

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

1844.

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY,

NAME OF MAKER.	Number.	Whether Pocket, 1, 2, or 3 Days.	(I)—WEEKLY SUMS OF DAILY RATES												
			Jan. 13—20	Jan. 20—27	Jan. 27— Feb. 3	Feb. 3—10	Feb. 10—17	Feb. 17—24	Feb. 24— Mar. 2	Mar. 2—9	Mar. 9—16	Mar. 16—23	Mar. 23—30	Mar. 30— Apr. 6	April 6—13
Appleton.....	468	2	...	+ 0.7	+ 2.5	+ 1.4	+ 2.0	+ 2.6	+ 7.6	+ 10.2	+ 9.7	+ 13.2	+ 13.9	+ 14.0	+ 13.2
Reid and Sons	1048	2	...	- 7.4	- 7.9	- 6.1	- 7.3	- 9.6	- 7.1	- 2.2	- 0.5	- 1.5	- 2.4	- 0.7	- 2.0
Banister	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Parkinson and Frodsham	2791	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Parkinson and Frodsham	2614	2	...	-24.6	-23.3	-25.6	-28.2	-25.9	-16.0	-16.0	-15.6	-23.3	-20.0	-17.0	-18.6
Appleton.....	464	2	...	+ 0.9	+ 1.3	+ 0.3	+ 0.4	+ 1.6	+ 1.7	+ 7.9	+ 9.6	+ 14.7	+ 15.4	+ 17.1	+ 15.4
Cotterell and Co.	$\frac{9.3.3}{2619}$	2	...	- 4.3	- 3.6	- 2.1	- 1.2	- 2.0	- 3.7	- 0.2	+ 2.0	+ 1.0	- 1.5	- 4.2	- 6.2
Parkinson and Frodsham	2792	2	...	...	...	...	...	...	...	...	...	...	...	...	...
R. Molyneux	2182	1	...	-13.5	-15.2	-15.7	-18.6	-17.9	-19.2	-17.5	- 9.5	- 0.9	- 1.6	- 4.5	- 6.5
Dixon	157	2	...	-14.4	-12.8	-15.6	-14.6	-10.8	- 6.7	- 1.4	+ 0.4	- 0.5	+ 2.7	+ 4.3	+ 2.8
Birchall.....	342	2	...	+ 4.6	+ 7.3	+ 5.8	+ 6.1	+ 9.7	+ 10.6	+ 2.1	- 1.4	+ 7.4	+ 10.8	+ 13.7	+ 12.2
Cribb.....	66	2	...	- 5.9	- 4.1	- 3.2	- 6.3	- 1.7	- 3.3	- 2.8	- 1.4	+ 2.3	+ 2.4	+ 4.3	+ 3.1
Webb, Jun.....	5016	2	...	+ 0.6	+ 0.3	+ 1.1	- 0.4	+ 0.6	- 3.5	- 4.1	- 0.6	- 3.3	+ 4.3	+ 8.2	+ 8.2
Porthouse.....	6592*	2	...	(+15.6)	(+18.4)	(+17.8)	(+16.3)	(+19.6)	[+22.6]	[+24.6]	[+27.2]	+19.0	+20.6	+21.3	+18.1
E. J. Massey.....	123*	2	...	(+ 2.1)	(+ 7.1)	(+ 3.6)	(A)	(C)	(C)	[+ 9.7]	[+11.0]	+17.0	+25.4	+32.0	+30.8
Birchall.....	341	1	...	+ 5.4	+ 6.8	+ 7.5	+ 7.3	+ 9.0	+ 0.1	- 0.5	+ 2.1	+ 11.1	+12.5	+13.5	+12.0
Arnold.....	1542	1	...	...	+ 1.9	+10.2	+ 9.9	+ 9.7	+15.1	+14.4	+12.7	- 1.8	+ 0.3	+ 5.7	+ 2.7
R. Molyneux.....	2198	1	...	+ 8.1	+ 3.5	+ 2.3	+ 2.2	+ 2.8	+18.4	+20.7	+21.7	+11.9	+12.7	+13.1	+11.2
Baker.....	1083	2	...	+ 1.2	+ 1.5	+ 2.0	- 0.4	+ 1.5	+ 7.7	+ 0.8	+ 1.4	+ 4.1	+ 6.0	+ 7.8	+ 6.2
