

RATES OF CHRONOMETERS

ON TRIAL

FOR PURCHASE BY THE BOARD OF ADMIRALTY,

AT THE

ROYAL OBSERVATORY, GREENWICH,

FROM 1900 JULY 7 TO 1901 JANUARY 26.

			(I) WEEKLY RATES												
NAME or MAKER.	No. of Days.	Construction of Expendent and Balance, from the Description furnished by the Maker.	July 7-14	July 14-21	July 21-28	July 28 to Aug. 4	Aug. 4-11	Aug. 11-18	Aug. 18-25	Aug. 25 to Sept. 1	Sept. 1-8	Sept. 8-15	Sept. 15-22	Sept. 22-29	
Kullberg.....	6973	2	Reversed detent, Kullberg's auxiliary balance; [palladium spring.	+2.9	+2.1	+2.1	+2.3	+4.6	+3.5	+4.2	+4.0	+2.8	+4.2	+4.2	+5.8
J. P. Mayer & Son	35651	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+7.5	+6.1	+6.9	+7.8	+7.0	+8.1	+8.1	+6.4	+5.8	+7.0	+7.0	+8.5
Kullberg.....	6707	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+3.2	+2.6	+3.0	+4.9	+6.6	+4.9	+5.9	+5.2	+4.4	+6.5	+7.0	+7.8
.....	4996	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+2.8	+2.6	+3.0	+4.9	+6.6	+4.9	+5.9	+5.2	+4.4	+6.5	+7.0	+7.8
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+0.7	+0.9	+0.8	+1.4	+3.1	+1.5	+2.7	+2.8	+1.8	+1.5	+2.0	+2.0
.....	4972	2	Auxiliary to balance acting in heat; palladium spring.	+6.1	+10.1	+11.0	+10.3	+9.8	+9.8	+11.0	+10.3	+12.0	+13.9	+12.4	+7.5
.....	4972	2	Auxiliary to balance acting in heat; palladium spring.	+0.0	+0.0	+0.0	+2.8	+0.1	+1.7	+3.2	+3.0	+2.9	+3.5	+1.6	+0.8
J. F. Cole.....	296	2	Plain balance; palladium spring.	+11.1	+14.0	+13.6	+13.2	+13.3	+14.9	+15.8	+18.2	+19.7	+20.0	+21.0	+23.7
.....	4996	2	Auxiliary to balance acting in heat; palladium spring.	+2.6	+3.9	+3.8	+4.1	+3.1	+1.8	+2.3	+2.4	+1.5	+3.5	+2.2	+1.5
.....	4982	2	Auxiliary to balance acting in heat; palladium spring.	+7.7	+4.3	+2.8	+0.9	+1.8	+2.3	+3.2	+1.5	+0.1	+2.7	+0.1	+1.3
.....	5044	2	Auxiliary to balance acting in heat; palladium spring.	+4.0	+3.8	+0.8	+3.0	+3.8	+0.3	+0.9	+1.9	+2.0	+2.8	+3.8	+5.2
.....	6542	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+4.8	+3.8	+6.5	+6.6	+5.9	+7.6	+8.3	+6.4	+7.4	+7.2	+3.2	+1.0
.....	6611	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+0.0	+1.8	+1.4	+1.9	+0.9	+0.8	+1.0	+3.6	+6.4	+7.4	+7.2	+3.2
.....	4987	2	Auxiliary to balance acting in heat; palladium spring.	+2.2	+0.9	+1.0	+0.8	+0.8	+0.8	+2.2	+2.0	+2.8	+3.4	+3.8	+3.0
R. Dent & Co.	5108	2	Auxiliary to balance; steel spring.	+2.2	+2.0	+2.6	+3.0	+6.0	+3.6	+3.8	+1.0	+2.3	+3.0	+1.5	+2.4
.....	6561	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+4.2	+4.7	+2.1	+5.0	+5.9	+4.5	+5.2	+5.3	+5.9	+6.0	+3.8	+5.2
.....	6698	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+1.0	+1.2	+2.9	+4.0	+3.1	+2.0	+3.9	+5.3	+5.9	+6.9	+9.8	+6.0
.....	5090	2	Auxiliary to balance acting in heat; palladium spring.	+1.6	+0.5	+1.8	+1.3	+1.1	+2.1	+3.9	+3.9	+4.0	+3.9	+3.8	+1.9
.....	6614	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+0.9	+1.0	+1.5	+1.8	+0.8	+1.9	+2.2	+3.0	+5.0	+3.7	+3.8	+1.9
.....	4875	2	Auxiliary to balance acting in heat; palladium spring.	+0.9	+0.9	+1.1	+3.0	+3.0	+1.1	+2.0	+2.0	+0.9	+3.6	+5.8	+6.0
E. Dent & Co.	51035	2	Auxiliary to balance; steel spring.	+3.0	+2.9	+2.1	+2.7	+4.1	+9.2	+11.8	+14.1	+15.3	+14.0	+14.7	+9.8
E. Dent & Co.	50504	2	Auxiliary to balance acting in heat; palladium spring.	+4.3	+5.8	+6.8	+9.3	+7.3	+9.8	+7.2	+7.5	+4.9	+12.2	+13.8	+13.5
Usher & Cole	8249	2	Auxiliary to balance acting in heat and cold; steel spring.	+10.4	+19.8	+20.8	+20.1	+18.0	+16.9	+17.2	+15.5	+18.2	+12.0	+11.8	+15.0
.....	5085	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+5.9	+6.5	+5.9	+7.0	+9.5	+9.1	+9.1	+7.8	+9.9	+13.0	+13.5	+13.2
.....	4876	2	Auxiliary to balance acting in heat; palladium spring.	+6.6	+6.1	+8.7	+10.2	+11.1	+10.7	+10.6	+10.6	+11.4	+14.9	+16.9	+16.7
.....	4964	2	Auxiliary to balance acting in heat; palladium spring.	+0.9	+0.8	+2.8	+1.7	+0.1	+1.0	+2.1	+6.1	+8.8	+9.0	+10.1	+4.9
Kullberg.....	6592	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+2.9	+1.0	+1.8	+0.6	+1.5	+1.8	+1.7	+3.4	+3.1	+3.2	+4.4	+9.1
.....	5007	2	Auxiliary to balance acting in heat; palladium spring.	+2.3	+4.8	+4.2	+2.7	+1.9	+0.8	+1.0	+3.1	+3.1	+3.2	+4.4	+9.1
Kullberg.....	6689	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+1.6	+2.4	+2.0	+3.0	+3.5	+3.3	+3.3	+3.2	+4.9	+4.8	+10.0	+9.1
R. Dent & Co.	50816	2	Dent's balance; steel spring.	+0.1	+2.1	+1.8	+3.8	+3.9	+2.9	+6.6	+2.5	+5.2	+4.0	+12.0	+10.9
.....	6522	2	Auxiliary to balance acting in heat and cold; steel spring.	+5.2	+2.6	+1.3	+0.7	+0.1	+0.2	+1.2	+0.1	+0.9	+1.2	+3.2	+4.7
.....	4965	2	Auxiliary to balance acting in heat; palladium spring.	+8.5	+8.6	+1.0	+10.1	+10.9	+9.9	+10.1	+11.9	+9.6	+5.6	+7.0	+7.0
.....	6624	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+4.1	+2.9	+3.5	+3.1	+3.4	+3.0	+4.6	+7.7	+2.8	+2.2	+6.5	+11.8
.....	5006	2	Auxiliary to balance acting in heat; palladium spring.	+3.6	+7.0	+9.1	+8.9	+9.1	+9.1	+10.0	+13.0	+15.4	+13.6	+15.3	+14.2
.....	5006	2	Auxiliary to balance acting in heat; palladium spring.	+3.6	+7.0	+9.1	+8.9	+9.1	+9.1	+10.0	+13.0	+15.4	+13.6	+15.3	+14.2
Chromometer	Ther-	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....															
Mean Weekly Temper-	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....															
Extremes of Tempera-	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
ture as shown by the	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Self-Registering Ther-	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....															

The sign $+$ indicates that the rate is gaining.

† During these weeks the Chronometers were placed in the chamber of a stove heated by jets of gas, the temperature being regulated by Kullberg's automatic governor which controls the supply of gas. The gas flames are exterior to the chamber, into which none of the injurious products of combustion can enter.

The Chronometrical Thermometer differs from an ordinary Chronometer only in the construction of the balance, the positions of the metals forming the compensating rings being reversed. By this arrangement the effect of temperature is much magnified.

