

one ninth of the volume of a berg is exposed to view. There are several well-authenticated instances of bergs one thousand feet high having been sighted in the Southern Ocean, so that this would give the total height of them as about nine thousand feet! —a fairly good sized mass of solid water. In May, last year, the *Inch-green* passed close alongside of a berg that Captain Miller estimated had an altitude of seven hundred feet above the sea surface, and was seven miles long. Bergs have often been seen grounded on the banks of Newfoundland where the deep sea lead gave a depth of 650 feet. Ross saw several stranded in Baffin's Bay where the depth was 1,400 feet.

Bergs are unusually numerous in some years, and a connection is said to have been traced between the frequency of bergs in the North Atlantic and the low temperature in our islands during the summers of some years. The ship *Swanton* passed three hundred bergs in 1842 in 43 N. 50 W. She narrowly escaped destruction during the night, as she passed between two huge bergs that almost grazed her sides. Captain (afterward Rev. Dr. Scoresby), while whaling in the northern icy sea, counted no less than five hundred bergs under way for the open waters of the Atlantic. Last June the steamship *Concordia* passed seventy-eight large bergs in a short space of time, as they lay aground in the Straits of Belleisle. This year the ice is both late and scarce. In 1883 it was very abundant. No forecast can be made as to the probability of frequency of bergs. A vessel has been so firmly fixed in the ice in the month of March in 44 N. 45 W. that her master was able to take a stroll on the ice. In 1841 several ships, stopped by ice in mid-Atlantic, availed themselves of the opportunity to kill some seals that were basking upon it.

Bergs have been seen in the North Atlantic laden with lumps of rock sand and soil. The banks of Newfoundland would appear to have been formed in this way. Arctic lands suffer denudation by the inland ice as it creeps along toward the sea, and the bergs, separated from their parent glaciers, deposit the fragments at the bottom of the old ocean, there to harden into rocks and help in moulding the surface of the coast. Nothing is lost, nothing is new. In August, 1827, a berg was observed stranded in eighty-five fathoms in 46½ N. 45 W. Much earth and rock were embedded in its fissured sides. Polar bears and other Arctic animals were seen on the bergs of 1883. An abandoned ship was passed high and dry on a huge ice island in 1794, and a ship with her crew was seen similarly situated in 1845; but no help could be afforded.

On April 21, 1851, the brig *Renovation* passed an immense ice island, about ninety miles to the eastward of St. John's, Newfoundland. Two dismantled ships lay snugly upon it, but there was no sign of life. Captain Ommann, R. N., was deputed to investigate this report, and took great pains to arrive at its truth, as it was inferred that these ships were the *Erebus* and *Terror*, of Sir John Franklin's ill-fated expedition. Some people are still of the same way of thinking. The crew of the German discovery ship *Hansa* were compelled to abandon their vessel, crushed by the ice, and took refuge on an immense floating mass of ice, where they remained for eight months. Their floating ice island was seven miles in circumference, and drifted south, until the poor fellows were able to make their escape. During this time they had lived in a hut constructed from the coal saved from their ship. *H. M. S. Resolute* was abandoned, embedded in the ice, but was picked up after a long drift southward. This