

deposits being called Green Muds, although very pure glauconitic muds and sands were dredged in the shallow water of the Agulhas Bank, to be referred to in describing the section from Cape of Good Hope to Prince Edward Island.

*Sandy Point to Falkland Islands.*—On the return voyage the Challenger entered the Atlantic by the Strait of Magellan. The deposit at 55 fathoms, as well as in two other soundings, 70 and 110 fathoms (see Chart 42), was a coarse sand, the grains about one millimetre in diameter, consisting of quartz, jasper, felspars, mica, hornblende, augite, glauconite, pumice, and particles of crystalline and schistose rocks.

*Falkland Islands to Rio de la Plata.*—The deposit in 1035 fathoms in this section was a sandy gravel (see Chart 42). The trawl line carried away and the trawl was lost, but the tow-net attached to the line at the weights contained some of the gravel. The larger particles were from 1 to 2 cm. in diameter, brown coloured, flattened, ellipsoidal, derived from ancient continental formations, such as schist, gneiss, arkose, and sandstone, together with milky and hyaline quartz, felspar, augite, magnetite, microcline, hornblende, and glauconite. The glauconite was globular, ovoid, elongated, or vaguely triangular, with rounded angles; many of the particles were not so homogeneous as true glauconite, and appeared as aggregates of minerals cemented by a green matter. Sometimes they showed a schistoid structure, and often it was difficult to say whether the fragments were glauconite or pieces of rocks strongly impregnated with a chloritic substance. Mixed up with the above-mentioned sandy particles were calcareous Foraminifera, fragments of Molluscs, Brachiopods, Echinoderms, and Polyzoans. In 2040 fathoms the deposit was a Globigerina Ooze containing 33 per cent. of carbonate of lime. At 2425 fathoms there was a Blue Mud containing about 40 per cent. of mineral particles with a mean diameter of 0.12 mm., and 6 per cent. of carbonate of lime derived from bottom-living Foraminifera and small teeth of fish, the remainder of the deposit being composed of the remains of siliceous organisms, fine mineral particles, and clayey matter.

In 600 fathoms the deposit was a Blue Mud, green-grey in colour, containing 12 per cent. of carbonate of lime. In the sounding tube and in the trawl there were several small concretions, from 1 to 3 cm. in diameter, nodular, more or less elliptical, and varying in colour from grey-green to yellow-green. They were agglutinations of the clastic materials forming the deposit, cemented together by a clayey matter united with a chloritic mineral, but were not very coherent. Cut into thin sections, they were seen to be formed of angular fragments of quartz (1.0 to 0.5 mm. in diameter), of felspars, some of which were triclinic, of hornblende, of glauconite, and of garnet. The amorphous matter cementing this sand was finely granular, and impregnated with a green or yellowish chloritic substance, with vague outlines and non-birefrangent, the same as that observed upon the isolated grains of the mud. With these sandy agglutinations were associated rounded elliptical fragments with a diameter of from 1 to 2 cm.; they were green, fine grained, could be scratched with steel, and at first sight appeared to have the