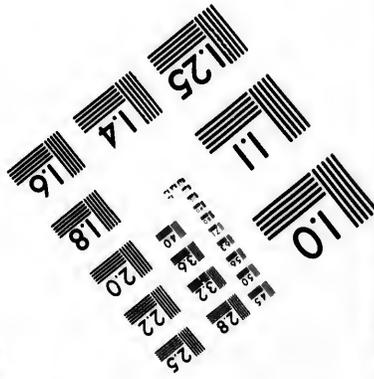
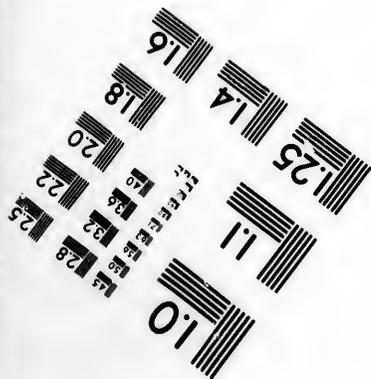
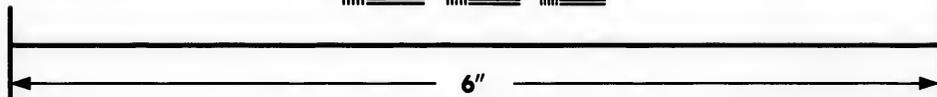
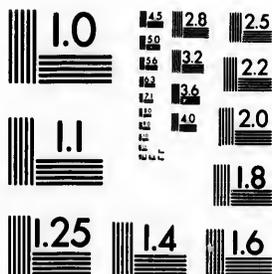


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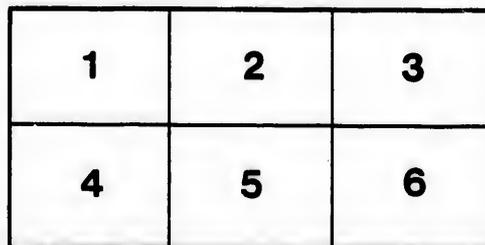
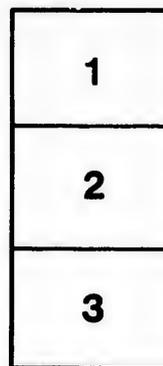
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AN

**EXTRA REPORT**

OF THE

**BOARD OF DIRECTORS**

OF THE

**WELLAND CANAL COMPANY,**

**JUNE 6, 1829.**

——  
PUBLISHED BY ORDER OF THE BOARD.  
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PRINTED BY H. LEAVENWORTH—ST. CATHARINES.

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## Report.



*To the Stockholders of the Welland Canal Company :—*

AS THERE is reason to believe, from remarks occasionally made in publick papers, and from other circumstances which have come under the notice of the Directors, that very erroneous opinions are entertained respecting the present state of the Welland Canal, and the prospects of its completion; and as the facts, when truly stated, far from being discouraging, are exceedingly gratifying, the President and Directors think it proper to communicate to the Stockholders, and to the publick generally, the result of their recent observation of the whole line of the canal.

In January last it was determined by the Directors, for the reasons stated in their last Report, to discontinue the farther excavation of the deep cut, and to overcome the difficulties experienced in that part of the Canal, by throwing a dam across the Grand river; and bringing down the water of that river along a higher level than that of lake Erie. To persons acquainted with that part of the country, the proposed alteration, and the effect of it, would be sufficiently understood from the statements in the last published Report of the Directors, and from the Report of the Engineer, Mr. GEDDES, which was appended; but they may perhaps be made plainer to persons not possessing that local knowledge, by the following statement.

