

100 fathoms deep, the average depth over the Great Bank being from forty to fifty fathoms. That they should be arrested in their course is not surprising, when we consider that the mass of floating ice below water is eight times greater than that above; and Sir James Ross saw icebergs which had run aground in Baffin's Bay, in water 1500 feet deep. If we reflect on the weight of these enormous masses, and the momentum which they acquire when impelled by winds and currents, and when they are moving at the rate of several miles an hour, it seems difficult to over-estimate the disturbance which they must create on a soft bottom of mud or loose sand, or the grinding power they must exert when they grate along a shelf of solid rock overspread with a layer of sand.

Mr. Redfield of New York has lately published* a chart showing the positions of the icebergs observed in the North Atlantic during the last fifteen years, and it will be remarked, that they have been met with at various points between the 47th and 36th parallels of latitude, the most southern being that which Captain Couthuoy encountered, lat. $36^{\circ} 10'$ N., long. 39° W., a mile long and 100 feet high. This berg was on the extreme southern boundary of the gulf stream, which it had crossed against the direction of the superficial current, so as to get as far south as the latitude of the Straits of Gibraltar. In fact, these great ice-islands coming from the Greenland seas are not stopped by the gulf-stream, which is a mere superficial current of warmer water flowing in an opposite direction, but are borne along from N.E. to S.W. by the force of the arctic under-current, consisting of colder water, into which the icebergs descend to a great depth.

All the circumstances connected with the geographical outline of the coast, the shape of the sea-bottom, the oceanic currents, and the prevailing winds, although liable to be modified and greatly altered in the course of time, may continue nearly the same for the next ten thousand or twenty thousand years; and in that period thousands of bergs, occasionally charged with fragments of rock, and many of them running aground in a variety of places, will be conveyed in every century over certain tracts

* Amer. Journ. Science, vol. xlviii. 1844.