

competition between the present routes by way of the several ports along the Atlantic seaboard to Liverpool, there is such slight difference in rates, that no advantage would accrue from an enlarged water-way commensurate with the great expenditures required to obtain it. Granted that the case may even be similar to that of the Mississippi River, upon which the United States Government is spending already vast amounts in removing the obstructions from its mouth nearly to its source, but which does not have upon it the amount of business anticipated—the railroads being able on shorter lines to move the freight to the seaboard—nevertheless it stands there as a great regulator and minimizer of freights. When for any reason the slightest increase in rates occurs over the rail routes, the freight is given to the barges and boats, and the products then reach New York and other Atlantic ports via the mouth of the Mississippi, and the rates again come down to a water rate.

If an enlarged water-way shall compel the slightest reduction in through rates to the Atlantic seaboard and Europe, the producers will reap the advantage, whether the new route obtains the larger part of the business or not. If this route can carry freights to Liverpool cheaper than the present rates, and shall do so to any extent whatever, then all the other routes must come down in rates to meet it.

There is, however, no question about this enlarged channel from Chicago, Duluth and Port Arthur to Liverpool obtaining a large part of the European business. The enlarged facilities proposed will vastly increase the volume of the carrying trade between the Northwest and the Old World. The advantage to the country bordering on the Great Lakes and the St. Lawrence can scarcely be over-estimated. The increase in commerce everywhere, and the material prosperity sure to quickly follow the opening of such a route outlined in this paper, is beyond conception.

It is estimated by statisticians that the Mississippi River gives a direct advantage to the producers of the Mississippi Valley, amounting to from 50,000,000 to 100,000,000 dollars per annum. The St. Lawrence route will give a direct advantage not only to agricultural producers but to manufacturers, importers and merchants, and through them to all the people. "DIRECT TRADE WITH EUROPE" should be the demand of the Northwest and of all the country tributary to it. The direct pecuniary advantage to the people should not be estimated at less than \$200,000,000 per annum.

As civil engineers we should promote in all possible ways the development of these commercial routes, and lend our good offices to