

Oswego is 38 miles in length, and it descends 155 feet from the Erie Canal to Lake Ontario with 18 locks 110 feet long by 18 feet wide. The total cost in 1865 had been \$3,077,429. Improvements and enlargements have been made from time to time.

The entire expenditure on the Erie Canal up to 1886 had been \$133,000,000.

LAKE CHAMPLAIN AND HUDSON RIVER.

The present route of this canal is from Sorel on the St. Lawrence River, 46 miles below Montreal, up the Richelieu River through the St. Ours Lake to the Basin of Chambly, thence up the Chambly Canal to St. Johns and the River Richelieu to Lake Champlain, the distance in Canada being 81 miles, thence up Lake Champlain. At Whitehall, the southern end of Lake Champlain, the Champlain Canal is entered, and connection is obtained with the Hudson River. The total distance to Albany, 7 miles of which is by the Erie Canal, is 265 miles. The total lockage from the St. Lawrence River to the summit level of the Champlain Canal is $136\frac{1}{2}$ feet upwards, and the total lockage down to Albany 150 feet. The total distance to New York by this route is 411 miles. The canal is generally of very moderate proportions, being about 36 feet wide at the bottom with 7 feet of water on the sills.

RAILROADS.

One of the most important factors in transportation during the last half century has been the railroad. Its growth, especially in the United States, has been almost marvelous. Its effect upon the cost of transportation has been to continually reduce it, principally by competition with waterways and among the various lines of railroads. The methods have become so nearly perfect, and the cost of transporting goods so greatly reduced, that the ordinary barge canal, which before the advent of the railroad played so important a part in the development of the country, will not in any sense compete with it. Over one half of the entire mileage of canals of half a century ago has been abandoned, many of the old canal beds have been used for railroad tracks,—those that do exist are for special purposes, and most of them survive by the generosity of the States, which have removed all tolls from them and have maintained them at the public expense. It is not intended by this statement to depreciate the immense value which these former means of transportation have been to the country,