

or 18-mile creek route—is preferable, and is estimated to cost \$23,000,000.

It offers remarkable natural advantages for construction as well as for operation, in the "Lockport Gulf," two and one-half miles long, in which the descent is made, and also in the 18-mile creek gorge, 4 miles long, by which Lake Ontario is reached.

It is to be regretted that the striking features of the routes selected cannot be here shown better than by description, by reproducing a series of photographs taken by the writer in 1889, while examining in detail the various lines.

The six millions greater cost of the Wilson route, which is 5 miles shorter, is due in part to its lack of the natural features above referred to, and in part to the necessity for doubling nine of the locks to obtain the service which single locks give on the Olcott line.

The United States Government has not been alone in its works for the Lake commerce, for meantime the Canadian Government, despite its comparatively small population and limited resources, has spent some fifty-four million dollars in constructing and recently in enlarging its canal system, with a view to controlling the western trade.

This system now consists of the 14-foot Welland Canal from Lake Erie to Lake Ontario, around Niagara Falls, and of the St. Lawrence River Canals, around the various rapids by which the outflow of the lakes descends from Lake Ontario, through 246 feet of fall, to tide water at Montreal.

These last named canals—six in number, with twenty-six locks—have an original depth of 9 feet, which is now in process of increase to 14 feet.

From Montreal, now practically a seaport, a 27½ to 30-foot channel for seagoing steamers has been made at a cost of some \$2,500,000, their voyage thence to Liverpool being 315 miles less than from New York.

That portion of the shipment from the upper lakes which passes through the United States and reaches New York, is taken from Lake Erie at Buffalo by 352 miles of the 7-foot Erie Canal to the Hudson; and from Lake Ontario at Oswego by the two branches of the Erie Canal, *via* Syra-