

STATION 286.

Station 286 (Sounding 431), Tahiti to Valparaiso (see Chart 38 and Diagram 19).

October 16, 1875 ; lat. 33° 29' S., long. 133° 22' W.

Temperature of air at noon, 61°·8 ; mean for the day, 60°·0.

Temperature of water :—

Surface, . . . . .	63·0	400 fathoms, . . . . .	42·4
25 fathoms, . . . . .	62·6	500 " . . . . .	41·0
50 " . . . . .	59·4	600 " . . . . .	40·0
75 " . . . . .	59·4	700 " . . . . .	39·0
100 " . . . . .	59·4	800 " . . . . .	38·2
125 " . . . . .	57·3	900 " . . . . .	37·7
150 " . . . . .	54·3	1000 " . . . . .	37·1
175 " . . . . .	51·3	1100 " . . . . .	36·5
200 " . . . . .	49·0	1200 " . . . . .	36·2
225 " . . . . .	47·5	1300 " . . . . .	36·0
250 " . . . . .	46·2	1400 " . . . . .	35·9
275 " . . . . .	45·3	1500 " . . . . .	35·8
300 " . . . . .	44·5	Bottom, . . . . .	34·8

Density at 60° F.:—

Surface, . . . . .	1·02608	300 fathoms, . . . . .	1·02545
25 fathoms, . . . . .	1·02602	400 " . . . . .	1·02548
50 " . . . . .	1·02603	800 " . . . . .	1·02536
100 " . . . . .	1·02599	2290 " . . . . .	1·02570
200 " . . . . .	1·02563	Bottom, . . . . .	1·02570

Depth, 2335 fathoms ; deposit, Red Clay, containing 25·13 per cent. of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

Under steam all night. At 5.10 A.M. stopped, and at 5.30 A.M. sounded in 2335 fathoms. Two layers were to be observed in the contents of the sounding-tube ; the upper two inches were very dark red and contained very little carbonate of lime, the lower four or five inches light yellow, smooth, firm, containing a considerable quantity of carbonate of lime, and with much less manganese than in the upper layer, this being the reverse order in which the layers have been noticed at the last few Stations. At 8 A.M. put trawl over and veered 2800 fathoms. Sent whaler away with naturalist for surface collecting. Obtained serial temperatures down to 1500 fathoms. At 1 P.M. commenced heaving in trawl, which came up with several specimens, about two bushels of manganese nodules and pumice-stones, over three hundred sharks' teeth and fragments, and about ninety tympanic bullæ and forty-two detached petrous bones, beaks of Ziphioid whales, fragments of flat and spongy bones, and numerous other small fragments forming nuclei of the manganese nodules, a large granitic pebble, apparently ice-borne, and numbers of