

circumstances is complete. Caves, cliffs, pinnacle-like outliers, and a shore platform at the base of the cliffs, are formed in a closely similar manner in each case.

In order that a horizontal platform of any wide extent should be formed beneath the water, it is necessary that the berg should float at almost exactly the same level for a very long period. I do not properly understand how this occurs. Each time that a mass of ice falls from the undermined cliff in order that the equilibrium should be maintained, it is necessary that nine times that bulk of ice should be removed from the base.

No doubt portions of the platforms below water are constantly being split off by the upward pressure and floating to the surface as "calves." The formation of a large platform under water must, however, depend on such a "calving" not taking place, unless on sides of the berg other than that on which the platform is formed. Nevertheless, by some means or other, either by melting or calving, a very uniform wasting of the berg below water must take place in order to form a platform. It cannot be supposed that the amount of snow which falls on the berg when set free can be sufficient to balance the loss by the action of the sea.

There must be a reason why the bergs which thus become two-storied have their lower storey commonly, as in the example figured here in the text, only at one of their ends. Probably a certain amount of lower platform existed all round this berg when it first rose, but this was cut away on all the sides where it was narrow, by being undermined by the waves. The line of the main upper cliff was thus soon reached on these sides, and this cliff was then itself further undermined, so that, as shown in the sketch, the old wash-line was obliterated, and remained only at the base of that cliff which was protected by the still remaining secondary platform.

The greater undermining of bergs at one side may, no doubt, be due to their taking up, from the shape of their parts exposed above water and the relation of these parts in position to the form of the parts below water, a particular direction with regard to the wind, and maintaining this so that one particular side is usually the windward one, and therefore most battered by the waves.

It seems far more difficult to explain how it occurs that bergs suddenly rise to a considerable height further out of water than that at which they have floated before. Such a sudden rise must necessarily be supposed in order to account for the two-storied form.

In order that, in the case of the berg figured for instance, a