

are recommended to be in Winter), the South channel, between St. Helen's Island and the St. Lambert shore, is expected to carry the surplus water. The South channel bed is not proposed to be lowered, "because if the bed of the South channel were lowered by the proposed scheme, the Harbour would most assuredly be lowered in proportion."

This is what Mr. Bateman says, and I agree with him. A channel 300 ft. wide, and 10 ft. below the bed of the River, is to be cut in the South channel, so as to afford steamers a runway in Summer, when the River is at the lowest, and when all the sluices are discharging "full into the Harbour."

I propose to consider the Scheme in its two bearings Summer and Winter.

In Summer, Mr. Bateman says he proposes to discharge all the sluices full into the Harbour. We are not told what these sluices will be required to discharge in Summer. But it may be inferred that as the promoters will be glad of all the water at low stages of the River to keep up the level of the Harbour, the South channel will have no serious extra discharge such as to create floods by the overflow or backing of the water.

In Winter and Spring the features become entirely different. The Embankment stretching obliquely across the River from the Western abutment of the Victoria Bridge to St. Helen's Island, may be considered as solid throughout because the sixty-five openings will be packed with ice from top to bottom.

It needs no Engineer to demonstrate this, every "habitant" knows it. It will take place whether the sluices are opened or closed. The *frasil* will form and move into the apertures, and so cement them as to make the raising of the gates extremely difficult, owing to anchor-ice, or if lifted, the apertures will still be blocked