

route, 6.66 mills; all rail 12.79 mills. The rate per ton mile by the present shortest rail route is about 5 mills. During 1878 the wheat rate by water from Chicago to New York was something under \$3.30 per ton, or 2.3 mills per ton mile.

During the season of 1879 grain was shipped from Chicago to Liverpool for 17 cents per bushel, a rate but little greater than was paid for transportation by canal from Buffalo to New York, only ten years before, that is, in 1869. In 1890 grain was shipped from Chicago to Liverpool for $9\frac{1}{4}$ cents per bushel.

The average lake rates from Chicago to Buffalo on wheat have been as follows:—

1861.....	11	cents	per	bushel.
1865.....	9.7	"	"	"
1870.....	6.2	"	"	"
1875.....	3.5	"	"	"
1878.....	3.1	"	"	"
1889-90.....	2.5	"	"	"

Large steamers with barges in tow can transport grain at 2 cents a bushel between Chicago and Buffalo with a profit.

The growth in population of some of the lake cities will give an idea of the growth of the commerce of the country tributary to the Great Lakes.

Population of Buffalo in 1850 was	42,261
" " " 1890	255,000
Cleveland in 1860	17,034
" 1890	262,000
Chicago in 1850	29,963
" 1890	1,100,000

The above general commercial statement has been compiled from a large amount of detailed information, which has been placed in the author's hands by the kindness of the officials of the United States and Canadian Governments, and by the officers of Transportation Lines and Secretaries of Boards of Trade of the lake cities, and obtained from other reliable sources. This one subject of the growth of the commerce of the Great Lakes, the reduction in freights, and the actual cost of the same, and a description of the methods of transportation both by rail and water, would of itself form a most interesting and important paper.

It is necessary now with these general facts in mind to take up the physical features of the present and projected routes, and ascertain if