Temperature of water :---

Surface, .				7 ⁸ .0	900 fathon	118, .		38°3
100 fathoms,		•		54.5	1000 "			38.1
200	,,	•3	•	45.4	1100 "	1.20		37.9
300	"			41.9	1200 "			37.7
400	,,			40.0	1300 "			37.5
500	,,			3 9·3	1400 "			37.2
600	"	•		39.0	1500 "			37.0
700	"		. •	38.7	Bottom,			34.3
800	,,			38.5				

Density at 60° F. at surface, 1.02628; bottom, 1.02609.

Depth, 2275 fathoms; deposit, Globigerina Ooze, containing 65.04 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 9.20 A.M. shortened and furled sails, and got up steam to sound. Sounded in 2275 fathoms, obtained serial temperatures at intervals of 100 fathoms down to 1500 fathoms, and sample of bottom water for analysis. At 1.10 P.M. completed observations, and at 1.40 P.M. made all plain sail.

Distance at noon from Cape St. Roque, 90 miles; from Pernambuco, 192 miles; from Bahia, 556 miles. Made good 107 miles. Amount of current 30 miles, direction N. 75° W.

DIATOMACE.E.—The following three species of Diatoms were observed by Mr. Comber ORGANISMS FROM in the deposit from this Station :—

Hemidiscus cuneiformis, Wallich.

Coscinodiscus radiatus, Ehrenberg. ,, nodulifer, Janisch.

Stations 117 and 117A (Soundings 195 and 196), Fernando Noronha to STATIONS 117 Pernambuco (see Chart 12).

September 6, 1873 ; lat. 5° 56' S., long. 34° 45' W.

Temperature of air at noon, 77°.8; mean for the day, 76°.7.

Temperature of water at surface, 78°.0.

Density at 60° F. at surface, 1.02673.

Depth, 1375 fathoms; (deposit, Globigerina Ooze, containing 56.59 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 10 A.M. got up steam, and at 11.30 A.M. shortened and furled square sails. At noon, proceeded under steam and fore and aft sails. Descried South American shore from