

RATES OF CHRONOMETERS
ON TRIAL
FOR PURCHASE BY THE BOARD OF ADMIRALTY,
AT THE
ROYAL OBSERVATORY, GREENWICH.

1842 and 1843.

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY,

NAME OF MAKER.	Number.	Whether Pocket, 1, 2, or 8 Days.	(I)—WEEKLY SUMS OF DAILY RATES														
			1842. Dec. 10—17	Dec. 17—24	Dec. 24—31	Dec. 31— Jan. 7	1843. Jan. 7—14	Jan. 14—21	Jan. 21—28	Jan. 28— Feb. 4	Feb. 4—11	Feb. 11—18	Feb. 18—25	Feb. 25— Mar. 4	Mar. 4—11	Mar. 11—18	Mar. 18—25
Molyneux	2185	1	...	...	...	...	...	+ 2.4	+ 5.8	+ 6.6	+ 1.7	0.0	+ 2.3	+ 2.2	+ 1.5	+ 6.6	+ 5.1
Cotterell and Co.	$\frac{0.2.0}{2.5.3.9}$	2	...	...	...	...	...	...	+13.5	+11.3	+17.6	+18.6	+19.1	+18.2	+17.6	+17.1	+10.5
Fletcher.....	950	2	...	...	...	...	...	...	- 8.4	- 6.0	- 7.3	- 7.9	- 4.3	- 6.0	- 3.4	+ 1.2	+ 0.6
W. Webb, Jun.....	5021	2	...	...	...	...	...	...	- 1.9	- 1.7	- 5.0	- 5.6	- 1.0	- 3.2	- 3.4	+ 1.4	+ 1.4
Molyneux	2189	2	...	...	...	...	...	...	+19.7	+13.3	+18.3	+17.4	+17.9	+17.9	+16.2	+15.9	+11.4
Dent	1504	2	...	...	...	...	...	...	- 2.4	- 2.9	+ 0.6	- 1.4	+ 2.5	+ 1.5	+ 0.1	+ 3.5	- 2.1
C. Frodsham.....	1957	2	...	...	...	...	...	...	- 1.3	- 0.8	+ 3.8	+ 5.6	+ 7.0	+ 5.5	+ 3.6	+ 6.7	- 0.6
Appleton.....	420	2	...	...	...	...	...	...	-23.9	-21.3	-24.4	-25.3	-23.3	-24.7	-24.8	-18.0	-17.1
Parkinson and Frodsham	2496	2	...	...	...	...	...	...	+ 1.6	+ 2.5	- 3.2	- 6.6	- 2.7	- 4.8	- 5.3	+ 2.4	+ 4.4
Dent	1782*	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	- 1.7
Baker	1072	2	...	...	...	...	...	- 7.9	- 7.1	- 7.5	- 8.2	- 7.0	- 5.6	- 9.7	- 8.9	- 3.2	- 5.6
Cotterell and Co.	$\frac{0.1.7}{2.5.0.9}$	2	...	...	...	...	...	...	+10.0	+ 8.6	+13.7	+17.7	+12.3	+13.0	+11.9	+14.2	+19.2
Baker	1076	2	...	...	...	...	...	- 9.1	- 7.0	- 8.5	-12.6	-12.8	-10.3	-13.9	-14.1	- 9.6	- 7.9
Appleton	467	2	...	...	...	...	...	...	-22.5	-19.9	-25.6	-24.8	-22.2	-26.2	-25.0	-17.9	-17.8
Hewitt	1055*	2	...	...	...	...	...	(+ 5.8)	(+ 4.9)	(+ 7.5)	(+ 8.5)	(0.0)	(+ 4.3)	+ 0.8	- 3.2	+ 3.4	+ 1.1
Litherland and Davies..	$\frac{1.0.1.0}{1.8.0.5.9}$	2	...	...	...	...	...	...	+11.4	+12.9	+16.1	+15.5	+14.4	+11.0	+10.8	+16.1	+17.2
C. Frodsham	1869	2	...	...	...	...	...	...	+ 1.0	- 6.0	+ 2.1	+ 3.6	+ 0.8	+ 0.9	+ 1.2	- 1.5	- 5.6
Muston	868	2	...	...	...	...	...	- 7.2	- 2.2	- 1.2	-12.7	-14.1	- 8.5	-11.4	-11.1	- 4.1	- 5.6
Roskell	$\frac{1.0.8.5}{5.3.1.0.9}$	2	...	...	...	...	...	...	-14.9	-16.8	-18.5	-28.9	-21.8	-25.5	-28.7	-18.0	-18.8
Roskell	$\frac{1.0.8.4}{5.3.1.0.9}$	2	...	...	...	...	...	...	- 7.1	-11.6	- 7.7	- 7.3	- 3.7	- 6.8	- 7.1	- 6.5	-11.7
Arnold	1542	1	...	...	...	...	...	...	+ 0.7	- 1.7	+ 3.6	+ 2.6	+ 3.2	+ 2.1	+ 1.2	- 0.7	- 3.8
Shepherd.....	404	2	...	...	...	...	...	...	+17.8	+20.3	+12.4	+ 9.1	+16.8	+13.6	+14.3	+22.0	+23.4
Cribb.....	52	2	...	...	...	...	...	...	...	- 6.0	+ 0.5	+ 0.7	+ 0.1	- 0.2	- 4.2	- 6.0	-11.8
Thorne	19	2	...	...	...	...	...	...	- 1.4	+ 2.9	- 5.6	- 5.0	- 2.3	- 5.5	- 6.6	+ 3.9	+ 6.5
Widenham and Adams	2068	1	...	...	...	...	...	...	-28.5	-27.3	-33.0	-39.5	-35.2	-40.7	-36.4	-28.6	-29.0
Connell	324*	2	...	...	...	...	...	...	(+19.4)	(+20.5)	(+14.8)	(+13.2)	(+19.9)	+20.3	+19.6	+26.0	+23.9
Shepherd	341	2	...	...	...	...	...	...	+16.0	+20.0	+14.6	+13.9	+20.8	+18.8	+21.2	+29.8	+32.6
Porthouse	65209	2	...	...	...	...	...	...	+22.3	+22.5	+17.8	+16.5	+21.6	+20.7	+21.3	+27.4	+28.1
E. J. Massey	122	2	...	...	...	...	...	...	+40.9	+43.3	+57.2	+59.2	+55.9	+57.3	+54.0	+43.0	+39.2
Chronometrical Therm.		..	+820.1	+894.1	+1105.8	+1546.8	+1516.4	+1686.2	+1243.8	+866.1	+1806.7	+1961.2	+1592.5	+1698.4	+1639.8	+987.0	+490.7
Range of Thermometer in Chronometer Room ..	}....	..	39° to 57°	43° to 53°	41° to 52°	35° to 47°	36° to 43°	34° to 44°	38° to 53°	37° to 54°	35° to 41°	36° to 41°	33° to 47°	36° to 43°	36° to 43°	40° to 55°	49° to 57°
Range of Thermometer in open air, or in the heated Iron Tray, for the Chro- nometers marked with an asterisk.	}....	..	...	...	...	...	...	30° to 50°	36° to 58°	24° to 56°	30° to 40°	22° to 41°	31° to 52°	...	...	...	...
* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses () ; and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [] .																	
(A) Main spring broken. (B) In the hands of the maker.																	
(D) Ordered to be removed from trial, but afterwards continued.																	

AT THE ROYAL OBSERVATORY, GREENWICH, 1842 AND 1843.

