and large PYCNOGONIDÆ. Mollusca were more numerous than usual, doubtless on account of the small depth, including species of the genera *Sepiola*, *Fusus*, *Buccinum*, *Trophon*, *Yoldia*, *Astarte*, *Arca*, etc. The annelids were represented by a large form allied to *Aphrodita*, which was in great numbers, *Onuphis*, *Sabella*, and others; and the echinoderms, which as usual were abundant and prominent, by fine species of the genera *Astrogonium* and *Archaster;* a few urchins, including *Tripylus fragilis;* and many of a small *Psolus*, probably *P. squamatus*, MÜLLER. A series of soundings were taken at every 20 fathoms from the surface.

Surface	4°·7 C.	60 fathoms	1°·75 C.
20 fathoms	3·2	83 "	1·75
40 "	1·75		

which showed that the minimum temperature of 1°·75 C. was reached at a depth between 20 and 40 fathoms.

We sounded and trawled again on the following day in 1250 fathoms with a bottom of gray ooze, and a bottom temperature of 2°·7 C. Again echinoderms, including *Antedon*, *Brisinga*, *Archaster*, and *Ophiomusium* predominated; but we had in addition some good corals, and among them some specimens of *Caryophyllia borealis* of an unusually large size. Sticking all over the outside of the bag, there were many examples of a small Holothurian, with an outer wall so delicate that in almost every case the intestine, which was loaded with ooze, had broken through it and destroyed the specimen.

The depth on the 22d was 2020 fathoms, and the bottom an impure globigerina ooze. Serial temperatures were taken (Appendix A), and we essayed to dredge, but the dredge-rope parted at 1700 fathoms without any apparent cause. There was now a very decided rise in the surface temperature as we approached the northern borders of the Gulf-stream.

Next day we sounded in 2800 fathoms. We took a series of temperature soundings, but a very heavy swell from the south-