

tufaceous deposit is common on these rock islands. Sea caves excavated in the walls of these islands were also seen. These terraces in part mark the pauses in the post-Liguanea elevation of Jamaica.

*Coral Reefs.*—As has been pointed out, the post-Liguanea elevation reached an altitude of 120 feet, or possibly 200 feet on the northern side, higher than now, as the streams cut channels to this depth, which have since been drowned, (see page 350). Then followed the episode of depression to about 25 feet below the present altitude, when coral reefs and modern limestones began to be formed, which since then have been raised from 10 to 25 feet, or locally more. The narrow reefs occupy a considerable portion of the coast line on the northern side of the island, and were specially studied to beyond Montego Bay. Where the corals form the coast line, there are no beaches, except in coves. The floor of Montego Bay is covered with a beautiful garden of corals, of both massive and branching varieties. In part, the coral reefs which are raised to form the coast limestone, may be replaced by shell beds (Brown), and it is possible that some of the low fossiliferous shell bearing marls seen west of Montego Bay belonged to this modern episode, that is those beds which were not succeeded by other late formations. Still some of the coast limestones are the remnants of the older formations, such as those near Orange Cove and Hopewell.

*Beaches.*—The formation of the beaches is an interesting feature, as they are the exact reproduction of the deserted beaches of the Great Lake region of North America, but unlike the sandy Atlantic beaches at least south of New York, and many other places noticed north-east of that city. They form ridges from three to five feet above the sea, with depressions behind them, and in composition they are made up of sand and gravel, often somewhat coarse, derived from the harder portions of the White Limestones, or older rocks brought down by the streams. Along the Atlantic coast, all of the gravel has been ground to sand or very fine material, before reaching the present coast, and the beach ridges are not so sharply defined as in Jamaica. The Jamaican ridges appear to be due in part to the presence of the gravel in large quantities, and also to the almost complete absence of tides. In the Lake region the gravel has been derived from the boulder clay. The ridges are often not more than 25 feet, or they may be 200 feet across their crests. They are well developed between Hope Bay and Low Layton volcano, also west of Buff Bay and at Annatto Bay. West of Buff Bay a good representative of raised beaches may be seen.

Another interesting beach is that in front of Kingston Harbour,