

February 10th, in a latitude nearly corresponding to that of the Shetland Islands and Christiania in Norway, in the northern hemisphere.

The temperature gradually fell as we went southwards, and on February 9th went down for the first time to just below freezing point in a snow squall.

At first, all the icebergs seen were numbered each day, and their positions noted down; but when we came to have 40 in sight at once this plan was abandoned, and we subsequently had more than a hundred in sight on several occasions.

The typical form of the Antarctic iceberg, as seen above water, and apparently the form which it always has when first set free on its wanderings, is very simple. The top is a nearly flat expanse of snow, and this is bounded all around by perpendicular cliffs. The boundary lines of the expanse are no doubt always in the first instance nearly straight lines, since they must be produced by the splitting off of the berg from the parent mass, and the previous splitting of similar bergs from its own outer border when still attached.

A considerable number of the undecayed bergs seen by us were almost rectangular in outline. Some few were irregularly oval, and the weathered ones of course of all possible irregular outlines.

Since ice requires about nine times its volume to be immersed in order to float it above sea water, the portion of an

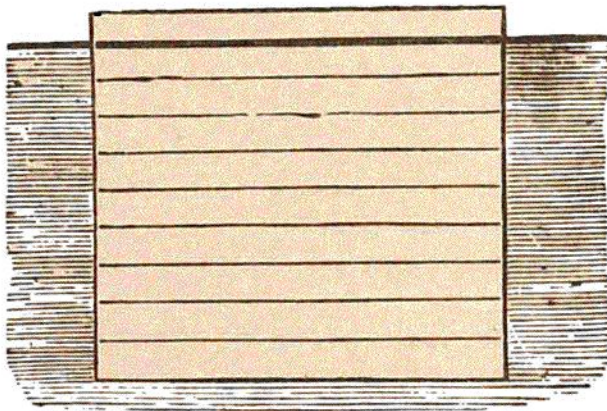


DIAGRAM TO SHOW THE PROPORTION OF AN ICEBERG IMMERSSED, AND ABOVE WATER.

iceberg which shows above water is a very small proportionate part of the mass. Mr. Buchanan made an accurate estimate of the specific gravity of samples of the berg ice, and calculation of amount of immersion of icebergs. The proportionate depth of a berg below water will of course depend on the form and on the rela-

tive density of the upper and lower strata of the mass. Usually, no doubt, the mass below water is far less than nine times the vertical depth of the height of the part above water, from two considerations. Firstly, the sides of the berg are not perpendicular, but long ledges run out from the base of the cliffs below water, the immersed part being thus much larger in figure than the exposed; and, secondly, the