began, were inclosed in the rock; and in some cases were still separable from it without much force. The upper part of the island is a mixture of the same substances in a loose state, with a little vegetable soil; and is covered with the *casuarina* and a variety of other trees and shrubs, which give food to parroquets, pigeons, and some other birds; to whose ancestors, it is probable, the island was originally indebted for this vegetation."

Mr Chamisso, who accompanied Kotzebue in his voyage, has published interesting observations on this subject. He informs us that the low islands of the South Sea and Indian Ocean owe their origin principally to the operations of several species of coral. Their situation with respect to each other, as they often form rows, their union in several places in large groups, and their total absence in other parts of the same seas, induce us to conclude, that the corals have founded their building on shoals of the sea; or, to speak more correctly, on the tops of mountains lying under water. On the one side, as they increase, they continue to approach the surface of the sea, on the other side they enlarge the extent of their earth. The larger species of corals, which form blocks, measuring several fathoms in thickness, seem to prefer the more violent surf on the external edge of the reef; this, and the obstacles opposed to the continuation of their life, in the middle of a broad reef, by the amassing of the shells abandoned by the animals, and fragments of corals, are probably the reason that the outer edge of the reef first approaches the surface. As soon as it has reached such a height, that it remains almost dry at low water, the corals leave off building higher; sea-shells, fragments of coral, shells of echini, and their broken off prickles, are united by the burning sun, through the me-