

blocks and those cemented below had the same general character, and must have been placed where they were by the same cause, though it may have been at different periods.

Such blocks are of course not confined to coral island reefs, but belong to barrier reefs generally.

Jukes says, "I once landed close to the edge of the Australian barrier on the south side of the Blackwood channel, in south latitude $11^{\circ} 44'$ on a *continuous mass of Porites which was at least twenty feet across*, and it seemed to pass downwards into the mass of the reef below water without any disconnection. It was worn into pinnacles above, so that two or three of us could stand in the different hollows without seeing each other; and it was one of a line of such masses that attracted our attention for a distance of three miles."

The shore of the lagoon is generally low and gently inclined, yet in the larger islands, in which the waters of the lagoon are much disturbed by the winds, there is usually a beach resembling that on the seaward side, though of less extent. A platform of reef-rock at the same elevation as the shore platform sometimes extends out into the lagoon; but it is more common to find it a little submerged, and covered for the most part with growing corals; and in either case, the bank terminates outward in an abrupt descent, of a few yards or fathoms, to a lower area of growing corals, or a bottom of sand. Still more commonly, we meet with a sandy bottom gradually deepening from the shores without growing coral. These three varieties of condition are generally found in the same lagoon, characterizing its different parts. The lower area of growing corals slopes outward, and ceases where the depth is 10 to 12 fathoms, or sooner; from this there is another descent to the depth which prevails over the lagoon. On some small lagoons the shore is a thick plastic mud, either white or brownish, and forms a low flat which is very gently sloping. On Henuake, these mud deposits are quite extensive, and of a white colour. At Enderbury's Island, another having a shallow lagoon, the mud was so deep and thick that there was some difficulty in reaching the waters of the lagoon; the foot sank in eight or ten inches,