

Density at 60° F. :—

STATION 283.

Surface,	1·02633	200 fathoms,	1·02595
25 fathoms,	1·02632	300 „	1·02561
50 „	1·02617	400 „	1·02538
75 „	1·02617	Bottom,	1·02583
100 „	1·02617		

Depth, 2075 fathoms; deposit, Globigerina Ooze, containing 46·61 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 8 A.M. got up steam. At 9 A.M. shortened and furled sails. At 10 A.M. sounded in 2075 fathoms. Nearly a foot of the deposit came up in the tube, the upper surface being a light yellow Globigerina Ooze; passing down the tube the ooze became gradually darker, till at the bottom there was a dark chocolate coloured clay containing rounded pellets of manganese and many yellow crystals of phillipsite. Obtained serial temperatures down to 1500 fathoms. At 12.55 P.M. completed observations and made sail. A large albatross (*Diomedea exulans*), large black or brown petrels, another petrel of a lighter colour, and five or six apparently land-birds, like plovers, were seen.

Distance at noon from Valparaiso, 3854 miles; from Oparo Island, 101 miles; from Lancaster or Neilson Reef, about 70 miles. Made good 161 miles. Amount of current 23 miles, direction N. 41° E.

Surface Organisms.—The following are recorded in the note-books from the surface at this Station:—*Peridinium*, *Pyrocystis*, *Ethmodiscus* and other Diatoms, Coccospheres, Rhabdospheres, *Globigerina*, Acanthometræ, Polycystinæ, and other Radiolaria, Infusoria, Siphonophoræ, *Sagitta*, *Alciopa*, *Tomopteris*, *Cypridina*, *Copilia*, *Saphirina*, and other Copepods, *Evadne*, *Euphausia*, *Lucifer*, small Lamellibranch shells, *Salpa*, *Appendicularia*.

ORGANISMS FROM
SURFACE-NETS.

Station 284 (Sounding 429), Tahiti to Valparaiso (see Chart 38 and Diagram 19). STATION 284.

October 11, 1875; lat. 28° 22' S., long. 141° 22' W.

Temperature of air at noon, 67°·8; mean for the day, 66°·5.

Temperature of water :—

Surface,	63·0	150 fathoms,	59·0
25 fathoms,	67·4	175 „	56·8
50 „	66·6	200 „	54·6
75 „	65·0	225 „	52·5
100 „	63·2	250 „	50·2
125 „	61·0	275 „	48·1