

XLIV., just within the Gulf-stream, it was $1^{\circ}7$ C., and it is singular that so near one of the sources of cold, and directly in the path of one of the most marked polar return currents, the temperature of the bottom water should be higher than that of the deep water of the Middle and South Atlantic.

We sounded on the morning of the 2d of May, at a distance of 209 miles from Sandy Hook, in 1700 fathoms, with a bottom of bluish-gray mud, containing a considerable proportion of *Globigerinæ*, but not what could be called a true globigerina ooze. The bottom temperature was $1^{\circ}7$ C. In the course of the day, temperature soundings were taken down to 1500 fathoms at intervals of 50 and 100 fathoms (Appendix A), and at intervals of 25 to 200.

Surface.....	11°0 C.	125 fathoms.....	8°3 C.
25 fathoms.....	10·5	150 "	6·6
50 "	11·4	175 "	—
75 "	10·8	200 "	5·5
100 "	9·7		

Although on the surface the influence of the Gulf-stream was still felt to a certain extent, the contrast between the observations of this day and those of the day before was most marked; we had crossed the "cold wall," and the temperatures registered were almost purely those of the Labrador return current. The dredge was put over shortly after midday, and veered to 2500 fathoms. It came up in the evening with a considerable quantity of the bluish clay, and the dredge-bag contained many animals of different invertebrate groups, while a large assemblage of larger and more striking forms were on the tangles. The collection as a whole had a decidedly arctic character, and recalled some of our dredgings on the coasts of Northern Europe, although it seemed that few of the forms were absolutely identical. There were many large foraminifera; most of these were of the arenaceous type, but there were also several calcareous forms, including large examples of *Cristellaria*, *Pulvinulina*,