

could be set to the advancing deluge. In a little time, however, he sees that the fiat, 'Hitherto shalt thou come, and no farther,' has been issued to the great bay tide : its retreat commences, and the waters rush back as rapidly as they entered.

- "The rising tide sweeps away the fine material from every exposed bank and cliff, and becomes loaded with mud and extremely fine sand, which, as it stagnates at high water, it deposits in a thin layer on the surface of the flats. This layer, which may vary in thickness from a quarter of an inch to a quarter of a line, is coarser and thicker at the outer edge of the flats than nearer the shore ; and hence these flats, as well as the marshes, are usually higher near the channels than at their inner edge. From the same cause,—the more rapid deposition of the coarser sediment,—the lower side of each layer is arenaceous, and sometimes dotted over with films of mica, while the upper side is fine and slimy, and when dry has a shining and polished surface. The falling tide has little effect on these deposits, and hence the gradual growth of the flats, until they reach such a height that they can be overflowed only by the high spring tides. They then become natural or salt marsh, covered with the coarse grasses and *carices* which grow in such places. So far the process is carried on by the hand of nature ; and before the colonization of Nova Scotia, there were large tracts of this grassy alluvium to excite the wonder and delight of the first settlers on the shores of the Bay of Fundy. Man, however, carries the land-making process farther ; and by diking and draining, excludes the sea water, and produces a soil capable of yielding for an indefinite period, without manure, the most valuable cultivated grains and grasses."

The mud of these great tidal flats is at the surface of a red colour, and so fine that when the tide leaves it and its surface becomes dry, it shines in the sun as if polished. It is thus capable of taking the finest impressions. When the tide is in,