

It may probably be argued, and I am aware it has been argued by Mr. Purdy, that the mill will not work up with a less head of water than in reply to which it will only be necessary to remark, that the mill, as now in operation, particularly the grist mill, is upon the rudest possible principle, constructed without any regard to economy of water, and as much and wasting more than would drive six modern turbines, and I have no hesitation in saying that a mill, upon proper construction, and with every regard to economy in construction, can be made to do as much work, if not more than that mill can possibly do, with the same head and quantity of water she at present has, viz. 12—5—0—9 feet, and at the same time afford a more return than the present rude construction can make to the proprietor.—(In point of construction I mean to be understood as referring particularly to the *water-wheel*, the *description of water-wheel* used, and the manner of connecting the stones therewith, and not the arrangement of the other parts of the mill, which are tolerable good.)

To gain even the head which Mr. Purdy now considers absolutely necessary to insure the effective operation of the mill, he has had recourse to raising the surface of the mill pond, even above the natural surface of his own land, by the construction of the wing dams described in heights of 18 inches above the surface, and I understand, at low water has a cross-board which attaches to the top of the dam.

I would, therefore, in reviewing the matter, beg leave to submit for Your Excellency's consideration, my opinion in the following terms:—

That the *total* removal (if such was meant) of the dam at Purdy's Mill must ruin the navigation of the Sengog River and Lake, inasmuch as reducing it to its original state as described, merely payable for boats, and that at high water, lay the marshes in the lake entirely dry, which, by exposure to the sun's rays, must, as a matter of course, endanger and lake fever *malaria* to such a degree as would render the country most unhealthy; but that the total removal of the present, and substitution of another of less dimensions as to height, so as to afford 5 (say 4 or 6) feet water in place of 12, as at present over the shallows in the river and outlet of the lake, would *materially* benefit the navigation, inasmuch as one dam and lock at point C, on the plan, would carry the navigation from Sturgeon Lake into Sengog by a lift of only 5—0—9, in place of 12—0—9—that the said lift of 5—0—9 would be perfectly sufficient, with a mill on *proper* principles, such as for instance, has just been erected on the upper rapids of the Otanabee River, at the outlet of Clear Lake, of only 3 feet of head and fall to serve all and every purpose required—although I think 6 feet of clear head and fall may be obtained, in which case the purposes of the law mill will be equally served.

On the subject of lowering the water above the present dam I would remark, that if the same is done at the proper season, there is no fear that little apprehension need be entertained for the *navigation* nor the wood land, such as will be reclaimed in consequence thereof.