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IN THE ORDER OF TIME.																NAME OF MAKER.	Number.
Mar. 25- April 1	April 1-8	April 8-15	April 15-22	April 22-29	April 29- May 6	May 6-13	May 13-20	May 20-27	May 27- June 3	June 3-10	June 10-17	June 17-24	June 24- July 1	July 1-8	July 8-15		
+ 5.1	+ 5.3	+ 4.3	+ 7.6	+ 4.9	+ 8.3	+ 9.2	+ 10.2	+ 11.1	+ 10.2	+ 10.4	+ 6.8	+ 4.1	+ 6.0	+ 10.7	+ 10.7	Molyneux	2185
+ 16.2	+ 14.4	+ 19.2	+ 14.9	+ 16.4	+ 12.7	+ 13.6	+ 14.8	+ 13.2	+ 13.6	+ 13.5	+ 14.5	+ 11.6	+ 14.2	+ 17.2	+ 15.1	Cotterell and Co.	$\frac{999}{2539}$
+ 2.8	+ 2.0	+ 3.3	+ 4.7	+ 0.1	- 1.5	- 1.1	+ 1.4	+ 0.9	+ 1.7	+ 4.5	+ 0.2	- 3.4	- 2.0	+ 3.2	+ 5.2	Fletcher	950
+ 0.8	+ 1.6	- 0.1	+ 2.3	- 5.0	- 5.4	- 7.1	+ 1.6	+ 2.3	+ 2.3	+ 3.2	- 0.6	- 1.3	- 2.5	- 1.7	- 0.7	W. Webb, Jun.	5021
+ 16.3	+ 13.1	+ 18.7	+ 13.0	+ 13.8	+ 14.7	+ 16.4	+ 19.2	+ 17.4	+ 19.7	+ 20.4	+ 18.9	+ 20.3	+ 22.1	- 26.8	+ 25.7	Molyneux	2189
+ 3.5	- 1.8	+ 2.1	- 0.4	- 6.0	- 8.0	- 6.0	- 1.9	- 2.5	- 3.3	- 3.8	- 11.5	- 11.0	- 8.6	- 2.1	- 4.4	Dent	1504
+ 5.0	- 0.2	+ 5.1	+ 1.5	- 1.9	- 5.0	- 7.1	- 1.6	+ 0.7	- 1.5	+ 0.8	- 4.8	- 9.2	- 8.3	- 2.7	- 3.0	C. Frodsham	1957
- 17.6	- 18.3	- 20.4	- 15.3	- 16.1	- 17.9	- 17.1	- 12.0	- 12.1	- 12.5	- 12.1	- 18.2	- 21.4	- 19.5	- 11.3	- 10.3	Appleton	420
+ 2.8	+ 3.5	+ 2.0	+ 5.2	+ 7.2	+ 9.6	+ 8.6	+ 9.6	+ 7.4	+ 6.4	+ 5.4	+ 6.5	+ 4.9	+ 3.0	+ 5.4	+ 3.0	Parkinson and Frodsham	2496
- 2.1	+ 3.1	- 1.0	+ 2.2	[+ 8.4]	[+ 12.8]	[+ 15.9]	+ 14.4	+ 11.4	+ 10.5	+ 11.6	[+ 14.9]	[+ 16.7]	[+ 21.5]	+ 22.7	+ 22.2	Dent	1782*
- 4.2	- 3.7	- 5.3	- 1.9	- 9.2	- 12.6	- 13.4	- 5.9	- 6.5	- 6.4	- 7.3	- 13.5	- 21.5	- 20.0	- 11.0	- 8.5	Baker	1072
+ 15.0	+ 18.9	+ 13.6	+ 21.4	+ 25.4	+ 25.2	+ 24.0	+ 22.6	+ 23.1	+ 24.0	+ 24.8	+ 26.3	+ 24.2	+ 25.0	+ 29.8	+ 30.6	Cotterell and Co.	$\frac{917}{2509}$
- 7.2	- 3.3	- 7.2	- 3.7	- 8.3	- 10.1	- 9.0	+ 0.6	+ 1.3	- 0.5	+ 0.2	- 9.1	- 17.5	- 13.3	- 4.5	- 1.1	Baker	1076
- 19.5	- 19.0	- 21.6	- 15.5	- 19.6	- 21.2	- 20.2	- 14.7	- 14.5	- 13.7	- 12.5	- 23.9	- 28.1	- 25.7	- 16.9	- 13.3	Appleton	467
- 0.9	+ 1.5	+ 2.0	+ 1.4	[- 7.9]	[- 12.2]	[- 10.6]	- 1.1	+ 0.4	+ 2.5	+ 4.5	[- 5.4]	[- 0.7]	[- 1.4]	- 3.0	+ 6.2	Hewitt	1055*
+ 16.0	+ 18.2	+ 16.1	+ 22.6	+ 19.2	+ 18.2	+ 21.4	+ 28.1	+ 24.0	+ 24.9	+ 26.0	+ 21.3	+ 19.6	+ 23.7	+ 32.5	+ 34.4	Litherland and Davies..	$\frac{1619}{18059}$
- 0.1	- 1.9	+ 2.3	- 0.5	+ 11.6	+ 11.6	+ 11.8	+ 11.6	+ 12.7	+ 11.7	+ 12.3	+ 14.9	+ 9.6	+ 5.4	+ 11.7	+ 10.8	C. Frodsham	1269
- 8.2	- 6.9	- 10.9	- 7.7	- 17.5	- 17.9	- 17.8	- 8.8	- 6.1	- 5.0	- 3.4	- 15.8	- 21.9	- 18.2	- 7.1	- 3.8	Muston	868
- 16.3	- 17.8	- 17.6	- 16.7	- 11.5	- 11.0	- 10.8	- 11.6	- 13.9	- 11.5	- 8.8	- 3.0	- 6.0	- 4.0	- 2.0	- 4.3	Roskell	$\frac{1086}{53108}$
- 8.1	- 6.9	- 5.0	- 6.5	(A)	(B)	(B)	+ 5.3	+ 6.9	+ 8.1	+ 9.8	+ 14.6	+ 17.0	+ 20.6	+ 12.5	+ 7.7	Roskell	$\frac{1084}{53108}$
- 1.2	+ 4.1	+ 0.7	+ 5.2	+ 13.4	+ 15.1	+ 15.0	+ 0.4	+ 0.3	+ 2.7	+ 5.4	+ 16.1	+ 14.1	+ 13.8	+ 8.7	+ 3.0	Arnold	1542
+ 20.4	+ 24.4	+ 20.4	+ 27.6	+ 21.3	+ 23.4	+ 25.3	+ 33.7	+ 34.0	+ 34.2	+ 35.0	+ 31.2	+ 36.6	+ 33.4	+ 39.2	+ 41.8	Shepherd	404
- 1.5	- 3.5	+ 0.2	- 6.9	- 2.3	+ 2.2	+ 5.7	+ 15.0	+ 13.4	+ 9.6	+ 13.4	+ 8.2	+ 13.5	+ 11.3	+ 16.8	+ 16.6	Cribb	52
+ 2.6	+ 8.0	- 0.2	+ 11.4	+ 13.2	+ 13.8	+ 12.0	+ 12.5	+ 13.8	+ 12.0	+ 13.5	+ 12.2	+ 9.4	+ 11.7	+ 20.2	+ 15.6	Thorne	19
- 25.8	- 23.3	- 24.8	- 20.1	- 13.1	- 3.3	- 1.0	+ 6.3	+ 7.3	+ 5.7	+ 3.1	- 2.6	- 2.8	+ 0.5	+ 10.9	+ 10.1	Widenham and Adams..	2068
+ 22.9	+ 24.5	+ 24.7	+ 26.0	[+ 18.9]	[+ 23.6]	[+ 23.4]	+ 34.6	+ 33.5	+ 34.2	+ 35.7	[+ 22.5]	[+ 18.1]	[+ 22.9]	+ 36.3	+ 37.4	Connell	324*
+ 32.6	+ 35.2	+ 32.8	+ 39.3	+ 34.9	+ 33.2	+ 33.9	+ 39.6	+ 40.1	+ 39.5	+ 41.3	+ 35.8	+ 36.8	+ 37.0	+ 45.5	+ 47.9	Shepherd	341
+ 28.3	+ 28.4	+ 27.3	+ 29.6	+ 14.0	+ 15.7	+ 18.5	+ 28.9	+ 30.7	+ 30.8	+ 31.5	+ 18.1	+ 11.4	+ 14.2	+ 26.0	+ 30.9	Porthouse	65209
+ 46.0	+ 39.1	+ 48.8	+ 35.7	+ 38.9	+ 39.0	+ 45.0	+ 49.1	+ 40.8	+ 40.5	+ 40.5	+ 42.2	+ 40.6	+ 43.0	+ 51.6	+ 47.8	E. J. Massey	122
+ 953.5	+ 548.2	+ 1112.0	+ 290.5	- 1440.2	- 1527.4	- 1453.0	- 58.2	+ 158.0	+ 118.6	+ 95.2	- 1744.3	- 2077.1	- 1888.7	- 805.6	- 391.1		
43° to 55°	49° to 56°	41° to 54°	49° to 62°	61° to 92°	73° to 95°	69° to 86°	52° to 83°	56° to 62°	53° to 62°	55° to 62°	58° to 94°	76° to 98°	74° to 95°	66° to 80°	61° to 70°		
...	...	...	...	74° to 120°	76° to 119°	75° to 120°	...	...	...	...	77° to 120°	81° to 120°	70° to 123°	...	...		

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

(A) Main spring broken. (B) In the hands of the maker. (C) Tripped.