Muston.....	601*	2	(-30.1)	(-28.8)	(-26.6)	(-30.6)	(-35.5)	(-29.2)	[-22.5]	[-27.6]	[-27.5]	-10.1	-17.8	-15.2	-13.0
Thorne.....	19	2	...	- 5.0	- 7.3	- 8.6	- 8.4	- 5.9	- 1.4	-11.4	-11.4	-18.4	-14.2	-11.4	-12.3
Hewitt.....	1151	2	...	+23.6	+21.9	+17.0	+14.7	+14.9	+ 1.7	+ 0.8	+ 5.6	+19.0	+21.5	+20.8	+20.3
Carter.....	454	2	...	+ 3.6	+ 5.4	+ 7.2	+ 5.5	+ 7.6	- 4.8	- 6.4	- 8.9	+ 3.9	+ 8.8	+ 9.3	+ 7.6
Norris and Campbell...	431	2	...	- 2.9	- 0.3	- 0.6	- 1.6	+ 1.7	+19.7	+17.7	+24.6	+18.8	+19.9	+22.0	+20.4
Parkinson and Frodsham	2630	2	...	-24.0	-22.3	-24.3	-23.7	-24.7	- 2.0	- 2.5	- 2.8	-13.6	- 8.6	- 4.8	- 7.0
Fletcher.....	978*	2	...	(- 5.3)	(- 4.1)	(- 7.9)	(- 7.5)	(- 3.8)	[+ 7.2]	[+ 7.6]	[+ 9.5]	+11.3	+17.1	+26.9	+26.7
Poole.....	1086*	2	...	(-13.1)	(-12.2)	(-16.6)	(-21.7)	(-25.7)	- 4.4	- 0.3	+ 0.9	-12.4	-10.3	- 3.7	- 5.8
Porthouse, Jun.....	6616*	2	...	(+16.2)	(+16.9)	(+18.8)	(+20.4)	(+21.1)	[+ 9.2]	[+ 7.7]	[+ 4.0]	+27.0	+24.1	+20.4	+20.2
Hewitt.....	1067	2	...	- 2.9	- 5.9	- 6.9	- 7.7	- 7.3	-12.1	-14.1	-18.3	- 5.1	- 1.3	- 0.3	- 5.1
Carter.....	410	2	...	+14.6	+13.6	+13.4	+13.1	+15.9	+ 7.8	+ 3.4	+ 1.4	+13.1	+15.1	+15.1	+14.5
Morris Tobias.....	833	2	-21.8	-18.3	-15.9	-19.4	-22.8	-17.7	+ 6.1	+ 7.3	+ 9.0	-10.4	- 1.6	+ 4.6	+ 2.7
Banister.....	1	2	...	-25.4	-25.2	-27.8	-29.9	(A)	(B)	-24.2	(C)	(C)	+ 4.7	+ 7.4	+19.2
Dent.....	1787*	2	...	(-24.5)	(-26.1)	(-23.8)	(-30.6)	(-28.9)	[-20.7]	[-15.7]	[-10.6]	- 9.9	-14.8	-16.3	-16.4
Dent.....	1795*	2	...	(- 2.9)	(- 4.9)	(- 8.3)	(- 6.1)	(- 6.2)	[+ 9.0]	[+15.3]	[+18.9]	+19.5	+14.5	+13.5	+17.1
Dent.....	1941*	2	...	(+13.6)	(+13.2)	(+13.3)	(+13.7)	(+14.5)	[+ 5.7]	[+10.0]	[+ 7.8]	+15.6	+12.1	+14.1	+13.3
Chronometrical Therm.	....	..	+1701.3	+1544.2	+1445.6	+1712.3	+1840.3	+1664.7	-1046.0	-1160.0	-1266.5	+1081.9	+857.8	+324.4	+293.4
Range of Thermometer in Chronometer Room..	}....	....	34° to 48°	38° to 43°	35° to 48°	35° to 42°	31° to 42°	33° to 50°	60° to 85°	60° to 89°	66° to 88°	40° to 81°	42° to 56°	52° to 62°	52° to 62°
Range of Thermometer in open air, or in heated Iron Tray, for the Chronometers marked with an Asterisk.		....	26° to 48°	32° to 48°	28° to 53°	26° to 43°	23° to 46°	27° to 50°	70° to 108°	76° to 111°	75° to 114°	....	....	....	....

