

The Baie Verte Canal.

WOULD IT PAY?

To the Editor of the Sun:

SIR,—Having given my views on the paying prospects of the Ship Railway, I propose now to treat the subject of a Ship Canal in a similar manner.

The engineering and economic difficulties to contend with in a Canal are even more formidable than those of a Ship Railway, owing to the following causes:

1. The difference in level between the tides of the two Bays.
2. The source, quantity, and quality of water supply for the Canal and lockage.
3. Its great cost to construct.
4. Its inefficiency when complete.

It may not be generally known that the Bay of Fundy is about twenty feet higher than Baie Verte at high tide, and about eighteen feet lower at low tide; that while the mean sea level is the same in each case, the spring tides oscillate above and below this mean sea level, like a pendulum, with a stroke of thirty-eight feet in the Bay of Fundy and ten feet in the Baie Verte, the *average* rise of tide at the head of the Bay of Fundy being thirty-six and a half feet, and in the Baie Verte five and a half feet. The popular idea of seventy feet rise and fall is entirely erroneous, the greatest rise and fall ever known, at the Saxby gale in October, 1869, being fifty-two feet and a half.

Many theories have been started by intelligent people, and are now current, which would not for a moment stand a scientific test. Among these may be mentioned the idea that there was a river between Nova Scotia and New Brunswick; that the ancient bed, as it was called, had only to be cleared out, and there would then be a great water way opened up like the Strait of Canso. All this is purely imaginary; there is no indication whatever of such ancient river bed. I have taken borings from water to water, and found rock everywhere ranging from one foot to twelve feet below the surface of the ground. Supposing, however, such a river were found, or could be artificially made, could anybody tell the result? At high water the current would be eastward from the Bay of Fundy, and at low water westward from the Baie Verte. The channel would be full of dangerous rapids. If a Canal without locks were practicable it would certainly be preferable to one with locks. But it is not practicable. Besides the difference of level between the two seas, necessitating at least four large locks, there remains the difficulty of water supply. All the fresh water available on the Isthmus would not alone supply a Canal of the dimensions now required. It must be supplemented from some other source. The Bay of Fundy