

commanded by a brake. The reel held about 4,000 fathoms of medium No. 2 line of the best Italian hemp, the No. of threads 18, the weight per 100 fathoms 12 lbs. 8 ozs., the circumference 0·8 inch, and the breaking strain, dry, 1,402 lbs., soaked a day 1,211 lbs., marked for 50, 100, and 1,000 fathoms.

The weather was remarkably clear and fine; the wind from the north-west, force = 4; the sea moderate, with a slight swell from the north-west. We were in lat. 47° 38' N., long. 12° 08' W., at the mouth of the Bay of Biscay, about 200 miles to the west of Ushant. The sounding instrument, with two Miller-Casella thermometers and a water bottle attached a fathom or two above it, was cast off the letting-go frame at 2h. 44m. 20s. p.m. The line was run off by hand from the reel and given to the weight as fast as it would take it, so that there might not be the slightest check or strain. The following table gives the absolute rate of descent :—

Fathoms.	Time.	Interval.	Fathoms.	Time.	Interval.
	h. m. s.	m. s.		h. m. s.	m. s.
0	2 44 20	—	1300	2 58 5	1 23
100	2 45 5	0 45	1400	2 59 37	1 32
200	2 45 45	0 40	1500	3 1 9	1 32
300	2 46 30	0 45	1600	3 2 42	1 33
400	2 47 25	0 55	1700	3 4 19	1 37
500	2 48 15	0 50	1800	3 6 6	1 47
600	2 49 15	1 0	1900	3 7 53	1 47
700	2 50 24	1 9	2000	3 9 40	1 47
800	2 51 23	0 59	2100	3 11 29	1 49
900	2 52 45	1 22	2200	3 13 24	1 55
1000	2 54 0	1 15	2300	3 15 23	1 59
1100	2 55 21	1 21	2400	3 17 15	1 52
1200	2 56 42	1 21	2435	3 17 55	0 40