

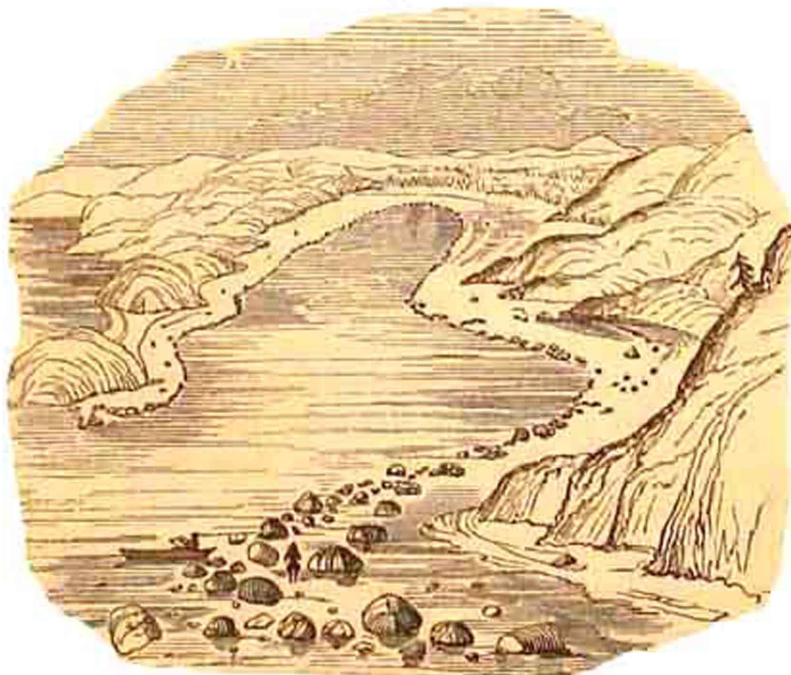
cisely the same way as we have seen that glaciers act on the solid rocks over which they are propelled. *

To conclude; it appears that large stones, mud, and gravel, are carried down by the ice of rivers, estuaries, and glaciers, into the sea, where the tides and currents of the ocean, aided by the wind, cause them to drift for hundreds of miles from the place of their origin. Although it will belong more properly to the seventh and eighth chapters, to treat of the transportation of solid matter by the movements of the ocean, I shall add here what I have farther to say on this subject in connection with ice.

The saline matter which sea-water holds in solution, prevents its congelation except where the most intense cold prevails. But the drifting of the snow from the land often renders the surface water brackish near the coast, so that a sheet of ice is readily formed there, and by this means a large quantity of gravel is frequently conveyed from place to place, and heavy boulders also, when the coast ice is packed into dense masses. Both the large and small stones thus conveyed, usually travel in one direction like shingle-beaches, and this was observed to take place on the coast of Labrador and Gulf of St. Lawrence, between the latitudes 50° and 60° N., by Capt. Bayfield during his late survey. The line of coast alluded to, is strewn over for a distance of 700 miles with iceborne boulders, often 6 feet in diameter, which are for the most part on their way from north to south, or in the direction of the prevailing current. Some points on this coast have been observed to be occasionally deserted, and then again at another season thickly bestrewn with erratics.

The accompanying drawing (fig. 11.), for which I am indebted to

Fig. 11.



Boulders, chiefly of granite, stranded by ice on the coast of Labrador, between lat. 50° and 60° N. (Lieut. Bowen, R.N.)

* In my *Travels in N. America*, ch. 19, 23, &c., and *Second Visit to the U. S.*, vol. i. ch. 2., also in my *Manual of Geology*, a more full account of the action of floating ice and coast ice, and its bearing on geology, will be found.