

*Off Bermuda.*—During the two visits to Bermuda a number of soundings and dredgings were made around the islands and inside the reefs (see Chart 8). At a depth of 200 fathoms, about 2 miles from the reefs, the deposit was composed of large fragments of Coral, Foraminifera, Echinoderms, Polyzoa, Molluscs, Algæ, and concretionary lumps, some of which were 2 or 3 centimetres in diameter. At 380 fathoms, 3 miles from the reefs, the fragments were smaller, and, in addition to the above, there were many Pteropod and Heteropod shells. At 950 fathoms, 4 miles from the reefs, the particles were still smaller, and there was a considerable admixture of pelagic Foraminifera. At 1950 fathoms, 5 miles from the reefs, the deposit was a nearly pure Globigerina Ooze, made up chiefly of pelagic Foraminifera, with only a small proportion of species living on the bottom and fragments from the reefs. All these deposits contained from 81 to 93 per cent. of carbonate of lime. The residue, after treatment with dilute acid, consisted of a few siliceous spicules, of felspar, augite, magnetite, and glassy fragments. None of the mineral particles exceeded 0·07 mm. in diameter. At 2650 fathoms, 30 miles from the reef, the deposit was a Globigerina Ooze, containing over 60 per cent. of carbonate of lime, and Red Clay at still greater depths. The appearance of the deposits off the Bermudas, in depths of 200, 380, 950, and 1950 fathoms, is represented in the four figures of Plate XIII., and these show a gradual change in the size and nature of the calcareous organic remains with increasing depth and distance from the islands, although the percentage of carbonate of lime remains nearly the same at all depths.

Inside the reefs, in depths of 4 to 10 fathoms, there were Coral Muds and Sands, consisting for the most part of triturated fragments of calcareous Algæ, Corals, Polyzoa, mixed with which were Foraminifera, *Serpula*, Gasteropods, and Lamellibranchs. These gave on analysis from 86 to 95 per cent. of carbonate of lime. A few Sponge spicules, imperfect casts of Foraminifera, and Diatoms were also present; the mineral particles were few but relatively large, fragments of quartz and volcanic glass being the most abundant.

*Bermuda to Halifax.*—The deposits between Bermuda and the coasts of North America (see Chart 9) showed, irrespective of depth, a regular decrease in the quantity of carbonate of lime as the American shores were approached. While over 50 per cent. of carbonate of lime occurred at 2600 fathoms, about 100 miles from Bermuda, in 1240 and 1250 fathoms, near the American shores, only 15 and 16 per cent. were found. The large pelagic Foraminifera made up the principal part of the carbonate of lime in the deposits around Bermuda, but they disappeared almost completely from the bottom when within the influence of the Labrador current. Rhabdoliths likewise disappeared from the bottom along with the larger tropical pelagic Foraminifera, while Cocospheres were found in the deposits under the Labrador current. The remains of siliceous organisms were uniformly though sparingly represented, with, however, specific differences in the cold and warm regions.