

tide ; but, at the ebb, they commonly present to view a broad, flat, bare surface of rock, just above the water level, strongly contrasting with the steep slopes of the incircled island.

Nearing in a vessel a coral-bound coast, the first sign of the reef, when the tide is well in, is a line of heavy breakers, perhaps miles in length, off a great distance from the land. On closer view, some spots of bare reef may be distinguished as the waves retreat for another plunge ; but the next moment all again is an interminable line of careering waters. Happy for the cruiser in untried reef-regions, if the surging waves continue to mark the line of reef ; for a treacherous quiet sometimes intervenes, which seems to be evidence of deep waters ahead, and the unsuspecting craft dashes onward ; but soon it is grinding over the coral masses, then thumping heavily at short intervals, and, in a few moments more, is landed helpless on the coral reef. The heavier billows, as they roll by a vessel in such a plight—the author's experience attesting—have a way of lifting it and then letting it drop with all its weight against the bottom, and hence, unless prompt escape is in some way secured, the assaulting waves gain speedy possession, and soon after make complete the work of destruction. At low tide the breakers often cease, or nearly so. But the reef for the most part is then in full view, and, with a good look-out aloft, favourable winds, and plenty of daylight, navigation is comparatively safe.

Some idea of the features of a tropical island thus bordered may be derived from the following sketch. The reef to the right is observed to fringe the shore, making a simple broad platform, as an extension, apparently, of the dry land. To the left there is the same coral platform at the surface, but it is divided by a channel into an inner and an outer reef—a *fringing* and a *barrier* reef, as these two parts are called. At a single place the sea is faced by a cliff ; and here, owing to the boldness of the shores and depth of waters, the reef is wanting. The barrier reef at one point has a passage through it, which is an opening to a harbour ; and many such harbours exist about coral-girt islands.