

Beginning at the mouth of Eighteen-Mile Creek, this line rises by seven lifts to the entrance of a remarkable gorge in the face of the cliff near Lockport, locally known as "The Gulf."

In this part of the line there is little rock-cutting in the bed of the creek and at leaving it; thereafter it is all in earth-cutting. It has the advantage of one level nearly 6 miles long, in which good speed can be maintained. The country traversed after leaving the creek is in part cultivated in wheat; in part hay land. "The Gulf" offers a comparatively easy ascent of the cliff by four lifts with levels or basins 500 feet long; then one lift with basin 800 feet long; then one lift and level 2,100 feet long; then five lifts having intermediate basins 500 feet long, to the summit level. On the summit level this line is free from rock-cutting after less than 3 miles.

On this line efficient service can be had from single-locks. The level midway of the ascent is an important aid. For 14-foot draught one lock full of water can be taken from the 800-foot level and two from the 2,100-foot level for the service of the lower locks before drawing from the summit level through the upper locks becomes necessary. For 16 and 17 foot draughts one lock full can be so drawn from the 2,100-foot level. The terrain of the gorge makes it easy to provide a storage basin of very moderate depth, into which water may be allowed to fall from the summit level and thence drawn off without inconvenient head to the 2,100-foot level. This would leave the upper set of five locks entirely free from the service of replenishing the lower set, and would add greatly to the efficiency of the system.

In the Niagara River this line requires a dredged channel about 5,000 feet long. The 20-foot depth appears again farther down the river. The bar between White's Island and the mainland is therefore estimated as sand and gravel.

The bridge of the Rome, Watertown and Ogdensburg Railroad, not built at the time of Colonel Blunt's report, crosses this line where it occupies the bed of Eighteen-Mile Creek at a level far above the water-surface. One-half the cost of a bridge is estimated for changing this to a swing-bridge.