The Grand river, which empties into lake Erie about forty miles above fort Erie, has so little fall for the distance of sixteen or eighteen miles from the mouth, that the waters rise and

subside throughout that extent according to the prevailing winds on the lake. It was formerly proposed to commence the Canal about two miles from the mouth of the Grand river, at the junction of a creek or inlet called Broad creek, from which indeed, rather than from the Grand river, the Canal was to have led through the adjacent low lands and the Wainfleet marsh to the river Welland, more commonly called the Chippawa, into which vessels would have passed by two locks of six feet lift each. The Welland was then to have formed the channel for navigation for about nine miles, or to a point distant about three-quarters of a mile from the beginning or south end of the deep cut. The deep cut was to have been excavated to the level of the Welland; and from thence to lake Ontario, the descent of about 320 feet was to be accomplished by thirty-two locks. Upon this plan it will be seen, that the Canal was to bring down to the Welland, through the Wainfleet marsh, the waters of lake Erie; and to bring down through the deep cut the water of the Welland, which, in truth, is the water of lake Erie upon a lower level, or rather of the Niagara river running out of lake Erie; because the Welland is a mere estuary or arm running up from the Niagara river, having often no perceptible current, and sometimes indeed no supply of water from the interior. It is a deep, still water, upon a level with the Niagara river at the mouth of the Welland, and about twelve feet below the level of the waters of lake Erie at the mouth of the Grand river.

Proceeding upon this their original plan, the Directors had made very great advances towards its accomplishment at the close of the last season; and they do not rely merely upon their own judgment when they add, that they had effected as much with the means expended as can be exhibited in any similar undertaking in any country. The greatest difficulty (the deep cutting) had been so far surmounted that in two weeks more it was confidently expected a passage would have been made through it for the waters of the Welland; and the progress of the lower portion of the Canal was more than commensurate. The casualty which arrested the work in this stage, (the slip-

ping of the banks of the deep cut and the pushing up of the bottom) has been described, and the cause of it being evidently such as to make it unsafe to trust to the completion and preservation of the Canal upon the original plan, the scheme was adopted by the Directors which has been already explained, and which consists in the following alteration.

The Grand river is capable of being dammed at a moderate expense. It has been determined to do this, and thereby to raise its waters about five feet—to make a Canal from the dam, through the adjacent low lands and the Wainfleet marsh, to the river Welland, striking that river about five and a half miles lower down than it was before intended. Having a level of water five feet higher than by the original plan, the cut through the marsh will be of less depth in proportion; and consequently vessels will approach the Welland upon a level which will admit of their crossing it in an aqueduct, that will be sufficiently raised above the river not to obstruct the navigation more than the bridges which at various points are thrown over it. From this aqueduct (the banks of the river being most favourable) the Canal is to be continued along the northern side of the Welland to the deep cut, which it enters near the southern end of it, and preserves, of course, through the cut the same level of water which will have been brought down from the Grand river—descending at the northern end of the deep cut, by two locks, to the level originally designed when the Welland was to have constituted the feeder. From this point to lake Ontario, there will be no deviation from the first design.

Retracing the line down to lake Ontario, upon the plan thus explained, the Directors will briefly remark:—That the practicability of making a permanent dam at the Grand river, is not doubted; the breadth of the river at the proposed point being about nine chains; the water almost free from current; the depth about ten feet, and the bottom favourable. The contract for the dam is in the hands of persons of ample responsibility, and of the greatest experience in works of this description; and it is at this moment prosecuted with energy and despatch. In cutting from thence to the Welland, through the Wainfleet

marsh, five feet depth of excavation, for a distance of twelve to fifteen miles, is saved upon the present plan: the navigation will be better than the original design would have afforded: there can be no room for apprehension, as to the nature of the bottom, at the present depth; and the Canal will present a line of thirteen miles mathematically straight. The aqueduct over the Welland seems to present no difficulty—none was apprehended; and the appearance of the work, at the present moment, is most satisfactory. The Canal from thence to the deep cut, along the northern bank of the Welland, traverses a line which presents very peculiar facilities; and thus the deep cut is reached by a Canal preserving the same level throughout the whole extent. The passage through the deep cut will be along a level sixteen feet higher than was at first proposed: this will elevate the channel above all inconvenience from the slides, and place it, as it is believed, beyond the danger of similar casualties; and the great depth of water, and expanse of surface, will render the navigation more easy and agreeable.

