

Density of water at 60° F. at surface, 1·02730 ; bottom, 1·02650.

STATION 1.

Depth, 1890 fathoms ; deposit, Globigerina Ooze, containing 50 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 8 A.M. sounded in 1890 fathoms, when a water-bottle was sent down for the first time with the sounding lead. At 9 A.M. the dredge was put over. At noon Siemens' thermometric apparatus was tried for the first time down to a depth of 1000 fathoms, with fair results. At 1.30 P.M. commenced to haul in dredge, and at 2 P.M. obtained temperatures at various depths by means of thermometers and Siemens' apparatus. The dredge came up empty at 4 P.M., having probably fouled the rope in paying out.

Position at noon about 40 nautical miles south of the southern extremity of Tenerife Island ; Sombrero Island distant 2620 miles. Made good 76 miles. Amount of current 8 miles, direction S. 75° W.

Surface Organisms.—The following are recorded in the note-books as having been captured at the surface :—

ORGANISMS FROM
SURFACE-NETS.

Peridinium ; *Diphyes* ; *Sagitta* ; *Alciopa*, *Terebella* ; *Hyalophyllum* [= *Saphirinella*], *Copilia*, *Hyperia*, *Phronima*, *Mysis*, *Zoëæ* ; *Atlanta*, *Firoloida* ; *Styliola*, *Diacria* [= *Cavolinia*], *Heterofusus* (?) [= *Limacina*] ; Cephalopod ; *Salpa*, *Appendicularia*, *Doliolum* ; and young fishes.

February 16, 1873.

Surface Organisms.—The following are recorded in the note-books as having been captured in the surface tow-nets, which skimmed the surface only as the vessel was moving fast :—Siphonophoræ, Copepods, *Idothea*, *Lucifer*, *Phyllosoma*, many *Zoëæ*, *Cavolinia*, *Styliola*, two empty shells of *Spirula*.

ORGANISMS FROM
SURFACE-NETS.

Willemoes-Suhm writes : " I found a young specimen belonging to the Saphirinæ with two long pigment bodies, but only one large cornea ; perhaps it may divide later, or it may be that this is a species in which the cornea is undivided. We found for the first time the singular genus *Lucifer*, which is referred by Claus to the Decapods, and by Gerstaecker to a family intermediate between the Squillinæ and the Schizopods."

Station 2 (Sounding 46), Tenerife to Sombrero (see Chart 6 and Diagram 1).

STATION 2.

February 17, 1873 ; lat. 25° 52' N., long. 19° 22' W.

Temperature of air at noon, 65°·3 ; mean for the day, 64°·2.