

Temperature of water :—

STATION 41.

Surface,	65.0	250 fathoms,	62.6
25 fathoms,	64.9	300 "	61.2
50 "	64.8	350 "	59.3
75 "	64.7	400 "	56.2
100 "	64.5	450 "	52.2
125 "	64.3	500 "	48.0
150 "	64.1	550 "	45.0
175 "	63.8	600 "	42.0
200 "	63.5	650 "	40.8
225 "	63.1		

Density at 60° F. at surface, 1.02703.

At 7 A.M. proceeded under steam to sound. Blowing hard, with a heavy swell. Attempted to take a series of temperatures, but could not succeed. At 7.50 A.M. the starboard wheel-rope was carried away, and the necessary repairs caused some delay. Later in the day swell moderated, and at 3.40 P.M. proceeded to obtain serial temperatures down to 650 fathoms.

Distance from Sandy Hook at noon, 324 miles. Made good 101 miles. Amount of current 12 miles, direction N. 40° W.

Station 42 (Sounding 100), Bermuda to Halifax (see Chart 9 and Diagram 2).

STATION 42.

April 30, 1873 ; lat. 35° 58' N., long. 70° 35' W.

Temperature of air at noon, 61°.5 ; mean for the day, 61°.8.

Temperature of water :—

Surface,	65.0	1300 fathoms,	38.2
900 fathoms,	40.2	1400 "	37.9
1000 "	39.2	1500 "	37.6
1100 "	38.8	Bottom,	36.8
1200 "	38.5		

Density at 60° F. at surface, 1.02695 ; bottom, 1.02668.

Depth, 2425 fathoms ; deposit, Blue Mud, containing 24.34 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 6.30 A.M. shortened sail, and got up steam to sound. At 8 A.M. sounded in 2425 fathoms. Sent down water-bottle and two thermometers. The water-bottle seemed to have fallen on its side into the mud before closing, as it contained a considerable quantity of the upper layer of mud. The swell was still heavy, and sounding operations were carried on with some difficulty. Serial temperatures were, however, obtained from 900