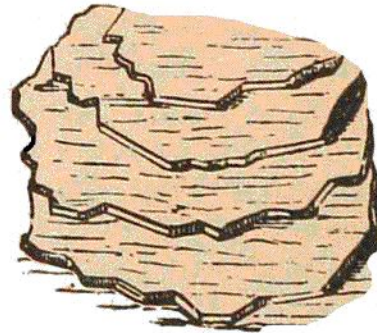


edges with zigzag fracture, almost as in diamond cleavage of slate; this condition may have been produced by peculiar exertion of pressure in this particular berg.

When the lower cliff of the two storied berg, described and figured in the text, had a shot fired into it, large masses of ice fell, raising a considerable swell in the sea. The pieces of the cliff split off in flat masses parallel with the face of the cliff, just as I noticed to be the case in the splitting of the glacier cliffs at Heard Island, and did not tumble forward but slid down the face of the cliff, keeping their upper edges, parts of the old plateau surface, horizontal.

The ice floated round the ship in some quantity; it was opaque and white-looking, somewhat like white porcelain, and the shattered fragments had remarkably sharp angular edges, showing that the ice was very hard and compact, far more so than its appearance in mass would lead one to suppose, since it looks at a distance as if it were hardly consolidated, but merely closely pressed snow. Its manner of cleavage only gives evidence at a distance of its very compact nature.



FRACTURE OF ICE CLIFF.

Many of the floating fragments were traversed by parallel veins of transparent ice, which were those which, when seen on a cliff surface, look blue. A shot fired at the top of the higher cliff produced no effect, the ball apparently going in without splitting off any ice at all.

The greater approximation of the strata towards the base of the bergs is no doubt due to the increasingly greater pressure sustained by them. The blue lines seem to represent successive slight surface thawings of superimposed falls of snow. In these lines of clear transparent ice, a complete fusion of the snow particles has taken place. The opaque white ice between them though, as appears from its fracture, very compact, is less so than these bands, as shown by its being melted sooner.*

There can hardly be a doubt that the ice must be of increasing density from its summit downwards.

Several small bergs were passed, which showed hardly any blue stratification in their cliffs; the top surfaces of these showed rounded conical hillocks, and a general appearance of formation by wind drifting of the snow. What few bands were present, were conformable in curve with the irregular

* See preceding page.