

RATES OF BOX AND POCKET CHRONOMETERS
ON TRIAL
FOR PURCHASE BY THE BOARD OF ADMIRALTY,
AT THE
ROYAL OBSERVATORY, GREENWICH,
FROM 1904 JUNE 18 TO 1905 JANUARY 7.

(I) WEEKLY RATES

NAME OF MAKER.	No.	Whether No. 2 or 3 Days.	June 18-25	June 25 to July 2	July 2-9	July 9-16	July 16-23	July 23-30	July 30 to Aug 6	Aug. 6-13	Aug. 13-20	Aug. 20-27	Aug. 27 to Sept 3	Sept. 3-10	Sept. 10-17	Sept. 17-24
Kullberg.....	7273	2	-3.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Kullberg.....	7280	2	-3.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Kullberg.....	7287	2	-1.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Johannsen.....	5986	2	-1.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Johannsen.....	5987	2	-1.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Johannsen.....	5992	2	-0.4	+0.3	-0.6	-2.0	-0.3	+0.2	+0.5	+1.6	+1.3	+0.5	+5.3	+6.3	+4.0	+3.2
Johannsen.....	5728	2	-0.4	+0.3	-0.6	-2.0	-0.3	+0.2	+0.5	+1.6	+1.3	+0.5	+5.3	+6.3	+4.0	+3.2
Kullberg.....	7290	2	-1.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Kullberg.....	5976	2	-1.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Kullberg.....	7292	2	-1.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Johannsen.....	5709	2	-0.3	-2.1	-5.7	-6.8	-4.0	-7.2	-9.1	-6.3	-10.2	-10.1	-4.2	-0.9	-1.5	-3.4
Johannsen.....	5734	2	-0.3	-2.1	-5.7	-6.8	-4.0	-7.2	-9.1	-6.3	-10.2	-10.1	-4.2	-0.9	-1.5	-3.4
Johannsen.....	5694	2	-0.3	-2.1	-5.7	-6.8	-4.0	-7.2	-9.1	-6.3	-10.2	-10.1	-4.2	-0.9	-1.5	-3.4
Usher & Cole.....	1227	2	-0.3	-2.1	-5.7	-6.8	-4.0	-7.2	-9.1	-6.3	-10.2	-10.1	-4.2	-0.9	-1.5	-3.4
Pyott.....	999	2	-4.5	+0.5	+4.2	+8.4	+9.4	+0.7	+0.8	+3.6	+1.0	+5.0	+9.8	+11.0	+10.1	+3.7
Kullberg.....	7287	2	-1.1	-2.2	-4.2	-0.6	+0.5	-2.1	-1.3	-2.9	-3.7	-2.1	-1.0	+3.4	+4.4	+0.2
Kullberg.....	7293	2	-1.1	-2.2	-4.2	-0.6	+0.5	-2.1	-1.3	-2.9	-3.7	-2.1	-1.0	+3.4	+4.4	+0.2
M. F. Dent.....	3207	2	-3.6	-1.2	-3.8	+0.6	+1.6	+0.4	+0.6	+2.6	+2.6	+6.9	+7.0	+1.0	+2.6	+0.4
D. Keys.....	972	2	-3.1	-3.0	-2.8	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9
Lilley.....	1566	2	-8.0	-11.0	-12.2	-10.8	-12.1	-12.9	-12.4	-13.1	-12.8	-13.5	-12.3	-16.6	-17.8	-20.5
S. Smith & Son.....	7998	2	+2.3	+5.1	+5.8	+6.1	+6.8	+6.3	+7.1	+6.0	+7.1	+12.7	+11.0	+14.6	+14.4	+12.0
Webb.....	5678	2	+2.3	+5.1	+5.8	+6.1	+6.8	+6.3	+7.1	+6.0	+7.1	+12.7	+11.0	+14.6	+14.4	+12.0
Kullberg.....	7275	2	+3.0	+3.1	+2.2	+2.8	+1.9	+1.4	+1.2	+1.4	+1.3	+1.8	+1.7	+1.6	+1.4	+1.4
Oliver & Bedford.....	3208	2	+7.0	+8.9	+2.9	+5.8	+4.2	+4.9	+6.1	+0.2	-8.3	-7.4	-1.3	-2.9	-1.8	+2.3
