XIV. THE OCEANIC CORAL ISLAND SUBSIDENCE.

Coral islands have been shown to be literally monuments erected over departed lands; and, through the evidence from such records, it is discovered that the Pacific has its deep-water mountain chains, or lines of volcanic summits, not merely hundreds, but thousands of miles in length. Some of the ranges of high islands are proved by such records to have an under-water prolongation, longer than that above water : the Hawaian Islands for example, which have a length of only four hundred miles from Hawaii to Kauai, and five hundred and thirty to Bird Island, the western rocky islet of the group, stretch on westward, as the coral registers show, even to a distance of two thousand miles from Hawaii, or, as far as from New York to Salt Lake City ; and how much farther is unknown, as the line of coral islands here passes the boundary of the coral-reef seas, or the region where coral records are possible.

Other ranges of submerged summits are shown to extend through the whole central Pacific, even where not a rocky peak remains above the surface : for all the coral islands from the eastern Paumotus to Wakes' Island, near long. 170° E. and lat. 19° N., north of the Ralick and Radack (or Marshall) groups, are in linear ranges ; and they have, along with the equally linear ranges of high islands just south, a nearly uniform trend, curving into north-west and north-north-west at the western extremity. The coral islands consequently cap the summits of linear ranges of elevations, and all these linear ranges together constitute a grand chain of heights, the whole over five thousand miles in length. Thus, the coral islands are records of the earth's submarine orography, as well as of slow changes of level in the ocean's bottom.

This coral-island subsidence is an example of one of the great secular movements of the earth's crust. The axis of the subsiding area—the position of which is stated on page 280, has a length of more than six thousand miles—equal to one quarter of the circumference of the globe ; and the breadth,