

rise should occur from the height of the old wash-line to the present water-line, a mass of the berg above water must have been suddenly removed, equal in volume to the whole part of the berg above water lying below the level of the top of the lower storey.

It seems almost incredible that such a mass should break off and fall away suddenly. A splitting in two can be readily understood, but the mass in this case must come entirely from the part of the berg above water. It cannot have split off at an angle, for the walls of the berg in question were perpendicular cliffs. The berg certainly had never toppled.

A different explanation possible is, that nine times the volume of ice above referred to, was suddenly added to the part of the berg below water by its passing into cold water or a change of season. It may be that the raised storey represents the effects of growth of the base of a berg during one winter when it probably still lay far south. The surface water would be colder then, and the cliffs not being so much, or hardly at all undermined, time would be allowed for the rising without destruction of the platform, and thus the process need not be so sudden.

At first sight it seemed to me easy enough that the berg should rise suddenly by the falling of part of its mass, but on considering the matter with a plan showing the vast proportion of its bulk required to be thus removed, I found the question more difficult.

The height of the main cliffs of the bi-tabular berg figured was estimated by Captain Tizard at about 200 feet, and that of the lower cliffs at 60 feet. We saw some distant bergs which were possibly 300 or 400 feet in height and three or four miles in length. A berg 200 feet in height would have a base extending to a depth of 300 fathoms or so, according to its form, and this base will be thawed at different rates at successive depths, according to the distribution of temperature in the water at the various depths. The shapes of the ice below water must thus follow curves corresponding to those used by physicists to express successive deep-sea temperatures graphically.

A very large proportion of the bergs seen by us were, as thus described, flat topped and maintained their original balance. Very many were bounded by a single range of cliffs washed by the waves all round. In some these ranges were evidently old and very much indented. These are simple bergs.

Many were highly complex, combining two stories, lines of caves, talus slopes, and evidences of having tilted to a certain