J. Payer.....	3208	2	+7.0	+8.9	+2.9	+5.8	+4.2	+4.9	+6.1	+0.2	-8.3	-7.4	-1.3	-2.9	-1.8	+2.3
Johannsen.....	5691	2	-4.9	-3.1	-4.7	-2.2	-0.6	-1.1	+0.4	+4.0	+5.9	+5.4	+5.5	+5.4	+4.3	+4.3
Lilley.....	1565	2	-2.0	-4.9	-5.1	-6.3	-4.6	-3.0	-5.3	-6.7	-5.7	-6.7	-5.7	-6.7	-5.7	-6.7
M. F. Dent.....	3207	2	-0.5	+0.1	-0.4	-1.4	-3.3	-4.6	-3.0	-5.3	-6.7	-5.7	-6.7	-5.7	-6.7	-5.7
Hughes & Son.....	1228	2	-11.3	-6.1	-6.6	-5.6	-10.9	-8.5	-5.4	-1.2	-2.5	-0.2	-1.6	-1.6	-4.9	-8.4
Hughes & Son.....	1228	2	-0.5	+0.9	+8.9	+11.7	+12.7	+12.5	+12.1	+13.7	+13.0	+13.8	+10.8	+20.2	+2.8	+2.3
C. Frodsham.....	10051	2	-4.0	-2.7	-2.2	-2.0	-3.5	+3.4	+3.6	+6.5	+1.1	-1.9	-1.0	+2.8	+2.8	+2.7
Webb.....	5678	2	-0.1	-2.8	-4.5	-2.2	-2.6	-4.1	-3.0	-7.5	-10.9	+11.6	+6.2	+1.1	+0.5	-1.8
L. Hall.....	1705	2	+28.1	+28.8	+27.4	+26.2	+27.7	+26.3	+25.4	+15.2	+12.7	+25.0	+30.0	+30.0	+30.4	+30.4
Johannsen.....	5698	2	-3.1	-2.0	-0.8	-0.7	-2.6	-1.7	-0.4	-25.4	-0.1	-4.7	-4.7	-0.4	+2.0	+1.0
Usher & Cole.....	0949	2	+2.9	+4.1	+6.6	+11.1	+10.9	+15.6	+21.2	+17.2	+12.4	+6.3	+5.1	+4.0	+9.7	+7.5
Wiggins.....	5435	2	+12.1	-7.0	-6.6	-5.5	-4.7	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6
Gardner.....	5435	2	+12.1	-7.0	-6.6	-5.5	-4.7	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6
Usher & Cole.....	0949	2	+2.9	+4.1	+6.6	+11.1	+10.9	+15.6	+21.2	+17.2	+12.4	+6.3	+5.1	+4.0	+9.7	+7.5
Whyte Thomson.....	53962	2	+5.9	+7.2	+6.3	+7.8	+8.4	+8.4	+8.4	+8.4	+8.4	+8.4	+8.4	+8.4	+8.4	+8.4
Lindqvist.....	106	2	-2.0	-1.8	-2.4	-2.6	-4.3	-6.6	-6.7	-7.3	-10.3	-18.4	-16.3	-12.1	-10.8	-11.0
Pyott.....	994	2	+13.8	+16.7	+21.1	+27.1	+26.2	+29.9	+30.1	+32.5	+32.1	+32.5	+32.1	+32.5	+32.1	+32.5
Lindqvist.....	111	2	+9.4	+12.6	+16.9	+20.8	+19.8	+19.9	+19.9	+22.6	+23.8	+27.7	+28.2	+27.3	+32.6	+36.1
Chronometrical Thermometer.....			-622.8	-669.7	-702.4	-1162.1	-1192.8	-1120.8	-1254.7	-2058.1	-3618.9	-3800.5	-2947.6	-692.9	-448.3	-301.5
Mean Weekly Temperature.....			65.2	65.8	65.8	71.9	72.8	71.2	72.6	86.8	99.4	97.5	87.3	64.7	62.9	61.3
Extremes of Temperature as shown by the Self-Registering Thermometer.....			61.4-72.7	63.9-67.9	61.4-68.6	68.6-76.7	70.2-76.7	69.9-73.8	73.0-76.1	82.7-90.3	93.6-104.8	85.8-106.0	89.0-91.4	62.1-67.6	62.0-63.5	59.0-64.0

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 tubes are exterior to the chamber, into which none of the injurious products of combustion can enter.

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

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IN ORDER OF TIME.

																NAME OR MAKER.	No.
