

We left Santa Cruz on the evening of Friday, the 14th of February. The weather was bright and pleasant, with a light breeze—force equal to about 5—from the north-east. Our course during the night lay nearly westward, and on the morning of the 15th we sounded about 75 miles from Teneriffe and 2620 miles from Sombrero Island, the nearest point in the Virgin Group, in 1891 fathoms, with a bottom of gray globigerina ooze mixed with a little volcanic detritus. The average of two Miller-Casella thermometers gave a bottom temperature of 2° C.

The dredge was put over at 9 A. M., but came up empty some hours later, the rope having apparently fouled when paying out.

The ship was steamed round to obtain the deviation of the compass, using the true bearing of the Peak of Teneriffe; and this very important manœuvre may possibly have had something to do on this occasion with the miscarriage of the dredging, always a delicate operation at such depths when there is any drift. During the day Lieutenant Bethell took a series of temperatures, at intervals of 100 fathoms down to 1000 with Mr. Siemens's resistance deep-sea temperature apparatus. A Miller-Casella thermometer was attached to the cable at every 100 fathoms, so that the one method of determination might check the other. The sounding gave the following result:

Depth.	Temperature by Siemens's Apparatus.	Temperature by Miller-Casella Thermometer.
Fathoms.		
100	15°·3 C.	16°·5 C.
200	13·6	13·2
...
500	8·0	8·0
700	6·6
800	5·5	5·1
1000	5·4	4·0

This result appeared to be, on the whole, satisfactory for a first trial, and it was Mr. Bethell's impression that with a little more