nificent effects of breaking waves, and delights the naturalist with its many fucoids, corallines, radiata and mollusca. After storms the shore is frequently one vast collection of the beautiful productions of the sea. On the north side of the Brig the waves have excavated romantic cavities in which the clear sea-water rests. Leland calls this place 'Philaw Bridge.'

## GRISTHORP.

The highest point of the cliff above Filey Brig is composed of a thick mass of boulder clay, and is 106 feet above the sea; but as the strata rise continually to the north, the rocks which form the Brig ascend to 280 feet in Gristhorp Cliff, and allow of other strata appearing below. The whole series stands thus in feet:—

Diluvial clay and pebbles	٠				8
Lower part of the calcareous grit		٠		•	30
Gradations between calc. grit and	Ox	ford	cl	ay	40
Oxford clay					120
Kelloway rock					
Clay and Cornbrash rock					5
Carbonaceous shale and sandstone					50

A little further north, between Gristhorp Cliff and Red Cliff, still lower strata come out, consisting of various sandstones and shales, in particular layers of which vast multitudes of beautiful Ferns, Zamiæ, Lycopodiaceæ, and much wood, have been collected by Mr. Bean, Mr. Williamson, Dr. Murray, and other palæontologists. Some layers of ironstone occur, and thin laminæ of bad coal, and below all is a coarse irony oolite full of shells, and covered in some places by *Millepora straminea*.

A tumulus on the cliff at Gristhorp was the burial-place of a British chief. A receptacle in the middle of this mound contained a coffin made of a large split log of oak, full of water, in which lay the skeleton of the warrior, with a small portion of adipocere derived from his flesh, and several objects which were dear to him in life. The coffin was 7 feet 6 inches long by 3 feet