IN ORDER OF TIME.																NAME OF MAKER.		No.
Sept. 29 to Oct. 6	Oct. 6—13	Oct. 13—20	Oct. 20—27	Oct. 27 to Nov. 3	Nov. 3—10	Nov. 10—17	Nov. 17—24	Nov. 24 to Dec. 1	Dec. 1—8	Dec. 8—15	Dec. 15—22	Dec. 22—29	Dec. 29 to Jan. 5	Jan. 5—12	Jan. 12—19	Jan. 19—26		
+ 3.3 - 3.9 - 4.9 - 5.7 - 6.1 - 2.1	+ 3.3 - 11.0 - 11.2 - 11.4 - 7.7 - 3.4	+ 2.0 - 10.8 - 11.2 - 11.3 - 6.7 - 3.4	+ 3.1 - 11.2 - 11.3 - 11.4 - 6.0 - 3.0	+ 2.2 - 11.0 - 12.0 - 12.0 - 3.8 - 3.0	+ 2.0 - 12.0 - 8.8 - 6.0 - 5.5 - 3.0	+ 2.0 - 8.8 - 7.0 - 7.3 - 8.1 - 4.1 - 4.1	+ 0.4 - 7.0 - 7.3 - 8.1 - 2.4 - 4.1	+ 4.1 - 7.3 - 7.3 - 12.5 - 2.9 - 2.9	+ 3.6 - 8.6 - 8.4 - 8.6 - 2.9 - 2.9	+ 1.4 - 12.0 - 11.4 - 8.1 - 5.6 - 7.0	+ 2.0 - 11.4 - 9.8 - 6.5 - 7.0 - 7.1	- 0.1 - 13.0 - 9.8 - 5.5 - 7.1	- 0.9 - 11.2 - 1.0 - 5.6 - 1.6	+ 1.0 - 11.7 - 4.8 - 5.5 - 0.0	+ 0.8 - 11.7 - 8.8 - 7.3 - 0.0	Kellberg & Son. J. Player and Son. J. Player and Son. J. Player and Son. J. Player and Son.	6673 6674 6675 6676 6677	
+ 6.8 + 0.5 + 0.2 + 0.2 - 3.3	+ 5.1 - 0.8 - 0.8 - 0.8 - 3.6	+ 5.4 - 2.3 - 2.3 - 2.3 - 3.7	+ 5.7 - 2.3 - 2.3 - 2.3 - 0.2	+ 6.1 - 2.3 - 2.3 - 2.3 - 6.1	+ 6.0 - 2.3 - 2.3 - 2.3 - 6.1	+ 11.0 - 11.8 - 11.8 - 11.8 - 2.8	+ 11.8 - 12.0 - 12.0 - 12.0 - 3.9	+ 14.4 - 13.0 - 13.0 - 13.0 - 1.2	+ 13.5 - 9.2 - 9.2 - 9.2 - 0.8	+ 7.8 - 8.9 - 8.9 - 8.9 - 8.9	+ 8.9 - 11.4 - 11.4 - 11.4 - 7.2	+ 7.9 - 11.4 - 11.4 - 11.4 - 6.7	+ 7.9 - 11.4 - 11.4 - 11.4 - 7.2	+ 9.9 - 5.0 - 5.0 - 5.0 - 7.9	+ 9.7 - 5.0 - 5.0 - 5.0 - 7.9	Johannsen Johannsen Johannsen Johannsen Johannsen	4981 4982 4983 4984 4985	
+ 5.3 - 4.9 - 4.1 - 4.0 + 4.0	+ 4.2 - 1.5 - 1.5 - 2.3 + 0.2	+ 4.6 - 2.3 - 2.3 - 2.3 + 5.1	+ 3.5 - 2.3 - 2.3 - 2.3 + 4.2	+ 2.5 - 1.1 - 1.1 - 1.1 + 2.8	+ 2.4 - 1.6 - 1.6 - 1.6 + 2.8	+ 3.8 - 3.5 - 3.5 - 3.5 + 1.2	+ 3.5 - 8.0 - 8.0 - 8.0 - 1.0	+ 6.7 - 10.9 - 10.9 - 10.9 - 1.5	+ 9.3 - 13.1 - 13.1 - 13.1 - 4.1	+ 6.7 - 12.0 - 12.0 - 12.0 + 4.8	+ 3.2 - 7.0 - 7.0 - 7.0 + 5.2	+ 4.9 - 5.1 - 5.1 - 5.1 + 0.9	+ 6.5 - 2.9 - 2.9 - 2.9 + 7.7	+ 6.4 - 3.0 - 3.0 - 3.0 + 4.2	+ 5.7 - 1.8 - 1.8 - 1.8 + 4.2	+ 3.7 - 1.8 - 1.8 - 1.8 + 4.2	Johannsen Kellberg Kellberg Kellberg K. Dent & Co.	5044 6542 6543 6544 5106
+ 3.2 + 4.0 + 3.2 - 3.9 - 3.2	+ 1.0 - 2.8 - 2.8 - 2.8 - 2.8	+ 1.6 - 3.1 - 3.1 - 3.1 - 3.1	- 0.1 - 3.1 - 3.1 - 3.1 - 3.1	- 0.9 - 2.5 - 2.5 - 2.5 - 2.5	- 2.5 - 2.5 - 2.5 - 2.5 - 2.5	+ 8.8 - 9.8 - 9.8 - 9.8 - 9.8	+ 4.9 - 12.6 - 12.6 - 12.6 - 6.1	+ 6.5 - 10.7 - 10.7 - 10.7 - 8.1	+ 6.5 - 12.6 - 12.6 - 12.6 - 8.1	+ 1.0 - 14.0 - 14.0 - 14.0 - 1.0	+ 0.9 - 11.9 - 11.9 - 11.9 - 0.3	+ 1.1 - 11.9 - 11.9 - 11.9 - 0.3	+ 1.9 - 11.9 - 11.9 - 11.9 - 0.3	- 2.1 - 15.9 - 15.9 - 15.9 - 1.2	- 2.6 - 15.9 - 15.9 - 15.9 - 2.1	Kellberg Johannsen Johannsen Johannsen Johannsen	6561 6562 6563 6564 5000	
- 13.7 + 16.1 - 10.8 - 13.9 + 14.4	- 18.2 - 13.0 - 13.0 - 13.0 - 13.4	- 13.6 - 13.6 - 13.6 - 13.6 - 13.6	- 13.6 - 13.6 - 13.6 - 13.6 - 13.6	- 13.6 - 13.6 - 13.6 - 13.6 - 13.6	- 13.6 - 13.6 - 13.6 - 13.6 - 13.6	- 13.2 - 12.4 - 12.4 - 12.4 - 12.4	- 12.4 - 10.7 - 10.7 - 10.7 - 10.7	- 11.9 - 13.9 - 13.9 - 13.9 - 13.9	- 11.9 - 13.9 - 13.9 - 13.9 - 13.9	- 12.4 - 12.4 - 12.4 - 12.4 - 12.4	- 11.2 - 11.2 - 11.2 - 11.2 - 11.2	- 11.8 - 11.8 - 11.8 - 11.8 - 11.8	- 15.1 - 15.1 - 15.1 - 15.1 - 15.1	- 13.4 - 13.4 - 13.4 - 13.4 - 13.4	- 13.4 - 13.4 - 13.4 - 13.4 - 13.4	R. Dent & Co. J. Player and Son. J. Player and Son. J. Player and Son. J. Player and Son.	5106 6565 6566 6567 6568	
+ 7.6 - 5.5 - 5.5 - 5.9 + 17.1	+ 6.6 - 8.7 - 8.7 - 8.7 - 18.4	+ 7.0 - 6.9 - 6.9 - 6.9 - 18.4	+ 6.9 - 10.4 - 10.4 - 10.4 - 1	+ 6.9 - 10.4 - 10.4 - 10.4 - 1	+ 6.9 - 10.4 - 10.4 - 10.4 - 1	+ 10.9 - 11.0 - 11.0 - 11.0 - 10.9	+ 12.8 - 11.0 - 11.0 - 11.0 - 10.9	+ 14.5 - 6.1 - 6.1 - 6.1 - 10.9	+ 13.8 - 4.9 - 4.9 - 4.9 - 14.1	+ 13.8 - 4.9 - 4.9 - 4.9 - 14.1	+ 11.2 - 12.1 - 12.1 - 12.1 - 10.8	+ 11.8 - 11.9 - 11.9 - 11.9 - 8.0	+ 10.8 - 12.7 - 12.7 - 12.7 - 2.9	+ 10.9 - 11.2 - 11.2 - 11.2 - 2.9	+ 10.9 - 11.2 - 11.2 - 11.2 - 2.9	+ 8.7 - 15.1 - 15.1 - 15.1 - 2.7	Johannsen Johannsen Johannsen Johannsen R. Dent & Co.	4964 6592 6593 6594 6816
+ 9.1 - 4.9 - 4.1 - 1.6 + 14.0	+ 1.0 - 11.0 - 13.1 - 8.6 - 1.6	+ 3.4 - 14.0 - 14.0 - 14.0 - 14.0	+ 4.4 - 1.0 - 1.0 - 1.0 - 1.0	+ 1.0 - 13.0 - 13.0 - 13.0 - 13.0	+ 1.0 - 13.0 - 13.0 - 13.0 - 13.0	+ 6.2 - 3.0 - 3.0 - 3.0 - 3.0	+ 3.0 - 6.8 - 6.8 - 6.8 - 6.8	+ 3.8 - 2.5 - 2.5 - 2.5 - 2.5	+ 3.8 - 9.8 - 9.8 - 9.8 - 9.8	+ 5.6 - 3.2 - 3.2 - 3.2 - 3.2	+ 3.2 - 2.7 - 2.7 - 2.7 - 2.7	+ 3.2 - 2.7 - 2.7 - 2.7 - 2.7	+ 2.7 - 2.8 - 2.8 - 2.8 - 2.8	+ 2.8 - 2.8 - 2.8 - 2.8 - 2.8	+ 4.6 - 7.4 - 7.4 - 7.4 - 7.4	+ 4.6 - 7.4 - 7.4 - 7.4 - 7.4	Usher & Co. Johannsen Johannsen Johannsen Johannsen	6274 6275 6284 6285 6508
+ 477.1 + 385.9 + 311.1 + 1109.6 + 976.3 + 909.5 - 693.6 - 2057.8 - 2340.6 - 1238.6 + 810.9 + 1041.7 + 1389.1 + 1519.3 + 2077.6 + 1743.4 + 1410.0	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Chronometrical monomer.	Tier-
61.7	62.7	56.6	55.5	58.7	59.1	75.6	89.0	93.9	81.3	56.1	54.4	51.8	50.3	44.5	45.5	62.4	Mean Weekly Temperature.	
Extremes of Temperature as shown by the Self-Registering Thermometer.																		
597.44-367.58-74.57-54.33-50.57-48.04-46.59-46.08-70.81-81.70-100.28-132.38-135.75-4.96-56.51-57.91-57.75-57.56-42.9-53.7-38.7-40.4-46.7-51.6-49.9-54.7																		

The Chronometers are placed in order of merit, their respective positions being determined by consideration of the irregularities of rate exhibited in Table III.

