The bottom temperature at depths exceeding 1800 fathoms was again remarkably uniform, varying only 0°·2, the mean being 36°·5 and the extremes 36°·4 and 36°·6.

The serial temperatures of this section showed some peculiarities, which, from previous experience, had not been expected. Up to this time the isothermal lines had run fairly parallel with the surface, no matter whether proceeding in an east and west, or north and south direction, unless some disturbing cause, such as the Labrador Current, interfered to prevent their doing so; but, in this section, the lower isotherms all rose towards the south. Thus, the isotherm of 40° maintained an average depth of 950 fathoms for 450 miles from Madeira, and then rose gradually, though somewhat irregularly, to 800 fathoms at St. Vincent. The isotherm of 45° rose irregularly from a depth of 700 fathoms at Madeira to 380 fathoms at St. Vincent; and the isotherm of 50° rose from 420 fathoms at Madeira to 200 fathoms at St. Vincent. The isotherms above 50° were nearly parallel with the surface.

No regular current observations were taken on the passage to St. Vincent, but it was noticed, whilst dredging under the lee of Palma Island, that the surface water was running to the northward, at an estimated rate of one mile per hour, and on the 26th July, at Station 92, it again had a northerly tendency.

On the 18th July, at Station 84, the velocity of the wind was 22 miles per hour by the anemometer, its force being registered as from 5 to 6.

At 11 P.M. on the 26th July the island of San Antonio was sighted, and the ship stood off for the night. On the 27th, as soon as the fog cleared off the land, a line of soundings was carried into the channel between the islands of St. Vincent and San Antonio (see Sheet 11), and the ship anchored in Porto Grande at 4.30 P.M.

The deposit to the west of the island of Palma 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 0·25 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 animals and several large fragments of a dead Gorgonoid Coral (*Corallium*), coated with manganese peroxide, similar to that obtained in 1525 fathoms about 200 miles further south on the Tenerife–Sombrero section (see page 125). The next sounding was in 2300 fathoms, a little to the west of the position where the depth of 1525 fathoms just referred to was observed 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, on the same hard ground with dead coral, and in nearly the same position as in February, when the dredge brought up more of the black coral, fragments of a Polyzoon (*Nellia simplex*), one specimen of *Ophiomusium pulchellum*, one of *Ophiomitra carduus*, and two Peneid Shrimps. In 2300 and 2400 fathoms farther south a Globigerina ooze with 64 and 58 per cent. of carbonate of lime was obtained, containing no Pteropod or Heteropod shells. The mineral particles were