

On August 21, at Station 102, velocity of wind was	13 miles per hour ; force registered	2 to 3
„ 22 „ 103, „	15 „	2
„ 23 „ 104, „	12 „	2
„ 24 „ 105, „	11 „	2
„ 25 „ 106, „	15 „	3
„ 26 „ 107, „	12 „	3
„ 27 „ 108, „	13 „	3
„ 28 at St. Paul's Rocks ¹ „	9 „	3
„ 29 „ „ „	10 „	4

On the 27th August, at 2 P.M., St. Paul's Rocks or islets were seen from the masthead at a distance of 18 miles, and at 3 P.M. from the deck, at a distance of 9 or 10 miles.

The depths in the section along the African coast varied from 2575 fathoms to 1750 fathoms. From the point where the course of the ship was turned to the westward a nearly level plateau extends for 500 miles, the depth being from 2300 to 2500 fathoms, after which a gradual elevation takes place to 1500 fathoms 150 miles east of St. Paul's Rocks, and then a depression to 1900 fathoms at a distance of 60 miles from the rocks.

The deposits at the two depths, 2575 and 2500 fathoms, near the African coast, contained respectively 30 and 6 per cent. of carbonate of lime, the small percentage in the latter being due to continental debris, but at all the other Stations there was over 50 per cent., and at 1850 fathoms in Mid Atlantic the amount reached 90 per cent. In all the deposits the carbonate of lime consisted chiefly of pelagic Foraminifera, Coccoliths, and Rhabdoliths, with a few fragments of Echinoderms and other organisms. An analysis of the mud from the dredge at Station 102 (2450 fathoms) gave 83 per cent. of carbonate of lime. A careful examination of a large quantity of this deposit showed that nearly the whole of the carbonate of lime present consisted of the dead shells of surface organisms, and it was estimated that of the 83 per cent. of carbonate of lime, 75 per cent. was due to pelagic Foraminifera, 6 per cent. to Coccoliths, and 2 per cent. to other calcareous Foraminifera, fragments of Echinids, and Ostracodes. *Pulvinulina menardii* and its variety *tumida* were the most abundant forms, but *Globigerina sacculifera*, *Globigerina dubia*, *Globigerina conglobata*, and *Sphaeroidina dehiscens* were also very abundant. It is worthy of notice that the majority of the shells were very large; and the more delicate surface forms, as *Hastigerina* and *Candeina*, appeared to be quite absent. The typical *Globigerina bulloides* did not appear to be present. The Foraminifera here were thick-shelled and of large size, and it was precisely in this region that the largest specimens of pelagic Foraminifera were obtained on the surface by means of the tow-net. Many of the shells were broken and appeared to be in a crumbling con-

¹ The velocities at St. Paul's Rocks may be affected by the land to windward.