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY,

NAME OF MAKER.	Number.	Whether Pocket, 1, 2, or 8 Days.	(I)—WEEKLY SUMS OF DAILY RATES														
			1842. Dec. 10—17	Dec. 17—24	Dec. 24—31	Dec. 31— Jan. 7	1843. Jan. 7—14	Jan. 14—21	Jan. 21—28	Jan. 28— Feb. 4	Feb. 4—11	Feb. 11—18	Feb. 18—25	Feb. 25— Mar. 4	Mar. 4—11	Mar. 11—18	Mar. 18—25
Connell	323*	2	..	...	...	...	...	...	(+13.5)	(+12.2)	(+12.4)	(+8.0)	(+18.0)	+24.5	+23.9	+29.6	+26.3
James Pennington	201*	2	+5.9	+7.7	+9.2	+16.2	+17.2	(+12.8)	(+13.8)	(+20.6)	(+25.0)	(+27.9)	(+19.1)	+24.3	+22.0	+21.3	+24.2
Cribb	50	2	...	...	...	...	...	...	...	-14.2	-24.5	-23.5	-17.7	-20.6	+21.0	-10.9	-6.5
Arnold	1479	2	...	...	...	...	...	...	+2.5	+5.5	-3.6	-2.5	+7.1	+7.6	+9.2	+23.6	+22.1
Muston	671	2	...	...	...	...	...	-35.9	-35.4	-33.8	-40.4	-39.8	-35.1	-35.8	-36.5	-34.6	-37.2
Parkinson and Frodsham	2464	2	...	...	...	...	...	...	+11.2	+13.7	+12.5	+24.1	+17.2	+7.7	+8.2	+18.0	+21.3
Piers	197	1	...	...	...	...	...	...	+5.6	+6.7	-0.4	-3.6	+0.4	-1.1	+0.1	+4.8	+1.4
Parkinson and Frodsham	2467*	2	...	...	...	...	...	...	(+10.7)	(+11.7)	(+16.5)	(+19.6)	(+9.9)	+12.2	+16.0	+12.7	+13.5
Fletcher	906	P	...	...	...	...	...	...	-29.6	-32.1	-31.4	-24.9	-20.4	-28.2	-28.0	-21.1	-26.0
Birchall	341*	1	...	...	...	...	...	...	(-7.0)	(-3.5)	(+7.3)	(+9.9)	(+6.2)	+6.1	+4.5	-1.0	-0.3
Dent	1543	2	...	...	...	...	...	...	-36.8	-34.6	-55.6	-57.9	-50.7	-51.3	-50.7	-40.1	-40.8
Litherland and Davies..	$\frac{991}{18557}$	2	...	...	...	...	...	...	+0.1	+5.1	-8.6	-12.7	-4.3	-6.2	-4.3	+5.8	+10.3
Porthouse	6592*	2	...	...	...	...	...	...	(+1.6)	(-4.8)	(-9.2)	(-12.7)	(-5.2)	-8.1	-8.1	-4.0	-4.5
Birchall	342*	2	...	...	...	...	...	...	(0.0)	(-2.6)	(+0.5)	(-2.8)	(+5.7)	+9.0	+6.0	+4.4	+8.2
Dent	1770*	2	...	...	...	...	...	...	...	(-9.3)	(-10.6)	(-10.5)	(-9.1)	-9.8	-10.1	-6.8	-8.7
Poole, Jun.	1087*	2	...	...	...	...	...	...	(-20.7)	(-19.4)	(-16.0)	(-13.8)	(-15.9)	-13.3	-11.6	-15.8	-23.0
Hewitt.	1110*	2	...	...	...	...	...	(-3.4)	(+6.0)	(+6.5)	(+4.0)	(-10.3)	(-5.5)	-21.4	-25.4	-25.3	-38.8
Dixon	150	2	...	...	...	...	...	...	-18.3	-15.1	-30.0	-31.2	-19.6	-21.8	-20.2	-7.2	-1.8
Dixon	151	2	...	...	...	...	...	...	-21.5	-15.4	-32.8	-36.6	-25.1	-27.3	-23.7	-8.6	-0.9
Parkinson and Frodsham	2451*	2	...	...	...	...	...	...	(-1.0)	(+4.0)	(+16.0)	(+23.7)	(+11.7)	+11.8	+16.7	+6.6	+2.0
Dent	1776*	2	...	...	...	...	...	...	...	...	...	...	...	...	+17.1	+15.6	+8.2
Finer and Nowland	342	2	...	...	...	...	...	...	+21.8	-5.8	(D)	(D)	+8.7	+4.5	+3.3	-10.1	-18.5
Dent	1729*	2	...	...	...	...	...	...	...	...	...	...	...	...	-11.3	-7.2	-9.2
E. J. Massey	116*	2	...	...	...	...	...	...	(-8.0)	(-22.6)	(-15.1)	(A)	(B)	(B)	-28.3	-33.5	-45.4
Dent	1693*	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-8.8
James Pennington	202*	2	...	...	...	...	...	...	(-21.6)	(-14.3)	(-10.3)	(+6.6)	(-19.1)	-19.8	-19.3	-17.5	-13.6
James Pennington	203*	2	...	...	...	...	...	...	(-42.1)	(-28.4)	(-27.1)	(-24.0)	(-31.5)	-24.3	-20.8	-25.2	-27.2
Widenham and Adams	1989	2	...	...	...	...	...	...	-52.4	-52.0	-54.1	-59.0	-54.5	-59.6	-57.2	-49.2	-47.0
Chronometrical Therm.		..	+820.1	+894.1	+1105.8	+1546.8	+1516.4	+1686.2	+1243.8	+866.1	+1806.7	+1961.2	+1592.5	+1698.4	+1639.8	+987.8	+490.7
Range of Thermometer in Chronometer Room ..	}....	..	39° to 57°	43° to 53°	41° to 52°	35° to 47°	36° to 43°	34° to 44°	38° to 53°	37° to 54°	35° to 41°	30° to 41°	33° to 47°	36° to 43°	36° to 43°	40° to 55°	49° to 57°
Range of Thermometer in open air, or in the heated Iron Tray, for the Chrono- meters marked with an asterisk.	}....	..	...	...	...	...	...	30° to 50°	36° to 58°	24° to 56°	30° to 40°	22° to 41°	31° to 52°	...	...	...	...

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

(A) Main spring broken.

(B) In the hands of the maker.

(D) Ordered to be removed from trial, but afterwards continued.

IN THE ORDER OF TIME.—(continued).

Mar. 25— April 1	April 1—8	April 8—15	April 15—22	April 22—29	April 29— May 6	May 6—13	May 13—20	May 20—27	May 27— June 3	June 3—10	June 10—17	June 17—24	June 24— July 1	July 1—8	July 8—15	NAME OF MAKER.	Number.
+28.9	+25.8	+28.2	+27.0	[+23.4]	(C)	[+21.6]	+25.0	+25.5	+26.6	+29.0	[+23.8]	[+23.5]	[+27.8]	+35.9	+41.2	Connell	323*
+25.8	+23.5	+27.4	+25.0	[+36.7]	[+33.6]	[+30.0]	+25.4	+24.7	+25.3	+28.9	[+35.1]	[+25.6]	[+30.0]	+27.7	+30.2	James Pennington	201*
-10.0	-6.3	-11.6	-1.1	+0.8	+2.1	+4.1	+6.3	+7.9	+7.5	+9.1	+4.0	+0.7	+2.8	+9.7	+11.9	Cribb	50
+21.4	+23.0	+26.0	+27.6	+15.0	+11.5	+9.4	+19.3	+23.5	+23.2	+25.4	+18.0	+20.4	+20.0	+15.6	+20.3	Arnold	1479
-29.2	-29.7	-31.9	-27.2	-44.9	-43.2	-40.5	-24.1	-24.5	-21.6	-21.6	-41.9	-40.3	-41.9	-27.6	-22.0	Muston	671
+18.9	+23.6	+16.6	+28.2	+37.4	+38.9	+40.5	+35.3	+36.1	+35.8	+37.7	+43.0	+40.6	+43.2	+45.5	+44.2	Parkinson and Frodsham	2464
+6.5	+5.9	+6.9	+5.4	+1.4	+6.3	+8.2	+22.7	+25.5	+24.0	+24.2	+17.2	+14.5	+17.3	+27.0	+29.2	Piers	197
+24.3	+19.8	+29.5	+28.1	[+17.8]	[+19.1]	[+21.6]	+33.0	+26.9	+24.9	+30.8	[+16.0]	[+8.1]	[+14.7]	+34.0	+33.2	Parkinson and Frodsham	2467*
-12.9	-16.6	-11.3	-20.9	-24.8	-18.3	-14.9	-16.1	-18.3	-18.4	-18.9	-4.4	-0.8	+4.5	-6.8	-6.9	Fletcher	906
-0.7	+0.1	+1.1	+1.9	[-14.0]	[-11.6]	[-10.8]	-2.4	-2.7	-2.7	-1.5	[-15.7]	[-21.7]	[-19.6]	-0.8	-0.2	Birchall	341*
-47.0	-43.2	-49.6	-43.5	-30.3	-30.0	-31.9	-43.9	-44.7	-44.0	-42.3	-28.1	-26.9	-27.1	-35.1	-40.8	Dent	1543
+7.6	+9.3	+2.6	+11.5	+13.0	+16.3	+19.7	+21.2	+26.1	+26.6	+27.2	+22.9	+20.7	+26.2	+33.0	+36.2	Litherland and Davies	291 18357
-2.7	-3.1	-0.6	-1.1	[+6.5]	[+17.3]	[+22.9]	+13.8	+10.0	+12.1	+12.0	[+23.2]	[+14.2]	[+27.8]	+36.1	+21.6	Porthouse	6592*
-2.9	+2.5	-7.3	+3.2	[+11.9]	[+21.2]	[+30.9]	+23.3	+22.6	+24.1	+25.2	[+35.2]	[+38.4]	[+44.9]	+49.0	+47.1	Birchall	342*
-4.1	-7.9	-7.2	-5.1	[+12.3]	[+21.7]	[+25.6]	+20.5	+12.1	+10.5	+11.1	[+24.4]	[+30.3]	[+34.5]	+27.2	+24.6	Dent	1770*
-11.7	-19.9	-9.5	-20.2	[-33.3]	[-22.8]	[-18.0]	-2.0	-5.8	-6.9	-6.3	[-21.5]	[-24.9]	[-17.0]	+5.2	+3.2	Poole, Jun.	1027*
-32.3	-39.3	-32.7	-46.3	[-52.4]	[-38.8]	[-30.7]	-26.7	-31.7	-29.2	-27.5	[-32.7]	[-37.5]	[-22.1]	-8.7	-14.4	Hewitt	1110*
-7.1	-0.4	-7.7	+5.8	+21.1	+23.3	+23.3	+14.7	+11.0	+10.7	+11.9	+24.2	+27.2	+29.6	+26.0	+22.3	Dixon	150
-8.7	-0.2	-13.2	+3.0	+15.8	+16.3	+16.6	+5.3	+2.0	+6.7	+6.6	+21.7	+20.2	+21.3	+19.7	+15.9	Dixon	151
+12.5	+2.1	+15.4	+1.1	[+21.0]	[+24.8]	[+25.4]	+16.5	+12.0	+11.1	+13.7	[+26.8]	[+34.9]	[+34.8]	+5.4	+8.7	Parkinson and Frodsham	2451*
+18.6	+15.4	+26.7	+22.2	[+38.0]	[+48.8]	[+58.9]	+58.5	+50.3	+59.0	+56.9	[+60.4]	[+70.5]	[+73.5]	+69.0	+70.9	Dent	1776*
-10.8	-10.8	-2.1	-10.9	-8.6	+5.0	+13.8	+9.2	+3.3	+7.1	+3.7	-1.6	+8.1	+19.7	+18.1	+11.4	Finer and Nowland	342
-8.4	-7.3	-5.4	-6.3	[-4.5]	[+21.2]	[+33.5]	+31.5	+24.5	+24.8	+26.1	[+31.5]	[+35.8]	[+45.5]	+45.5	+41.7	Dent	1729*
-40.2	-44.8	-35.6	-43.7	[-64.1]	[-59.5]	[-58.6]	-38.8	-38.5	-36.0	-36.6	[-62.1]	[-65.3]	[-58.5]	-36.3	-38.4	E. J. Massey	116*
-4.4	-5.3	-3.1	-2.5	[+15.7]	[+32.6]	[+38.7]	+22.7	+21.3	+19.9	+20.5	[+42.4]	[+54.5]	[+55.8]	+39.0	+38.0	Dent	1693*
-13.1	-11.1	-13.1	-7.9	[-6.2]	[+5.6]	[+13.7]	+20.2	+15.0	+13.2	+16.7	[+16.9]	[+14.1]	[+28.5]	+40.0	+35.4	James Pennington	202*
-18.2	-24.3	-12.0	-23.0	[-5.4]	[+12.7]	[+17.7]	+25.5	+15.5	+14.5	+16.0	[+11.6]	[+13.2]	[+27.0]	+41.2	+38.7	James Pennington	203*
-45.2	-45.0	-44.4	-39.0	-4.7	-4.8	-2.9	-12.1	-9.4	-9.9	-21.8	+2.2	+4.4	-3.0	-5.6	-11.1	Widenham and Adams	1929
+953.5	+548.2	+1112.0	+290.5	-1440.8	-1587.4	-1453.0	-58.8	+158.0	+118.6	+95.2	-1744.3	-2077.1	-1868.7	-205.6	-391.1		
43° to 55°	49° to 56°	41° to 54°	49° to 62°	61° to 92°	73° to 95°	69° to 86°	52° to 83°	56° to 62°	53° to 62°	55° to 62°	58° to 94°	76° to 98°	71° to 95°	66° to 80°	61° to 70°		
...	...	...	...	74° to 120°	76° to 119°	75° to 120°	...	...	...	...	77° to 120°	81° to 120°	70° to 123°	...	...		

