grain and structure of glauconite. Examined with the microscope, they presented a greenish fundamental mass, with scattered colourless and irregular particles (0·05 mm. in diameter), and black and brown points which appeared to be organic. With polarised light the colourless particles with vague contours were seen to be crystalline, and were probably felspar or quartz. Other fragments with a coarser grain were seen, under the microscope, to be composed of felspar and quartz perfectly discernible, cemented and surrounded by chlorite.

Off Monte Video.—In leaving the Rio de la Plata two hauls of the trawl were obtained in 13 and 21 fathoms (see Chart 16). The deposit in the former depth was a blue tenaceous mud containing large fragments of Molluscs and plants, and many sandy particles; in the latter, sand and shells.

Rio de la Plata to Ascension.—In 1900 fathoms, off the mouth of the Rio de la Plata (see Chart 16), the deposit was a Blue Mud, containing about 3 per cent. of carbonate of lime, which consisted chiefly of a few shells of pelagic Foraminifera. The six following soundings showed depths ranging between 2650 and 2900 fathoms. Four of these contained not more than a trace of carbonate of lime, and no remains of calcareous organisms were observed; the other two had 3 and 4 per cent. The remains of siliceous organisms made up about 5 per cent. of the deposits. The mineral particles had a mean diameter of 0·1 mm. or less, and consisted of fragments of quartz, plagioclase, augite, grains of magnetite, mica, and a very large number of fragments of pumice and volcanic scoriæ. The fragments making up these deposits appear to have been mostly derived from the Rio de la Plata, the influence of which on the deposits could be distinctly traced several hundred miles seawards.

When the depth diminished as the Tristan plateau was reached, the character of the deposits likewise changed. A sounding in 2440 fathoms gave 10 per cent. of carbonate of lime. All the other soundings, on the plateau surrounding Tristan da Cunha and extending north to the Island of Ascension, ranged from 2200 to 1240 fathoms. The percentage of carbonate of lime varied from 66 to 98 per cent., the proportion being greater in the lesser depths. In depths less than 1500 fathoms the deposits appeared to be largely made up of the dead shells of pelagic Molluscs, such as Pteropods, Heteropods, and pelagic Gasteropods, and they have in consequence been called Pteropod Oozes. In depths of 2000 fathoms and deeper these shells were almost completely removed from the deposits, which then consisted chiefly of pelagic Foraminifera.

Off Ascension.—A sounding in 420 fathoms, about 5 miles distant from Ascension Island (see Chart 43), was a Globigerina Ooze with 97 per cent. of carbonate of lime, made up of pelagic Foraminifera and pelagic Molluscs. Another similar deposit, nearer to the island, contained a much higher percentage of volcanic minerals, the proportion of carbonate of lime being 71 per cent. These deposits might be equally well classed as Pteropod Ooze.