* 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 (with the exception of POOLE 1086) 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) Stopped.

(B) Tripped.

(C) In the hands of the maker.

The rate given by the first week's trial is in every case omitted.

IN THE ORDER OF TIME.

April 13—20	April 20—27	April 27— May 4	May 4—11	May 11—18	May 18—25	May 25— June 1	June 1—8	June 8—15	June 15—22	June 22—29	June 29— July 6	July 6—13	NAME OF MAKER.	Number.
+13.0	+11.7	+13.5	+13.0	+12.5	+12.6	+13.0	+12.3	+8.2	+9.4	+7.9	+11.9	+12.6	Appleton.....	468
-1.0	-0.2	-0.4	+2.1	+1.4	-0.9	-0.9	-0.4	+1.1	+3.5	+2.4	+7.7	+6.4	Reid and Sons.....	1048
....	....	....	....	-20.4	-18.4	-17.1	-16.3	-19.0	-17.6	-14.7	-7.6	-6.3	Banister.....	2
....	....	....	....	....	....	-0.1	+1.4	-8.0	-6.4	-5.7	+3.0	+3.4	Parkinson and Frodsham..	2791
-18.3	-17.9	-18.6	-15.8	-19.0	-20.2	-21.7	-17.6	-20.5	-17.6	-18.2	-16.2	-17.2	Parkinson and Frodsham..	2614
+15.8	+16.3	+17.3	+16.8	+15.7	+15.4	+14.0	+15.3	+7.9	+9.4	+8.2	+15.9	+17.8	Appleton.....	464
-3.6	-6.3	-6.7	-6.6	-8.0	-6.3	-5.6	-8.3	+2.0	+4.9	+4.7	-2.8	-3.3	Cotterell and Co.....	$\frac{9.3.3}{26.1.9}$
....	....	....	....	....	....	-6.1	-0.1	+1.8	+7.0	+10.2	+15.5	+16.4	Parkinson and Frodsham..	2792
-2.3	-8.5	-7.1	-6.3	-9.4	-9.6	-10.4	-9.1	-2.9	-1.2	-3.6	-6.7	-9.4	R. Molyneux.....	2182
+4.6	+3.6	+5.1	+5.5	+6.1	+7.1	+6.4	+7.2	+0.4	+3.9	+2.8	+8.4	+7.8	Dixon.....	157
+14.4	+14.0	+14.2	+16.2	+14.3	+15.5	+16.0	+18.1	+10.4	+9.9	+9.2	+17.5	+20.1	Birchall.....	342
+5.0	+3.5	+4.8	+5.0	+4.7	+7.2	+7.0	+7.7	-4.8	-2.0	-2.9	+6.0	+8.9	Cribb.....	66
+10.3	+9.3	+10.1	+11.0	+10.1	+13.0	+11.5	+13.1	+17.7	+14.9	+18.0	+8.5	+10.5	Webb, Jun.	5016
+18.6	+20.9	+23.7	+23.3	+24.2	+25.8	+25.2	+24.1	[+28.1]	[+30.3]	[+35.6]	+23.1	+23.5	Porthouse.....	65922*
+27.0	+26.6	+31.3	+30.5	+27.6	+22.3	+23.3	+24.5	[+18.1]	[+17.8]	[+16.4]	+14.1	+13.3	E. J. Massey.....	123*
+13.1	+11.7	+12.4	+12.3	+12.0	+13.7	+14.0	+13.1	-2.5	-1.2	-1.5	+9.5	+12.3	Birchall.....	341
+3.0	+8.2	+7.1	+12.5	+8.2	+3.5	+3.9	+11.8	+18.7	+16.8	+18.0	+13.4	+13.1	Arnold.....	1542
+12.6	+12.0	+12.8	+13.1	+12.9	+14.8	+15.0	+16.0	+18.6	+20.6	+23.9	+19.4	+18.7	R. Molyneux.....	2198
+8.0	+7.4	+5.6	+6.6	+8.0	+8.0	+8.5	+10.1	-6.5	-15.2	-12.1	+1.2	+4.1	Baker.....	1083
-18.3	-18.0	-11.6	-15.5	-15.0	-11.3	-11.8	-16.6	[-26.0]	[-30.6]	[-34.1]	-23.3	-20.5	Muston.....	601*
-7.0	-6.8	-4.8	-6.5	-8.0	+0.2	+1.5	+2.5	-15.5	-16.6	-22.1	-20.6	-18.5	Thorne.....	19
+21.8	+19.9	+21.0	+20.0	+20.5	+23.7	+25.1	+23.6	+3.1	+4.1	+2.8	+18.5	+22.5	Hewitt.....	1151
+9.5	+6.9	+7.0	+8.2	+7.0	+11.4	+9.1	+7.6	-13.1	-12.9	-10.9	+1.3	+2.6	Carter.....	454
+21.7	+21.2	+19.9	+21.9	+19.1	+20.6	+19.5	+21.6	+19.4	+27.1	+24.1	+22.5	+22.9	Norris and Campbell....	431
-5.8	-5.3	-6.0	-4.4	-6.1	-6.3	-6.9	-4.9	-6.4	-6.2	-6.8	-4.1	-4.1	Parkinson and Frodsham..	2630
+24.6	+25.8	+27.0	+29.6	+28.8	+28.5	+26.8	+31.2	[+16.6]	[+16.8]	[+17.0]	+21.8	+31.1	Fletcher.....	978*
-5.1	-3.6	-4.0	-1.9	-3.6	-6.5	-6.9	-2.8	-5.5	-1.5	-3.5	+0.4	+1.1	Poole.....	1086*
+21.8	+18.4	+21.6	+19.0	+19.2	+24.4	+25.9	+20.9	[+3.3]	[+7.6]	[+7.6]	+18.9	+20.1	Porthouse, Jun.....	6616*
-1.8	-4.6	-3.3	-4.1	-3.5	+0.2	+1.9	+0.5	-21.2	-18.4	-24.6	-9.8	-4.7	Hewitt.....	1067
+16.8	+14.8	+14.5	+14.6	+15.6	+18.8	+18.7	+19.1	-4.0	-4.4	-6.4	+9.0	+13.9	Carter.....	410
-0.7	+7.8	+9.1	+10.9	+6.2	+6.5	+5.9	+8.7	+9.7	+12.7	+10.3	+13.8	+14.6	Morris Tobias.....	833
+42.6	+42.2	+36.6	+35.5	+39.2	+40.9	+42.8	+40.4	+77.0	+81.9	+83.1	+37.0	+36.5	Banister.....	1
-15.4	-16.2	-14.9	-15.1	(D)	....	....	....	....	....	....	....	....	Dent.....	1787*
+19.1	+19.6	+22.7	+23.0	(D)	....	....	....	....	....	....	....	....	Dent.....	1799*
+14.8	+14.9	+15.6	+16.5	(D)	....	....	....	....	....	....	....	....	Dent.....	1941*
+335.5	+31.1	+164.0	-143.0	-1.7	+380.3	+456.9	-79.6	-1759.3	-1728.1	-1793.9	-668.8	-462.9		
53° to 59°	56° to 65°	55° to 64°	57° to 64°	51° to 67°	49° to 61°	52° to 60°	55° to 67°	62° to 98°	74° to 97°	76° to 95°	62° to 88°	61° to 70°		
....	....	....	....	....	....	....	....	62° to 113°	76° to 109°	80° to 110°	....	....		