Only those Chronometers have been included in this list for which E did not exceed 10 seconds.

(1.) WEEKLY RATES

NAME OF MAKER.	No.	W. & D. Days.	Construction of Escapement and Balance, from the Description furnished by the Maker.	July 7-14	July 14-21	July 21-28	July 28-Aug. 4	Aug. 4-11	Aug. 11-18	Aug. 18-25	Aug. 25-Sept. 1	Sept. 1-8	Sept. 8-15	Sept. 15-22	Sept. 22-29
Usher & Cole	8207	2	Accessory to balance setting to best and cold; steel spring.	-2.3	+	+2.1	0.0	+0.2	+3.5	+7.5	+9.9	+8.9	+6.8	+8.0	+4.8
Johannsen	4983	2	Accessory to balance setting to best; palladium spring.	-1.3	-0.1	+1.2	+3.0	+3.6	+5.5	+5.7	+7.7	+7.0	+10.8	+10.9	+10.7
Kullberg	6226	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	-2.0	2.4	-4.0	1.0	0.2	-3.0	-3.0	-5.7	-5.1	-7.1	-4.8	+3.0
Kullberg	6226	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	-2.1	-2.4	-2.6	-2.7	-4.1	-3.8	-4.0	-4.0	-5.2	-7.1	-7.6	+7.8
E. Dent & Co.	5674	2	Detent's balance; steel spring.	+4.9	+5.0	+4.9	+4.1	+3.9	+2.0	+9.1	+1.8	+1.0	+6.5	+6.8	
Gardner	411	2	Gardner's No. 1 balance; steel spring.	-9.7	-4.9	-4.1	-4.6	-3.4	-3.1	-1.2	-5.8	-2.3	-4.1	-5.2	-8.2
Kullberg	6532	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+1.9	+3.0	+3.8	+4.2	+3.5	+3.5	+4.5	+11.1	+10.7	+14.3	+10.4	
Kullberg	6562	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	-10.9	-12.4	-8.8	-6.0	-7.2	-8.8	-10.1	-6.9	-6.2	-2.8	-0.2	-5.8
Kullberg	6488	2	Reversed detent, Kullberg's auxiliary balance; steel-spring.	+1.3	+6.1	+6.7	+8.3	+6.8	+6.8	+6.8	+10.1	+17.3	+21.9	+19.9	+10.9
E. Dent & Co.	5104	2	Plain balance; palladium spring.	+4.9	+6.8	+6.7	+7.7	+6.4	+6.8	+8.8	+10.1	+17.3	+21.9	+19.9	+10.9
Usher & Cole	8216	2	Accessory to balance setting to best and cold; palladium spring.	-23.2	-25.8	-25.1	-22.5	-20.0	-21.9	-22.1	-26.1	-17.6	-12.3	-15.1	-12.4
Johannsen	4874	2	Accessory to balance setting to best; palladium spring.	+6.0	+6.0	+3.4	+2.1	-0.1	-1.9	-2.9	+0.9	-0.1	+1.4	+1.3	-1.7
Usher & Cole	8254	2	Accessory to balance setting to best and cold; palladium spring.	-7.6	-7.0	-10.1	-8.0	-8.0	-3.0	-4.9	-10.6	-13.9	-12.0	-12.1	-12.2
Johannsen	4874	2	Accessory to balance setting to best; palladium spring.	-2.7	+0.5	+1.5	+1.2	+0.9	0.9	+0.8	+1.9	+4.2	+7.8	+8.3	+2.4
E. Dent & Co.	56812	2	Detent's balance; steel spring.	+12.8	+19.9	+21.2	+17.9	+14.1	+16.1	+18.1	+14.7	+15.1	+20.5	+22.0	
A. W. Webb	5676	2	Plain balance; palladium spring.	+18.8	+15.9	+13.0	+14.2	+19.9	+14.6	+15.2	+22.5	+13.0	+16.6	+12.9	+20.0
Usher & Cole	8252	2	Accessory to balance setting to best and cold; palladium spring.	-5.8	-6.0	-10.0	-7.5	-5.0	-8.0	-3.1	-8.0	+6.1	+4.0	+1.9	
D. Kays	972	2	Accessory to balance setting to best; palladium spring.	+3.4	+6.3	+9.8	+8.3	+9.6	+8.4	+9.2	+13.9	+11.8	+16.9	+21.2	+18.9
D. Kays	972	2	Accessory to balance setting to best; palladium spring.	+1.6	+1.9	+3.9	+6.8	+9.6	+8.4	+9.2	+13.9	+11.8	+16.9	+21.2	+18.9
A. W. Webb	5680	2	Plain balance; palladium spring.	-0.1	-3.9	-5.1	-5.6	-0.1	-1.7	-3.4	-6.4	-7.4	-4.2	+0.8	+12.1
Johannsen	4785	2	Accessory to balance setting to best; palladium spring.	-5.7	-6.1	-6.1	-6.1	+2.1	+3.7	+0.8	+2.8	+13.6	+23.0	+18.6	+11.5
Chronometrical monometer				-15.5	-747.8	-866.2	-294.5	+326.1	-69.9	-239.0	-1844.6	-2960.2	-2736.2	-1952.0	+82.5
Mean Weekly Temperature				67.5	75.6	77.5	71.9	64.2	69.3	70.1	83.1	95.3	98.1	88.8	65.3
Extremes of Temperature as shown by the Self-Registering Thermometers				56.4-74.0	71.8-80.3	75.0-79.6	70.2-76.1	62.0-67.6	63.6-72.0	66.4-73.7	77.0-86.4	88.0-104.9	91.1-110.8	82.6-95.6	62.4-82.6

The sign + indicates that the rate is gaining.

During these weeks the Chronometers were placed in the chamber of a stove heated by jets of gas, the temperature being regulated by Kullberg's automatic governor which controls the supply of gas. The gas flames are exterior to the chamber, into which none of the injurious products of combustion can enter.

The Chronometrical Thermometer differs from an ordinary Chronometer only in the construction of the balance, the positions of the metals forming the compensating rims being reversed. By this arrangement the effect of temperature is much magnified.

IN ORDER OF TIME.

Sept. 29 to Oct. 6	Oct. 6-13	Oct. 13-20	Oct. 20-27	Oct. 27 to Nov. 3	Nov. 3-10	Nov. 10-17	Nov. 17-24	Nov. 24 to Dec. 1	Dec. 1-8	Dec. 8-15	Dec. 15-22	Dec. 22-29	Dec. 29 to Jan. 5	Jan. 5-12	Jan. 12-19	Jan. 19-26	NAME OF MAKER.	No.
+9.5	+9.8	+12.4	+13.6	+11.1	+10.0	+6.1	+10.9	+11.5	+11.5	+12.2	+13.4	+13.2	+10.2	+10.7	+12.4	+13.0	Usher & Cole	8207
+9.0	+7.6	+6.3	+6.1	+6.7	+7.1	+8.6	+10.8	+15.1	+15.2	+16.6	+13.5	+9.9	+7.8	+8.9	+9.2	+8.0	Johannsen	4983
+1.1	-0.1	+2.4	+4.5	+2.2	+0.6	+4.0	+7.0	+8.4	+9.6	+11.3	+7.8	+8.7	+8.0	+10.9	+12.9	+10.2	Kullberg	6226
-8.5	-9.8	-11.9	-12.9	-11.0	-11.0	-5.2	-5.7	-6.2	-5.4	-11.5	-15.2	-16.9	-18.9	-22.0	-20.9	-18.1	Kullberg	6226
+0.0	+4.0	+2.4	-1.1	+1.9	+1.4	+8.7	+8.8	+10.6	+11.1	+1.9	-0.3	0.0	-0.6	-0.7	-9.6	-1.6	E. Dent & Co.	5674
-4.9	-8.1	-6.9	-7.8	-6.3	-10.0	-1.4	-2.0	-0.8	-12.6	-6.8	-8.3	-5.8	-8.9	-11.9	-11.7	-10.5	Gardner	411
+9.9	+7.9	+7.1	+6.8	+6.4	+5.5	+10.4	+17.0	+12.7	+9.2	+6.8	+4.7	+4.4	+1.9	+1.8			Kullberg	6532
-8.6	-13.2	-12.1	-13.1	-15.5	-16.7	-6.9	-6.9	-3.1	-2.1	-7.9	-12.1	-11.6	-11.8	-8.7	-11.1	-15.6	Kullberg	6562
-5.0	-4.4	-6.9	-8.7	-5.9	-4.8	+6.0	+5.5	-0.1	+4.6	+4.9	-7.9	-8.6	-8.7	-8.7	-9.3	-7.7	Kullberg	6488
+12.6	+12.6	+10.8	+9.1	+10.7	+8.4	+13.8	+20.2	+24.5	+22.4	+13.0	+11.0	+10.1	+9.4	+6.6	+7.8	+9.0	E. Dent & Co.	5104
-12.3	-13.2	-19.5	-12.9	-19.8	-15.6	-19.0	-19.8	-14.9	-14.4	-12.6	-11.7	-8.4	-19.3	-7.4	-4.8	-4.6	Usher & Cole	8216
-7.1	-5.7	-7.9	-8.2	-10.3	-18.9	-5.8	-4.1	-0.7	+0.1	-9.0	-14.8	-10.5	-14.6	-13.4	-13.3	-14.6	Johannsen	4874
-7.0	-9.7	-6.5	-9.3	-10.2	-10.2	-5.0	+3.1	+7.3	+3.2	-10.0	-7.5	-10.6	-6.5	-3.3	-8.0	-6.5	Usher & Cole	8254
-2.6	-4.2	-7.8	-10.0	-7.2	-8.6	+1.9	+8.0	+7.6	+5.0	-5.7	-7.5	-6.7	-5.8	-2.0	-1.4	-4.2	Johannsen	4874
+21.6	+14.8	+14.8	+18.3	+11.1	+8.3	+17.0	+15.1	+16.1	+13.1	+7.3	+1.2	+5.8	+5.0	+1.9	+2.2	+2.9	E. Dent & Co.	56812
+24.0	+21.5	+29.5	+29.1	+21.2	+24.0	+17.9	+17.8	+20.0	+20.1	+25.1	+24.9	+29.6	+29.2	+27.6	+35.2	+30.3	A. W. Webb	5676
+12.9	+6.2	+2.9	+4.0	+6.3	+1.4	-5.4	+6.2	+11.6	+2.5	+1.0	+6.6	+3.9	+0.4	+0.5	-2.8	-1.6	Usher & Cole	8252
-13.1	-16.9	-17.0	-15.2	-14.7	-12.7	-17.3	-19.0	-22.6	-25.1	-20.9	-18.4	-27.8	-16.3	-14.9	-13.8	-14.9	D. Kays	972
+16.6	+15.3	+13.6	+17.3	+13.4	+12.6	+22.3	-18.9	+21.2	+21.7	+22.2	+23.1	+20.8	+22.2	+19.5	+18.1	+1.1	D. Kays	972
+14.0	+12.0	+14.4	+12.6	+11.9	+8.3	+11.8	+6.6	+8.7	+10.9	+16.7	+16.2	+21.1	+21.1	+20.9	+27.8	+23.2	A. W. Webb	5680
+8.9	+4.1	+4.1	+1.8	-2.0	-1.1	-0.3	+4.6	+11.6	+13.2	+6.1	+3.8	-3.0	-11.4	-14.9	-18.6	-17.9	Johannsen	4785
+477.1	+385.9	+411.1	+1109.6	+476.3	+339.5	-663.6	-2067.6	-2245.6	-1238.6	+810.9	+1041.7	+1389.1	+1519.3	+2077.6	+1743.4	+1410.0	Chronometrical monometer	
61.7	62.7	56.6	55.6	58.7	59.1	75.6	89.0	98.9	81.3	56.1	54.4	51.8	50.3	44.5	48.5	52.4	Mean Weekly Temperature	
59.7-64.3	56.7-64.7	54.7-59.5	53.0-57.6	53.4-60.9	56.6-60.8	60.3-70.1	70.0-100.2	82.6-103.4	75.4-93.6	54.1-57.9	51.7-57.7	49.7-54.8	42.9-59.7	38.7-49.4	45.7-51.5	49.8-54.7	Extremes of Temperature as shown by the Self-Registering Thermometers	

