and those afterwards thrown down above, may be perfectly horizontal (see above).

In most cases where the principal contortions of the layers of gravel and sand have a decided correspondence with deep indentations in the underlying till, the hypothesis of the melting of large lumps and masses of ice once mixed up with the till affords the most natural explanation of the phenomena. The quantity of ice now seen in the cliffs near Behring's Straits, in which the remains of fossil elephants are common, and the huge fragments of solid ice which Meyendorf discovered in Siberia, after piercing through a considerable thickness of incumbent soil, free from ice, is in favour of such an hypothesis, the partial failure of support necessarily giving rise to foldings in the overlying and previously horizontal layers, as in the case of creeps in coal mines.\*

In the diagram of the cliffs at p. 213, the bent and contorted beds No. 5, last alluded to, are represented as covered by undisturbed beds of gravel and sand, No. 6. These are usually destitute of organic remains; but at some points marine shells of recent species are said to have been found in them. They afford evidence at many points of repeated denudation and redeposition, and may be the monuments of a long series of ages.

## Mundesley Post-glacial Freshwater Formation.

In the range of cliffs above described at Mundesley, about two miles south-east of Cromer, a fine example is seen of a freshwater formation, newer than all those already mentioned, a deposit which has filled up a depression hollowed out of all the older beds 3, 4, and 5, of the section, p. 213.

When I examined this line of coast in 1839, the section alluded to was not so clearly laid open to view as it has

<sup>\*</sup> See Manual of Geology, by the author, p. 51.