Sept. 24 to Oct. 1	Oct. 1-8	Oct. 8-15	Oct. 15-22	Oct. 22-29	Oct. 29 to Nov. 5	Nov. 5-12	Nov. 12-19	Nov. 19-26	Nov. 26 to Dec. 3	Dec. 3-10	Dec. 10-17	Dec. 17-24	Dec. 24-31	Dec. 31 to Jan. 7			
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-8.4	-8.0	-9.0	-7.1	-7.6	-10.2	-9.1	-8.2	-7.6	-6.8	-7.3	-7.6	-8.8	-7.5	-9.0	Johannes	7273	
-5.8	-5.5	-6.9	-5.8	-3.8	-8.1	-6.3	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	Kullberg	7280	
-1.8	-2.1	-2.8	-6.8	-8.5	-9.2	-8.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	Kullberg	7287	
+1.9	+0.3	+0.1	+0.6	+6.6	+5.1	+5.6	+5.6	+3.2	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	Johannsen	5986	
+1.9	+0.3	+0.1	+0.6	+6.6	+5.1	+5.6	+5.6	+3.2	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	Johannsen	5987	
+1.7	+1.5	+4.0	+2.0	+1.2	+0.1	+2.0	+3.9	+4.6	+1.4	-0.7	-1.0	-2.3	-0.9	-2.0	Johannes	5728	
+1.3	+3.9	+4.1	+2.7	+3.2	+1.0	+2.6	+5.0	+4.0	+3.0	+1.2	+2.5	+4.2	+5.0	+3.6	Kullberg	7290	
+4.3	+4.0	+4.0	+2.9	+4.3	+5.9	+6.8	+8.7	+7.2	+5.1	+3.7	+4.1	+5.1	+5.1	+4.9	Kullberg	5976	
+1.4	-1.6	-2.7	-5.5	-8.8	-10.1	-1.5	-6.8	-10.9	-6.8	-10.6	-9.1	-10.3	-8.8	-9.8	Kullberg	7292	
-7.4	-7.8	-9.0	-6.0	-5.6	-11.1	-9.2	-6.2	-6.0	-0.3	-3.8	-7.9	-8.9	-5.9	-5.7	Johannes	5709	
-7.4	-7.8	-9.0	-6.0	-5.6	-11.1	-9.2	-6.2	-6.0	-0.3	-3.8	-7.9	-8.9	-5.9	-5.7	Johannes	5734	
-7.4	-7.8	-9.0	-6.0	-5.6	-11.1	-9.2	-6.2	-6.0	-0.3	-3.8	-7.9	-8.9	-5.9	-5.7	Johannes	5694	
+6.9	+4.0	+4.0	+2.9	+4.3	+5.9	+6.8	+8.7	+7.2	+5.1	+3.7	+4.1	+5.1	+5.1	+4.9	Usher & Cole	1227	
+13.7	+16.6	+15.0	+18.2	+11.3	+8.6	+10.9	+12.2	+14.5	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	Pyott	999	
+15.1	+16.6	+15.0	+18.2	+11.3	+8.6	+10.9	+12.2	+14.5	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	Kullberg	7287	
+4.2	+5.0	-6.5	-4.3	-4.2	-6.7	-7.2	-7.1	-9.0	-11.2	-12.9	-13.6	-14.7	-15.6	-16.7	Kullberg	7290	
+0.2	+0.6	-0.1	+1.1	+3.7	+6.4	+6.6	+3.8	+3.1	+3.1	+3.1	+3.1	+3.1	+3.1	+3.1	M. F. Dent	3207	
+8.8	+5.9	+4.0	+4.8	+3.6	+3.6	+3.6	+3.6	+3.6	+3.6	+3.6	+3.6	+3.6	+3.6	+3.6	D. Keys	972	
-13.5	-15.7	-16.9	-16.1	-18.9	-16.1	-14.2	-10.8	-12.1	-16.9	-20.0	-21.8	-19.8	-19.1	-21.7	Lilley	1566	
-20.7	-22.5	-20.6	-24.8	-19.6	-19.5	-16.4	-15.7	-20.1	-24.9	-22.1	-24.9	-28.3	-29.1	-28.3	Kullberg	7292	
+18.4	+14.5	+14.1	+14.0	+12.9	+13.9	+18.2	+17.8	+18.8	+20.6	+18.7	+23.4	+19.9	+22.7	+23.8	S. Smith & Son	7998	
+18.4	+14.5	+14.1	+14.0	+12.9	+13.9	+18.2	+17.8	+18.8	+20.6	+18.7	+23.4	+19.9	+22.7	+23.8	Webb	5678	
+3.0	+3.1	+2.2	+2.8	+1.9	+1.4	+1.2	+1.4	+1.3	+1.8	+1.7	+1.6	+1.4	+1.4	+1.4	Kullberg	7275	
