the problem seems without analogue. Hence, any attempt to treat the new water route as part of the existing route will be left to some writer better equipped with facts.

It is, however, possible to compare the values of two routes of known length, though such a comparison is obviously unfair to the project under consideration. By this method, assuming that an equal amount is transported over the two routes with equal facility, and, further, that all the freight starting from Buffalo is destined for New York, the yearly values or saving effected by the two routes would be proportional to their lengths. Consequently, instead of a saving of \$135,500,000, the route from Buffalo to New York, only four hundred and ninety-five miles long, would yield a yearly value of \$118,700,000 if built to carry thirty million tons per year. But the speed cannot safely be as great in a canal as in an open lake, and it is asserted that there is no material difference in the coal consumption per hour in the open sea and in the Suez Canal, where the speed is limited to five miles per hour. On this basis of a five-mile rate, as the average speed by freighters on the Lakes is about twelve miles per hour, the above-mentioned sum should be reduced to four-tenths, and the annual saving would be somewhat over \$47,400,000.

When the term "slow river" is used by steamboat men, it is intended to convey the idea that the water has fallen to such a stage that the boats in use, being very near the bottom, are retarded by friction of the water they displace, and their progress is comparatively slow in consequence. It is perfectly possible to build a channel of such restricted size that it would be a slow canal. If the canal should be of such insufficient size that only two and a half miles per hour could be made by boats of the standard size, its commercial value for such boats would obviously be cut in two. And, further, if the canal was only built to pass ten million tons at speeds of five and two and a half miles per hour, the commercial values would be reduced to \$15,600,000 and \$7,800,000 per annum respectively.

Attention is called to the fact that \$47,400,000, the estimated saving attained on a canal capable of passing thirty million tons, is a five per cent income on \$950,000,000, while \$7,800,000 is the income on \$156,000,000. And as only under exceptional circumstances will the cost of a canal increase in the same proportion as its capacity, the larger canal is not only more useful, but returns a larger percentage on its cost.

Some may doubt if thirty million tons of freight will ever seek transportation through any canal, however large it may be. There is nothing, however, in attainable statistics to cause doubt that the lake traffic will again double within ten years from the time its channels are deepened to twenty feet. As a matter of fact, the ton-mileage on our railroads has fully doubled during the nine years ending with 1890; it has increased in that time almost fifty per cent per mile of road operated. This is greatly due to the fact that produce can be carried approximately four times as far to market as twenty-five years ago, or commodities of one-fourth the value can be transported an equal distance.

In addition to the reduction in freight rates accruing from a large waterway to the sea, our lake marine would be available for direct trade, not only to our Atlantic coast, but to Gulf, South American, and European ports, and, instead of being idle five months of the year, could, and probably would, enter as a successful competitor in the world's carrying trade during the season our bulky crops are seeking a foreign market, and not only earn freight money to be re-expended in this country, but its competition would materially cheapen the cost of exportation.

There are two other considerations urging the construction of this canal. One is that of national defence; the other, that of national unity.

Many will assert that there is no chance of war with Great Britain. They are of the class which has urged us to abstain from building war vessels for moral effect, and assert that arbitration will always settle difficulties between the two nations; but they should remember England would not hear of arbitration over the Trent affair, any more than it would arbitrate the late difficulty with Portugal, growing out of what the South Africans cheerfully refer to as "the jumping of Mashonaland"; nor are they willing to arbitrate with Venezuela over their appropriation of land at the mouth of the Orinoco. But when President Grant advised that our Government assume and pay the Alabama claims, a proceeding which would have effectually prevented Great Britain from engaging in war with any power until those claims had been liquidated, she was ready enough to arbitrate. England will not arbitrate with us unless she fears us. If once more we were in serious trouble, Russia would possibly interfere again to prevent such a syndicate as was once partly formed between England and France.

Those who have had their attention turned to the subject will remember that before the war of 1812 all plans for navigation between the Hudson and the Great Lakes made Lake Ontario a part of the route. But after the war, the present route of the Erie Canal was decided on. This decision was made because the route through Lake Ontario was plainly tributary to the enemy's country and resources, as it presented cheaper transportation to the sea via the St. Lawrence than by any other existing route. Trade came and went that way, and it was the British influence on that trade route that accounted for the Federalism of Vermont and northern New York and the inefficient prosecution of the war in Canada. So that it was patriotism that aided Clinton when sufficient prescience of the Western development was wanting to give confidence in the commercial success of so large a work for our resources of 1817.

This lesion of loyalty to our country occurred, it must be borne in mind, when our population was homogeneous and remembered the Revolutionary war, before any large addition had been made to it by immigrants with traditions differing materially from our own. Now that in some of our Western States two-thirds of the population are such immigrants or their immediate descendants, and there are probably three great organs of British commercial opinion in this country, *per capita*, where there was one in 1812, it seems strange that one of the principal committees of the House of Representatives, the Com-

mittee on Interstate and Foreign Commerce, should report a "joint resolution to promote the improvement of the waterway from the head of Lake Superior by way of the Welland and St. Lawrence canals and St. Lawrence River to the sea"—a route through foreign territory, one that would handicap all seaboard manufacturers with comparatively higher freight rates, and would inevitably increase our payments to foreigners for the transportation of our produce to market. As Canada, in the pursuit of trade, would resort to the same expedients as those adopted by corner-grocerymen and tip the servants, such a proceeding would result in great gains to those party managers who live on the corrupt money they distribute, to all venal politicians, and also to that class of writers which the Emperor William characterized the other day as "hunger candidates."

No honest man would receive any benefit from such a shameless perversion of the public money to the service and aid of a not always friendly government; and as no productive interest in this country could be as well served by an outlet to a port which is closed by ice for six months of the year, in place of one open all the year, it is probably safe to predict that this bill will not pass. It may also be asserted with confidence that the originators of the bill will be found demanding that any canal built through the State of New York shall be made free for the vessels of the country which would have received so much aid from the expenditure of United States money in the improvement of the St. Lawrence River.

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MY BUSINESS PARTNER, THE GOVERNMENT.

WHEN I went into business, I associated myself with men whose characters and methods I knew, and with whom I could advantageously co-operate for the purpose of making money. It happened that the business undertaken was the exportation of American merchandise to foreign countries. We began it in the faith that so long as we carried on a legitimate trade we could do it without let or hinderance, but we were destined to be speedily undeceived. We had scarcely begun operations before we discovered that we had another partner, self-injected, who actively interfered in various ways, prohibiting the doing of many things, rendering difficult the doing of others, and whose meddling was dangerous to our prosperity, even when he was kindly disposed. This partner was the Government of the United States.

We soon had occasion to ship some merchandise to a foreign country, when we found that our partner had a business office called the custom-house, in which we were obliged to file a list of all articles shipped, with their value. He told us that this clearance was for statistical purposes only, and sacredly guarded; yet it soon appeared that any one for a small "tip" could get a copy of it, and thus acquire valuable information that might be used to the injury of our trade. It was desirable to have trustworthy statistics of exports, even at the expense of this unnecessary violation of business confidence; but examination disclosed that while many millions of dollars of American exports crossed the frontiers of Mexico and were shipped through Canada, no account was taken of them, and the statistics were thus rendered inaccurate and misleading.

We speedily became aware that our partner took a share of his profits in advance by exacting a tax on many foreign products brought into the country to be used in the manufacture of the merchandise which we were exporting. Our partner saw that this made it difficult to sell against our foreign competitors, and so he tried to help us. He devised a system of returning this tax when the goods were exported, but he arranged it so clumsily that only large manufacturers could