

cial legislative grant of £2,000 to construct a close pier from the shore, to be carried out 700 feet into nine feet water, this will come to within 820 of the buoy on the island spit, which forms the narrows of the channel, and will contract the channel to that width. Now from the buoy to the island, the spit or shoal carries upon it from $2\frac{1}{2}$ to 3 feet water, and over which, to the prejudice of the channel, escapes a vast deal of water, which if confined to it, would be of infinite service.

To obviate this evil, I should propose to raise the crown of the spit above water ; that is, to extend a dyke or dam on the top of it from the point of the island to the buoy ; and as upon an average there is not above 3 feet water, and the dyke need not be raised above two, this cannot be attended with a heavy expense. Indeed a very small obstruction would soon create a bank outside to the westward, and have this advantage, that it would arrest the passage of the island sand over the shoal, which now extends its breadth inwards as well as outwards. With its military point of view, I have no concern ; but I can only say, that whilst steamers can command 3 feet water out of the point blank range of a fort ; in the event of war, they will prefer accommodating their construction to this convenience, in preference to the deeper channel and better mark.

By shutting out the Don you will exclude the grand source of alluvial deposit, which, in one easterly storm accompanied by rain, brings down and spreads over the bed of the harbour more soil than would employ an active dredging machine a month to remove. Even the cultivation of the country increases the destructive powers of the Don, for the plough of the husbandman annually loosening the soil, the rain storm furnishes the river with a much larger tribute of alluvial matter, than when it only washed in its descent the matted foot of the wilderness. Thus the Don, like a cautious and insidious monster throws out before it two immense feelers of rushes as piloting its track of ruin ; and layer by layer, as brick by brick the fabric rises to completion, steadily and fatally the bottom of the bay rises to the surface.

I am sure I average lightly, when I estimate the deposit in the bay from two to three inches annually, less about the shores but more in deep water, and in the immediate outset of