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

(A) Main spring broken.

(B) In the hands of the maker.

(C) Tripped.

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY,

NAME OF MAKER.	Number.	Whether Pocket, 1, 2, or 8 Days.	(II)—WEEKLY SUMS OF DAILY RATES														
			1842. Feb. 11—18	Feb. 4—11	Feb. 25— Mar. 4	Jan. 14—21	Mar. 4—11	Feb. 18—25	1842-3. Dec. 31— Jan. 7	1843. Jan. 7—14	Jan. 21—28	April 8—15	1842. Dec. 24—31	1843. Mar. 11—18	Mar. 25— April 1	1842. Dec. 17—24	1843. Jan. 28— Feb. 4
Molyneux	2185	1	0.0	+ 1.7	+ 2.8	+ 2.4	+ 1.5	+ 2.3	...	...	+ 5.8	+ 4.3	...	+ 6.6	+ 5.1	...	+ 6.6
Cotterell and Co.	$\frac{9\ 9\ 9}{2\ 5\ 3\ 2}$	2	+18.6	+17.6	+18.2	...	+17.6	+19.1	...	...	+13.5	+19.2	...	+17.1	+16.2	...	+11.3
Fletcher.....	950	2	- 7.9	- 7.3	- 6.0	...	- 3.4	- 4.3	...	...	- 8.4	+ 3.3	...	+ 1.2	+ 2.8	...	- 6.0
W. Webb, Jun.....	5021	2	- 5.6	- 5.0	- 3.2	...	- 3.4	- 1.0	...	...	- 1.9	- 0.1	...	+ 1.4	+ 0.8	...	- 1.7
Molyneux	2189	2	+17.4	+18.3	+17.9	...	+16.2	+17.9	...	...	+19.7	+18.7	...	+15.9	+16.3	...	+13.3
Dent	1504	2	- 1.4	+ 0.6	+ 1.5	...	+ 0.1	+ 2.5	...	...	- 2.4	+ 2.1	...	+ 3.5	+ 3.5	...	- 2.9
C. Frodsham....	1957	2	+ 5.6	+ 3.8	+ 5.5	...	+ 3.6	+ 7.0	...	...	- 1.3	+ 5.1	...	+ 6.7	+ 5.0	...	- 0.8
Appleton.....	420	2	-25.3	-24.4	-24.7	...	-24.8	-23.3	...	...	-23.9	-20.4	...	-18.0	-17.6	...	-21.3
Parkinson and Frodsham	2496	2	- 6.6	- 3.2	- 4.8	...	- 5.3	- 2.7	...	...	+ 1.6	+ 2.0	...	+ 2.4	+ 2.8	...	+ 2.5
Dent	1782*	2	...	...	...	...	...	...	...	...	...	- 1.0	...	...	- 2.1	...	...
Baker	1072	2	- 7.0	- 8.2	- 9.7	- 7.9	- 8.9	- 5.6	...	...	- 7.1	- 5.3	...	- 3.2	- 4.2	...	- 7.5
Cotterell and Co.	$\frac{9\ 1\ 7}{2\ 5\ 0\ 9}$	2	+17.7	+13.7	+13.0	...	+11.9	+12.3	...	...	+10.0	+13.6	...	+14.2	+15.0	...	+ 8.6
Baker	1076	2	-12.8	-12.6	-13.9	- 9.1	-14.1	-10.3	...	...	- 7.0	- 7.2	...	- 9.6	- 7.2	...	- 8.5
Appleton	467	2	-24.8	-25.6	-26.2	...	-25.0	-22.2	...	...	-22.5	-21.6	...	-17.9	-19.5	...	-19.9
Hewitt	1055*	2	(0.0)	(+ 8.5)	+ 0.8	(+ 5.8)	- 3.2	(+ 4.3)	...	...	(+ 4.9)	+ 2.0	...	+ 3.4	- 0.9	...	(+ 7.5)
Litherland and Davies..	$\frac{1\ 0\ 1\ 9}{1\ 8\ 6\ 5\ 9}$	2	+15.5	+16.1	+11.0	...	+10.8	+14.4	...	...	+11.4	+16.1	...	+16.1	+16.0	...	+12.9
C. Frodsham	1869	2	+ 3.6	+ 2.1	+ 0.9	...	+ 1.2	+ 0.8	...	...	+ 1.0	+ 2.3	...	- 1.5	- 0.1	...	- 6.0
Muston	868	2	-14.1	-12.7	-11.4	- 7.2	-11.1	- 8.5	...	...	- 2.2	-10.9	...	- 4.1	- 8.2	...	- 1.2
Roskell	$\frac{1\ 0\ 8\ 5}{5\ 3\ 1\ 0\ 9}$	2	-28.9	-18.5	-25.5	...	-28.7	-21.8	...	...	-14.9	-17.6	...	-18.0	-16.3	...	-16.8
Roskell	$\frac{1\ 0\ 8\ 4}{5\ 3\ 1\ 0\ 8}$	2	- 7.3	- 7.7	- 6.8	...	- 7.1	- 3.7	...	...	- 7.1	- 5.0	...	- 6.5	- 8.1	...	-11.6
Arnold	1542	1	+ 2.6	+ 3.6	+ 2.1	...	+ 1.2	+ 3.2	...	...	+ 0.7	+ 0.7	...	- 0.7	- 1.2	...	- 1.7
Shepherd.....	404	2	+ 9.1	+12.4	+13.6	...	+14.3	+16.8	...	...	+17.8	+20.4	...	+22.0	+20.4	...	+20.3
Cribb.....	52	2	+ 0.7	+ 0.5	- 0.2	...	- 4.2	+ 0.1	...	...	...	+ 0.2	...	- 6.0	- 1.5	...	- 6.0
Thorne	19	2	- 5.0	- 5.6	- 5.5	...	- 6.6	- 2.3	...	...	- 1.4	- 0.2	...	+ 3.9	+ 2.6	...	+ 2.9
Widenham and Adams	2068	1	-39.5	-33.0	-40.7	...	-36.4	-35.2	...	...	-28.5	-24.8	...	-28.6	-25.8	...	-27.3
Connell.....	324*	2	(+13.2)	(+14.8)	+20.3	...	+19.6	(+19.9)	...	...	(+19.4)	+24.7	...	+26.0	+22.9	...	(+20.5)
Shepherd	341	2	+13.9	+14.6	+18.8	...	+21.2	+20.8	...	...	+16.0	+32.8	...	+29.8	+32.6	...	+20.0
Porthouse.....	65209	2	+16.5	+17.8	+20.7	...	+21.3	+21.6	...	...	+22.3	+27.3	...	+27.4	+28.3	...	+22.5
E. J. Massey	122	2	+59.2	+57.2	+57.3	...	+54.0	+55.9	...	...	+40.9	+48.8	...	+43.0	+46.0	...	+43.3
Chronometrical Therm.		..	+1961.2	+1806.7	+1698.4	+1686.2	+1639.8	+1592.5	+1546.8	+1516.4	+1243.8	+1112.0	+1105.8	+987.8	+953.5	+894.1	+866.1
Range of Thermometer in Chronometer Room ..	}....	..	30° to 41°	35° to 41°	36° to 43°	34° to 44°	36° to 43°	33° to 47°	35° to 47°	36° to 43°	38° to 53°	41° to 54°	41° to 52°	40° to 55°	43° to 55°	43° to 53°	37° to 54°
Range of Thermometer in open air, or in the heated Iron Tray, for the Chro- nometers marked with an asterisk.	}....	..	22° to 41°	30° to 40°	...	30° to 50°	...	31° to 52°	...	...	36° to 58°	...	...	...	...	...	24° to 56°

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

(A) Main spring broken.

(B) In the hands of the maker.

(D) Ordered to be removed from trial, but afterwards continued.

IN THE ORDER OF TEMPERATURE.