+7.0	+8.9	+2.9	+5.8	+4.2	+4.9	+6.1	+0.2	-8.3	-7.4	-1.3	-2.9	-1.8	+2.3	+2.3	Oliver & Bedford	3208	
+7.0	+8.9	+2.9	+5.8	+4.2	+4.9	+6.1	+0.2	-8.3	-7.4	-1.3	-2.9	-1.8	+2.3	+2.3	J. Payer	3208	
+0.8	-2.8	-2.1	-2.1	-1.1	-4.0	+5.9	+5.4	+5.5	+5.4	+4.3	+4.3	+4.3	+4.3	+4.3	Johannes	5691	
+0.8	-2.8	-2.1	-2.1	-1.1	-4.0	+5.9	+5.4	+5.5	+5.4	+4.3	+4.3	+4.3	+4.3	+4.3	Lilley	1565	
+0.8	-2.8	-2.1	-2.1	-1.1	-4.0	+5.9	+5.4	+5.5	+5.4	+4.3	+4.3	+4.3	+4.3	+4.3	M. F. Dent	3207	
+0.8	-2.8	-2.1	-2.1	-1.1	-4.0	+5.9	+5.4	+5.5	+5.4	+4.3	+4.3	+4.3	+4.3	+4.3	Hughes & Son	1228	
+21.9	+23.2	+20.8	+16.7	+21.7	+4.2	+25.9	+25.0	+28.0	+18.0	+14.1	+15.4	+15.4	+17.1	+17.1	Johannes	5691	
+21.9	+23.2	+20.8	+16.7	+21.7	+4.2	+25.9	+25.0	+28.0	+18.0	+14.1	+15.4	+15.4	+17.1	+17.1	Lilley	1566	
+21.9	+23.2	+20.8	+16.7	+21.7	+4.2	+25.9	+25.0	+28.0	+18.0	+14.1	+15.4	+15.4	+17.1	+17.1	Hughes & Son	1228	
0.0	+5.6	+3.5	+1.8	+11.9	+10.5	+10.5	+12.7	+13.9	+6.9	+6.1	+4.2	+6.9	+6.3	+1.0	C. Frohman	10051	
-1.4	-5.2	-5.2	-6.5	-12.9	-14.1	-14.1	-12.9	-13.9	+6.9	+6.1	+4.2	+6.9	+6.3	+1.0	Johannes	5730	
+10.7	+10.7	+12.9	+14.1	+14.1	+12.9	-13.9	-13.9	-13.9	+6.9	+6.1	+4.2	+6.9	+6.3	+1.0	Johannes	5730	
+29.9	+29.9	+30.1	+31.1	+29.9	+25.0	+25.0	+25.0	+25.0	+18.1	+19.2	+19.2	+18.2	+18.2	+18.2	Johannes	17005	
+0.6	-1.4	-7.8	-4.9	-8.2	-14.0	-6.9	-5.7	-4.7	-8.9	+0.8	+3.2	+1.6	+4.7	+8.1	Johannes	5695	
+4.1	-6.8	+5.8	+12.1	+17.5	+13.6	+17.1	+7.4	-1.3	-2.1	+3.7	+4.3	-0.4	-3.5	-2.1	Usher & Cole	0949	
+4.1	-6.8	+5.8	+12.1	+17.5	+13.6	+17.1	+7.4	-1.3	-2.1	+3.7	+4.3	-0.4	-3.5	-2.1	Wiggins	24355	
+8.7	-7.5	+6.9	+7.9	+5.9	+3.0	+6.7	+10.5	+18.2	+18.8	+12.5	+8.9	+4.4	-5.6	-5.6	Gannett	1917	
+24.1	+21.8	+23.9	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	+24.1	Usher & Cole	1917	
+0.2	-6.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	+2.8	Wylie Thomson	53982	
-15.4	-15.7	-19.4	-17.7	-11.2	-11.7	-12.0	-9.9	-17.6	-24.8	-23.8	-28.0	-23.4	-30.2	-27.3	Lindsay	106	
+30.4	+30.4	+35.8	+38.1	+38.2	+38.9	+38.1	+38.1	+38.1	+44.8	+44.5	+45.1	+44.1	+46.0	+46.0	Lindsay	111	
+34.7	+35.4	+36.1	+38.8	+40.0	+39.9	+40.9	+39.9	+40.9	+46.9	+46.9	+41.9	+42.6	+41.1	+41.1	Lindsay	111	
-184.5	-74.9	+45.4	-150.0	-1068.4	-8123.6	-2323.6	-1507.6	-4686.3	+983.7	+472.6	+998.5	+582.1	+894.9	+757.2	Chronometrical Thermometer.		
59.7	58.7	57.7	60.6	75.7	93.2	91.4	74.5	52.5	47.7	54.7	51.2	53.5	48.8	51.6	Mean Weekly Temperature.		
Extremes of Temperature as shown by the Self-Registering Thermometer.																	
46.4	46.4	56.9	60.5	52.7	56.7	62.7	71.2	80.8	82.1	86.8	91.1	96.9	84.8	78.9	65.4	45.4	

RATES OF CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY.

