nodules taken in the North Pacific, but on several occasions the nuclei were teeth of sharks—*Oxyrhina*, *Lamna*, and *Carcharodon*—and in one instance a siliceous Sponge (*Farrea*) occupied the centre of the nodule. On the 12th July, from 2740 fathoms, the dredge contained a large tubfull of these dark brown manganese nodules, which, when rolled out on the deck, somewhat resembled in appearance a lot of potatoes, the largest being about the size of cricket balls.

Off Sandwich Islands.—The deposits near the Sandwich Islands (see Chart 37) were Volcanic Muds and Coral Sands. At 310 fathoms only a trace of mud was got on the beam of the trawl, while in the trawl was a piece of black volcanic ash and a portion of branching Coral (*Gorgonia*). In Honolulu Harbour the bottom at 4½ fathoms was a Volcanic Mud with 10 per cent. of carbonate of lime. This mud extended only to the reefs, for beyond the bottom consisted of Coral Sand with 88 per cent. of carbonate of lime. The minerals, however, were in both cases of volcanic origin.

Sandwich Islands to Tahiti.—The deposits between the Sandwich Islands and Tahiti (see Chart 38) presented many points of great interest. The mineral particles consisted of minute fragments of felspars, augite, hornblende, magnetite, and vitreous particles, magnetic (cosmic) spherules, and crystals of phillipsite, together with many pumice stones, palagonite, and manganese nodules. At each station these minerals varied much as to their relative abundance.

Between Hawaii and the 7th parallel of north latitude the depths ranged between 2650 fathoms and 3000 fathoms; the first two soundings were Volcanic Muds, the next in 3000 fathoms a Red Clay, the remaining four being Radiolarian Oozes consisting very largely of the remains of Radiolaria and Diatoms, these organisms becoming more numerous as the distance from Hawaii increased. There was hardly a trace of carbonate of lime in these deposits. The next three soundings were between the 6th parallel north and 1st parallel south latitude, the depths being 2550, 2925, and 2425 fathoms, and the deposits contained respectively 21, 71, and 81 per cent. of carbonate of lime, chiefly in the form of the shells of pelagic Foraminifera. The reason why such a relatively high percentage of carbonate of lime was found in these depths is probably explained by the fact that the pelagic Foraminifera and Molluscs were exceedingly abundant in the Equatorial and Counter Equatorial Currents which occupy the surface at these stations. In these deposits the Radiolaria and Diatoms were likewise numerous. The next three soundings, between 3° and 8° S., ranged between 2350 fathoms and 2750 fathoms, and were made up largely of Radiolaria and Diatoms, but contained in the surface layers a considerable number of pelagic Foraminifera shells. When the tube penetrated deeply into the deposit the deeper layers did not show any traces of carbonate of lime. The deposit at 11° 20′ S. and 150° 30′ W. in 2610 fathoms was a dark chocolate-coloured clay, containing an immense number of crystals of phillipsite, and together with these many fragments of palagonite and small nodules of manganese peroxide. The crystals of phillipsite made