1842. Dec. 10—17	1843. April 1—8	Mar. 18—25	April 15—22	May 20—27	May 27— June 3	June 3—10	May 13—20	July 8—15	July 1—8	April [†] 22—29	May [†] 6—13	April [†] 29— May 6	June [†] 10—17	June 24— July 1	June [†] 17—24	NAME OF MAKER.	Number.
...	+ 5.3	+ 5.1	+ 7.6	+11.1	+10.2	+10.4	+10.2	+10.7	+10.7	+ 4.9	+ 9.2	+ 8.3	+ 6.8	+ 6.0	+ 4.1	Molyneux	2185
...	+14.4	+10.5	+14.9	+13.2	+13.6	+13.5	+14.8	+15.1	+17.2	+16.4	+13.6	+12.7	+14.5	+14.2	+11.6	Cotterell and Co.	$\frac{923}{2539}$
...	+ 2.0	+ 0.6	+ 4.7	+ 0.9	+ 1.7	+ 4.5	+ 1.4	+ 5.2	+ 3.2	+ 0.1	- 1.1	- 1.5	+ 0.2	- 2.0	- 3.4	Fletcher	950
...	+ 1.6	+ 1.4	+ 2.3	+ 2.3	+ 2.3	+ 3.2	+ 1.6	- 0.7	- 1.7	- 5.0	- 7.1	- 5.4	- 0.6	- 2.5	- 1.3	W. Webb, Jun.	5021
...	+13.1	+11.4	+13.0	+17.4	+19.7	+20.4	+19.2	+25.7	+26.8	+13.8	+16.4	+14.7	+18.9	+22.1	+20.3	Molyneux	2189
...	- 1.8	- 2.1	- 0.4	- 2.5	- 3.3	- 3.8	- 1.9	- 4.4	- 2.1	- 6.0	- 6.0	- 8.0	-11.5	- 8.6	-11.0	Dent	1504
...	- 0.2	- 0.6	+ 1.5	+ 0.7	- 1.5	+ 0.8	- 1.6	- 3.0	- 2.7	- 1.9	- 7.1	- 5.0	- 4.8	- 8.3	- 9.2	C. Frodsham.	1957
...	-18.3	-17.1	-15.3	-12.1	-12.5	-12.1	-12.0	-10.3	-11.3	-16.1	-17.1	-17.9	-18.2	-19.5	-21.4	Appleton	420
...	+ 3.5	+ 4.4	+ 5.2	+ 7.4	+ 6.4	+ 5.4	+ 9.6	+ 3.0	+ 5.4	+ 7.2	+ 8.6	+ 9.6	+ 6.5	+ 3.0	+ 4.9	Parkinson and Frodsham	2496
...	+ 3.1	- 1.7	+ 2.2	+11.4	+10.5	+11.6	+14.4	+22.2	+22.7	[+ 8.4]	[+15.9]	[+12.8]	[+14.9]	[+21.5]	[+16.7]	Dent	1782*
...	- 3.7	- 5.6	- 1.9	- 6.5	- 6.4	- 7.3	- 5.9	- 8.5	-11.0	- 9.2	-13.4	-12.6	-13.5	-20.0	-21.5	Baker	1072
...	+18.9	+19.2	+21.4	+23.1	+24.0	+24.8	+22.6	+30.6	+29.8	+25.4	+24.0	+25.2	+26.3	+25.0	+24.2	Cotterell and Co.	$\frac{917}{3509}$
...	- 3.3	- 7.9	- 3.7	+ 1.3	- 0.5	+ 0.2	+ 0.6	- 1.1	- 4.5	- 8.3	- 9.0	-10.1	- 9.1	-13.3	-17.5	Baker	1076
...	-19.0	-17.8	-15.5	-14.5	-13.7	-12.5	-14.7	-13.3	-16.9	-19.6	-20.2	-21.2	-23.9	-25.7	-28.1	Appleton	467
...	+ 1.5	+ 1.1	+ 1.4	+ 0.4	+ 2.5	+ 4.5	- 1.1	+ 6.2	- 3.0	[- 7.9]	[-10.6]	[-12.2]	[- 5.4]	[- 1.4]	[- 0.7]	Hewitt	1055*
...	+18.2	+17.2	+22.6	+24.0	+24.9	+26.0	+28.1	+34.4	+32.5	+19.2	+21.4	+18.2	+21.3	+23.7	+19.6	Litherland and Davies..	$\frac{1013}{13659}$
...	- 1.9	- 5.6	- 0.5	+12.7	+11.7	+12.3	+11.6	+10.8	+11.7	+11.6	+11.8	+11.6	+14.9	+ 5.4	+ 9.6	C. Frodsham.	1869
...	- 6.9	- 5.6	- 7.7	- 6.1	- 5.0	- 3.4	- 8.8	- 3.8	- 7.1	-17.5	-17.8	-17.9	-15.8	-18.2	-21.9	Muston	868
...	-17.8	-18.8	-16.7	-13.9	-11.5	- 8.8	-11.6	- 4.3	- 2.0	-11.5	-10.8	-11.0	- 3.0	- 4.0	- 6.0	Roskell	$\frac{1083}{53169}$
...	- 6.9	-11.7	- 6.5	+ 6.9	+ 8.1	+ 9.8	+ 5.3	+ 7.7	+12.5	(A)	(B)	(B)	+14.6	+20.6	+17.0	Roskell	$\frac{1083}{53169}$
...	+ 4.1	- 3.8	+ 5.2	+ 0.3	+ 2.7	+ 5.4	+ 0.4	+ 3.0	+ 8.7	+13.4	+15.0	+15.1	+16.1	+13.8	+14.1	Arnold	1542
...	+24.4	+23.4	+27.6	+34.0	+34.2	+35.0	+33.7	+41.8	+39.2	+21.3	+25.3	+23.4	+31.2	+33.4	+36.6	Shepherd	404
...	- 3.5	-11.8	- 6.9	+13.4	+ 9.6	+13.4	+15.0	+16.6	+16.8	- 2.3	+ 5.7	+ 2.2	+ 8.2	+11.3	+13.5	Cribb	52
...	+ 8.0	+ 6.5	+11.4	+13.8	+12.0	+13.5	+12.5	+15.6	+20.2	+13.2	+12.0	+13.8	+12.2	+11.7	+ 9.4	Thorne	19
...	-23.3	-29.0	-20.1	+ 7.3	+ 5.7	+ 3.1	+ 6.3	+10.1	+10.9	-13.1	- 1.0	- 3.3	- 2.6	+ 0.5	- 2.8	Widenham and Adams..	2068
...	+24.5	+23.9	+26.0	+33.5	+34.2	+35.7	+34.6	+37.4	+36.3	[+18.9]	[+23.4]	[+23.6]	[+22.5]	[+22.9]	[+18.1]	Connell	324*
...	+35.2	+32.6	+39.3	+40.1	+39.5	+41.3	+39.6	+47.9	+45.5	+34.9	+33.9	+33.2	+35.8	+37.0	+36.8	Shepherd	341
...	+28.4	+28.1	+29.6	+30.7	+30.8	+31.5	+28.9	+30.9	+26.0	+14.0	+18.5	+15.7	+18.1	+14.2	+11.4	Porthouse	65209
...	+39.1	+39.2	+35.7	+40.8	+40.5	+40.5	+49.1	+47.8	+51.6	+38.9	+45.0	+39.0	+42.2	+43.0	+40.6	E. J. Massey	122
+ 820.1	+548.2	+490.7	+290.5	+158.0	+118.6	+95.2	-58.8	-391.1	-805.6	-1440.8	-1453.0	-1527.4	-1744.3	-1888.7	-2077.1		
39° to 57°	49° to 56°	49° to 57°	49° to 62°	56° to 62°	53° to 62°	55° to 62°	52° to 63°	61° to 70°	60° to 80°	61° to 92°	69° to 86°	73° to 95°	58° to 94°	74° to 95°	76° to 98°		
...	...	...	...	...	...	...	...	...	...	74° to 120°	75° to 120°	76° to 119°	77° to 120°	70° to 123°	81° to 120°		

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

(A) Main spring broken.

(B) In the hands of the maker.

(C) Tripped.