The Chronometers are placed in order of merit, their respective positions being determined by consideration of the irregularities of rate exhibited in Table III. Only those Chronometers have been included in this list for which δ did not exceed 12 seconds.

NAME OF MAKER	No.	Chronometer No.	Construction of Movement and balance, from the Description furnished by the Maker.	(II.) WEEKLY RATES IN											
				Jan. 6-12	Jan. 12-19	Dec. 20-26	Jan. 27-31	Jan. 31-31	Dec. 20-27	Dec. 28-31	Oct. 27-31	Oct. 31-31	Nov. 1-10	Dec. 11-15	Sept. 16-20
Kullberg.....	6973	2	Reversed detent, Kullberg's auxiliary balance; [palladium spring.	-0.9	+1.0	-0.1	+0.3	+2.0	+3.1	+1.4	+2.2	+2.0	+0.2	+3.6	+3.8
J. Player & Son	30501	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	-12.7	-11.2	-12.9	-11.7	-11.8	-11.8	-12.0	-11.0	-10.2	-12.0	-11.0	-9.8
J. Player & Son	30501	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+10.0	+8.5	+9.5	+8.5	+9.5	+8.5	+9.5	+8.5	+9.5	+8.5	+9.5	+8.5
Johannes.....	4905	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	-0.6	-7.6	-7.1	-9.0	-7.5	-5.0	-6.6	-3.9	-3.4	-5.0	-4.7	-2.1
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; [palladium spring.	-0.6	-7.6	-7.1	-9.0	-7.5	-5.0	-6.6	-3.9	-3.4	-5.0	-4.7	-2.1
Johannes.....	4981	2	Auxiliary to balance acting in heat; palladium [spring.	+11.5	+9.9	+7.9	+9.7	+9.9	+5.7	+7.8	+8.1	+5.4	+6.0	+9.2	+9.8
J. F. Cole.....	4962	2	Auxiliary to balance acting in heat; palladium [spring.	+11.5	+9.9	+7.9	+9.7	+9.9	+5.7	+7.8	+8.1	+5.4	+6.0	+9.2	+9.8
J. F. Cole.....	4962	2	Auxiliary to balance acting in heat; palladium [spring.	+11.5	+9.9	+7.9	+9.7	+9.9	+5.7	+7.8	+8.1	+5.4	+6.0	+9.2	+9.8
Johannes.....	4905	2	Plain balance; palladium spring.	+10.4	+12.8	+12.0	+14.0	+19.1	+16.0	+18.9	+18.0	+19.0	+17.5	+22.2	+22.2
Johannes.....	4905	2	Auxiliary to balance acting in heat; palladium [spring.	-4.8	-2.2	-0.1	+1.5	+1.8	+2.0	+3.5	+1.9	+0.2	+2.8	+0.4	+1.7
Johannes.....	4905	2	Auxiliary to balance acting in heat; palladium [spring.	-6.7	-7.8	-7.9	-8.9	-7.2	-5.0	-6.7	-3.7	-5.1	-4.8	-3.8	-3.8
Johannes.....	5044	2	Auxiliary to balance acting in heat; palladium [spring.	+6.4	+5.7	+5.5	+3.7	+4.9	+3.5	+3.2	+2.2	+4.6	+2.4	+6.7	+5.9
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+6.1	+1.4	+4.9	+1.6	+2.4	+3.7	+3.1	+2.3	+4.2	+1.1	+5.8	+4.9
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+6.1	+1.4	+4.9	+1.6	+2.4	+3.7	+3.1	+2.3	+4.2	+1.1	+5.8	+4.9
Johannes.....	4987	2	Auxiliary to balance acting in heat; palladium [spring.	-6.9	-9.0	-7.1	-8.0	-4.8	-7.7	-2.3	-2.2	-4.0	-2.4	-0.4	-0.4
E. Dent & Co.....	51067	2	Auxiliary to balance acting in heat; palladium [spring.	+7.7	+4.9	+4.9	+4.2	+3.2	+4.2	+4.0	+2.9	+2.9	+4.1	+4.5	+4.5
Kullberg.....	4561	2	Reversed detent, Kullberg's auxiliary balance; [palladium spring.	+1.9	-2.1	+1.1	-2.6	+0.9	-0.1	+1.0	-0.9	+1.6	-2.5	+2.7	+3.2
Johannes.....	6913	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+13.6	+12.0	+11.9	+9.9	+16.6	+5.3	+14.0	+10.0	+5.1	+7.9	+10.1	+8.0
Kullberg.....	5098	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+13.6	+12.0	+11.9	+9.9	+16.6	+5.3	+14.0	+10.0	+5.1	+7.9	+10.1	+8.0
Kullberg.....	6684	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+2.0	-4.6	-0.2	-0.2	-4.4	-10.8	-4.8	-4.2	-4.5	-3.0	-3.2	-4.2
Johannes.....	4970	2	Auxiliary to balance acting in heat; palladium [spring.	-1.7	-1.2	-0.8	-2.1	+0.9	+0.8	+2.2	0.0	+3.1	-0.2	+8.1	+5.9
E. Dent & Co.....	51065	2	Auxiliary to balance; steel spring.	-15.1	-13.8	-13.8	-13.4	-11.2	-13.6	-12.4	-13.6	-13.9	-13.9	-13.4	-13.7
E. Dent & Co.....	51065	2	Dant's balance; steel spring.	+5.5	+4.1	+11.4	+3.4	+11.9	+12.3	+11.0	+10.0	+10.1	+10.1	+16.1	+16.1
Usher & Cole.....	8274	2	Auxiliary to balance acting in heat and cold; steel spring.	-11.9	-16.9	-13.2	-15.9	-13.7	-11.3	-12.1	-12.9	-10.0	-13.0	-10.0	-10.0
Kullberg.....	5392	2	Auxiliary to balance acting in heat; palladium [spring.	+10.5	+13.8	+17.6	+17.9	+10.4	+17.7	+18.9	+18.9	+10.1	+19.0	+11.5	+15.3
Kullberg.....	8439	2	Auxiliary to balance acting in heat; palladium [spring.	+7.4	+9.6	+10.0	+10.4	+11.5	+10.7	+13.8	+11.0	+11.6	+10.9	+14.5	+14.4
Johannes.....	4964	2	Auxiliary to balance acting in heat; palladium [spring.	+10.9	+10.4	+10.0	+8.7	+11.8	+6.9	+11.2	+6.9	+7.0	+5.8	+12.3	+7.6
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	-11.2	-14.7	-12.7	-15.1	-13.4	-12.4	-9.6	-8.7	-11.6	-6.4	-6.4	-6.4
Johannes.....	5007	2	Auxiliary to balance acting in heat; palladium [spring.	-7.0	-9.0	-7.0	-7.4	-8.1	-2.9	-1.9	-4.8	-3.9	-4.9	-4.9	-5.5
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+17.5	+17.5	+14.1	+10.0	+16.9	+9.8	+16.1	+7.4	+9.9	+7.1	+13.5	+6.9
E. Dent & Co.....	59816	2	Dant's balance; steel spring.	+12.9	+1.3	+9.9	+2.7	+9.0	+13.5	+10.0	+13.1	+13.9	+10.2	+10.4	+17.1
Usher & Cole.....	8274	2	Auxiliary to balance acting in heat and cold; [palladium spring.	-2.8	+0.2	+2.7	+4.6	+3.2	-4.4	+5.6	-1.0	+3.4	+3.5	+7.5	+4.1
Kullberg.....	4962	2	Auxiliary to balance acting in heat; palladium [spring.	-2.2	-14.0	-11.8	-15.3	-19.1	-14.9	-19.8	-14.9	-19.1	-16.3	-8.8	-8.8
Johannes.....	6913	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+10.1	+6.8	-7.3	-7.3	-6.9	-4.6	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6
Kullberg.....	5392	2	Reversed detent, Kullberg's auxiliary balance; steel spring.	+19.1	+11.1	+10.0	+10.0	+9.4	+1.1	+5.0	+1.9	+1.1	-0.5	+5.1	-1.6
Johannes.....	5006	2	Auxiliary to balance acting in heat; palladium [spring.	+22.4	+23.0	+22.0	+20.7	+21.6	+15.8	+15.1	+17.0	+12.7	+10.6	+14.0	+14.0
Chronometrical Ther- mometer				+2077.6	+1743.4	+1519.8	+1410.0	+1389.1	+1109.6	+1041.7	+976.3	+911.1	+809.5	+810.9	+477.1
Mean Weekly Tempera- ture				44.5	48.5	50.3	52.4	51.8	55.5	54.4	58.7	56.6	59.1	56.1	61.7
Extremes of Tempera- ture as shown by the Self-Registering Ther- mometers				38.7-49.4	45.7-51.0	42.9-53.7	49.8-54.7	48.7-54.6	53.0-57.6	51.7-57.3	53.4-60.0	54.7-60.0	56.6-64.1	57.9-63.9	64.8