* 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 (with the exception of POOLE 1086) 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.

(D) Withdrawn for special service.

The rate given by the first week's trial is in every case omitted.

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												
			Feb. 10—17	Feb. 3—10	Jan. 13—20	Feb. 17—24	Jan. 20—27	Jan. 27— Feb. 3	Mar. 16—23	Mar. 23—30	May 25— June 1	May 18—25	April 13—20	Mar. 30— April 6	April 6—13
Appleton.....	468	2	+ 2.0	+ 1.4	....	+ 2.6	+ 0.7	+ 2.5	+13.2	+13.9	+13.0	+12.6	+13.0	+14.0	+13.2
Reid and Sons.....	1048	2	- 7.3	- 6.1	....	- 9.6	- 7.4	- 7.9	- 1.5	- 2.4	- 0.9	- 0.9	- 1.0	- 0.7	- 2.0
Banister.....	2	2	....	....	....	....	....	....	....	....	-17.1	-18.4	....	....	....
Parkinson and Frodsham	2791	2	....	....	....	....	....	....	....	....	- 0.1	....	....	....	....
Parkinson and Frodsham	2614	2	-28.2	-25.6	....	-25.9	-24.6	-23.3	-23.3	-20.0	-21.7	-20.2	-18.3	-17.0	-18.6
Appleton.....	464	2	+ 0.4	+ 0.3	....	+ 1.6	+ 0.9	+ 1.3	+14.7	+15.4	+14.0	+15.4	+15.8	+17.1	+15.4
Cotterell and Co.	$\frac{9.3.3}{26.1.9}$	2	- 1.2	- 2.1	....	- 2.0	- 4.3	- 3.6	+ 1.0	- 1.5	- 5.6	- 6.3	- 3.6	- 4.2	- 6.2
Parkinson and Frodsham	2792	2	....	....	....	....	....	....	....	....	- 6.1	....	....	....	....
R. Molyneux.....	2182	1	-18.6	-15.7	....	-17.9	-13.5	-15.2	- 0.9	- 1.6	-10.4	- 9.6	- 2.3	- 4.5	- 6.5
Dixon.....	157	2	-14.6	-15.6	....	-10.8	-14.4	-12.8	- 0.5	+ 2.7	+ 6.4	+ 7.1	+ 4.6	+ 4.3	+ 2.8
Birchall.....	342	2	+ 6.1	+ 5.8	....	+ 9.7	+ 4.6	+ 7.3	+ 7.4	+10.8	+16.0	+15.5	+14.4	+13.7	+12.2
Cribb.....	66	2	- 6.3	- 3.2	....	- 1.7	- 5.9	- 4.1	+ 2.3	+ 2.4	+ 7.0	+ 7.2	+ 5.0	+ 4.3	+ 3.1
Webb, Jun.....	5016	2	- 0.4	+ 1.1	....	+ 0.6	+ 0.6	+ 0.3	- 3.3	+ 4.3	+11.5	+13.0	+10.3	+ 8.2	+ 8.2
Porthouse.....	65922*	2	(+16.3)	(+17.8)	....	(+19.6)	(+15.6)	(+18.4)	+19.0	+20.6	+25.2	+25.8	+18.6	+21.3	+18.1
E. J. Massey.....	123*	2	(A)	(+ 3.6)	....	(C)	(+ 2.1)	(+ 7.1)	+17.0	+25.4	+23.3	+22.3	+27.0	+32.0	+30.8
Birchall.....	341	1	+ 7.3	+ 7.5	....	+ 9.0	+ 5.4	+ 6.8	+11.1	+12.5	+14.0	+13.7	+13.1	+13.5	+12.0
Arnold.....	1542	1	+ 9.9	+10.2	....	+ 9.7	....	+ 1.9	- 1.8	+ 0.3	+ 3.9	+ 3.5	+ 3.0	+ 5.7	+ 2.7
R. Molyneux.....	2198	1	+ 2.2	+ 2.3	....	+ 2.8	+ 8.1	+ 3.5	+11.9	+12.7	+15.0	+14.8	+12.6	+13.1	+11.2
Baker.....	1083	2	- 0.4	+ 2.0	....	+ 1.5	+ 1.2	+ 1.5	+ 4.1	+ 6.0	+ 8.5	+ 8.0	+ 8.0	+ 7.8	+ 6.2