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY,

NAME OF MAKER.	Number.	Whether Pocket, 1, 2, or 8 Days.	(II)—WEEKLY SUMS OF DAILY RATES														
			1843. Feb. 11—18	Feb. 4—11	Feb. 25— Mar. 4	Jan. 14—21	Mar. 4—11	Feb. 18—25	1842—3. Dec. 31— Jan. 7	1843. Jan. 7—14	Jan. 21—28	April 8—15	1842. Dec. 24—31	1843. Mar. 11—18	Mar. 25 Apr. 1	1842. Dec. 17—24	1843. Jan. 28— Feb. 4
Connell	323*	2	(+ 8.0)	(+ 12.4)	+ 24.5	...	+ 23.9	(+ 18.0)	...	...	(+ 13.5)	+ 28.2	...	+ 29.6	+ 28.9	...	(+ 12.2)
James Pennington	201*	2	(+ 27.9)	(+ 25.0)	+ 24.3	(+ 12.8)	+ 22.0	(+ 19.1)	+ 16.2	+ 17.2	(+ 13.8)	+ 27.4	+ 9.2	+ 21.3	+ 25.8	+ 7.7	(+ 20.6)
Cribb	50	2	- 23.5	- 24.5	- 20.6	...	- 21.0	- 17.7	...	...	...	- 11.6	...	- 10.9	- 10.0	...	- 14.2
Arnold	1479	2	- 2.5	- 3.6	+ 7.6	...	+ 9.2	+ 7.1	...	...	+ 2.5	+ 26.0	...	+ 23.6	+ 21.4	...	+ 5.5
Muston	671	2	- 39.8	- 40.4	- 35.8	- 35.9	- 36.5	- 35.1	...	...	- 35.4	- 31.9	...	- 34.6	- 29.2	...	- 33.8
Parkinson and Frodsham	2464	2	+ 24.1	+ 12.5	+ 7.7	...	+ 8.2	+ 17.2	...	...	+ 11.2	+ 16.6	...	+ 18.0	+ 18.9	...	+ 13.7
Piers	197	1	- 3.6	- 0.4	- 1.1	...	+ 0.1	+ 0.4	...	...	+ 5.6	+ 6.9	...	+ 4.8	+ 6.5	...	+ 6.7
Parkinson and Frodsham	2467*	2	(+ 19.6)	(+ 16.5)	+ 12.2	...	+ 16.0	(+ 9.9)	...	...	(+ 10.7)	+ 29.5	...	+ 12.7	+ 24.3	...	(+ 11.7)
Fletcher	906	P	- 24.9	- 31.4	- 28.2	...	- 28.0	- 20.4	...	...	- 29.6	- 11.3	...	- 21.1	- 12.9	...	- 32.1
Birchall	341*	1	(+ 9.9)	(+ 7.3)	+ 6.1	...	+ 4.5	(+ 6.2)	...	...	(- 7.0)	+ 1.1	...	- 1.0	- 0.7	...	(- 3.5)
Dent	1543	2	- 57.9	- 55.6	- 51.3	...	- 50.7	- 50.7	...	...	- 36.8	- 49.6	...	- 40.1	- 47.0	...	- 34.6
Litherland and Davies..	$\frac{901}{18357}$	2	- 12.7	- 8.6	- 6.2	...	- 4.3	- 4.3	...	...	+ 0.1	+ 2.6	...	+ 5.8	+ 7.6	...	+ 5.1
Porthouse	6592*	2	(- 12.7)	(- 9.2)	- 8.1	...	- 8.1	(- 5.2)	...	...	(+ 1.6)	- 0.6	...	- 4.0	- 2.7	...	(- 4.8)
Birchall	342*	2	(- 2.8)	(+ 0.5)	+ 9.0	...	+ 6.0	(+ 5.7)	...	...	(0.0)	- 7.3	...	+ 4.4	- 2.9	...	(- 2.6)
Dent	1770*	2	(- 10.5)	(- 10.6)	- 9.8	...	- 10.1	(- 9.1)	...	...	...	- 7.2	...	- 6.8	- 4.1	...	(- 9.3)
Poole, Jun.	1087*	2	(- 13.8)	(- 16.0)	- 13.3	...	- 11.6	(- 15.9)	...	...	(- 20.7)	- 9.5	...	- 15.8	- 11.7	...	(- 19.4)
Hewitt	1110*	2	(- 10.3)	(+ 4.0)	- 21.4	(- 3.4)	- 25.4	(- 5.5)	...	...	(+ 6.0)	- 32.7	...	- 25.3	- 32.3	...	(+ 6.5)
Dixon	150	2	- 31.2	- 30.0	- 21.8	...	- 20.2	- 19.6	...	...	- 18.3	- 7.7	...	- 7.2	- 7.1	...	- 15.1
Dixon	151	2	- 36.6	- 32.8	- 27.3	...	- 23.7	- 25.1	...	...	- 21.5	- 13.2	...	- 8.6	- 8.7	...	- 15.4
Parkinson and Frodsham	2451*	2	(+ 23.7)	(+ 16.0)	+ 11.8	...	+ 16.7	(+ 11.7)	...	...	(- 1.0)	+ 15.4	...	+ 6.6	+ 12.5	...	(+ 4.0)
Dent	1776*	2	...	...	...	...	+ 17.1	...	...	...	...	+ 26.7	...	+ 15.6	+ 18.6	...	...
Finer and Nowland	342	2	(D)	(D)	+ 4.5	...	+ 3.3	+ 8.7	...	...	+ 21.8	- 2.1	...	- 10.1	- 10.8	...	- 5.8
Dent	1729*	2	...	...	...	...	- 11.3	...	...	...	...	- 5.4	...	- 7.2	- 8.4	...	...
E. J. Massey	116*	2	(A)	(- 15.1)	(B)	...	- 28.3	(B)	...	...	(- 8.0)	- 35.6	...	- 33.5	- 40.2	...	(- 22.6)
Dent	1693*	2	...	...	...	...	...	...	...	...	...	- 3.1	...	...	- 4.4	...	...
James Pennington	202*	2	(+ 6.6)	(- 10.3)	- 19.8	...	- 19.3	(- 19.1)	...	...	(- 21.6)	- 13.1	...	- 17.5	- 13.1	...	(- 14.3)
James Pennington	203*	2	(- 24.0)	(- 27.1)	- 24.3	...	- 20.8	(- 31.5)	...	...	(- 42.1)	- 12.0	...	- 25.2	- 18.2	...	(- 28.4)
Widenham and Adams	1989	2	- 59.0	- 54.1	- 59.6	...	- 57.2	- 54.5	...	...	- 52.4	- 44.4	...	- 49.2	- 45.2	...	- 52.0
Chronometrical Therm.		..	+ 1961.2	+ 1806.7	+ 1698.4	+ 1686.2	+ 1639.8	+ 1592.5	+ 1546.8	+ 1516.4	+ 1243.8	+ 1112.0	+ 1105.8	+ 987.8	+ 953.5	+ 894.1	+ 866.1
Range of Thermometer in Chronometer Room ..		..	30° to 41°	35° to 41°	36° to 43°	34° to 44°	36° to 43°	33° to 47°	35° to 47°	36° to 43°	38° to 53°	41° to 54°	41° to 52°	40° to 55°	43° to 55°	43° to 53°	37° to 54°
Range of Thermometer in open air, or in the heated Iron Tray, for the Chro- nometers marked with an asterisk.		..	22° to 41°	30° to 40°	...	30° to 50°	...	31° to 52°	...	...	36° to 58°	...	...	...	...	...	24° to 56°

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

(A) Main spring broken.

(B) In the hands of the maker.

(D) Ordered to be removed from trial, but afterwards continued.

IN THE ORDER OF TEMPERATURE.—(continued).

1842. Dec. 10—17	1843. April 1—8	Mar. 18—25	April 15—22	May 20—27	May 27— June 3	June 3—10	May 13—20	July 2—15	July 1—8	† April 22—29	† May 6—13	† April 29— May 6	† June 10—17	† June 24— July 1	† June 17—24	NAME OF M A K E R.	Number.
...	+25.8	+26.3	+27.0	+25.5	+26.6	+29.0	+25.0	+41.2	+35.9	[+23.4]	[+21.6]	(C)	[+23.8]	[+27.8]	[+23.5]	Connell	323*
+5.9	+23.5	+24.2	+25.0	+24.7	+25.3	+28.9	+25.4	+30.2	+27.7	[+36.7]	[+30.0]	[+33.6]	[+35.1]	[+30.0]	[+25.6]	James Pennington	201*
...	-6.3	-6.5	-1.1	+7.9	+7.5	+9.1	+6.3	+11.9	+9.7	+0.8	+4.1	+2.1	+4.0	+2.8	+0.7	Cribb	50
...	+23.0	+22.1	+27.6	+23.5	+23.2	+25.4	+19.3	+20.3	+15.6	+15.0	+9.4	+11.5	+18.0	+20.0	+20.4	Arnold	1479
...	-29.7	-37.2	-27.2	-24.5	-21.6	-21.6	-24.1	-22.0	-27.6	-44.9	-40.5	-43.2	-41.9	-41.9	-40.3	Muston	671
...	+23.6	+21.3	+28.2	+36.1	+35.8	+37.7	+35.3	+44.2	+45.5	+37.4	+40.5	+38.9	+43.0	+43.2	+40.6	Parkinson and Frodsham	2464
...	+5.9	+1.4	+5.4	+25.5	+24.0	+24.2	+22.7	+29.2	+27.0	+1.4	+8.2	+6.3	+17.2	+17.3	+14.5	Piers	197
...	+19.8	+13.5	+28.1	+26.9	+24.9	+30.8	+33.0	+33.2	+34.0	[+17.8]	[+21.6]	[+19.1]	[+16.0]	[+14.7]	[+8.1]	Parkinson and Frodsham	2467*
...	-16.6	-26.0	-20.9	-18.3	-18.4	-18.9	-16.1	-6.9	-6.8	-24.8	-14.9	-18.3	-4.4	+4.5	-0.8	Fletcher	906
...	+0.1	-0.3	+1.9	-2.7	-2.7	-1.5	-2.4	-0.2	-0.8	[-14.0]	[-10.8]	[-11.6]	[-15.7]	[-19.6]	[-21.7]	Birchall	341*
...	-43.2	-40.8	-43.5	-44.7	-44.0	-42.3	-43.9	-40.8	-35.1	-30.3	-31.9	-30.0	-28.1	-27.1	-26.9	Dent	1543
...	+9.3	+10.3	+11.5	+26.1	+26.6	+27.2	+21.2	+36.2	+33.0	+13.0	+19.7	+16.3	+22.9	+26.2	+20.7	Litherland and Davies..	$\frac{991}{18337}$
...	-3.1	-4.5	-1.1	+10.0	+12.1	+12.0	+13.8	+21.6	+36.1	[+6.5]	[+22.9]	[+17.3]	[+23.2]	[+27.8]	[+14.2]	Porthouse	6592*
...	+2.5	+8.2	+3.2	+22.6	+24.1	+25.2	+23.3	+47.1	+49.0	[+11.9]	[+30.9]	[+21.2]	[+35.2]	[+44.9]	[+38.4]	Birchall	342*
...	-7.9	-8.7	-5.1	+12.1	+10.5	+11.1	+20.5	+24.6	+27.2	[+12.3]	[+25.6]	[+21.7]	[+24.4]	[+34.5]	[+30.3]	Dent	1770*
...	-19.9	-23.0	-20.2	-5.8	-6.9	-6.3	-2.0	+3.2	+5.2	[-33.3]	[-18.0]	[-22.8]	[-21.5]	[-17.0]	[-24.9]	Poole, Jun.	1027*
...	-39.3	-38.8	-46.3	-31.7	-29.2	-27.5	-26.7	-14.4	-8.7	[-52.4]	[-30.7]	[-38.8]	[-32.7]	[-22.1]	[-37.5]	Hewitt	1110*
...	-0.4	-1.8	+5.8	+11.0	+10.7	+11.9	+14.7	+22.3	+26.0	+21.1	+23.3	+23.3	+24.2	+29.6	+27.2	Dixon	150
...	-0.2	-0.9	+3.0	+2.0	+6.7	+6.6	+5.3	+15.9	+19.7	+15.8	+16.6	+16.3	+21.7	+21.3	+20.2	Dixon	151
...	+2.1	+2.0	+1.1	+12.0	+11.1	+13.7	+16.5	+8.7	+5.4	[+21.0]	[+25.4]	[+24.8]	[+26.8]	[+34.8]	[+34.9]	Parkinson and Frodsham	2451*
...	+15.4	+8.2	+22.2	+50.3	+59.0	+56.9	+58.5	+70.9	+69.0	[+38.0]	[+58.9]	[+48.8]	[+60.4]	[+73.5]	[+70.5]	Dent	1776*
...	-10.8	-18.5	-10.9	+3.3	+7.1	+3.7	+9.2	+11.4	+18.1	-8.6	+13.8	+5.0	-1.6	+19.7	+8.1	Finer and Nowland	342
...	-7.3	-9.2	-6.3	+24.5	+24.8	+26.1	+31.5	+41.7	+45.5	[-4.5]	[+33.5]	[+21.2]	[+31.5]	[+45.5]	[+35.8]	Dent	1729*
...	-44.8	-45.4	-43.7	-38.5	-36.0	-36.6	-38.8	-38.4	-36.3	[-64.1]	[-58.6]	[-59.5]	[-62.1]	[-58.5]	[-65.3]	E. J. Massey	116*
...	-5.3	-8.8	-2.5	+21.3	+19.9	+20.5	+22.7	+38.0	+39.0	[+15.7]	[+38.7]	[+32.6]	[+42.4]	[+55.8]	[+54.5]	Dent	1693*
...	-11.1	-13.6	-7.9	+15.0	+13.2	+16.7	+20.2	+35.4	+40.0	[-6.2]	[+13.7]	[+5.6]	[+16.9]	[+28.5]	[+14.1]	James Pennington	202*
...	-24.3	-27.2	-23.0	+15.5	+14.5	+16.0	+25.5	+38.7	+41.2	[-5.4]	[+17.7]	[+12.7]	[+11.6]	[+27.0]	[+13.2]	James Pennington	203*
...	-45.0	-47.0	-39.0	-9.4	-9.9	-21.8	-12.1	-11.1	-5.6	-4.7	-2.9	-4.8	+2.2	-3.0	+4.4	Widenham and Adams..	1989
+820.1	+548.2	+490.7	+290.5	+158.0	+118.6	+95.2	-58.8	-391.1	-805.6	-1440.8	-1453.0	-1587.4	-1744.3	-1888.7	-2077.1		
39° to 57°	49° to 56°	49° to 57°	49° to 62°	56° to 62°	53° to 62°	55° to 62°	52° to 83°	61° to 70°	66° to 80°	61° to 92°	69° to 86°	73° to 95°	58° to 94°	74° to 95°	76° to 98°		
...	...	...	...	...	...	...	...	...	...	71° to 120°	75° to 120°	76° to 119°	77° to 120°	70° to 123°	81° to 120°		

