

boundary. I refer to such as the "Basset Channel" which is narrow with banks, where the ice impinges, perpendicular, in some cases overhanging, with sides so hard as to be reliable for standing on to the very edge.

In the river St. Lawrence, at Montreal, similar features exist, the South channel being broad and shallow but with a hard, rocky bottom. When the ice became gorged in this channel an additional flow of it had to carve an outlet in softer material, which it found on the West or North shore (St. Helen's Island being too hard). It was by such a process that St. Mary's channel became the natural one for the ice to pass, and it now possesses the requisite qualities of depth with sufficient current.

To close this natural channel for carrying ice, and to force all the ice down the South channel, would be working against nature. The ice would have to seek some other outlet when it gorged in this channel, which it certainly would; and the backing up of water and overflowing would be the result, one upon the extent of which although differences in opinion may exist, must be admitted to contain elements of great danger.

I have avoided engineering formula or abstruse figures, and have confined myself to the "Shearer Scheme," as to its probable effects on the property of the Railway Company and the properties traversed by it, any of the features I have questioned being with the object to prove results and the consequences therefrom, but perhaps I may be allowed to say a few words on the general scheme in its summer aspect.

The promoters' engineer intends to make the sluices with a total capacity of 850 millions of cubic feet per hour (equal to the total discharge of the Niagara river over the Falls) and we may reasonably infer that he intends passing that quantity of water through them; in fact he says: "in the Summer when all the sluices are discharging full into the Harbour."

