

an instance diving is found to be the only resource left for freeing the foul anchor.

The margins of the reefs in and about the inner channels are often luxuriant with magnificent corals quite to the edge so that while the reef is elsewhere solid rock to its very top, here at the margin it is alive and may be said literally to be growing.

The rock of the inner reefs seldom consists of rolled or broken fragments of coral like a large part of that of the outer reef. It is often made of dead corals, standing to a great extent as they grew; yet it is generally compact and firm in texture. The cavities among the branches and masses gradually become filled with coral sand, and the whole is finally cemented and so made solid. At Tongatabu and among the Feejee Islands, reefs thus formed of corals standing in their growing positions are common. Though now mere dead rock, and exceedingly firm and compact, the limits of the several constituent coral masses may be distinctly made out. Some individual specimens of *Porites* in the rock of the inner reef of Tongatabu are twenty-five feet in diameter; and *Astræas* and *Mæandrinæ*, both there and in the Feejees, measure twelve to fifteen feet. These corals, when growing beneath the water, form, as has been stated, solid hemispheres, or rounded hillocks; but on reaching the surface, the top dies, and enlargement takes place only on the sides; and in this manner the hemisphere is finally changed to a broad cylinder with a flat top. This was the condition of the *Astræas* and *Porites* in the reef-rock referred to. Such a platform looks like a Cyclopean pavement, except that the calcareous cementing material, filling in between the huge masses, is more solid than in any work of art: it even exceeds in compactness the corals themselves. Other portions of reefs consist of *branching* corals, with the intervals filled in by sand and small fragments; for even in the stiller waters fragments are to some extent produced. A rock of this kind is often used for buildings and for walls on the island of Oahu. It consists mainly of *Porites*, and in many parts is still cavernous, or but imperfectly cemented.