Muston.....	601*	2	(-35.5)	(-30.6)	(-30.1)	(-29.2)	(-28.8)	(-26.6)	-10.1	-17.8	-11.8	-11.3	-18.3	-15.2	-13.0
Thorne.....	19	2	- 8.4	- 8.6	....	- 5.9	- 5.0	- 7.3	-18.4	-14.2	+ 1.5	+ 0.2	- 7.0	-11.4	-12.3
Hewitt.....	1151	2	+14.7	+17.0	....	+14.9	+23.6	+21.9	+19.0	+21.5	+25.1	+23.7	+21.8	+20.8	+20.3
Carter.....	454	2	+ 5.5	+ 7.2	....	+ 7.6	+ 3.6	+ 5.4	+ 3.9	+ 8.8	+ 9.1	+11.4	+ 9.5	+ 9.3	+ 7.6
Norris and Campbell...	431	2	- 1.6	- 0.6	....	+ 1.7	- 2.9	- 0.3	+18.8	+19.9	+19.5	+20.6	+21.7	+22.0	+20.4
Parkinson and Frodsham	2630	2	-23.7	-24.3	....	-24.7	-24.0	-22.3	-13.6	- 8.6	- 6.9	- 6.3	- 5.8	- 4.8	- 7.0
Fletcher.....	978*	2	(- 7.5)	(- 7.9)	....	(- 3.8)	(- 5.3)	(- 4.1)	+11.3	+17.1	+26.8	+28.5	+24.6	+26.9	+26.7
Poole.....	1086*	2	(-21.7)	(-16.6)	....	(-25.7)	(-13.1)	(-12.2)	-12.4	-10.3	- 6.9	- 6.5	- 5.1	- 3.7	- 5.8
Porthouse, Jun.	6616*	2	(+20.4)	(+18.8)	....	(+21.1)	(+16.2)	(+16.9)	+27.0	+24.1	+25.9	+24.4	+21.8	+20.4	+20.2
Hewitt.....	1067	2	- 7.7	- 6.9	....	- 7.3	- 2.9	- 5.9	- 5.1	- 1.3	+ 1.9	+ 0.2	- 1.8	- 0.3	- 5.1
Carter.....	410	2	+13.1	+13.4	....	+15.9	+14.6	+13.6	+13.1	+15.1	+18.7	+18.8	+16.8	+15.1	+14.5
Morris Tobias.....	833	2	-22.8	-19.4	-21.8	-17.7	-18.3	-15.9	-10.4	- 1.6	+ 5.9	+ 6.5	- 0.7	+ 4.6	+ 2.7
Banister.....	1	2	-29.9	-27.8	....	(A)	-25.4	-25.2	(C)	+ 4.7	+42.8	+40.9	+42.6	+ 7.4	+19.2
Dent.....	1787*	2	(-30.6)	(-28.8)	....	(-28.9)	(-24.5)	(-26.1)	- 9.9	-14.8	....	....	-15.4	-16.3	-16.4
Dent.....	1799*	2	(- 6.1)	(- 8.3)	....	(- 6.2)	(- 2.9)	(- 4.9)	+19.5	+14.5	....	....	+19.1	+13.5	+17.1
Dent.....	1941*	2	(+13.7)	(+13.3)	....	(+14.5)	(+13.6)	(+13.2)	+15.6	+12.1	....	....	+14.8	+14.1	+13.3
Chronometrical Therm.	....	..	+1840.3	+1712.3	+1701.2	+1664.7	+1544.2	+1445.6	+1081.9	+857.8	+456.9	+380.3	+335.5	+324.4	+293.4
Range of Thermometer in Chronometer Room...	....	..	31° to 42°	35° to 42°	34° to 48°	33° to 50°	32° to 43°	35° to 48°	40° to 81°	42° to 56°	52° to 60°	49° to 61°	53° to 59°	52° to 62°	52° to 62°
Range of Thermometer in open air, or in heated Iron Tray, for the Chronometers marked with an Asterisk.	....	..	23° to 46°	26° to 43°	26° to 42°	27° to 50°	32° to 49°	28° to 53°	....	....	....	....	....	....	....
* 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 (with the exception of POOLE 1086) 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) Stopped. (B) Tripped. (C) In the hands of the maker. The rate given by the first week's trial is in every case omitted.															

