

a half miles, until it intersects the river Welland, into which it descends by a ship lock of eight feet lift, thence a towing path or track way is constructed ten miles,* and thence the canal runs in a northerly direction to Lake Ontario, winding up a ravine about sixty six chains with from eight to twelve feet cutting. This part is finished and filled with water, together with a guard gate to control the admission of the waters of Lake Erie. Thence commences the deep cut, (as it is termed,) or dividing ridge, and a most formidable work it assuredly is. It commences with an almost abrupt height, of thirty feet above the canal bottom, then gradually rises to fifty six feet six inches in a distance of one hundred and six chains, then gradually descends in a distance of twenty eight chains to thirty feet, when it as abruptly breaks off in another ravine. The entire distance through this cut is one mile fifty four chains, averaging about forty four feet cutting; to the depth of from twelve to eighteen feet from the surface, it is composed of clay with a small mixture of sand, and below this, a tenacious blue clay.

This cut was commenced in Sept. 1825; it contained one million four hundred seventy seven thousand seven hundred cubic yards, and at the close of this last season, there remained to be removed, only three hundred seventy thousand yards. The bottom is removed from each end of the cut with scows, and the earth is deposited in the Welland river and in a large reservoir below bottom level at the other end. Between these points, the earth is removed with carts, wagons and machinery; being drawn to the top, where it is deposited on the bank, on either side. The machine in most general use, is a common wagon wheel, fixed on an upright post, about seven feet from the ground on the top of the bank; a rope, with a hook on each end reaching from the bottom of the canal to the top, is fixed round this wheel which hooks on the back of the descending cart and to the tongue of the one below, so that the return team assists in pulling up the loaded one, thereby, in effect, reducing the ascent to a perfect level, as the loads are drawn up with more ease than they are removed on the level to discharge.

* This part of the canal, was placed under contract in October last; a number of men are now employed on the Marsh, which has to be excavated from ten to sixteen feet deep throughout. The contracts stipulate for its being finished, 1st Oct. 1828

From
the mo
it is pr
three c
nately
right a
bottom
side of
embrac
through
mounta
near tw
ten thou
ved in A
on this
three fe
butment
and the
forty fee
so that a
route, th
Welland
From
three ch
two feet
curves r
and aga
tance to
same gra
locks in
cavation
between
the locks
From
rines, a
twelve lo
and the
work on
termed t
and seve
are thirty
twenty to