

size of a hen's egg to that of a marble, was in the trawl. The surfaces of most of these were coated with peroxide of manganese, and to the upper portions there were attached Brachiopods, Hydroids, and Foraminifera.

Station 225, 4475 fathoms.—The sounding at this station indicated a considerable quantity of manganese, the sample of the deposit containing a very large number of grains of the black oxide of manganese, many of them of considerable size.

Station 226, 2300 fathoms.—There was over a litre of pumice stones in the trawl, all coated by layers of manganese.

Station 227, 2475 fathoms.—The sounding at this station indicated a large quantity of manganese.

Station 230, 2425 fathoms.—More than a dozen rolled pumice fragments, about the size of a hen's egg, covered with deposits of manganese, to one of which was attached a small Brachiopod, were collected.

Station 236A, 420 fathoms.—Several very large hardened pieces of the bottom, perforated by worms, whose tracks were frequently coated with manganese, were in the dredge.

Station 237, 1875 fathoms.—There were several large, very hard and compact, blocks of the deposit. Black coatings of manganese lined the surfaces of the worm-tubes which perforated the blocks. Several pieces of pumice had likewise on some portions of their surfaces deposits of manganese.

Station 241, 2300 fathoms.—Large numbers of pumice stones of all sizes, the majority covered with deposits of peroxide of manganese, were obtained. Two of these are represented in Pl. I. figs 7 and 8. Fig. 7 shows an irregular, white coloured fragment of liparitic pumice, the outer parts of which have been transformed into earthy matter, while in many of the fissures there are considerable deposits of peroxide of manganese, and in some parts concentric zones of manganese may be observed. Fig. 8 shows a black-brown scoriaceous fragment of basaltic pumice, which has an areolar rather than a fibrous structure, and the rounded vesicles are frequently filled with infiltrated clay, giving the fragment an oolitic appearance; crystals of plagioclase, 4 to 6 mm. in diameter, can be observed at the surface by the naked eye.

Station 242, 2575 fathoms.—There were several manganese nodules, the largest a little over 1 cm. in diameter, with nuclei of pumice.

Station 244, 2900 fathoms.—The bag of the trawl contained much clay and many pumice stones or manganese nodules, together with two sharks' teeth. The nodules in this instance all consisted of pumice stones, with deposits of manganese on the outside.

Station 246, 2050 fathoms.—In the trawl were procured several hundred rounded fragments of pumice. About forty of the largest had a diameter of about 30 cm., a large number about 2 cm., while in the washings of the ooze there were numerous fragments down to the minutest dimensions. Most of them were covered with deposits