

**XIII.** *Notice accompanying a Section of Heligoland, drawn up from the Communications of Lieutenants Dickinson and Mac Culloch, of the Royal Engineers.*

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**I** HAVE not been able to obtain any accurate account of the changes which this island has undergone; but it is said to be in a state of rapid destruction from the encroachments of the sea. It is currently reported among the inhabitants that it has been reduced within the last century from eleven miles in length to its present dimensions of one mile.

It seems to consist of strata of an indurated clay, alternating with beds of grey limestone. These form an angle of  $30^{\circ}$  with the horizon, and dip to the N. E.

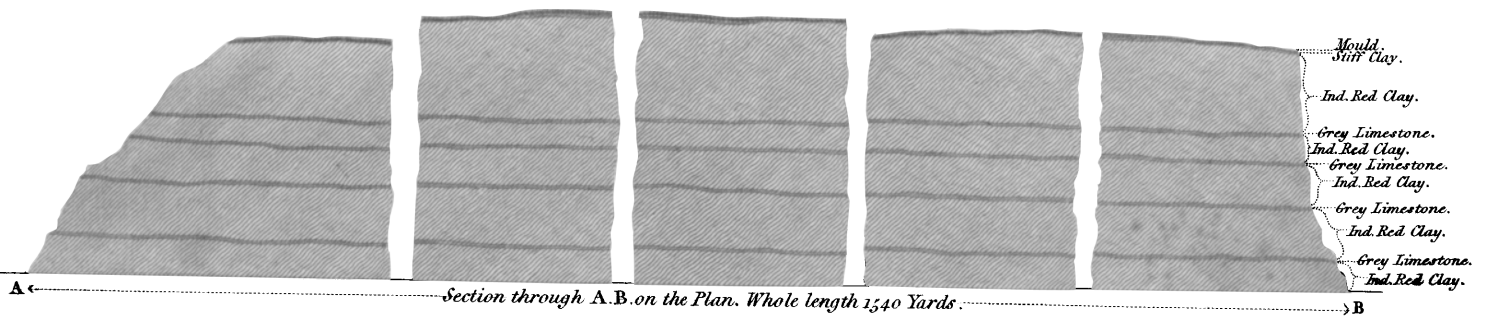
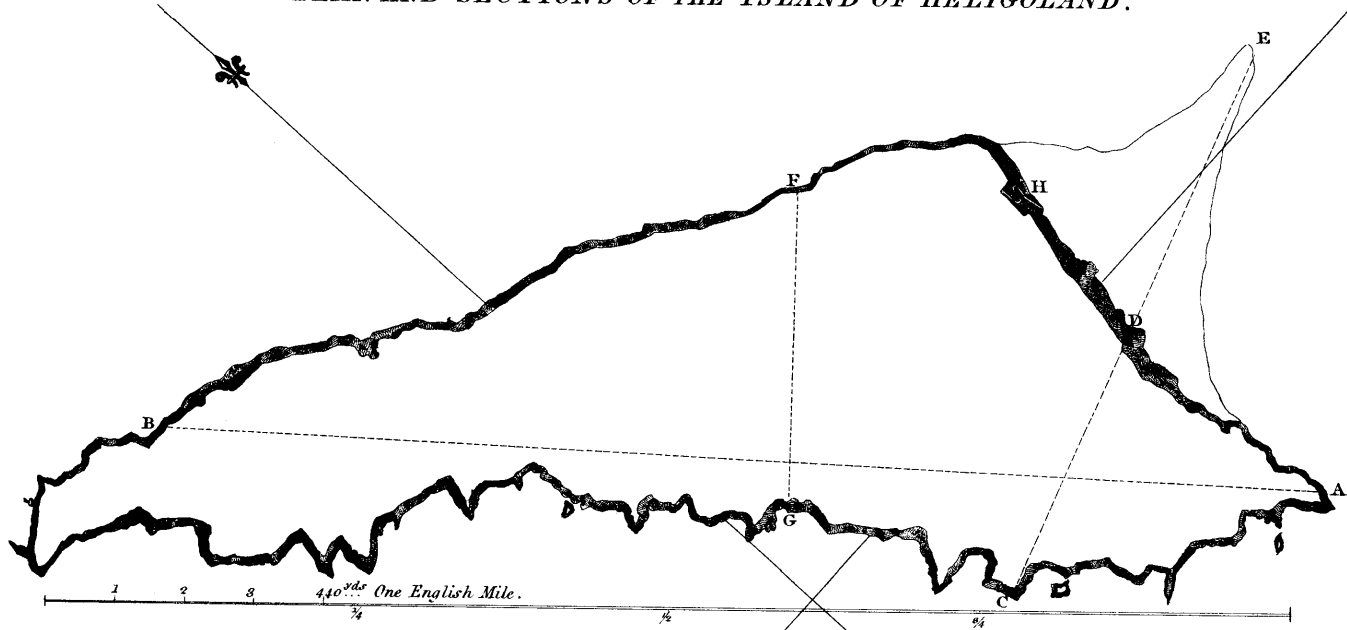
The clay is of a strong red colour, containing much oxide of iron, and with it so much carbonate of lime as to effervesce considerably with acids. The limestone is in some parts formed of various marine remains, in others it is uniformly granular. Through both these there are dispersed in various places deposits of copper ore in small quantities. These consist of carbonate of copper, diffused through the earthy matters; and of crystallized masses of the same substance; and, more rarely, there are found lumps of red oxide mixed with particles of grey ore and native copper. The beach is covered with various siliceous pebbles, containing grains of the same

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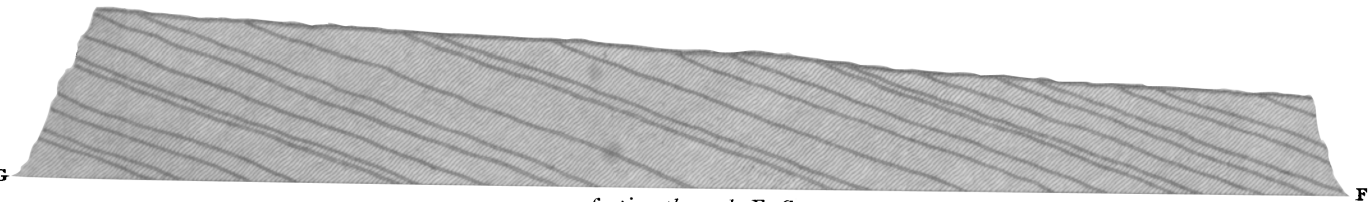
substances imbedded in them, together with porphyries and hornstones of various colours.

Belemnites, and other fossil remains, both calcareous and flinty, are also found on the shore; and the clay strata often contain considerable quantities of pyrites, together with carbonized and pyritaceous wood.

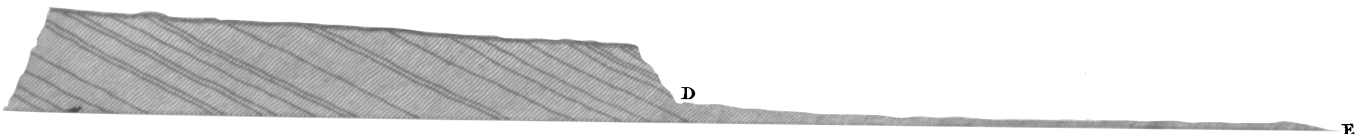
**PLAN AND SECTIONS OF THE ISLAND OF HELIGOLAND.**



300 Feet.



400 Feet.



600 Feet.