

of the wind, as registered when under sail, differed considerably from the direction noted when, sail being shortened, the ship was brought head to wind to sound. For instance, on the 24th June, at Station 242, the direction of the wind was noted as south when under sail, the course of the ship being east, and the speed 9 knots per hour, but when brought head to wind, the direction was found to be S.S.W. to S.W. by S. The following table shows the results of the anemometer observations whilst the ship was stationary :—

Date. 1875.	Station.	Velocity of wind in miles per hour.	Force of wind by Beaufort's scale, as noted in log.
June 24	242	19	4 to 5, mean $4\frac{1}{2}$
„ 26	243	8	1 to 2, mean $1\frac{1}{2}$
„ 28	244	8	1 to 2, mean $1\frac{1}{2}$
„ 30	245	10	2
July 2	246	5	1
„ 3	247	7	2
„ 5	248	9	2
„ 7	249	25	5 to 6, mean $5\frac{1}{2}$
„ 9	250	20	4 to 5, mean $4\frac{1}{2}$
„ 10	251	9	2
„ 12	252	7	1 to 2, mean $1\frac{1}{2}$
„ 14	253	11	2 to 3, mean $2\frac{1}{2}$
„ 17	254	6	1 to 2, mean $1\frac{1}{2}$
„ 19	255	6	1
„ 21	256	8	1 to 2, mean $1\frac{1}{2}$
„ 24	258	11	2
„ 26	259	18	3

The deposits between Japan and the Sandwich Islands were most interesting. In all the greater depths there was no carbonate of lime in the deposits, but it is instructive to notice that at two Stations where the depth was less than the average, viz., 2300 and 2050 fathoms, there was respectively 17 and 56 per cent. of carbonate of