IN THE ORDER OF TEMPERATURE.													NAME OF M A K E R.	Number.
April 27- May 4.	April 20-27	May 11-18	June 1-8	May 4-11	July 6-13	June 29- July 6	Feb. 24- Mar. 2	March 2-9	March 9-16	June 15-22	June 8-15	June 22-29		
+13.5	+11.7	+12.5	+12.3	+13.0	+12.6	+11.9	+7.6	+10.2	+9.7	+9.4	+8.2	+7.2	Appleton	469
-0.4	-0.2	+1.4	-0.4	+2.1	+6.4	+7.7	-7.1	-2.2	-0.5	+3.5	+1.1	+2.4	Reid and Sons	1048
....	....	-20.4	-16.3	....	-6.3	-7.6	....	....	....	-17.6	-19.0	-14.7	Banister	2
....	....	....	+1.4	....	+3.4	+3.0	....	....	....	-6.4	-8.0	-5.7	Parkinson and Frodsham	2791
-18.6	-17.9	-19.0	-17.6	-15.8	-17.2	-16.2	-16.0	-16.0	-15.6	-17.6	-20.5	-18.2	Parkinson and Frodsham	2614
+17.3	+16.3	+15.7	+15.3	+16.8	+17.8	+15.9	+1.7	+7.9	+9.6	+9.4	+7.9	+8.2	Appleton	464
-6.7	-6.3	-8.0	-8.3	-6.6	-3.3	-2.8	-3.7	-0.2	+2.0	+4.9	+2.0	+4.7	Cotterell and Co.	$\frac{9.33}{2.619}$
....	....	....	-0.1	....	+16.4	+15.5	....	....	....	+7.0	+1.8	+10.2	Parkinson and Frodsham	2792
-7.1	-8.5	-9.4	-9.1	-6.3	-9.4	-6.7	-19.2	-17.5	-9.5	-1.2	-2.9	-3.6	R. Molyneux.....	2182
+5.1	+3.6	+6.1	+7.2	+5.5	+7.8	+8.4	-6.7	-1.4	+0.4	+3.9	+0.4	+2.8	Dixon	157
+14.2	+14.0	+14.3	+18.1	+16.2	+20.1	+17.5	+10.6	+2.1	-1.4	+9.9	+10.4	+9.2	Birchall	342
+4.8	+3.5	+4.7	+7.7	+5.0	+8.9	+6.0	-3.3	-2.8	-1.4	-2.0	-4.8	-2.9	Cribb	66
+10.1	+9.3	+10.1	+13.1	+11.0	+10.5	+8.5	-3.5	-4.1	-0.6	+14.9	+17.7	+18.0	Webb, Jun.	5016
+23.7	+20.9	+24.2	+24.1	+23.3	+23.5	+23.1	[+22.6]	[+24.6]	[+27.2]	[+30.3]	[+28.1]	[+35.6]	Porthouse	65922*
+31.3	+26.6	+27.6	+24.5	+30.5	+13.3	+14.1	(C)	[+9.7]	[+11.0]	[+17.8]	[+18.1]	[+16.4]	E. J. Massey.....	123*
+12.4	+11.7	+12.0	+13.1	+12.3	+12.3	+9.5	+0.1	-0.5	+2.1	-1.2	-2.5	-1.5	Birchall	341
+7.1	+8.2	+8.2	+11.8	+12.5	+13.1	+13.4	+15.1	+14.4	+12.7	+16.8	+18.7	+18.0	Arnold	1542
+12.8	+12.0	+12.9	+16.0	+13.1	+18.7	+19.4	+18.4	+20.7	+21.7	+20.6	+18.6	+23.9	R. Molyneux	2198
+5.6	+7.4	+8.0	+10.1	+6.6	+4.1	+1.2	+7.7	+0.8	+1.4	-15.2	-6.5	-12.1	Baker	1083
-11.6	-18.0	-15.0	-16.6	-15.5	-20.5	-23.3	[-22.5]	[-27.6]	[-27.5]	[-30.6]	[-26.0]	[-34.1]	Muston	601*
-4.8	-6.8	-8.0	+2.5	-6.5	-18.5	-20.6	-1.4	-11.4	-11.4	-16.6	-15.5	-22.1	Thorne	19
+21.0	+19.9	+20.5	+23.6	+20.0	+22.5	+18.5	+1.7	+0.8	+5.6	+4.1	+3.1	+2.8	Hewitt	1151
+7.0	+6.9	+7.0	+7.6	+8.2	+2.6	+1.3	-4.8	-6.4	-8.9	-12.9	-13.1	-10.9	Carter	454
+19.9	+21.2	+19.1	+21.6	+21.9	+22.9	+22.5	+19.7	+17.7	+24.6	+27.1	+19.4	+24.1	Norris and Campbell	431
-6.0	-5.3	-6.1	-4.9	-4.4	-4.1	-4.1	-2.0	-2.5	-2.8	-6.2	-6.4	-6.8	Parkinson and Frodsham	2630
+27.0	+25.8	+28.8	+31.2	+29.6	+31.1	+21.8	[+7.2]	[+7.6]	[+9.5]	[+16.8]	[+16.6]	[+17.0]	Fletcher	978*
-4.0	-3.6	-3.6	-2.8	-1.9	+1.1	+0.4	-4.4	-0.3	+0.9	-1.5	-5.5	-3.5	Poole.....	1086*
+21.6	+18.4	+19.2	+20.9	+19.0	+20.1	+18.9	[+9.2]	[+7.7]	[+4.0]	[+7.6]	[+3.3]	[+7.6]	Porthouse, Jun.....	6616*
-3.3	-4.6	-3.5	+0.5	-4.1	-4.7	-9.8	-12.1	-14.1	-18.3	-18.4	-21.2	-24.6	Hewitt.....	1067
+14.5	+14.8	+15.6	+19.1	+14.6	+13.9	+9.0	+7.8	+3.4	+1.4	-4.4	-4.0	-6.4	Carter	410
+9.1	+7.8	+6.2	+8.7	+10.9	+14.6	+13.8	+6.1	+7.3	+9.0	+12.7	+9.7	+10.3	Morris Tobias	833
+36.6	+42.2	+39.2	+40.4	+35.5	+36.5	+37.0	(B)	-24.2	(C)	+81.9	+77.0	+83.1	Banister	1
-14.9	-16.2	....	....	-15.1	....	....	[-20.7]	[-15.7]	[-10.6]	....	....	....	Dent	1787*
+22.7	+19.6	....	....	+23.0	....	....	[+9.0]	[+15.3]	[+18.9]	....	....	....	Dent.....	1799*
+15.6	+14.9	....	....	+16.5	....	....	[+5.7]	[+10.0]	[+7.8]	....	....	....	Dent.....	1941*
+164.0	+31.1	-1.7	-79.6	-143.0	-462.9	-668.8	-1046.0	-1160.0	-1266.5	-1728.1	-1759.3	-1793.9		
55° to 64°	56° to 65°	51° to 67°	55° to 67°	57° to 64°	61° to 70°	62° to 88°	60° to 85°	60° to 89°	66° to 82°	74° to 97°	62° to 98°	76° to 95°		
....	....	....	....	....	....	....	70° to 108°	76° to 111°	75° to 114°	76° to 109°	62° to 113°	80° to 110°		