From the Canal, just before it intersects the deep cut, a descent is provided by two locks to the Welland—thus forming a navigation from lake Ontario to the village of Chippawa, fort Erie, and Buffalo, by the Niagara river; and a cut is nearly completed through the point at the mouth of the river Welland, which will render the transit into the Niagara river safe and convenient. The Grand river, it should be added, contains an ample supply of water for the Canal: the dam is to be thrown across at a point about five miles above the mouth, near which a lock is to be made, that the navigation of the Grand river may not be obstructed. Vessels will pass from lake Erie into the Canal by the original route, leaving Grand river two miles above its mouth, from Broad creek.

That the Canal is of certain and easy accomplishment, upon this plan, there is no doubt, in the opinion of men of science and great practical experience; and that when completed, it will afford a navigation preferable to that at first contemplated, is plain. But, although conviction of this fact offers the best consolation for the check which the work has received from the

unlooked for casualties at the deep cut, it is not to be inferred, as a necessary consequence, that the work ought to have been undertaken at first upon the plan which the Directors have now been compelled to adopt. On the contrary, besides other considerations which it is not necessary here to enter into, the damming of the Grand river was a measure which the Directors would not, and could not, have resorted to, without necessity; and, although an idea of doing so was formed in a very early stage of the undertaking, it was soon relinquished.

The Grand river, for the distance of eighteen miles from its mouth, is of sufficient depth and breadth for navigation by steam-boats and vessels of every description used on the lakes; and little or no inconvenience, from current, occurs throughout this distance. Although the shoal at the entrance renders the Grand river of comparatively little use at present, as a harbour, still the navigation upon such a river as we have described, ought not to be impeded without a strong necessity; and the proposed dam, although a convenient lock will be constructed in it, has, therefore, been thought objectionable, and the Directors have had no little opposition to encounter on that score. The overflowing of a considerable quantity of land up the Grand river, although the proprietors will receive from the Company the just indemnity assured to them by law; and the interference with the passage of fish up the river, although there are none of the most valuable kinds which frequent it; and although measures may be adopted which will diminish the inconvenience apprehended, if they do not altogether overcome it, are farther objections which have been advanced against the present plan; and they are objections which would have been urged with infinitely greater force, if the Directors had taken such a step while another course was practicable.

The difficulties, indeed, which the Directors have still had to contend against, in consequence of the prejudice entertained against the damming of the river, are the best proofs that they would not have been thought warranted in attempting it upon the mere footing of expediency and choice. As an alternative, they have adopted it, rather than abandon a work of incalcula-

ble importance to the country, in a military and commercial point of view, or put its ultimate safety to hazard, after more than £200,000 had been expended in its accomplishment. Any inconvenience or loss it may occasion to individuals, will be cheerfully and amply compensated; and the navigation which will be thus formed, will unquestionably be better and more convenient than would have been obtained by completing the original design.

When this alteration was first determined upon, it was intended that the dam should be constructed across the Grand river about 572 yards from the mouth, at the upper end of the naval establishment; and, not anticipating objections, preparations had been made and the work commenced. Objections, however, were urged by the naval commander in this province, to which it was thought necessary to yield, and the work was discontinued. On the 7th and 8th of May last, the Directors examined the river for several miles up, and ascertained that no proper place could be found for the dam within a shorter distance than five miles from the lake. A site has accordingly been selected there; a contract has been entered into, and the work is proceeding rapidly. The objections advanced by Commodore Barrie, extend to this site also, and indeed to any that might be proposed within the whole navigable line of the river, extending to the first fall, about eighteen or twenty miles from the mouth.

With the sanction of the Lieut. Governour, however, which has been afforded to the Directors from a sense of the vast importance of the work, they have proceeded as they have done; not by any means in defiance or disregard of the protest which Commodore Barrie conceived it to be his duty to make; but in the earnest confidence that His Majesty's Government, possessing so great an interest in the work, and so fully aware of its importance, will not desire to enforce those objections, when the circumstances are fully before them.

The change of position, renders it necessary to make a feeder of five miles in length; and the gravel required for constructing the dam, must be all brought up in scows from the mouth of the river, nearly five miles—disadvantages, against

which must be set the lessening the quantity of land to be overflowed, and the having a depth of water, where the river is now to be dammed up, little more than half of that which was found at the place first chosen: the river, however, at the point where the dam is to be constructed, is nearly as wide again as at the other.