NAME OF MAKER.	No.	Whether a s e c s Days.	(II) WEEKLY RATES IN															
			Nov. 26 to Dec. 3	Dec. 10-17	Dec. 17-24	Dec. 24-31	Jan. 7-14	Jan. 14-21	Jan. 21-28	Feb. 4-11	Feb. 11-18	Feb. 18-25	Mar. 4-11	Mar. 11-18	Mar. 18-25	Apr. 1-8	Apr. 8-15	Apr. 15-22
			Nov. 26 to Dec. 3	Dec. 10-17	Dec. 17-24	Dec. 24-31	Jan. 7-14	Jan. 14-21	Jan. 21-28	Feb. 4-11	Feb. 11-18	Feb. 18-25	Mar. 4-11	Mar. 11-18	Mar. 18-25	Apr. 1-8	Apr. 8-15	Apr. 15-22
Kullberg.....	7278	2	-6.2	-7.5	-9.0	-7.6	-7.6	-8.8	-7.8	-9.0	-8.0	-7.1	-8.4	-8.6	-7.0	-8.2	-8.8	-7.8
Kullberg.....	7280	2	-1.9	-0.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9
Kullberg.....	7307	2	-1.8	-0.5	-1.8	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6
Johannes.....	5693	2	-2.8	-0.1	-0.8	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Johannes.....	5687	2	-1.4	-1.9	-0.8	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
Johannes.....	5692	2	-1.4	-0.9	-2.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Johannes.....	7278	2	-2.0	-5.0	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
Kullberg.....	7308	2	-1.8	-1.2	-0.9	-2.1	-4.0	-2.3	-1.2	-4.1	-3.9	-2.7	-1.0	-0.8	-1.7	-4.0	-9.4	-9.4
Kullberg.....	5676	2	-8.8	-8.8	-8.8	-9.1	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9	-10.9
Kullberg.....	7269	2	-0.1	-8.2	-8.2	-2.4	-0.9	-4.9	-1.4	-2.9	-1.6	-2.5	-1.4	-0.3	-2.9	-2.9	-2.9	-2.9
Johannes.....	5709	2	-0.3	-5.9	-5.7	-7.9	-9.0	-8.9	-3.8	-9.0	-7.8	-6.0	-7.4	-3.4	-1.5	-8.3	-8.3	-8.3
Johannes.....	5734	2	-1.1	-9.8	-4.7	-5.9	-7.1	-7.3	-5.1	-3.7	-4.0	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9
Johannes.....	5694	2	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1	-5.1
Usher & Cole.....	1927	2	-16.4	-17.5	-17.0	-14.2	-14.8	-16.6	-14.7	-16.0	-19.6	-20.7	-22.7	-22.7	-22.7	-22.7	-22.7	-22.7
Pyott.....	999	2	-14.1	-13.1	-13.6	-10.4	-11.5	-15.6	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6
Kullberg.....	7387	2	-11.2	-15.6	-15.7	-13.6	-9.8	-14.7	-12.9	-6.5	-6.0	-4.3	-4.2	-0.2	-4.4	-1.1	-1.1	-1.1
Kullberg.....	7301	2	-2.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
M. F. Dent.....	32078	2	-11.5	-6.7	-0.3	-8.0	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5	-10.5
D. Keys.....	972	2	-29.6	-19.1	-21.7	-23.8	-12.1	-18.3	-20.0	-16.9	-19.7	-16.1	-18.5	-12.9	-19.1	-30.1	-30.1	-30.1
Lilly.....	1006	2	-34.9	-28.3	-29.9	-24.9	-20.1	-28.1	-22.0	-24.8	-20.7	-20.5	-17.8	-8.6	-8.6	-8.6	-8.6	-8.6
S. Smith & Son.....	7393	2	-42.0	-6.7	-42.0	-38.4	-13.8	-11.9	-43.1	-14.5	-14.4	-14.4	-14.4	-14.4	-14.4	-14.4	-14.4	-14.4
Kullberg.....	5678	2	-25.9	-21.0	-23.6	-22.4	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6
Webb.....	7275	2	-0.3	-1.2	-2.0	-6.3	-3.9	-4.0	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Kullberg.....	81074	2	-4.2	-5.1	-7.6	-8.7	-7.9	-9.0	-4.7	-3.2	-5.8	-4.0	-3.7	-4.8	-5.5	-9.0	-9.0	-9.0
