

along the outer margin of the reef, and in the adjoining shallow seas. Here they grow in profusion ; but yet the eager lover of coral landscapes will be often disappointed by finding among the crowded plantations extensive areas of coral sand.

The outer margin of the reef receives the plunging waves, and under this action, and the consequent unequal growth of the corals, the outline is very irregular, being often deeply cut into, and hence having sometimes long channels that give entrance to the surging tide, and to the currents that flow back in preparation for the next breaker. From it, seaward, the depth of water usually sinks off rapidly from three to six fathoms, and then falls away more gradually for many rods, or it may be some hundreds of yards ; over the bottom in these shallow waters are spread out the coral plantations, down to a depth of 80 or 100 feet. . Finally there is a rather abrupt descent to depths beyond the reach of an ordinary sounding-lead. The great difference in the rapidity with which the water deepens depends chiefly on the varied character of submarine slopes. Shallow waters may extend out for miles, especially off the prominent points or angles ; but it is more common to meet with the opposite extreme—great depths within a few hundred feet.

The outer reef or coral platform is generally a little the highest at its seaward margin, owing partly to the growth of ordinary corals and other species on this part, and also to the accumulations which naturally would there be piled up by the waves and become cemented. This part is therefore first laid bare by the retreating tide ; and though a tempting place for a ramble, it is often a dangerous place on account of the heavy breakers. There is not only greater height, but often also a remarkably smooth surface to the reef-rock, looking as if water-worn, and frequently a blotching of the rock with various shades of pink and purple. These colours and the smoothness, as observed by Chamisso, are due to incrusting Nullipores ; and to the same calcareous sea-weeds, as Darwin first observed, is often owing the increased height. The material of the incrusting plant is more solid than ordinary