

there are reefs at intervals, from the vicinity of Cape St. Roque to the Abrolhos shoals in latitude 18° , as described by Prof. C. F. Hartt, while reef corals extend south to Cape Frio. Descriptions of part of the Abrolhos reefs are given on page 111. North of the Abrolhos reefs, there are others of coral stretching on to Point Carumba ; again, off the Bay of Porto Seguro, and across the Bay of Santa Cruz ; in the vicinity of Camamú, around Quieppe Island ; along the shores of Itaparica Island ; and at Bahia and Periperi ; then, after an interruption, off Maceió, in the vicinity of Pernambuco. Moreover the Rocas, a cluster of reefs in the latitude of Fernando do Noronha, are, as Hartt observes, probably of coral.

It is thus seen that the earth is belted by a coral zone, corresponding nearly to the tropics in extent, and that the oceans throughout it abound in reefs, wherever congenial sites are afforded for their growth. It has also been shown that the currents of extra-tropical seas, which flow westward, and are interrupted and trended *toward* the equator by the continents, contract the coral seas in width, narrowing them to a few degrees on the western coasts of the continents ; while the tropical currents flowing eastward, *diverge* from the equator, and cause the belt to widen near the eastern shores. The polar currents flow also by the eastern coasts, preventing the warmer waters from increasing the width of the coral zone as much as it is contracted on the western coasts. Moreover, the trend of the coast and its capes produce other modifications in the direction of the currents, the most of which are apparent in the actual distribution of coral reefs. On the shores of the continents it is observed that there are few extensive reefs, and the coasts on which they occur are those which, owing to the dryness of the climate, have no great rivers to pour fresh water and detritus into the sea. Thus the influence of continental waters and detritus on the distribution of reefs, is shown to be very marked. But about the Pacific Islands, where streams are small, the same cause has had little effect, seldom doing more than modifying somewhat the shores and