

320 in length, at an expense of £750 which at the same time will effect a material saving in the rock excavation, from the summit level, head of the Falls, to the guard Lock, and which being wholly rock, will more than compensate for the construction of the dam. To last section, the 5th, the navigation is now brought by the last named dam, backing the water to Crooks' rapids, where a similar obstruction to the rapids at Chisholm's occurs: the natural rise being 8 ft. 2 in. and the rapids running over a continuation of table rock, with at the time of inspection only 9 inches water, and at lowest water nearly dry.

To overcome these, as well as to ensure a sufficiency of water over the rocky shallows between Asphodel Bridge and Rice Lake, I should propose the construction of a dam across the river below the rapids, at a convenient site, which shall be of sufficient height to throw 5 feet water over the now lowest portion of the table rock, on which there is above the mill, 1 ft. 4 in., and from which, excavating a few beds, say to 2 feet in depth for a short distance, will leave a permanent increase of level at and above Asphodel Bridge of from 1 ft. 8 in. to 2 feet, sufficient, I believe, to cover the rocky shallows above, and which in consequence, will raise the general summit level of Rice Lake, allowing for difference of current from the lake to Asphodel Bridge, at least 1 ft. 8 in. above the lowest water, which would, I presume, be attended with no serious inconvenience but probably a benefit.

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Thus may the different obstructions to the free navigation of the River Trent be overcome and rendered available for the passage of steam vessels drawing 5 feet water, 110 feet over all by 32 feet beam, viz. by section 1st, from the mouth to the Widow Harris', nine miles, rise 116 5 9, by the construction of 13 locks, 9 dams, and two collateral cuts, 1st 432 yards in length, 2nd 770 yards in length.

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Section 2.—From Widow Harris' to head of Chisholm Rapids, about 6 miles, rise 8 ft. 7 in. 8 by a wing dam at Widow Harris' to drown the shallows above Lewis Bush's, and by one lock and 1100 yards rock excavation at Chisholm's.

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Section 3.—From Chisholm's to Crow Bay, including Percy Reach, by a dam at Chisholm's to cover the shallows at the Government place, by 2 locks and 1½ miles of excavation to Myers' Mills, 2 locks, 2 dams and excavation from the bed of the river to Wilkins' Mills or Big Falls—thence 3 combined and one detached lock and a guard lock, with ¾ mile excavation to Wilkins' Boon, thence to Crow Bay by a dam across the river above the boom with 5 detached locks, with their respective excavations from the bottom of the river with a collateral cut from 27 into Crow Bay, 1100 yards.

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Section 4.—From the foot of Crow Bay, by a dam across one of the outlet channels to cover the table rock sufficiently—to the forks or foot of Heeley's rapids by 3 dams and 3 locks to Entrance Bay (foot of Heeley's Falls) and by one detached, 3 combined, and 1 guard lock with their excavations and cut of 220 yards through chiefly limestone rock to the summit of the Long Reach.

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Section 5.—From Heeley's Mills to Rice Lake, by the construction of a dam at the head of Heeley's Falls to drown the three intervening rifts 42 + 30 or shallows above, and to back sufficient water into the lock at Crook's Mill, by the construction of one lock and dam there, to cover the rocky shoals above together with considerable rock excavation above, and under water.

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Including for lock *All of which may be accomplished for the sum of £233447 6 11½ H. Cy, in 4*
houses £1320 0 0 *years from commencement.*

Having thus endeavored to lay before Your Excellency what occurs to me, after two months of constant investigation, the mode by which the River Trent may be rendered navigable; it may, perhaps, not be out of place should I endeavor to lay before Your Excellency a few of the advantages likely to accrue from the fulfilment of such a measure, not only to the country immediately contiguous, but to regions beyond, thereby relieving them from the land locked predicament in which they now are and must remain, unless relieved by some such expedient.

To the country immediately bordering on the river, the advantages are too apparent, from the harassing inconvenience experienced in dragging every species of commodity and provisions required for the many wants of new settlements through, perhaps, the worst roads in the Province, and obviate the many heart-rending scenes of endurance, scarcely to be credited but by an eye-witness.

To Government, the benefit must come more immediately home, in the increase in value of the many thousands of acres on, and contiguous to its banks and contributory lakes and streams which, on all hands, (and by people much more conversant with the true estimation than I can be) is admitted, must rise at least 100 per cent the moment these operations shall commence.

The facility for the transport of Lumber from the waters above, and from the different manufacturing establishments now existing, and which must soon double, will form a very prominent feature in the advantages likely to follow. The Tolls upon which will be cheerfully paid, and that dangerous business of "driving the river" to the destruction of much valuable property, and loss of human life among the "wicked" Rapids, obviated, and have no doubt, from all the information I have been able to collect, will, the first year yield £6,000.

To this add the still more incalculable benefit this Province would derive from the Marmora iron works being set in operation, which being situated on Crow River, (which in conjunction with the Trent I also inspected) only nine miles from where the line of communication passes in Crow Bay, a fine navigable stream with the exception of three ranges of rapids, each of which admit of easy improvement, and which I have reason to believe would be commenced so soon as the prosecution of the Trent should be decided upon.

From these works the Falls would also be considerable.