entirely of volcanic minerals and pumice. Except the pumice, the mineral particles seldom exceeded 0·10 mm. in diameter, and generally they were much smaller. A few fragments of tufa coated with peroxide of manganese were dredged (see Diagram 3).

Off the Azores.—The afternoon of the 2nd July was spent in dredging in 50, 90, and 450 fathoms, in the straits between Pico and Fayal (see Chart 10). The deposit was a Volcanic Mud, containing pumice, fragments of volcanic rocks, plagioclase, sanidine, augite, magnetite, hornblende, black mica, and pelagic and other Foraminifera, Pteropods and other Molluscs, Coccoliths, Polyzoa, *Serpula*-tubes, and a few Radiolaria and siliceous Sponge spicules. In some instances the pumice stones were completely coated with *Serpula*, *Polytrema*, and calcareous Algæ.

The deposit at 900 fathoms between Pico and San Miguel was a Pteropod Ooze with 52·22 per cent. of carbonate of lime. The mineral particles were smaller than at the other stations in this section, but were of the same nature. At 1000 fathoms, between San Miguel and Santa Maria, the deposit was chiefly made up of pumice and volcanic minerals, with 8 per cent. of carbonate of lime.

Azores to Madeira.—Globigerina Ooze was found throughout this section between the Azores and Madeira (see Chart 6), containing from 55 to 80 per cent. of carbonate of lime. Pteropod shells were present in the shallower deposits, but absent in depths greater than 2000 fathoms, although one fragment was observed in the deposit from 2675 fathoms. The relatively high percentage of carbonate of lime at 2660 and 2675 fathoms, viz., 66 and 62 per cent., is worthy of note, compared with deposits from similar depths south of the banks of Newfoundland. The carbonate of lime here consisted almost wholly of the shells of pelagic Foraminifera in a very fragmentary condition. The fragments of siliceous organisms did not exceed 1 per cent. in any of the deposits.

The deposits in this section were remarkable for the large quantity of pumice which they contained; one or two fragments of quartz were observed but no particles of continental rocks could be detected (see Diagram 3).

Madeira to Cape Verde Islands.—The deposit to the west of the island of Palma (see Chart 6) in 1125 fathoms was a brown Volcanic Mud, containing about 6 per cent. of carbonate of lime. The size of the mineral particles rarely exceeded 0·15 mm. When the mud was passed through sieves the washings which remained were almost wholly made up of dead shells of Pteropods and Heteropods. In the dredge there were a few living animals and several large fragments of a dead Gorgonoid Coral, coated with manganese peroxide, similar to that obtained in 1525 fathoms about 200 miles further south on the Tenerife-Sombrero section. The next sounding was in 2300 fathoms, a little to the west of the position where the depth of 1525 fathoms was obtained in February. Here the deposit was a Globigerina Ooze, containing 57 per cent. of carbonate of lime. Later on the same day, 21st July, a sounding and dredging were obtained in 1675 fathoms, in nearly the