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

(A) Main spring broken.

(B) In the hands of the maker.

(C) Tripped.

(III)—ABSTRACT OF THE PRINCIPAL

NAME OF MAKER.	Number.	Whether Pocket, 1, 2, or 8 Days.	First Day of First Week of Rating.	Last Day of Last Week of Rating.	No. of Weeks.	Least Weekly Sum.	In what Week.
Molyneux	2185	1	1843. January 14	1843. July 15	26	0.0	February 11 to 18
Cotterell and Co.	$\frac{999}{2532}$	2	January 21	July 15	25	+ 10.5	March 18 to 25
Fletcher.....	950	2	January 21	July 15	25	- 8.4	January 21 to 28
W. Webb, Jun.....	5021	2	January 21	July 15	25	- 7.1	May 6 to 13†
Molyneux	2189	2	January 21	July 15	25	+ 11.4	March 18 to 25
Dent	1504	2	January 21	July 15	25	- 11.5	June 10 to 17 †
C. Frodsham.....	1957	2	January 21	July 15	25	- 9.2	June 17 to 24 †
Appleton	420	2	January 21	July 15	25	- 25.3	February 11 to 18
Parkinson and Frodsham.....	2496	2	January 21	July 15	25	- 6.6	February 11 to 18
Dent	1782*	2	March 18	July 15	17	- 2.1	March 25 to April 1
Baker	1072	2	January 14	July 15	26	- 21.5	June 17 to 24 †
Cotterell and Co.....	$\frac{017}{2509}$	2	January 21	July 15	25	+ 8.6	January 28 to February 4
Baker.....	1076	2	January 14	July 15	26	- 17.5	June 17 to 24 †
Appleton	467	2	January 21	July 15	25	- 28.1	June 17 to 24 †
Hewitt.....	1055*	2	January 14	July 15	26	[-12.2]	April 29 to May 6 †
Litherland and Davies.....	$\frac{1019}{18659}$	2	January 21	July 15	25	+ 10.8	March 4 to 11
C. Frodsham.....	1269	2	January 21	July 15	25	- 6.0	January 28 to February 4
Muston.....	868	2	January 14	July 15	26	- 21.9	June 17 to 24 †
Roskell.....	$\frac{1085}{53169}$	2	January 21	July 15	25	- 28.9	February 11 to 18
Roskell.....	$\frac{1084}{53168}$	2	January 21	July 15	22	- 11.7	March 18 to 25
Arnold.....	1542	1	January 21	July 15	25	- 3.8	March 18 to 25
Shepherd.....	404	2	January 21	July 15	25	+ 9.1	February 11 to 18
Cribb.....	52	2	January 28	July 15	24	- 11.8	March 18 to 25
Thorne.....	19	2	January 21	July 15	25	- 6.6	March 4 to 11
Widenham and Adams.....	2068	1	January 21	July 15	25	- 40.7	February 25 to March 4
Connell	324*	2	January 21	July 15	25	(+ 13.2)	February 11 to 18
Shepherd.....	341	2	January 21	July 15	25	+ 13.9	February 11 to 18
Porthouse	65209	2	January 21	July 15	25	+ 11.4	June 17 to 24 †
E. J. Massey.....	122	2	January 21	July 15	25	+ 35.7	April 15 to 22

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

N. B. The first week of rating of the Chronometers is not included in the Abstract.

CHANGES OF RATE.

Greatest Weekly Sum.	In what Week.	Difference between greatest and least.	Greatest Difference between one Week and the next.	Before and after what Day.	NAME OF MAKER.	Number.
+ 11.1	May 20 to 27	11.1	5.1	March 11	Molyneux	2185
+ 19.2	April 8 to 15	8.7	6.6	March 18	Cotterell and Co.	$\frac{223}{2532}$
+ 5.2	July 8 to 15	13.6	5.2	July 1	Fletcher.....	950
+ 3.2	June 3 to 10	10.3	8.7	May 13	W. Webb, Jun.....	5021
+ 26.8	July 1 to 8	15.4	6.4	January 28	Molyneux	2189
+ 3.5	{ March 11 to 18 March 25 to April 1 }	15.0	7.7	June 10	Dent	1504
+ 7.0	February 18 to 25	16.2	7.3	March 18	C. Frodsham	1957
- 10.3	July 8 to 15	15.0	8.2	July 1	Appleton.....	420
+ 9.6	{ April 29 to May 6 + May 13 to May 20 }	16.2	7.7	March 11	Parkinson and Frodsham.....	2496
+ 22.7	July 1 to 8	24.8	6.2	April 22	Dent	1782*
- 1.9	April 15 to 22	19.6	9.0	July 1	Baker	1072
+ 30.6	July 8 to 15	22.0	7.8	April 15	Cotterell and Co.	$\frac{017}{2509}$
+ 1.3	May 20 to 27	18.8	9.6	May 13	Baker	1076
- 12.5	June 3 to 10	15.6	11.4	June 10	Appleton	467
(+ 8.5)	February 4 to 11	20.7	9.9	June 10	Hewitt	1055*
+ 34.4	July 8 to 15	23.6	8.8	July 1	Litherland and Davies.....	$\frac{1018}{18639}$
+ 14.9	June 10 to 17 †	20.9	12.1	April 22	C. Frodsham	1869
- 1.2	January 28 to February 4	20.7	12.4	June 10	Muston	868
- 2.0	July 1 to 8	26.9	10.7	March 11	Roskell	$\frac{1085}{53169}$
+ 20.6	June 24 to July 1 †	32.3	8.1	July 1	Roskell	$\frac{1084}{53168}$
+ 16.1	June 10 to 17 †	19.9	14.6	May 13	Arnold	1542
+ 41.8	July 8 to 15	32.7	8.4	May 13	Shepherd.....	404
+ 16.8	July 1 to 8	28.6	10.3	March 25	Cribb.....	52
+ 20.2	July 1 to 8	26.8	11.6	April 15	Thorne	19
+ 10.9	July 1 to 8	29.8	10.4	July 1	Widenham and Adams.....	2068
+ 37.4	July 8 to 15	24.2	13.4	July 1	Connell	324*
+ 47.9	July 8 to 15	34.0	8.6	March 11	Shepherd	341
+ 31.5	June 3 to 10	20.1	15.6	April 22	Porthouse.....	65209
+ 59.2	February 11 to 18	23.5	13.9	February 4	E. J. Massey	122

