

remain permanently above water. On these islets, palms and other plants, whose seeds might be drifted from distant or adjoining land, would take root and flourish. Inside the reef, there would be a shallow channel of water, communicating, through gaps in the reef, with the main ocean outside. Fringing reefs of this character are of common occurrence at the present time. In the case of a continent, they front its coast for a long distance, but they may entirely surround an island.

If, according to the Darwinian explanation, the site of a fringing reef undergoes depression at a rate sufficiently slow

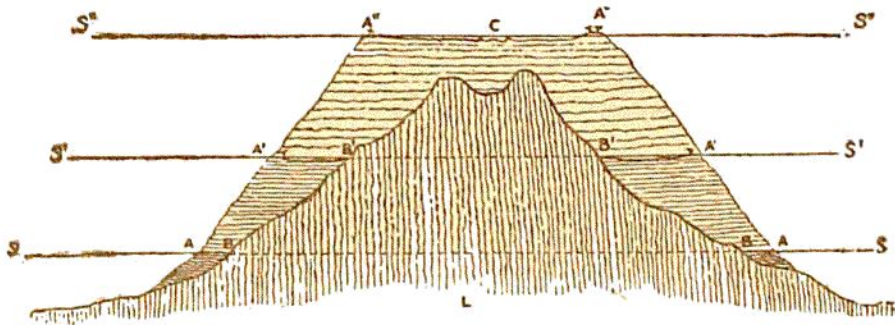


Fig. 185.—Diagram illustrating Darwin's theory of the formation of Atolls.

to allow the corals to keep pace with it, the reef may be conceived to grow upward as fast as the bottom sinks downward. As the reef grows mainly on its upper seaward edge, the lagoon channel inside will become deeper and wider, while, at the same time, the depth of water outside will increase until a *Barrier Reef* (A' B', Fig. 185) is formed. In Fig. 186, for example, the Gambier Islands (1248 feet high) are shown to be entirely surrounded by an interrupted barrier reef, inside of which lies the lagoon. Prolonged slow depression would continually diminish the area of the land thus encircled, while the reef might retain much the same size and position. At last the final peak of the original island might disappear under the lagoon (C, Fig. 185), and