

feet of water ; but between it and the land the depth increases to two fathoms.*

At Bahia Blanca, in Brazil, Mr. Darwin observed a bar running parallel to the coast, on which they landed from the boats at low water, and then waded for a quarter of a mile to the shore. He has described a similar bar at Pernambuco, in Brazil, several leagues in length, in which the sand has been consolidated into a hard stone by calcareous matter. Within these bars currents are often seen to run strongly, caused by the water thrown over them by the waves when the tide is high. These waters run between the bar and the coast, until at length they find some breach in the bar by which they return to the sea.

In illustration of the ancient ridges or osars in Roxburghshire, Mr. David Milne, F.G.S., has described many examples of narrow sandbanks now existing off the coast of Britain, some 5, others 30 miles in length, with ten or twelve fathoms water between them and the neighbouring shore.†

The existence of such bars near modern shores being ascertained, it follows that, if a coast be gradually upraised, many of them will be both formed and made to emerge *in succession*, all preserving the same general parallelism to each other which pre-

* Journal of Two Expeditions, &c., vol. i., p. 369.

† See Trans. Roy. Soc. Edinb., vol. xv., p. 484, Jan. 1842. My paper, citing analogous cases, in explanation of similar geological phenomenon, was read at the same time to the Geological Society of London, without our having communicated together on the subject. See Abstract in Proceedings Geol. Soc., No. 92, p. 21, Jan. 4, 1843.