The sign + indicates that the rate is gaining.

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The Chronometrical Thermometer differs from an ordinary Chronometer only in the construction of the balance, the positions of the metals forming the compensating ring being reversed. By this arrangement the effect of temperature is much magnified.

ORDER OF TEMPERATURE AS DETERMINED GENERALLY BY THE CHRONOMETRICAL THERMOMETER.

																NAME OF MAKER.		No.	
Oct. 6-13	Aug. 4-11	Sept. 22-29	July 7-14	Aug. 11-18	Aug. 18-25	July 28 in Aug. 4	Nov. 10-17	July 14-21	July 28 21-28	Dec. 1-8	Aug. 25 to Sept. 1	Sept. 15-22	Nov. 17-24	Nov. 24 to Dec. 1	Sept. 1-8	Sept. 15		No.	
+3.8 -1.0 +5.7 +1.7	+4.6 +6.6 +8.5 +3.0	+5.8 +7.5 +7.8 0.9	+2.9 7.5 +4.9 0.9	+3.5 +1.1 +4.9 -0.5	+4.2 +3.3 +4.9 +2.7	+3.2 +3.3 +4.5 +1.4	-0.5 -6.1 +7.3 -4.0	+2.6 -2.1 +2.6 -0.8	+3.1 +6.9 +3.5 +0.8	+4.1 +1.0 +10.6 -2.9	+3.0 +4.1 +2.7 -0.8	+4.2 +3.8 +6.9 -4.1	+0.4 -3.8 +6.7 -4.1	+2.1 +8.4 +9.4 -2.9	+2.5 -6.8 +6.4 -1.3	+4.2 -5.8 +5.5 -1.5	Kullberg, J. Player & Son, Kullberg, J. F. Cole, Johannes	6973 30501 5777 6716 5392	
+5.1 -0.8 -1.0 -0.6 -3.6	+9.8 -0.1 +19.3 +8.1 +1.8	+7.5 -6.1 +20.7 +1.5 +1.3	+6.1 7.5 +1.8 -5.7 -2.9	+1.7 +1.1 +5.8 +1.8 -5.7	+11.0 +3.3 +15.8 +2.3 -3.2	+10.0 +3.3 +17.5 -3.1 -3.2	+11.0 -0.6 +17.5 -0.3 -2.8	+11.0 +4.4 +30.8 +3.8 -5.4	+13.5 +0.9 -1.9 +1.1 -0.1	+10.3 +4.4 +18.2 +2.1 -0.1	+12.4 +3.1 +10.7 +8.1 -0.1	+11.8 -3.8 -13.0 +8.1 -8.9	+14.4 +9.4 +2.8 +4.3 -1.2	+12.0 +8.4 +3.7 +1.2 -1.2	+13.8 -6.8 +6.3 +1.2 -2.7	+13.8 -5.8 -20.5 +5.5 +2.7	Johannes Johannes J. F. Cole, Johannes Johannes	4981 3972 5777 5965 4962	
+4.2 -0.5 -4.1 -3.2	+3.8 +5.9 +0.9 +5.0	+5.2 +1.1 -6.2 +2.4	+0.5 +4.8 -1.0 +2.2	+0.9 +7.6 +6.8 +3.8	+0.9 +8.3 +1.0 +3.8	+3.0 +5.3 -1.9 +1.2	+3.8 -6.7 +1.9 +0.6	+0.3 +6.5 +1.4 +2.6	-0.8 +10.1 -3.0 -1.5	+9.3 -1.9 +3.8 -1.5	-1.9 +3.7 -7.2 -1.2	+4.8 +8.0 -9.2 -1.0	+3.5 +1.0 -9.7 -1.0	+6.7 +10.9 -6.7 -2.6	+2.0 +5.4 -6.4 -2.1	+2.8 +7.8 -7.4 +3.6	Kullberg, Kullberg, Kullberg, E. Dent & Co.	5392 5552 8117 51086	
+1.0 +2.8 +1.9 +2.7 +3.9	+5.5 +3.1 +1.1 +0.8 +3.0	+5.2 +0.0 -1.6 +6.2 +6.2	+4.2 +1.0 -1.4 +1.1 +1.1	+4.5 +2.0 +3.9 +2.0 +2.0	+5.2 +3.0 +3.9 +2.0 +2.0	+5.0 +1.2 +1.2 +4.6 +3.0	+3.8 +4.7 +2.0 +1.0 +0.9	+4.1 +2.9 +1.7 +1.5 +1.1	+6.5 +10.7 +5.8 +7.5 +2.9	+5.3 +3.0 +3.9 +3.9 +2.9	+5.8 +10.8 +6.2 +4.9 +5.3	+4.9 +6.0 +6.2 +4.8 +4.3	+4.9 +5.9 +1.8 +4.8 +9.1	+6.0 +5.9 +4.0 +5.0 +0.9	+5.9 +6.9 +5.0 +3.7 +3.6	+5.0 +6.0 +6.0 +6.0 +3.6	Kullberg, Johannes, Johannes, Kullberg, Johannes	5381 9989 5004 6014 8776	
-14.2 +18.0 -10.4 +10.2 +13.4	-4.1 +7.3 -13.0 +9.5 +11.1	-9.6 +15.0 -10.5 +18.2 +16.7	-8.0 +3.9 -10.4 +5.9 +10.7	-3.2 +6.8 -16.9 +1.1 +10.7	-11.8 +2.7 -17.2 +9.1 +10.2	-2.7 +3.3 -20.1 +7.6 +10.2	-2.8 +3.6 -17.8 +12.5 +7.0	-2.9 +6.8 -19.8 +5.9 +10.0	-2.1 +14.7 -15.9 +12.9 +20.4	-11.9 -14.1 -15.1 +7.8 +13.0	-14.7 +7.5 -11.8 +11.6 +15.9	-12.4 +14.2 -11.8 +17.7 +17.6	-10.7 +14.2 -18.2 +11.0 +11.4	-15.8 +14.0 -11.8 +7.0 +14.9	-14.2 +12.0 -13.2 +8.9 +14.9	-14.0 +13.0 -12.5 +11.4 +14.9	-14.0 +12.0 -13.2 +8.9 +14.9	E. Dent & Co., E. Dent & Co., Usher & Cole, Kullberg, Johannes	51085 51086 8274 5392 4968
+6.6 -7.6 +1.9 +4.1 +15.4	+9.1 -1.5 +3.1 +8.5 +3.9	+7.9 -3.9 -2.8 +1.6 +15.3	-0.9 -2.9 -1.8 +1.6 -0.1	-1.0 -2.3 -1.8 +2.0 +2.9	+2.1 -1.7 -0.8 +3.3 +6.6	+1.7 -6.5 +1.0 +3.3 +3.9	+10.9 -6.0 +2.7 +2.4 -3.9	+0.3 -1.0 +4.3 +2.0 -2.1	+2.8 -1.3 -4.9 +4.2 +1.8	+13.8 -4.9 -2.4 +2.3 +14.1	+6.1 -2.1 -1.4 -2.8 +2.5	+10.8 -1.4 -6.4 +3.9 +12.5	+14.5 -6.1 -8.1 +2.8 +10.9	+14.5 -6.1 -8.1 +2.8 +10.9	+6.8 -1.1 -1.2 -3.5 +5.2	+9.0 +1.2 -1.2 -3.5 +9.0	Johannes Kullberg, Johannes Kullberg, E. Dent & Co.	4994 6592 5007 5349 59816	
-1.0 -1.1 -0.8 -1.2 +16.0	+0.1 +10.9 -3.4 +4.6 +10.0	-9.0 -5.2 -0.7 -4.1 +14.8	-5.2 +0.2 -4.0 -3.1 +3.6	+0.2 -10.1 -4.6 -3.5 +9.1	-1.2 -0.7 -4.6 +1.8 +10.8	-0.7 +6.1 -4.6 +1.1 +8.9	-2.0 -30.1 -8.8 +1.1 +9.9	-1.3 -3.9 -3.5 +0.1 +1.9	+6.8 +9.9 +4.9 +2.4 +9.1	-9.1 -2.0 +0.7 +2.1 +13.0	+3.2 +7.0 +3.8 +2.5 +15.0	+3.0 +6.8 +3.8 +7.4 +15.9	+3.8 -6.8 +5.8 -7.9 +16.9	+0.9 -6.8 +5.8 -10.4 +18.0	+1.2 +5.6 -2.3 -0.2 +13.0	+1.2 +5.6 -2.3 -0.2 +13.0	Usher & Cole, Kullberg, Kullberg, Johannes	8274 5004 6592 5006	
+486.9	+326.1	+82.5	-15.5	-69.9	-339.3	-294.5	-668.6	-747.8	-866.2	-1238.6	-1494.6	-1652.0	-2057.8	-2340.6	-2650.3	-2786.2		Chronometrical monometer.	
62.7	64.2	65.3		67.5	69.3	70.1	71.9	75.6	75.6	77.5	81.3	88.1	88.8	99.0	99.9	95.3	96.1	Mean Weekly Temperature.	
																		Extremes of Temperature as shown by the Self-Registering.	
567.567.626.675.684.685.586.74.682.625.684.75.77.702.764.700.816.713.80.75.0.79.75.74.86.77.73.86.82.85.86.70.0102.862.103.985.0104.91.1103.8																			

