

the Don. We must not be deceived into security by the little apparent change of depth about the shores. In such security the mischief will come upon us simultaneously. The grand deposit and filling up is yet in deeper water where the action of the wave is not felt, for it is easy to perceive that the land boundary of the bay, is the same now, as it was when the harbour was first formed, and yet one half of it has already become a vast delta of the Don; and of what remains of the western bay, there is only at its deepest part 29 feet, where originally there was at least fifteen fathoms.

By agitating the surface of very turbid water in a concave vessel, little or no deposit will take place at the borders, and powdered chalk may be added under the same operation until it is filled up, yet the whole surface will remain liquid to the last.

At the extremity of the upper wharf, which is 700 feet long, there is 8 feet 10 inches water—1,210 feet from the shore in the same direction, there is 15 feet 8 inches—1,822 feet out gives 17 feet 3 inches, and 2,552 feet out there is 20 feet 5 inches. At the lower, or what was called Mr. Cooper's wharf 680 feet long, the extremity of which, by his account, was laid down in 13 feet water, there is now 10 feet 4 inches.—1190 feet from the same, in the same direction, I find 16 feet 4 inches, and 1,802 feet out gives 17 feet 11 inches; so that upon an average, in the harbour, 700 feet from the shore there is 10 feet water, and 1,200 feet out 16 feet of water, after that, 100 feet in distance does not yield one foot in depth; and where upon an old survey I find six fathoms, or 36 feet laid down, I now only find 29 feet. I state all this to show, that the great deposit is in deep water, where it escapes observation. These distances and soundings were accurately taken on the ice this year, 1833. I should also remark, that the word peninsula and island is used indiscriminately for one and the same thing, the island being alternately one and the other.

When the peninsula first rose out of the lake, the Don fell into the bay, nearly about the middle, consequently the first operation of its alluvial deposit was to cut the bay in two, leaving the deepest water east and west. But as the prevailing winds were west, and the bay was open to the west, it followed that the outsettings of the Don were naturally driven east, and its disgorgings first choaked the passage in that di-