Ollivert & Botsford.....	32068	2	-19.2	-17.5	-16.0	-15.0	-12.1	-13.8	-9.4	-8.4	-7.7	-10.0	-8.3	-10.0	-7.5	-7.5	-7.5	-7.5
Johannes.....	5691	2	-7.2	-6.1	-5.0	-3.8	-10.4	-9.9	-1.2	-3.9	-4.6	-2.3	-0.6	-4.3	-4.9	-4.9	-4.9	-4.9
Lilly.....	32074	2	-11.9	-8.4	-6.5	-7.6	-9.4	-8.1	-2.1	-2.8	-2.9	-0.6	-0.3	-0.5	-2.8	-2.8	-2.8	-2.8
Webb.....	5654	2	-13.3	-17.1	-17.6	-12.9	-9.4	-14.1	-4.6	-1.8	-4.1	-3.8	-2.5	-4.0	-4.2	-0.5	-0.5	-0.5
Hughes & Son.....	1233	8	-10.1	-9.6	-10.6	-12.6	-18.0	-11.0	-14.0	-12.9	-12.1	-10.4	-11.2	-10.4	-11.2	-10.4	-11.2	-10.4
C. Frodham.....	10051	2	-6.9	-6.3	-10.4	-4.2	-13.0	-6.8	-6.1	-3.5	-5.6	-1.8	-0.0	-2.7	-2.8	-4.0	-4.0	-4.0
Johannes.....	5733	2	-2.9	-0.7	-1.6	-0.0	-4.9	-2.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Webb.....	5699	2	-18.8	-1.3	-2.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
L. Hall.....	1705	10	-28.0	-28.4	-14.8	-11.9	-20.7	-13.2	-19.2	-8.2	-10.7	-12.8	-10.0	-7.8	-9.2	-0.1	-0.1	-0.1
Johannes.....	5648	2	-3.9	-4.7	-3.1	-2.3	-4.7	-1.6	-0.8	-7.8	-1.4	-4.5	-0.6	-0.9	-1.0	-4.1	-4.1	-4.1
Usher & Cole.....	0949	2	-2.1	-3.5	-2.1	-4.3	-1.3	-0.4	-3.7	-5.8	-6.8	-12.1	-4.1	-7.5	-9.7	-9.7	-9.7	-9.7
Gardner.....	54855	2	-3.3	-5.6	-5.6	-2.1	-8.6	-0.6	-0.7	-3.2	-4.1	-7.7	-3.6	-4.3	-3.9	-3.9	-3.9	-3.9
Usher & Cole.....	1917	2	-11.8	-3.3	-4.7	-8.9	-18.2	-2.4	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9
Wylie-Thomson.....	53962	2	-5.7	-4.6	-1.6	-3.4	-7.8	-8.9	-4.8	-2.1	-1.6	-2.8	-0.8	-1.2	-1.7	-5.9	-5.9	-5.9
Lindqvist.....	106	2	-34.8	-30.2	-27.8	-28.0	-17.6	-28.4	-23.8	-19.4	-15.7	-17.7	-15.4	-11.0	-10.8	-2.0	-2.0	-2.0
Pyott.....	981	2	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9	-48.9
Lindqvist.....	111	2	-45.0	-42.6	-41.5	-40.6	-41.1	-41.9	-38.1	-38.4	-38.6	-38.7	-38.1	-32.6	-1.9	-1.9	-1.9	-1.9
Chronometrical Thermometer.....			+ 983.7	+ 894.9	+ 757.2	+ 498.5	+ 066.3	+ 582.1	+ 472.6	+ 45.4	- 74.9	- 150.0	- 184.5	- 801.8	- 446.3	- 632.8	- 632.8	- 632.8
Mean Weekly Temperature.....			47.7	48.8	51.6	51.2	52.3	53.5	54.7	57.7	58.7	60.6	59.7	61.8	62.9	65.2	65.2	65.2
Extremes of Temperature as shown by the Self-Registering Thermometers.....			41.2-42.4-45.4-50.1-56.8-55.7-49.7-56.4-49.8-57.9-49.8-58.0-52.0-60.2-55.2-59.7-56.9-60.0-58.8-62.8-58.6-60.9-60.0-64.0-62.0-63.0-61.8-72.7															

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 position of the metals forming the compensating rim being reversed. By this arrangement the effect of temperature is thus magnified.

John G. Wobach Library, Harvard-Smithsonian Center for

AT THE ROYAL OBSERVATORY, GREENWICH, FROM 1904 JUNE 18 TO 1905 JANUARY 7.

ORDER OF TEMPERATURE AS DETERMINED GENERALLY BY THE CHRONOMETRICAL THERMOMETER.

ORDER OF TEMPERATURE AS DETERMINED GENERALLY BY THE CHRONOMETRICAL THERMOMETER.																	NAME OF MAKER.		No.
