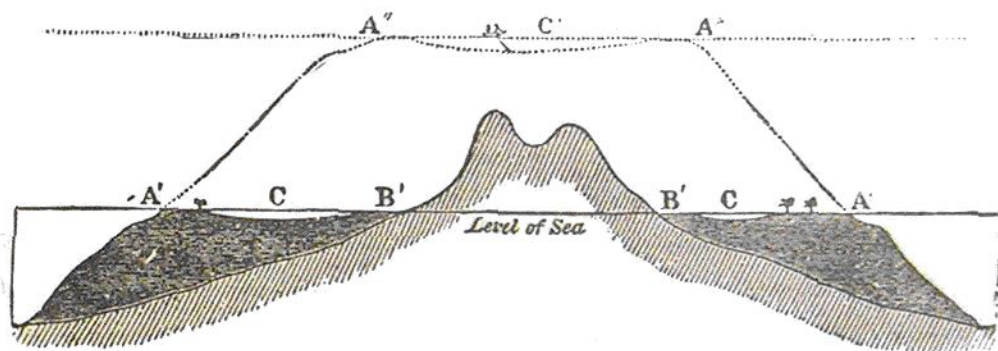


disappearing. The instant this takes place, a perfect atoll is formed: I have said, remove the high land from within an encircling barrier-reef, and an atoll is left, and the land has been removed. We can now perceive how it comes that atolls, having sprung from encircling barrier-reefs, resemble them in general size, form, in the manner in which they are grouped together, and in their arrangement in single or double lines; for they may be called rude outline charts of the sunken islands over which they stand. We can further see how it arises that the atolls in the Pacific and Indian



A'A'. Outer edges of the barrier-reef at the level of the sea, with islets on it.
B'B'. The shores of the included island. CC. The lagoon-channel.

A''A''. Outer edges of the reef, now converted into an atoll. C'. The lagoon of the new atoll.

N. B.—According to the true scale, the depths of the lagoon-channel and lagoon are much exaggerated.

Oceans extend in lines parallel to the generally prevailing strike of the high islands and great coast-lines of those oceans. I venture, therefore, to affirm, that on the theory of the upward growth of the corals during the sinking of the land,¹ all the leading features in those wonderful structures, the lagoon-islands or atolls, which have so long excited the attention of voyagers, as well as in the no less wonderful barrier-reefs, whether encircling small islands or stretching

¹ It has been highly satisfactory to me to find the following passage in a pamphlet by Mr. Couthouy, one of the naturalists in the great Antarctic Expedition of the United States: "Having personally examined a large number of coral-islands, and resided eight months among the volcanic class having shore and partially encircling reefs, I may be permitted to state that my own observations have impressed a conviction of the correctness of the theory of Mr. Darwin."—The naturalists, however, of this expedition differ with me on some points respecting coral formations.