* 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 (with the exception of POOLE 1086) 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) Stopped.

(B) Tripped.

(C) In the hands of the maker.

The rate given by the first week's trial is in every case omitted.

(III.)—ABSTRACT OF THE PRINCIPAL

N A M E OF M A K E R.	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.
Appleton.....	468	2	January 20	July 13	25	+ 0·7	January 20 to 27
Reid and Sons.....	1048	2	January 20	July 13	25	— 9·6	February 17 to 24
Banister.....	2	2	May 11	July 13	9	— 20·4	May 11 to 18
Parkinson and Frodsham.....	2791	2	June 1	July 13	7	— 8·0	June 8 to 15 †
Parkinson and Frodsham.....	2614	2	January 20	July 13	25	— 28·2	February 10 to 17
Appleton.....	464	2	January 20	July 13	25	+ 0·3	February 3 to 10
Cotterell and Co.....	$\frac{9.3.3}{26.1.9}$	2	January 20	July 13	25	— 8·3	June 1 to 8
Parkinson and Frodsham.....	2792	2	June 1	July 13	7	— 6·1	May 25 to June 1
R. Molyneux.....	2182	1	January 20	July 13	25	— 19·2	February 24 to March 2 †
Dixon.....	157	2	January 20	July 13	25	— 15·6	February 3 to 10
Birchall.....	342	2	January 20	July 13	25	— 1·4	March 9 to 16 †
Cribb.....	66	2	January 20	July 13	25	— 6·3	February 10 to 17
Webb, Jun.....	5016	2	January 20	July 13	25	— 4·1	March 2 to 9 †
Porthouse.....	65922*	2	January 20	July 13	25	(+ 15·6)	January 20 to 27
E. J. Massey.....	123*	2	January 20	July 13	22	(+ 2·1)	January 20 to 27
Birchall.....	341	1	January 20	July 13	25	— 2·5	June 8 to 15 †
Arnold.....	1542	1	January 27	July 13	24	— 1·8	March 16 to 23
R. Molyneux.....	2198	1	January 20	July 13	25	+ 2·2	February 10 to 17
Baker.....	1083	2	January 20	July 13	25	— 15·2	June 15 to 22 †
Muston.....	601*	2	January 13	July 13	26	(— 35·5)	February 10 to 17
Thorne.....	19	2	January 20	July 13	25	— 22·1	June 22 to 29 †
Hewitt.....	1151	2	January 20	July 13	25	+ 0·8	March 2 to 9 †
Carter.....	454	2	January 20	July 13	25	— 13·1	June 8 to 15 †
Norris and Campbell.....	431	2	January 20	July 13	25	— 2·9	January 20 to 27
Parkinson and Frodsham.....	2630	2	January 20	July 13	25	— 24·7	February 17 to 24
Fletcher.....	978*	2	January 20	July 13	25	(— 7·9)	February 3 to 10
Poole.....	1086*	2	January 20	July 13	25	(— 25·7)	February 17 to 24
Porthouse, Jun.....	6616*	2	January 20	July 13	25	[+ 3·3]	June 8 to 15 †
Hewitt.....	1067	2	January 20	July 13	25	— 24·6	June 22 to 29 †
Carter.....	410	2	January 20	July 13	25	— 6·4	June 22 to 29 †
Morris Tobias.....	833	2	January 13	July 13	26	— 22·8	February 10 to 17
Banister.....	1	2	January 20	July 13	20	— 29·9	February 10 to 17
Dent.....	1787*	2	January 20	May 11	16	(— 30·6)	February 10 to 17
Dent.....	1799*	2	January 20	May 11	16	(— 8·3)	February 3 to 10
Dent.....	1941*	2	January 20	May 11	16	[+ 5·7]	February 24 to March 2 †

* 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.

The order of arrangement of the Chronometers in these Tables is determined solely by consideration of their irregularities of rate, as expressed in the columns "Difference between Greatest and Least," and "Greatest Difference between one Week and the next," without any regard to the length of trial, or the circumstances of exposure during the trial, or the occasional repairs, excepting the last three Chronometers, which were withdrawn for special service before the conclusion of the trial.