The Directors cannot but persuade themselves, that His Majesty's Government will, from the disappointment which the Company have experienced, be the more induced to take upon themselves the charge of improving the harbour at the entrance of the Grand river, or rather of forming a harbour there; for there is, at present, nothing that deserves the name. Piers must be built, and a channel excavated; and works of that kind, to the extent necessary for commercial purposes, were part of the plan of the Welland Canal; for indeed without them the Canal could not be called accessible. But to make such a harbour as would be of use to a navy in time of war, is more properly a national work; and the Directors are encouraged to hope it will be undertaken on that footing.

The Directors next proceed to lay before the Stockholders the present state of the Canal. They visited it early the last month, inspecting the whole line, and the result of their observation was exceedingly satisfactory. The harbour at lake Ontario has received no damage whatever, from its exposure for two years: the piers have not swerved, nor have they been in the slightest degree shaken. The brush dam at the mouth of the twelve mile creek, by which the basin is formed, and which sustains a head of four feet water, has received no injury; and there seems, therefore, no reason to doubt its durability. From lake Ontario to the deep cut, including the ascent of the mountain, the whole line of the Canal, with all the locks and necessary erections, is finished and ready to receive the water. At the deep cut, the locks are in a great state of forwardness—two at the northern end, for descending from the Grand river level to the original bottom level of the Canal; and two near the southern end of the deep cut, for passing such vessels into the Welland as are to be navigated by that river, and the river

Niagara, into lake Erie. These locks, with every necessary work connected with this part of the navigation, will be finished by the 1st of July next, if the weather is commonly favourable.

When the navigation by this route shall be thus completed, timely notice will be given of the ascent of the first vessel that shall thus surmount the obstacle hitherto presented by the falls of Niagara, to the navigation between the two great lakes, Erie and Ontario. There will be collected, from streams and natural reservoirs in the vicinity, sufficient water to fill the Canal, so as to admit of this experiment; and, indeed, if the season is not unusually dry, the supply will even suffice for using the Canal to a considerable extent.

It has been already explained, in the last Report of the Directors, that, from the deep cut to the Grand river, the operations of the Company during the present year, will be confined to the making a feeder of the ordinary dimensions and depth of a boat canal; but constructing the aqueduct, and every thing beyond the mere general excavation, of the dimensions required for a schooner navigation. The difficulties against which the Directors have had to contend, have induced them thus to contract their work for the present, for fear of encountering the risk of being unable to meet their engagements, if they had proceeded immediately with the entire plan. The greater part of the excavation which will be necessary to enlarge the Canal, is of such a nature that it can be most advantageously done in the winter, when it will occasion no interruption to navigation. Public confidence will have been secured, by the junction of the waters of the two lakes having been effected; and it is not apprehended that there will be any difficulty in finding the necessary funds. In the mean time, it is satisfactory to be able to state, that along much of the distance between the deep cut and the marsh, the make of the land is such, that little or no additional excavation is necessary to convert the feeder into a Canal of the requisite dimensions; and wherever this can be done by a moderate increase in the expenditure, the Canal at those points will be made, at once, of the full dimensions. From the deep cut to the aque-

duct, a distance of almost five miles, the work presents no difficulty; the cutting is shallow and easy, and it will be completed about the first of July.

The aqueduct over the Welland is in a state of great forwardness, and is indeed nearly completed: it is of sufficient size to pass any vessel that can navigate the canal. The work and the materials are excellent; and the Directors are convinced, that it will be found to merit the approbation of the Stockholders. It was commenced on the 12th of February last: its length will be 400 feet: all the timber and other materials were prepared and delivered; the piers sunk; the balance beams, string pieces, &c. erected; and, in short, the whole main frame up, when the Directors visited it on the 7th of May—part of the frame of the trunk or body of the aqueduct, and the planking, remaining still to be executed.