June 25 to July 2	Sept. 8-10	July 2-9	July 23-30	July 9-16	July 16-23	July 30 to Aug. 6	Oct. 22-29	Nov. 12-19	Aug. 6-13	Oct. 27 to Sept. 3	Nov. 5-12	Oct. 29 to Nov. 5	Aug. 10-27	Aug. 13-20					
-9.0	-7.7	-4.1	-6.7	-4.1	-6.9	-7.3	-7.6	-8.2	-9.0	-10.2	-9.1	-10.2	-11.1	-12.0	Kullberg.....	7278			
-1.7	-0.8	-3.1	-4.4	-2.0	-3.8	-4.2	-3.8	-4.2	-3.8	-4.8	-4.8	-4.1	-5.1	-6.5	Kullberg.....	7280			
-2.4	-0.7	-1.6	-0.7	-3.0	-2.8	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	Kullberg.....	7307			
-5.0	-6.7	-2.1	-2.3	-2.3	-3.5	-1.8	-0.6	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	Johannes.....	5693			
-4.2	-6.1	-3.8	-6.1	-6.8	-4.4	-5.9	-9.1	-6.2	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6	Johannes.....	5687			
-1.0	-2.8	-0.6	-0.2	-0.2	-0.2	-0.5	-1.2	-0.9	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	Johannes.....	5692			
-3.1	-5.8	-4.4	-2.8	-0.8	-2.4	-0.8	-3.5	-0.5	-1.1	-0.1	-0.1	-0.1	-0.1	-0.1	Johannes.....	7278			
-3.2	-4.7	-3.0	-3.0	-3.0	-3.1	-3.0	-3.8	-5.1	-3.0	-2.4	-2.4	-2.4	-2.4	-2.4	Johannes.....	7308			
-3.8	-6.7	-5.9	-6.7	-6.1	-6.1	-6.1	-6.8	-3.6	-4.4	-3.0	-3.0	-3.0	-3.0	-3.0	Johannes.....	5676			
+ 0.2	+ 6.1	+ 3.8	+ 6.1	+ 6.8	+ 4.4	+ 5.9	+ 9.1	+ 6.2	+ 6.6	+ 6.6	+ 6.6	+ 6.6	+ 6.6	+ 6.6	Johannes.....	7269			
+ 2.8	+ 6.3	+ 0.6	+ 0.2	+ 0.2	+ 0.2	+ 0.5	+ 1.2	+ 0.9	+ 1.4	+ 1.4	+ 1.4	+ 1.4	+ 1.4	+ 1.4	Johannes.....	5695			
+ 3.1	+ 6.8	+ 4.4	+ 2.8	+ 0.8	+ 2.4	+ 0.8	+ 3.5	+ 0.5	+ 1.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	Johannes.....	5728			
+ 3.2	+ 4.7	+ 3.0	+ 3.0	+ 3.0	+ 3.1	+ 3.0	+ 3.8	+ 5.1	+ 3.0	+ 2.4	+ 2.4	+ 2.4	+ 2.4	+ 2.4	Johannes.....	7309			
+ 3.8	+ 4.2	+ 3.2	+ 3.0	+ 4.1	+ 3.4	+ 3.4	+ 1.7	+ 0.9	+ 0.5	- 1.9	- 1.8	- 2.0	- 4.3	- 4.7	Kullberg.....	5676			
- 2.7	- 0.9	- 5.7	- 7.3	- 6.3	- 4.0	- 9.1	- 5.6	- 6.2	- 6.8	- 4.2	- 9.2	- 11.1	- 10.1	- 10.2	Johannes.....	7209			
- 2.1	- 10.3	- 1.8	- 0.9	- 0.2	- 0.8	- 1.0	- 4.2	- 6.5	- 4.3	- 4.3	- 4.3	- 4.3	- 4.3	- 4.3	Johannes.....	5734			
- 0.3	- 11.0	- 1.1	- 0.4	- 1.2	- 0.5	- 0.8	- 3.4	- 8.7	- 3.5	- 9.9	- 6.9	- 6.9	- 6.9	- 6.9	Johannes.....	5694			
- 29.6	- 28.2	- 24.5	- 28.8	- 24.8	- 24.8	- 24.8	- 20.1	- 19.8	- 23.1	- 23.9	- 23.9	- 23.9	- 23.9	- 23.9	Usher & Cole.....	1927			
+ 5.5	+ 4.2	+ 4.2	+ 9.7	+ 8.4	+ 9.4	+ 9.9	+ 11.3	+ 12.2	+ 8.7	+ 9.9	+ 10.9	+ 9.9	+ 8.9	+ 4.4	Pyott.....	999			