NAME or MAKER.	No.	Days in Month	Construction of Escapement and Balance, from the Description furnished by the Maker.	(11.) WEEKLY RATES IN											
				Jan. 5-12	Jan. 12-19	Dec. 29 to Jan. 5	Jan. 19-26	Dec. 22-29	Oct. 27 to Nov. 3	Oct. 13-20	Nov. 3-10	Dec. 8-15	Sept. 29 to Oct. 6		
Usher & Coles.....	8207	2	[steel spring Auxiliary to balance acting in heat and cold;	+15.7	+12.4	+10.2	+13.2	+13.4	+11.1	+12.4	+10.9	+12.2	+9.5		
Johannsen.....	4983	2	Auxiliary to balance acting in heat; palladium spring.	+8.9	+9.2	+7.8	+8.9	+9.9	+6.1	+10.5	+6.7	+6.3	+7.1		
Kullberg.....	6926	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+13.9	+12.5	+8.0	+10.2	+9.7	+4.9	+7.3	+3.2	+2.4	+0.6		
Kullberg.....	6908	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+22.0	+20.9	+18.9	+18.1	+16.9	+12.9	+11.0	+11.9	+11.0	+11.5		
E. Dent & Co.....	53874	2	Dent's balance; steel spring.	+3.7	+3.0	+0.8	+1.6	0.0	+1.1	+0.8	+1.9	+2.4	+1.4		
Gardner.....	5171	2	Gardner's No. 1 balance; steel spring.	+11.9	+11.7	+8.9	+10.8	+5.9	+7.8	+8.3	+6.3	+6.9	+6.8		
Kullberg.....	6986	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+4.4	+1.9	+4.7	+1.8	+6.9	+4.8	+4.2	+4.1	+5.6	+12.7		
Kullberg.....	6862	2	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+8.7	+11.3	+11.3	+13.8	+11.6	+13.1	+12.1	+10.5	+11.1	+16.7		
Kullberg.....	6938	2	Reversed detent, Kullberg's auxiliary balance; blue steel spring.	+4.7	+8.3	+3.7	+7.7	+8.5	+8.7	+7.9	+6.9	+8.3	+4.9		
E. Dent & Co.....	53490	2	Plain balance; palladium spring.	+6.4	+7.6	+9.4	+9.6	+10.1	+9.1	+11.0	+10.7	+10.8	+8.4		
Usher & Coles.....	8216	2	[palladium spring, Auxiliary to balance acting in heat and cold;	+7.8	+4.3	+19.3	+4.6	+8.4	+12.9	+11.7	+13.8	+13.5	+12.6		
Johannsen.....	4874	2	Auxiliary to balance acting in heat; palladium spring.	+13.4	+13.3	+14.6	+14.6	+10.5	+8.2	+14.8	+10.9	+13.9	+9.0		
Usher & Coles.....	8254	2	Auxiliary to balance acting in heat and cold; palladium spring.	+3.3	+8.0	+6.5	+6.6	+10.6	+9.3	+7.5	+13.0	+6.5	+10.0		
Johannsen.....	4873	2	Auxiliary to balance acting in heat; palladium spring.	+2.0	+1.4	+0.3	+5.2	+6.7	+10.0	+7.5	+7.2	+7.9	+8.0		
E. Dent & Co.....	50818	2	Dent's balance; steel spring.	+1.9	+2.2	+0.0	+2.9	+6.8	+13.8	+1.2	+11.1	+14.8	+8.0		
A. W. Webb.....	5676	2	Plain balance; palladium spring.	+37.6	+35.2	+29.2	+33.3	+29.6	+29.1	+24.9	+21.2	+29.5	+24.0		
Usher & Coles.....	8250	2	Auxiliary to balance acting in heat and cold; palladium spring.	+0.5	+2.8	+0.4	+1.6	+3.9	+4.5	+6.6	+3.3	+2.9	+1.4		
D. Key.....	972	2	Auxiliary to balance acting in heat; palladium spring.	+14.9	+13.9	+16.3	+13.5	+27.8	+10.5	+18.4	+14.7	+17.0	+12.7		
D. Key.....	972	2	Auxiliary to balance acting in heat; palladium spring.	+22.2	+19.9	+20.8	+18.1	+23.1	+17.3	+22.2	+18.4	+18.6	+21.7		
A. W. Webb.....	5683	2	Plain balance; palladium spring.	+29.0	+27.8	+21.1	+23.2	+21.1	+12.6	+16.2	+11.9	+14.4	+8.3		
Johannsen.....	4785	2	[spring, Auxiliary to balance acting in heat; palladium	+14.9	+18.6	+11.4	+17.9	+3.0	+1.8	+3.8	+2.0	+4.1	+1.1		
Chromometrical monometer.....				+2077.6	+1748.4	+1519.3	+1410.0	+1389.1	+1115.6	+1041.7	+976.3	+911.1	+839.8		
Mean Weekly Tempera- ture.....				44.5	48.5	50.3	52.4	51.8	55.5	54.4	58.7	56.6	59.1		
Extremes of Tempera- ture as shown by the Self-Registering Ther- mometers.....				38.7-49.4	45.7-51.9	42.9-58.7	49.6-64.7	48.7-54.8	53.0-57.6	51.7-57.7	58.4-60.9	55.7-59.6	56.4-61.1		

The sign + indicates that the rate is gaining.

During those weeks the Chronometers were placed in the chamber of a stove heated by jets of gas, the temperature being regulated by Kullberg's automatic governor which controls the supply of gas. The gas flames are exterior to the chamber, into which none of the injurious products of combustion can enter.

The Chronometrical Thermometer differs from an ordinary Chronometer only in the construction of the balance, the positions of the metals forming the compensating rim being reversed. By this arrangement the effect of temperature is much modified.

ORDER OF TEMPERATURE AS DETERMINED GENERALLY BY THE CHRONOMETRICAL THERMOMETER.