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.
+ 14.0	March 30 to April 6	13.3	5.0	February 24	Appleton	468
+ 7.7	June 29 to July 6	17.3	5.3	June 29	Reid and Sons	1048
- 6.3	July 6 to 13	14.1	7.1	June 29	Banister	2
+ 3.4	July 6 to 13	11.4	9.4	June 8	Parkinson and Frodsham	2791
- 15.6	March 9 to 16 †	12.6	9.9	February 24	Parkinson and Frodsham	2614
+ 17.8	July 6 to 13	17.5	7.7	June 29	Appleton	464
+ 4.9	June 15 to 22 †	13.2	10.3	June 8	Cotterell and Co.	$\frac{9.9}{26.19}$
+ 16.4	July 6 to 13	22.5	6.0	June 1	Parkinson and Frodsham	2792
- 0.9	March 16 to 23	18.3	8.6	March 16	R. Molyneux	2182
+ 8.4	June 29 to July 6	24.0	6.8	June 8	Dixon	157
+ 20.1	July 6 to 13	21.5	8.8	March 16	Birchall.	342
+ 8.9	July 6 to 13	15.2	12.5	June 8	Cribb.	66
+ 18.0	June 22 to 29 †	22.1	9.5	June 29	Webb, Jun.	5016
[+ 35.6]	June 22 to 29 †	20.0	12.5	June 29	Porthouse	65922*
+ 32.0	March 30 to April 6	29.9	8.4	March 23	E. J. Massey	123*
+ 14.0	May 25 to June 1	16.5	15.6	June 8	Birchall.	341
+ 18.7	June 8 to 15 †	20.5	14.5	March 16	Arnold.	1542
+ 23.9	June 22 to 29 †	21.7	15.6	February 24	R. Molyneux	2198
+ 10.1	June 1 to 8	25.3	16.6	June 8	Baker	1083
- 10.1	March 16 to 23	25.4	17.4	March 16	Muston	601*
+ 2.5	June 1 to 8	24.6	18.0	June 8	Thorne.	19
+ 25.1	May 25 to June 1	24.3	20.5	June 8	Hewitt.	1151
+ 11.4	May 18 to 25	24.5	20.7	June 8	Carter	454
+ 27.1	June 15 to 22 †	30.0	18.0	February 24	Norris and Campbell.	431
- 2.0	February 24 to March 2 †	22.7	22.7	February 24	Parkinson and Frodsham	2630
+ 31.2	June 1 to 8	39.1	14.6	June 8	Fletcher	978*
+ 1.1	July 6 to 13	26.8	21.3	February 24	Poole.	1026*
+ 27.0	March 16 to 23	23.7	23.0	March 16	Porthouse, Jun.	6616*
+ 1.9	May 25 to June 1	26.5	21.7	June 8	Hewitt.	1067
+ 19.1	June 1 to 8	25.5	23.1	June 8	Carter	410
+ 14.6	July 6 to 13	37.4	23.8	February 24	Morris Tobias	833
+ 83.1	June 22 to 29 †	113.0	46.1	June 29	Banister.	1
- 9.9	March 16 to 23	20.7	8.2	February 24	Dent	1787*
+ 23.0	May 4 to 11	31.3	15.2	February 24	Dent	1799*
+ 16.5	May 4 to 11	10.8	8.8	February 24	Dent	1941*

* 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.

The order of arrangement of the Chronometers in these Tables is determined solely by consideration of their irregularities of rate, as expressed in the columns "Difference between Greatest and Least," and "Greatest Difference between one Week and the next," without any regard to the length of trial, or the circumstances of exposure during the trial, or the occasional repairs, excepting the last three Chronometers, which were withdrawn for special service before the conclusion of the trial.

ABSTRACT FOR THE CHRONOMETERS EXPOSED TO MORE SEVERE TRIALS,

N A M E OF M A K E R.	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.
Porthouse	65922	2	March 16	July 13	14	+ 18 ⁸ ·1	April 6 to 13
Porthouse, Jun.	6616	2	March 16	July 13	14	+ 18 ⁸ ·4	April 20 to 27
Muston	601	2	March 16	July 13	14	- 23 ³ ·3	June 29 to July 6
E. J. Massey	123	2	March 16	July 13	14	+ 13 ³ ·3	July 6 to 13
Fletcher	978	2	March 16	July 13	14	+ 11 ³ ·3	March 16 to 23
Poole	1086	2	February 24	July 13	20	- 12 ⁴ ·4	March 16 to 23

N. B. The Chronometer POOLE 1086 was exposed to cold at the north window, but was not placed near to the stove for trial of heat.
The Chronometers which were withdrawn for special service before the conclusion of the trial are not included in this list.

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.
+ 25.8	May 18 to 25	7.7	3.2	April 6	Porthouse	65922
+ 27.0	March 16 to 23	8.6	5.2	May 18	Porthouse, Jun.	6616
- 10.1	March 16 to 23	13.2	7.7	March 23	Muston	601
+ 32.0	March 30 to April 6	18.7	8.4	March 23	E. J. Massey	123
+ 31.2	June 1 to 8	19.9	9.8	March 30	Fletcher	978
+ 1.1	July 6 to 13	13.5	13.3	March 16	Poole	1086

N. B.—The Chronometer POOLE 1086 was exposed to cold at the north window, but was not placed near to the stove for trial of heat.
The Chronometers which were withdrawn for special service before the conclusion of the trial are not included in this list.