

Density at 60° F. at surface, 1·02708 ; bottom, 1·02700.

STATION 53.

Depth, 2650 fathoms ; deposit, Blue Mud, containing 31·88 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 5.45 A.M. stopped to sound and obtain temperatures. At 7 A.M. sounded in 2650 fathoms. At 9 A.M., after commencing temperature operations, the line, with seven thermometers attached, carried away, having fouled the propeller. Continued taking serial temperatures down to 1500 fathoms. The carbonic acid was determined in bottom water, and amounted to 64·0 milligrammes per litre ; the water was slightly turbid with calcium carbonate. The wind fell to a calm, and the ship proceeded under steam.

Distance from Bermuda at noon, 261 miles. Made good 69 miles. Amount of current 8 miles, direction N. 61° E.

Surface Organisms.—The following species is recorded from the surface at this Station :—

ORGANISMS FROM
SURFACE-NETS.

PTEROPODA (Pelseneer, Zool. pt. 65).

Clio pyramidata, Linné.

Willemoes-Suhm writes : " Among the surface things there was a Pteropod distinguished by two pairs of lateral appendages, one pair bearing thread cells. It was, as the ovary showed, a full-grown animal. It has been figured by Eschscholtz ; Rang reproduces the figure, adding that he does not believe it to be a good species, but that Eschscholtz was deceived by some foreign bodies hanging out of the shell of a *Cleodora* [= *Clio*] *cuspidata*, among the synonyms of which he therefore places it. Our figure shows that *Cleodora pleuropus*, Rang, is a perfectly distinct and ' good ' species. There was also a young, very transparent, *Sipunculus*, which shows that these worms, after having quitted the larval stage, continue to swim at the surface for a certain time, probably by the aid of their tentacles. There were, besides, shrimps belonging to *Euphausia* and *Thysanopoda*, and many specimens of *Lucifer*, of which I never could hitherto find the female ; males with ripening spermatophores were, however, frequently observed."

Station 54 (Sounding 113), Halifax to Bermuda (see Chart 9 and Diagram 2).

STATION 54.

May 27, 1873 ; lat. 34° 51' N., long. 63° 59' W.

Temperature of air at noon, 72°·0 ; mean for the day, 71°·3.