NAME or MAKER.	No.	Oct. 6-13	Aug. 4-11	Sept. 22-29	July 7-14	Aug. 11-18	Aug. 18-25	July 28 to Aug. 4	Nov. 10-17	July 14-21	July 21-28	Dec. 1-8	Aug. 31 to Sept. 7	Sept. 15-22	Nov. 17-24	Nov. 24 to Dec. 1	Sept. 1-8	Sept. 8-15	NAME or MAKER.	No.
Usher & Coles.....	8207	+9.8	+0.2	+4.8	-2.3	+8.5	+7.5	0.0	+6.1	+0.4	+2.1	+1.1	+9.9	+8.0	+10.9	+11.5	+8.9	+6.8	Usher & Coles.....	8207
Johannsen.....	4983	+7.5	+3.6	+10.7	+1.3	+7.5	+5.5	+3.0	+9.6	+0.1	+1.2	+19.2	+4.7	+10.9	+10.8	+15.1	+7.0	+10.8	Johannsen.....	4983
Kullberg.....	6926	+0.1	+0.2	+8.0	-2.0	+8.0	+8.0	-1.6	+4.0	-3.8	+4.0	+9.8	+2.7	+4.8	+7.0	+8.4	+5.1	+5.9	Kullberg.....	6926
Kullberg.....	6908	+8.6	+4.1	+7.8	-3.1	-3.8	-4.0	-2.7	-5.2	-2.4	-2.6	-5.4	-4.0	-7.8	-5.7	-6.2	-6.2	-7.1	Kullberg.....	6908
E. Dent & Co.....	53874	+3.4	+0.4	+5.8	+4.9	+2.0	+3.1	+4.1	+8.7	+5.6	+4.9	+11.1	+1.8	+6.2	+8.8	+10.8	+1.0	+1.9	E. Dent & Co.....	53874
Gardner.....	5171	-8.1	-3.4	-8.2	-9.7	-3.1	-1.2	-4.6	-1.4	-4.9	-4.1	-11.5	-5.3	-6.2	-2.6	-0.8	-2.3	-4.1	Gardner.....	5171
Kullberg.....	6986	+7.5	+3.6	+10.4	+1.9	+3.1	+4.3	+10.4	+3.0	+3.8	+20.5	+6.2	+14.3	+17.0	+21.8	+11.1	+15.7	+11.1	Kullberg.....	6986
Kullberg.....	6862	+18.2	-7.2	-5.8	+10.9	-8.9	+10.1	-6.9	-12.4	-8.8	-2.1	-8.1	-6.3	-6.2	-6.9	-6.1	-6.2	-2.3	Kullberg.....	6862
Kullberg.....	6938	+4.5	+0.6	+6.1	+1.3	+0.8	+2.4	+9.8	+6.9	+3.1	+8.8	+6.4	+6.4	-1.7	+3.5	-0.1	+0.1	+4.7	Kullberg.....	6938
E. Dent & Co.....	53490	+12.5	+6.4	+10.8	+4.9	+6.6	+8.8	+7.7	+13.8	+6.8	+6.8	+22.4	+10.1	+10.9	+20.5	+24.5	+17.8	+21.9	E. Dent & Co.....	53490
Usher & Coles.....	8216	-18.2	-20.0	-12.4	-23.2	-21.3	-22.1	-22.5	-19.0	-23.9	-25.1	-14.4	-36.1	-15.1	-18.6	-14.9	-17.4	-12.3	Usher & Coles.....	8216
Johannsen.....	4874	-5.7	-0.1	-1.7	+6.5	-1.9	-2.9	+2.1	-5.8	+6.0	+3.4	+0.1	+0.9	+1.3	+4.1	+0.7	-0.1	+1.4	Johannsen.....	4874
Usher & Coles.....	8254	-9.7	-5.0	-12.2	-7.6	-3.0	-4.9	-8.0	-5.5	-7.0	-10.1	-5.2	-13.0	-12.1	+1.1	+8.1	-7.8	-12.0	Usher & Coles.....	8254
Johannsen.....	4873	-4.5	+0.9	+2.4	-2.7	0.0	+0.8	+1.2	+1.9	+0.5	+1.5	+5.5	+1.9	+8.8	+6.0	+7.6	+4.2	+7.8	Johannsen.....	4873
E. Dent & Co.....	50818	+18.4	+14.1	+26.5	+12.8	+16.1	+18.1	+17.9	+17.0	+19.9	+21.2	+13.7	+19.1	+20.0	+16.1	+16.1	+16.0	+20.5	E. Dent & Co.....	50818
A. W. Webb.....	5676	+21.5	+19.9	+20.0	+18.8	+14.6	+15.2	+14.2	+17.9	+15.3	+13.0	+29.1	+22.3	+12.9	+17.8	+20.0	+13.0	+16.6	A. W. Webb.....	5676
Usher & Coles.....	8250	+6.2	+5.5	+1.9	-5.3	-8.4	-3.1	-7.5	-5.4	-6.0	-10.0	+2.5	-8.0	-4.0	+6.2	+11.6	+3.0	+6.1	Usher & Coles.....	8250
D. Key.....	972	+16.9	+9.6	+14.4	+3.4	+7.7	+10.4	+3.8	+17.3	+4.3	+6.8	+23.1	+11.0	+19.0	+19.5	+23.6	+19.3	+19.3	D. Key.....	972
D. Key.....	972	+15.8	+5.6	+18.9	+1.6	+8.4	+9.2	+6.9	+22.3	+1.9	+3.8	+31.2	+13.0	+18.9	+21.2	+11.8	+11.8	+16.9	D. Key.....	972
A. W. Webb.....	5680	+13.0	-0.1	+12.1	-0.1	+1.7	-3.4	-6.6	+11.8	-3.9	-5.1	+10.9	-6.4	+0.8	+6.5	+8.7	+7.4	+4.2	A. W. Webb.....	5680
Johannsen.....	4785	+4.1	+2.1	+11.5	-5.7	+3.7	+0.8	-6.1	-0.3	-6.1	+13.2	+2.8	+18.6	+4.6	+11.6	+13.8	+23.0		Johannsen.....	4785
Chromometrical Ther- mometer.....		+395.9	+326.1	+482.5	-15.5	-69.9	-329.3	-234.6	-663.6	-747.8	-896.2	-1238.6	-1694.6	-1952.0	-2367.8	-2840.6	-2880.3	-2788.2	Chromometrical Ther- mometer.....	
Mean Weekly Tempera- ture.....		62.7	64.2	65.8	67.5	69.3	70.1	71.9	75.6	75.6	77.5	81.3	83.1	88.8	89.0	93.3	98.1		Mean Weekly Tempera- ture.....	
Extremes of Tempera- ture as shown by the Self-Registering Ther- mometers.....		56.7-68.7	62.0-67.6	62.4-68.2	66.4-74.0	69.2-72.6	69.4-73.7	70.2-76.1	70.4-81.6	71.8-80.7	75.0-79.8	75.4-86.7	77.0-86.4	82.6-95.5	70.0-102.8	82.1-104.3	93.1-108.8		Extremes of Tempera- ture as shown by the Self-Registering Ther- mometers.....	

The Chronometers are placed in order of merit, their respective positions being determined by consideration of the irregularities of rate exhibited in Table III.

Only those Chronometers have been included in this list for which it did not exceed 12 seconds.

NAME OF MAKER.	No.	Whether on 5 Days.	ADDRESS OF MAKER.	Construction of Escapement and Balance, from the Description furnished by the Maker.	(III). ABSTRACT OF	
					Least Weekly Sum.	Extremes Temperature.
Kullberg	6978	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring. (spring.)	- 0-9	38-7 - 49-4
J. Player & Son	80651	2	Devi's Lane, Croydon.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 12-9	42-9 - 58-7
Kullberg	8707	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+ 3-0	71-8 - 80-8
Johannes	5016	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 9-0	49-8 - 54-7
Kullberg	5982	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 9-0	49-8 - 54-7
Johannes	4981	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	+ 5-1	56-7 - 68-7
Johannes	4972	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 5-1	45-7 - 51-5
J. F. Cole	268	2	21, Thornhill Road, N.	Plain balance; palladium spring.	- 6-1	42-9 - 58-7
Johannes	4983	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 8-8	51-7 - 57-7
Johannes	4982	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 8-8	51-7 - 57-7
Johannes	5044	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 2-0	88-0 - 104-8
Kullberg	6543	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+ 0-7	88-7 - 104-8
Kullberg	6811	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 9-9	86-2 - 108-4
Johannes	4987	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 8-0	45-7 - 51-5
E. Dent & Co.	51088	2	61, Strand, W.C.	Auxiliary to balance; steel spring.	- 8-0	91-1 - 108-8
Kullberg	6561	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 2-6	89-8 - 98-7
Kullberg	6888	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 1-6	88-8 - 94-0
Johannes	5000	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 9-2	49-8 - 54-7
Kullberg	6814	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 2-1	49-8 - 54-7
Johannes	4976	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 2-1	49-8 - 54-7
E. Dent & Co.	51086	2	61, Strand, W.C.	Auxiliary to balance; steel spring.	- 15-8	88-0 - 104-8
E. Dent & Co.	50954	2	61, Strand, W.C.	Dent's balance; steel spring.	- 3-8	49-8 - 54-7
Usher & Cole	8249	2	105, St. John Street Road, E.C.	Auxiliary to balance acting in heat and cold; steel spring.	+ 20-8	75-0 - 79-8
Kullberg	6589	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+ 5-9	58-8 - 74-0
Johannes	4976	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	+ 6-6	58-8 - 74-0
Johannes	4994	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 1-0	68-2 - 72-6
Kullberg	6592	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 1-1	49-8 - 54-7
Johannes	5030	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 9-0	45-7 - 51-5
Kullberg	6830	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	+ 1-8	49-8 - 54-7
E. Dent & Co.	50816	2	61, Strand, W.C.	Dent's balance; steel spring.	- 2-1	71-8 - 80-8
Usher & Cole	8274	2	105, St. John Street Road, E.C.	Auxiliary to balance acting in heat and cold; palladium spring.	- 5-2	59-6 - 74-0
Johannes	4985	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 16-8	56-6 - 69-8
Kullberg	6824	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 7-8	49-8 - 54-7
Kullberg	6825	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; steel spring.	- 4-6	62-0 - 67-5
Johannes	5006	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	+ 3-6	58-6 - 74-0

The sign + indicates that the rate is gaining.

THE PRINCIPAL CHANGES OF RATE DURING THE 20 WEEKS.

