

some old people then alive, it had formed one continuous tract of firm ground. Nay, it appears that during the ten years previous to 1816, the channel had been worn down at least two feet.

Probably no part of the British coast-line affords such striking evidence of the violence of the waves as may be seen along the margin of the Shetlands. These islands are exposed to the unbroken fury at once of the North Sea and of the Atlantic, the tides and currents of both seas running round them with great rapidity. Hence their seaboard wears in many places an aspect of utter havoc and ruin. Against their eastern side, the North Sea expends its full violence, tearing up the rocks from the craggy headlands, and rolling onwards far up into the most sheltered fjords. On some of the projecting headlands the breakers, during easterly gales, burst with incredible violence and bury the cliffs in yeasty water and foam. Where the structure of the rocks favours the progress of demolition, narrow gullies or 'voes' are cut out of the cliffs, at the end of which there is often a cave or tunnel, with an opening at the farther end of its roof, whence the spray is ejected over the land. The flagstone cliffs repeat the mural scenery of the Orkney and Caithness coasts (Fig. 14).

A little farther north the crystalline schists of the main island are prolonged eastwards in a group of islets and skerries that project into the North Sea. Among these outlying islands, Whalsey, lying about the middle of the Shetland group, is completely sheltered from the gales of the Atlantic. Yet in the Bound Skerry of Whalsey, the breakers have torn up masses of rock sometimes  $8\frac{1}{2}$  tons in weight, and have heaped them together at a height of no less than 62 feet above high-water mark. Other blocks, ranging in bulk from 6 to  $13\frac{1}{2}$  tons, have been actually quar-