From the aqueduct to a place called Marshville, (the point from whence the Canal was formerly intended to diverge to the Welland, taking a direction higher up the river,) is a distance of almost eight miles. The work along this portion is far advanced, so that no doubt is entertained of its completion by the 15th of August; although the contractors have been retarded by the very severe frosts of the past winter. It is to be observed, that every part of the work, from the deep cut to this point, was placed under contract so lately as the 31st of January last; before which time, the Directors had it not in their power to decide, finally, upon the operations of the present season. It was not fairly commenced until the 12th of April, when the frost disappeared; though every preparation had been previously made by the respective contractors.

From Marshville to the Grand river, the distance is nine miles. The work through this portion of the Canal has been much longer in progress, and is in a state of great forwardness. Three miles of it is excavated to the bottom: four miles and a half is partly bottomed; and the remaining mile and a half is cleared and grubbed.

The next important point now remaining to be completed, is the dam, and the feeder from thence to the original line of the Canal; which will also serve, when finished, for a boat

canal. The contractors feel confident they will be able to complete the dam by the 1st of July; and the feeder, there is every reason to believe, will keep pace with the excavation on the lower sections of the Canal, as the ground is of a more favourable description; although it was not put under contract until the 30th of May.

From this minute review of the present state of the different sections of the Canal, the Stockholders will see that the work is rapidly approaching its accomplishment. It seems not too sanguine an expectation to indulge, that the whole will be finished by the 20th day of August next.

It is an interesting and important fact, to state, that the Grand river, and the lake above it, were clear of ice this spring on the 11th day of April: on the 10th of April, the steam-boat Niagara arrived at the town of Niagara, from Prescott—which proves that, at that time, the line of communication from lake Erie to Montreal, by the Grand river and Welland Canal, was open, and open quite simultaneously.

When the Directors were at the Grand river, on the 8th of May, the narrow part of the lake between the Grand river and Buffalo, was still blocked up with ice; and no vessel did leave, or could have left that port, or could enter there, from the upper part of lake Erie, until the 14th of May. Saying nothing of advantages in the difference of distance, convenience, and expense, there is a superiority, so evident, and so decided, in having the exclusive channel to market, for a portion of the season in which so great a share of the productions of the upper country may be forwarded, that it is impossible the Welland Canal can fail to be favourably looked upon, by those whose agricultural and commercial interests must be so directly promoted by it.

At this moment, when idle rumours are circulating respecting the Welland Canal, and unnecessary despondency admitted, even by those who are sincerely desirous to witness its completion, the Directors have thus endeavoured to lay distinctly before the public, its present state, and the hopes that may be entertained of its speedy accomplishment.

It has been their mortification hitherto to find, that, while with the greater proportion of strangers who visit this province the Welland Canal seems to possess a particular interest, the inhabitants of Upper Canada in general, appear to have the most imperfect ideas of the stupendous nature of this great undertaking—the rapid strides by which it is advancing to its consummation; and the immense advantages to themselves, and to their country, which must inevitably follow the successful termination of a work, that it is probable will be thought hereafter to reflect some degree of credit upon those, by whose encouragement and exertions it has been supported.

That difficulties may not yet occur, and that the Directors may not have to encounter a protraction of that anxious and perplexing exertion which has hitherto been necessary, they do not venture to foretell. They can only express their explicit assurance, that they have not now before them, any reason for anticipating difficulty in the execution of the remainder of the work.

Their financial arrangements have been attended with difficulties, which they had no reason to have expected; because they have arisen from a hesitation to fulfil engagements which the Directors considered to have been binding and conclusive, and upon which they, therefore, relied. No such failure, however, has occurred with respect to the Stockholders in America; and they trust, when pains are taken to contrast authentic information, with groundless fears, and idle reports, any hesitation which has hitherto been exhibited, will be removed.

At all events, the Directors trust they will not want means to complete the work, as they are now proceeding with it, and according to the description they have given in this Report; and it would seem absurd to suppose, that any serious difficulty will be afterwards found in completing the Canal without delay, according to the dimensions intended.

The Directors cannot forbear to pay a just tribute to the indefatigable exertions and judicious conduct of Mr. MERRITT, the Company's Agent; and they continue to have every confidence in the ability of the Engineer, Mr. BARRETT.

JOHN H. DUNN, *President Welland Canal Co.*