Mean Temperature.	Greatest Weekly Sum.	Extremes Temperature.	Mean Temperature.	Difference between the Greatest and Least. (a)	Greatest Difference between one Week and the next. (b)	Mean Temperature for these two Weeks.	Trial No. a + 2b.	NAME OF MAKER.	No.
44-5	+ 5-8	38-4 - 68-2	68-8	6-7	2-5	56-8 - 61-7	11-7	Kullberg	6978
50-8	- 5-8	58-0 - 104-8	96-3	7-1	3-2	59-1 - 75-6	18-5	J. Player & Son	80651
75-6	+ 12-5	75-4 - 86-8	81-8	8-6	4-1	81-8 - 66-1	17-7	Kullberg	8707
87-5	+ 10-7	87-5 - 86-6	81-8	11-4	3-6	67-5 - 75-6	18-3	Johannes	5016
52-4	- 9-1	62-0 - 57-7	68-2	12-1	8-0	70-1 - 58-1	19-1	Kullberg	5982
62-7	+ 14-4	86-2 - 108-4	98-9	9-8	5-0	59-1 - 75-6	19-9	Johannes	4981
48-5	+ 4-4	75-8 - 98-6	81-8	9-5	5-1	81-8 - 66-1	19-7	Johannes	4972
68-5	- 5-7	81-1 - 108-3	96-3	13-8	4-6	81-8 - 66-1	19-9	J. F. Cole	268
60-8	- 4-8	86-2 - 103-4	96-9	10-9	8-0	81-8 - 66-1	19-9	Johannes	4983
52-4	+ 2-7	81-1 - 108-3	98-1	11-0	4-7	81-8 - 66-1	20-4	Johannes	4982
95-3	+ 9-3	75-4 - 98-6	81-8	11-8	4-8	81-8 - 66-1	20-8	Johannes	5044
96-9	+ 19-1	75-4 - 98-6	81-8	12-4	4-6	70-1 - 58-1	21-6	Kullberg	6543
98-9	+ 1-9	71-3 - 80-8	75-6	11-8	5-0	59-8 - 44-5	21-8	Kullberg	6811
48-5	+ 2-2	66-4 - 79-7	70-1	11-2	5-8	56-1 - 54-5	21-8	Johannes	4987
98-1	+ 7-7	88-7 - 49-4	44-5	10-7	5-6	81-8 - 66-1	21-9	E. Dent & Co.	51088
52-4	+ 6-8	82-0 - 95-5	88-8	9-4	6-8	69-1 - 75-6	22-0	Kullberg	6561
67-5	- 14-0	61-7 - 79-8	77-5	13-7	5-1	56-8 - 65-8	23-9	E. Dent & Co.	51086
67-5	+ 8-8	86-2 - 108-4	98-9	10-4	4-0	50-9 - 44-5	24-1	E. Dent & Co.	50954
52-4	+ 2-9	58-7 - 49-4	44-5	8-2	7-2	56-1 - 54-5	24-4	Usher & Cole	8249
67-5	+ 20-4	75-4 - 98-6	81-8	13-8	5-9	88-0 - 98-9	25-6	Johannes	4976
68-8	+ 14-6	86-2 - 108-4	98-9	15-5	5-1	69-1 - 75-6	25-7	Johannes	4994
52-4	+ 10-1	69-7 - 98-1	71-9	14-9	5-7	66-1 - 64-6	25-8	Kullberg	6592
48-5	+ 4-9	71-3 - 80-8	75-6	13-8	7-8	81-8 - 66-1	26-4	Johannes	5030
52-4	+ 18-5	54-1 - 57-9	56-1	16-9	5-9	80-8 - 98-1	26-7	Kullberg	6830
75-6	+ 17-1	69-7 - 98-8	61-7	19-2	4-1	70-1 - 58-1	27-4	E. Dent & Co.	50816
67-5	+ 7-5	54-1 - 57-9	56-1	12-7	7-8	56-8 - 55-5	28-8	Usher & Cole	8274
59-1	- 2-5	75-8 - 98-6	81-8	13-8	7-8	81-8 - 66-1	28-6	Kullberg	6824
5-8	- 5-8	86-2 - 108-4	98-9	13-1	7-7	59-1 - 75-6	28-6	Kullberg	6825
52-4	+ 19-1	38-7 - 49-4	44-5	17-7	5-6	70-1 - 58-1	28-9	Johannes	5006
67-5	+ 25-4	88-7 - 49-4	44-5	21-8	3-6	54-4 - 51-8	28-9	Johannes	5006

The Chronometers are placed in order of merit, their respective positions being determined by consideration of the irregularities of rate exhibited in the Table above. The Trial No. a + 2b is taken as a measure of the irregularities of rate.

Only those Chronometers have been included in this list for which b did not exceed 12 seconds.

NAME OF MAKER.	No.	Whether a Trial Day.	ADDRESS OF MAKER.	Construction of Escapement and Balance, from the Description furnished by the Maker.	(III) ABSTRACT OF		
					Least Weekly Sum.	Extremes of Temperature.	
Usher & Cole	8207	2	105, St. John Street Road, E.C.	Auxiliary to balance acting in heat and cold; steel spring.	- 2.8	58.6 - 74.0	
Johannsen	4963	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 1.3	58.6 - 74.0	
Kullberg	6626	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 4.0	75.0 - 79.8	
Kullberg	6626	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 22.0	38.7 - 49.3	
E. Dent & Co.	50274	2	61, Strand, W.C.	Dent's balance; steel spring.	- 3.7	38.7 - 49.3	
Gardner	8216	2	30, Lloyd Square, W.C.	Gardner's No. 1 balance; steel spring. [spring.	- 12.6	75.4 - 88.6	
Kullberg	6626	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium	+ 1.8	49.8 - 54.7	
Kullberg	6626	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; palladium spring.	- 18.7	56.6 - 60.8	
Kullberg	6498	2	105, Liverpool Road, N.	Reversed detent, Kullberg's auxiliary balance; blue steel	- 8.7	38.7 - 49.3	
E. Dent & Co.	51040	2	61, Strand, W.C.	Plain balance; palladium spring.	+ 4.9	58.6 - 74.0	
Usher & Cole	8216	2	105, St. John Street Road, E.C.	Auxiliary to balance acting in heat and cold; palladium	- 26.1	77.0 - 86.4	
Johannsen	4974	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 14.6	51.7 - 57.7	
Usher & Cole	8254	2	105, St. John Street Road, E.C.	Auxiliary to balance acting in heat and cold; palladium spring.	- 13.9	88.0 - 104.3	
Johannsen	4973	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 10.9	53.0 - 57.6	
E. Dent & Co.	50618	2	61, Strand, W.C.	Dent's balance; steel spring.	+ 1.2	51.7 - 57.7	
A. W. Webb	5678	2	23, Anwell Street, E.C.	Plain balance; palladium spring. [spring.	+ 12.9	82.6 - 95.5	
Usher & Cole	8250	2	105, St. John Street Road, E.C.	Auxiliary to balance acting in heat and cold; palladium	- 10.9	75.0 - 79.8	
D. Keys	973	2	91, Piccadilly, W.	Auxiliary to balance acting in heat; palladium spring.	+ 3.4	58.6 - 74.0	
D. Keys	973	2	91, Piccadilly, W.	Auxiliary to balance acting in heat; palladium spring.	+ 1.6	58.6 - 74.0	
A. W. Webb	5680	2	23, Anwell Street, E.C.	Plain balance; palladium spring.	- 7.4	88.0 - 104.3	
Johannsen	4785	2	149, Minories, E.	Auxiliary to balance acting in heat; palladium spring.	- 18.6	45.7 - 51.5	

The sign + indicates that the rate is gaining.

THE PRINCIPAL CHANGES OF RATE DURING THE 29 WEEKS.

Mean Temperature.	Greatest Weekly Sum.	Extremes of Temperature.	Mean Temperature.	Difference between the Greatest and Least. (a)	Greatest Difference between one week and the next. (b)	Mean Temperature for these two weeks.	Trial No. a + 2b.	NAME OF MAKER.	No.
87.5	+ 15.7	38.7 - 49.4	44.5	18.0	5.5	50.3 - 44.5	29.0	Usher & Cole	8207
67.5	+ 19.2	75.4 - 98.6	81.3	20.5	4.3	89.0 - 98.9	29.1	Johannsen	4963
77.5	+ 13.9	38.7 - 49.4	44.5	17.9	5.9	50.3 - 44.5	29.7	Kullberg	6626
44.5	- 2.4	71.3 - 80.3	75.6	18.6	6.1	81.3 - 56.1	31.9	Kullberg	6626
44.5	+ 11.1	75.4 - 98.6	81.3	14.8	9.2	81.3 - 56.1	38.2	E. Dent & Co.	50274
81.3	- 0.8	86.2 - 103.4	93.9	11.8	11.8	83.0 - 81.8	85.4	Gardner	8216
52.4	+ 21.8	86.2 - 103.4	93.9	30.0	7.8	81.3 - 56.1	35.6	Kullberg	6626
59.1	- 0.2	82.6 - 95.5	88.8	16.5	9.8	59.1 - 75.6	96.1	Kullberg	6626
50.3	+ 8.3	70.2 - 76.1	71.9	17.0	10.3	59.1 - 75.6	97.6	Kullberg	6498
44.5	+ 24.5	86.2 - 103.4	93.9	19.8	9.4	81.3 - 56.1	38.4	E. Dent & Co.	51040
83.1	- 4.3	45.7 - 51.5	48.5	21.8	8.5	83.1 - 95.8	38.8	Usher & Cole	8216
54.4	+ 6.5	58.6 - 74.0	67.5	21.3	9.1	81.3 - 56.1	39.5	Johannsen	4974
95.3	+ 7.8	86.2 - 103.4	93.9	31.2	9.5	89.0 - 91.9	40.2	Usher & Cole	8254
55.5	+ 8.3	82.6 - 95.5	88.8	18.3	11.2	81.3 - 56.1	40.7	Johannsen	4973
54.4	+ 26.5	62.4 - 98.2	65.3	25.3	8.7	59.1 - 75.6	42.7	E. Dent & Co.	50618
83.9	+ 37.6	38.7 - 49.4	44.5	24.7	9.5	83.1 - 95.8	49.7	A. W. Webb	5678
77.5	+ 12.9	59.7 - 64.3	61.7	22.9	11.0	65.3 - 61.7	44.9	Usher & Cole	8250
67.5	+ 27.8	45.7 - 54.8	51.8	24.4	11.5	51.8 - 59.3	47.4	D. Keys	973
67.5	+ 31.2	75.4 - 98.6	81.3	23.6	9.7	59.1 - 75.6	49.0	D. Keys	973
93.3	+ 29.0	38.7 - 49.4	44.5	36.4	11.3	88.8 - 65.3	59.0	A. W. Webb	5680
48.5	+ 23.0	91.1 - 103.8	98.1	41.6	10.8	83.1 - 90.8	63.2	Johannsen	4785

The Chronometers are placed in order of merit, their respective positions being determined by consideration of the irregularities of rate exhibited in the Table above. The Trial No. a + 2b is taken as a measure of the irregularities of rate.
Only those Chronometers have been included in this list for which b did not exceed 12 seconds.