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

N. B. The first week of rating of the Chronometers is not included in the Abstract.

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY,

(III)—ABSTRACT OF THE PRINCIPAL

NAME OF MAKER.	Number.	Whether Pocket 1, 2, or 8 Days.	First Day of First Week of Rating.	Last Day of Last Week of Rating.	No. of Weeks.	Least Weekly Sun.	In what Week.
Connell	323*	2	1843. January 21	1843. July 15	24	(+ 8·0)	February 11 to 18
James Pennington	201*	2	1842. December 10	July 15	31	+ 5·9	December 10 to 17
Cribb	50	2	1843. January 28	July 15	24	-24·5	February 4 to 11
Arnold	1479	2	January 21	July 15	25	- 3·6	February 4 to 11
Muston	671	2	January 14	July 15	26	-44·9	April 22 to 29 †
Parkinson and Frodsham	2464	2	January 21	July 15	25	+ 7·7	February 25 to March 4
Piers	197	1	January 21	July 15	25	- 3·6	February 11 to 18
Parkinson and Frodsham	2467*	2	January 21	July 15	25	[+ 8·1]	June 17 to 24 †
Fletcher	906	P	January 21	July 15	25	-32·1	January 28 to February 4
Birchall	341*	1	January 21	July 15	25	[-21·7]	June 17 to 24 †
Dent	1543	2	January 21	July 15	25	-57·9	February 11 to 18
Litherland and Davies	$\frac{001}{18557}$	2	January 21	July 15	25	-12·7	February 11 to 18
Porthouse	6592*	2	January 21	July 15	25	(-12·7)	February 11 to 18
Birchall	342*	2	January 21	July 15	25	- 7·3	April 8 to 15
Dent	1770*	2	January 28	July 15	24	(-10·6)	February 4 to 11
Poole, Jun.	1087*	2	January 21	July 15	25	[-33·3]	April 22 to 29 †
Hewitt	1110*	2	January 14	July 15	26	[-52·4]	April 22 to 29 †
Dixon	150	2	January 21	July 15	25	-31·2	February 11 to 18
Dixon	151	2	January 21	July 15	25	-36·6	February 11 to 18
Parkinson and Frodsham	2451*	2	January 21	July 15	25	(- 1·0)	January 21 to 28
Dent	1776*	2	March 4	July 15	19	+ 8·2	March 18 to 25
Finer and Nowland	342	2	January 21	July 15	23	-18·5	March 18 to 25
Dent	1729*	2	March 4	July 15	19	-11·3	March 4 to 11
E. J. Massey	116*	2	January 21	July 15	22	[-65·3]	June 17 to 24 †
Dent	1693*	2	March 18	July 15	17	- 8·8	March 18 to 25
James Pennington	202*	2	January 21	July 15	25	(-21·6)	January 21 to 28
James Pennington	203*	2	January 21	July 15	25	(-42·1)	January 21 to 28
Widenham and Adams	1989	2	January 21	July 15	25	-59·6	February 25 to March 4

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

N. B. The first week of rating of the Chronometers is not included in the Abstract.

CHANGES OF RATE.

Greatest Weekly Sum.	In what Week.	Difference between greatest and least.	Greatest Difference between one Week and the next.	Before and after what Day.	N A M E OF M A K E R.	Number.
+ 41.2	July 8 to 15	33.2	10.0	February 18	Connell	323*
[+ 36.7]	April 22 to 29 †	30.8	11.7	April 22	James Pennington	201*
+ 11.9	July 8 to 15	36.4	10.5	April 15	Cribb	50
+ 27.6	April 15 to 22	31.2	14.4	March 11	Arnold	1479
- 21.6	{ May 27 to June 3 } June 3 to 10	23.3	20.3	June 10	Muston	671
+ 45.5	July 1 to 8	37.8	11.6	{ February 11 } April 15	Parkinson and Frodsham	2464
+ 29.2	July 8 to 15	32.8	14.5	May 13	Piers	197
+ 34.0	July 1 to 8	25.9	19.3	July 1	Parkinson and Frodsham	2467*
+ 4.5	June 24 to July 1 †	36.6	14.5	June 10	Fletcher	906
(+ 9.9)	February 11 to 18	31.6	18.8	July 1	Birchall	341*
- 26.9	June 17 to 24 †	31.0	21.0	February 4	Dent	1543
+ 36.2	July 8 to 15	48.9	13.7	February 4	Litherland and Davies	$\frac{991}{18337}$
+ 36.1	July 1 to 8	48.8	14.5	July 8	Porthouse	6592*
+ 49.0	July 1 to 8	56.3	11.1	March 25	Birchall	342*
[+ 34.5]	June 24 to July 1 †	45.1	17.4	April 22	Dent	1770*
+ 5.2	July 1 to 8	38.5	22.2	July 1	Poole, Jun.	1087*
(+ 6.5)	January 28 to February 4	58.9	15.9	February 25	Hewitt	1110*
+ 29.6	June 24 to July 1 †	60.8	15.3	April 22	Dixon	150
+ 21.7	June 10 to 17 †	58.3	17.4	February 4	Dixon	151
[+ 34.9]	June 17 to 24 †	35.9	29.4	July 1	Parkinson and Frodsham	2451*
[+ 73.5]	June 24 to July 1 †	65.3	15.8	April 22	Dent	1776*
+ 21.8	January 21 to 28	40.3	27.6	January 28	Finer and Nowland	342
[+ 45.5]	{ June 21 to July 1 } July 1 to 8	56.8	25.7	April 29	Dent	1729*
(- 8.0)	January 21 to 28	57.3	25.5	June 10	F. J. Massey	116*
[+ 55.8]	June 24 to July 1 †	64.6	21.9	June 10	Dent	1693*
+ 40.0	July 1 to 8	61.6	25.7	February 18	James Pennington	202*
+ 41.2	July 1 to 8	83.3	18.1	April 29	James Pennington	203*
+ 4.4	June 17 to 24 †	64.0	34.3	April 22	Widenham and Adams	1989

* These Chronometers were exposed to the open air on the north side of the building, during the weeks in which their rates are inclosed in parentheses (); and were placed near to the stove in a temperature of about 100°, during the weeks in which their rates are inclosed in brackets [].

† In these weeks the room was heated by a stove.

N. B. The first week of rating of the Chronometers is not included in the Abstract.

(IV)—ABSTRACT FOR THE CHRONOMETERS EXPOSED TO MORE SEVERE TRIALS,

NAME OF MAKER.	Number.	Whether Pocket 1, 2, or 8 Days.	First Day of First Week of Rating.	Last Day of Last Week of Rating.	No. of Weeks.	Least Weekly Sum.	In what Week.
Birchall.....	341	1	1843. February 25	1843. July 15	14	— 2·7	1843. { May 20 to 27 May 27 to June 3 }
Hewitt.....	1055	2	February 25	July 15	14	— 3·2	March 4 to 11
Connell.....	323	2	February 25	July 15	14	+ 23·9	March 4 to 11
Connell.....	324	2	February 25	July 15	14	+ 19·6	March 4 to 11
Dent.....	1782	2	March 18	July 15	11	— 2·1	March 25 to April 1
Pennington.....	201	2	1842. December 10	July 15	19	+ 5·9	1842. December 10 to 17
Massey.....	116	2	1843. March 4	July 15	13	— 45·4	1843. March 18 to 25
Parkinson and Frodsham.....	2451	2	February 25	July 15	14	+ 2·0	March 18 to 25
Parkinson and Frodsham.....	2467	2	February 25	July 15	14	+ 12·2	February 25 to March 4
Poole.....	1087	2	February 25	July 15	14	— 23·0	March 18 to 25
Dent.....	1770	2	February 25	July 15	14	— 10·1	March 4 to 11
Dent.....	1693	2	March 18	July 15	11	— 8·8	March 18 to 25
Hewitt.....	1110	2	February 25	July 15	14	— 46·3	April 15 to 22
Pennington.....	202	2	February 25	July 15	14	— 19·8	February 25 to March 4
Dent.....	1729	2	March 4	July 15	13	— 11·3	March 4 to 11
Porthouse.....	6592	2	February 25	July 15	14	— 8·1	{ February 25 to March 4 March 4 to 11 }
Birchall.....	342	2	February 25	July 15	14	— 7·3	April 8 to 15
Dent.....	1776	2	March 4	July 15	13	+ 8·2	March 18 to 25
Pennington.....	203	2	February 25	July 15	14	— 27·2	March 18 to 25

EXCLUDING THE WEEKS OF MORE SEVERE COLD OR HEAT.

Greatest Weekly Sum.	In what Week.	Difference between greatest and least.	Greatest Difference between one Week and the next.	Before and after what Day.	Name of Maker.	Number.
"		"	"	1843.		
+ 6.1	February 25 to March 4	8.8	5.5	March 11	Birchall.....	341
+ 6.2	July 8 to 15	9.4	9.2	July 8	Hewitt.....	1055
+ 41.2	July 8 to 15	17.3	5.7	March 11	Connell.....	323
+ 37.4	July 8 to 15	17.8	6.4	March 11	Connell.....	324
+ 22.7	July 1 to 8	24.8	5.2	April 1	Dent.....	1782
+ 30.2	July 8 to 15	24.3	7.0	1842. December 31	Pennington.....	201
- 28.3	March 4 to 11	17.1	11.9	1843. March 18	Massey.....	116
+ 16.7	March 4 to 11	14.7	13.3	April 8	Parkinson and Frodsham.....	2451
+ 34.0	July 1 to 8	21.8	10.8	March 25	Parkinson and Frodsham.....	2467
+ 5.2	July 1 to 8	28.2	11.3	March 25	Poole.....	1087
+ 27.2	July 1 to 8	37.3	8.4	May 20	Dent.....	1770
+ 39.0	July 1 to 8	47.8	4.4	March 25	Dent.....	1693
- 8.7	July 1 to 8	37.6	13.6	April 15	Hewitt.....	1110
+ 40.0	July 1 to 8	59.8	5.2	{ April 15 May 20 }	Pennington.....	202
+ 45.5	July 1 to 8	56.8	7.0	May 20	Dent.....	1729
+ 36.1	July 1 to 8	44.2	14.5	July 8	Porthouse.....	6592
+ 49.0	July 1 to 8	56.3	11.1	March 25	Birchall.....	342
+ 70.9	July 8 to 15	62.7	11.3	April 8	Dent.....	1776
+ 41.2	July 1 to 8	68.4	12.3	April 8	Pennington.....	203

REMARK.—In consequence of an error discovered while the sheets were going through the press, the order in which the Chronometers are placed is not precisely correct, in reference to the usual system of arrangement. Finer and Nowland 342 ought to have been placed between Fletcher 906 and Birchall 341.