

to move in the matter I might depend on the Canada Company not being backward in contributing their full share towards the success of the undertaking; but there the matter rested.

With respect to my remaining notes on drainage, as the object aimed at referred chiefly to the lake-shore Townships, I shall here pass over those of Sandwich and Malden, as well as those lying along Lake St. Clair, though the public lands in all of them would be much benefited thereby.

With regard to Colchester, as already observed, I proposed the main drain to be of a width and depth sufficient to be used as a canoe Canal for bringing small supplies from the back settlements, at times when the roads are impassable, and to run straight north from the lake, past the west boundary of the village, into the Round Marsh, and from thence through the 2nd, 3rd, 4th, and 5th Concessions, until it struck upon the borders of Long Marsh, and from thence through the 6th, 7th, and 8th Concessions, and across Roach's Marsh, until it approached the River Canard, near the Malden Road, receiving right and left a few small cross branches at the different Concession roads, and thus draining a great extent of scattered low land, in addition to the main inundated tracts of Round, Long, and Roach's Marshes. It was also proposed that another cut should be made from the south-east end of Roach's Marsh to Cedar Creek, with cross ditches at the division roads of the different Concessions; while a third might be made to lead from Hog Marsh (in which the River Canard takes its rise) into the branch of Cedar Creek called Banks's Creek, so as to drain a great portion of the west half of Gosfield.

Regarding Gosfield generally my positive information is rather limited, but it is well understood that though most of it is high and dry, great benefit would be derived from judicious drainage in many parts of it.

With respect to Mersea, which is the next Township, I learnt that there is also much wet land in it; and that the front portion drains towards Lake Erie by numerous creeks, of which Sturgeon Creek is the principal, into the long marshy projecting tongue of low land called Point Pelé; but I never had a good opportunity of thoroughly examining this Township, though desirous of doing so, with the view of ascertaining whether a harbour of refuge could not be established at the mouth of Sturgeon Creek.

To the east of Mersea lies the Township of Romney, in which it is proposed to establish the much desired town and harbour, and of which, therefore, it is unnecessary to take further notice here.

The next Township, with the exception of a small triangular portion of Tilbury, is Raleigh, the northern half of which, from the 12th Concession, drains north by a labyrinth of creeks into the Thames, parallel with which also there is a long marshy track at about one and a half mile distance; while the drainage of the southern portion becoming interrupted by a gravelly ridge, in some parts not more than half a mile from Lake Erie, escapes by many springs through a sandy substratum, which frequently produces along the undermined lofty bank of the Lake extensive land slips of a very singular and even picturesque appearance, the subsidence often taking place in a succession of steppes or staggs, leaving the trees and shrubs growing undisturbed. Here, it may be observed, the banks of the Lake are in some parts 70 and 80 feet high.

A similar character prevails in the next Township of Hawick, with the exception that the southern portion slopes towards the low marshy track north of the Roudeau, and that

remarkable projecting point of low land called Point aux Pins, while the northern surface waters search their way by a variety of outlets, into a branch of the Thames called McGregor's Creek.\*

The northern half of the fine Township of Howard, which is the next, going eastward, also drains north into McGregor's Creek, while the southern portion slopes towards Lake Erie, and finds a vent for the greater part of its surplus waters through different branches of a creek, which, after passing Morpeth, discharges into the Lake near Antrim,—a position where another harbour might, perhaps, be established.

Of the remaining Township of Oxford, I have ascertained little, except that, like the next, it would be much improved by drainage.

To the above details, all that now remains to be added, in conclusion, is, that having with all deference placed the whole question unreservedly before the Institute, in a simple *narrative* form, I am perfectly willing to abide by their decision as to its merits; and that I would, therefore, vain hope that some of our scientific members will ere long be disposed to come to the aid of a patriotic object of great prospective importance and value. In the meantime I remain content with having once more led the way in a good cause,—willing either to support further my own humble opinions hereafter, if necessary, or to bow to the decision of better informed professional men. There is, however, one collateral subject on which I would, in concluding, wish to add a few words:—namely, that as I have on the one hand alluded to Canada's discreditable abandonment of the honor of being the originator of the Sault Ste Marie Canal, and on the other to the many signal improvements in the navigation of the River St. Lawrence, either already completed or in progress, exemplified in the erection of numerous lighthouses, the formation of splendid Canals, the deepening and buoying off of shallow channels, and the blasting of dangerous rocky impediments in the various rapids, I would also vain hope that there can be no petty political obstacle in the way of a friendly co-operation with the State of Michigan, by which the embarrassing "flats" or clay banks in the River St. Clair, and a few of the shallow channels through Lake St. Clair, such as the North, Eagle, and Walpole Island channels, may be kept thoroughly open and buoyed off, and one or two powerful Steam-tugs employed for towing up sailing vessels during adverse winds and calms, and thereby leave our unrivalled chain of inland waters without a single impediment, from Lake Superior to the Ocean! Nor will it be wondered that I should so pointedly advert to so desirable an international arrangement, when it is considered that more than 350 vessels are employed in the carrying trade of the upper lakes, of which about 50 are paddle steamers and propellers, and the rest sailing craft of various burthen, from the stately three-master to the humble sloop, and that a committee appointed by the Buffalo board of trade to enquire into the amount of losses sustained by owners of vessels detained on the St. Clair Flats alone during the past year, estimated the sum paid for detention, and damage incurred by collision while detained, at between £80,000 and £90,000, besides other expenses for lighterage, towage, &c., swelling the total annual amount to above £160,000!

\* For a detailed notice of the Roudeau, see the note at the foot of p. 306.