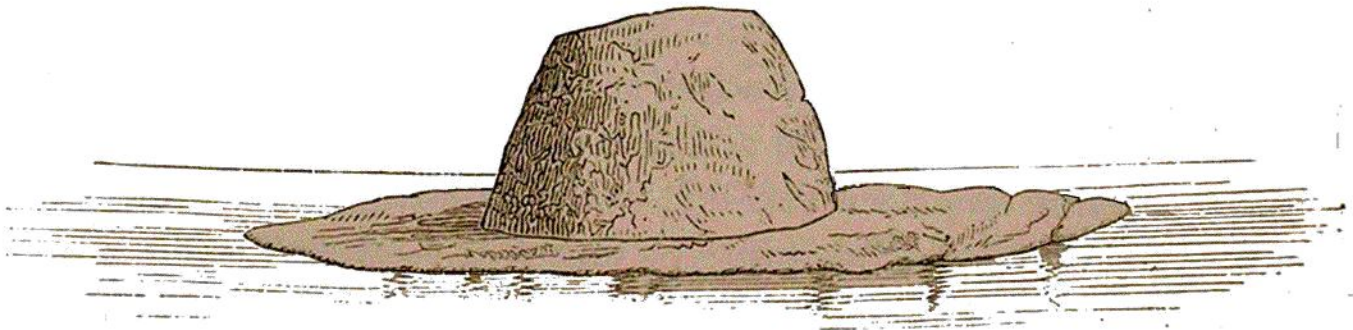


been rightly understood. It will be remembered that it lies but little above low-tide level, and it is often over three hundred feet in width, with a nearly flat surface throughout.

Though apparently so peculiar, the existence of this platform is due to the simple action of the sea, and is a necessary result of this action. On the shores of New South Wales, Australia, near Sydney, as observed by the author, the same structure is exemplified along the *sandstone* shores of this semi-continent, where it is continued for scores of miles. At the base of the sandstone cliff, in most places one or more hundred feet in height, there is a layer of sandstone rock, lying like the shore platform of the coral island, near low-tide level, and from fifty yards in width. It is continuous with the bottom layer of the cliff: the rocks which once covered it have been removed by the sea. Its outer edge is the surf-line of the coast. At low-tide it is mostly a naked flat of rock, while at high tide it is wholly under water, and the sea reaches the cliff.



THE OLD HAT.

New Zealand, at the Bay of Islands, affords a like fact in an argillaceous sand-rock; and there was no stratification in this case to favour the production of a horizontal surface; it was a direct result from the causes at work. The shore shelf stands about five feet above low water. A small island in this bay is well named the "Old Hat," the platform encircling it, as shown in the above figure, forming a broad brim to a rude conical crown. The water, in these cases, has worn away the cliffs, leaving the basement untouched.

A surging wave, as it comes upon a coast, gradually rears itself on the shallowing shores; finally, the waters at top, through