"Mamma," whispered Hugh, draw ing closer to his mother's side, "if ever I am 'scat,' I hope I may be a faithful servant like St. Matthias, and

always teach and speak the truth even if I suffer for it."

Need I say how fervently the mother answered, "Amen."

ICE AND ITS WORK.*

" All the rivers run into the Sea; yet the Sea is not full; unto the place from whence the nvors come, thither they return again."-ECCI.BSIASTES, CH. I., 7.

HUS beautifully and briefly is extruths of Natural Science, and N one of the most important doctrines in Geology. The vast mechanical force involved in the increasing circulation of the waters of the earth described in the above passage has been mainly instrumental in changing its surface, and in elaborating the great series of rock masses which form the crust of our globe. By erosion and denudation every hill is brought low and every valley filled up. But water is not the only agent which has been instrumental in moulding the surface of the earth and preparing it for the abode of man. Ice, in the Arctic and sub-temperate regions has exercised extraordinary influence in grinding down rocks and preparing soils for the growth of plants.

North of the 40th parallel of latitude there is scarcely a single square mile of undisturbed rock which does not show the action of Ice masses passing over it, and leaving their tracks in the form of grooves, scratches, polished areas, lake basins or escarpments. All this, however, in the temperate regions, is the work of past times, and it is only in Greenland and in Spitzbergen that we can become eye-witnesses: of the modus operandi by which Ice has modelled so large a portion of the eatth's surface.

In Greenland we find a continental mass of Ice from eight hundred to two thousand feet thick, covering a vast area from east to west, but limited towards the north by a dry region which affords no moisture for the formation of Ice. This glacial map is always moving slowly towards the sea, and when it reaches and projects over the diffs forming the coast line, or makes its exit through the numerous fiords

[•] An abstract of a lecture delivered at Fredicton by Professor H. Y. Hind before the Literary Association in March, 1865. it has excavacated, it gives off continually large masses which floating away constitute Icebergs, so numerous in Davis Straits and the North Atlantie during the summer season.

Dr. Rink who has resided many years in Greenland and studied glacial phenomena in their grandest development as it now exists, calculates the amount of precipitation vearly 00 Greenland in the form of snow and rain at twelve inches, and that of the outpour of Ice by its glaciers at two inches. He considers that only a small part of the remaining ten inches is disposed of by evaporation, and argues that the remainder must be carried to the sea in the form of sub-glacial rivers. The vast mass of Ice appears to act as a cloak to the earth, so as to prevent its heat being radiated into space. Hence, even in Greenland the bottoms of the glaciers are constantly thawing, and sub-glacial rivers convey the products of the thaw to the sea. Copious springs of fresh water constantly boil up at the edge of the Ice where it meets the sea, and their positions are point-ed out by vast flocks of sea birds which hover over them in search of food, which they find there.

The glacial masses bring down large numbers of boulders, worn on all sides by the enormous pressure to which they have been subjected, together with mud and gravel which they have ground from off the rocks over which the Ice slowly makes its way to the sea.

A similar condition of thinge prevailed in New Brunswick and indeed over all British North America as far as Barrow Straits, during past geological periods of time. Whenever the loose covering of clay or sand is swept off the solid rock in this province, glacial strice are visible, or the rocks are seen to be polished, or sometimes deeply grooved. These grooves and polished areas occur at all altitudes even as high as two thousand feet above