- 2.2	- 3.4	- 4.2	- 2.1	- 0.6	+ 0.5	- 1.3	- 4.3	- 7.1	- 2.9	- 1.0	- 7.2	- 6.7	- 2.1	- 3.7	Kullberg.....	7387			
- 2.0	- 1.8	- 2.0	- 0.5	- 0.8	- 0.2	- 0.6	- 3.7	- 6.6	- 2.5	- 4.4	- 6.4	- 6.4	- 6.4	- 6.4	Kullberg.....	7301			
- 1.2	- 0.8	- 2.8	- 0.4	- 0.6	- 1.6	- 0.5	- 6.3	- 15.4	- 6.4	- 7.0	- 14.4	- 9.8	- 6.6	- 6.6	M. F. Dent.....	32078			
- 34.0	- 12.8	- 29.8	- 27.8	- 28.0	- 28.0	- 28.0	- 27.1	- 18.9	- 10.8	- 11.2	- 20.1	- 20.1	- 20.1	- 20.1	D. Keys.....	972			
- 11.0	- 16.6	- 12.2	- 12.9	- 10.8	- 12.1	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	Lilly.....	1006			
- 5	- 14.6	- 12.2	- 12.9	- 10.8	- 12.1	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	- 12.4	S. Smith & Son.....	7393			
+ 10.6	+ 17.6	+ 11.7	+ 14.8	+ 10.2	+ 12.0	+ 12.3	+ 12.5	+ 12.7	+ 11.4	+ 17.0	+ 18.2	+ 14.4	+ 13.8	+ 10.3	Webb.....	5678			
+ 3.1	+ 6.4	+ 2.5	- 1.4	+ 2.8	- 1.9	+ 1.5	- 1.1	- 0.5	- 0.3	- 0.6	- 4.7	- 6.9	- 8.7	- 8.7	Webb.....	7275			
- 2.0	- 2.9	- 4.9	- 6.8	- 4.2	- 6.1	- 6.3	- 1.7	- 0.2	- 1.3	- 3.4	- 3.4	- 3.4	- 3.4	- 3.4	Oliver & Botsford.....	5104			
- 8.8	+ 12.6	+ 7.8	+ 7.1	- 8.0	+ 7.0	+ 6.7	+ 2.4	+ 6.7	+ 6.8	+ 6.8	+ 6.8	+ 6.8	+ 6.8	+ 7.2	J. Player.....	5266			
- 3.1	+ 5.5	- 4.7	- 1.1	- 2.2	- 0.6	- 0.4	+ 6.7	+ 6.1	+ 4.0	+ 4.5	+ 7.8	+ 5.5	+ 6.5	+ 6.9	Johannes.....	5691			
- 2.4	- 1.2	- 4.9	- 4.6	- 6.1	- 5.3	- 3.0	+ 1.1	- 1.2	+ 5.3	+ 0.7	- 1.6	- 0.6	- 5.7	- 6.7	Lidley.....	1555			
+ 0.1	- 5.8	- 0.4	- 3.1	- 1.4	- 0.1	+ 0.1	- 2.0	- 6.7	- 2.3	- 3.8	- 3.2	- 4.4	- 2.5	- 1.4	M. F. Dent.....	5684			
- 2.9	+ 1.2	- 4.9	- 4.6	- 6.1	- 5.3	- 3.0	+ 1.1	- 1.2	+ 5.3	+ 0.7	- 1.6	- 0.6	- 5.7	- 6.7	Lidley.....	1555			
+ 8.7	+ 10.2	+ 9.3	+ 12.5	+ 11.1	+ 12.7	+ 13.1	+ 21.7	+ 20.0	+ 13.7	+ 2.0	+ 23.5	+ 21.6	+ 18.9	+ 18.0	Hughes & Son.....	1003			
- 2.9	- 3.8	- 2.3	- 3.4	+ 2.0	+ 8.5	+ 2.6	+ 11.9	+ 15.7	+ 6.5	- 1.0	+ 10.9	+ 10.5	- 1.3	- 1.1	C. Prodan.....	1233			
- 0.3	+ 1.1	- 8.1	+ 1.1	+ 2.2	- 0.6	- 0.4	- 2.0	- 6.7	+ 7.6	+ 6.2	+ 6.9	+ 5.0	+ 11.6	+ 10.2	Johannes.....	5733			
+ 0.2	+ 12.1	+ 1.6	+ 4.3	+ 3.7	+ 4.3	+ 6.6	+ 14.1	+ 25.0	+ 7.2	+ 16.0	+ 23.1	+ 14.8	+ 12.2	+ 9.8	Johannes.....	5708			
- 2.0	- 2.0	- 0.8	- 1.7	- 0.7	- 2.6	- 0.4	- 8.2	- 5.7	- 0.1	- 0.4	- 8.9	- 14.0	- 4.7	- 4.7	Johannes.....	5648			
+ 4.1	+ 4.0	+ 6.3	+ 15.6	+ 11.1	+ 15.9	+ 21.2	+ 14.7	+ 7.4	+ 17.2	+ 5.1	+ 17.1	+ 13.8	+ 6.3	+ 12.4	Usher & Cole.....	0949			
+ 7.3	+ 4.9	+ 7.0	+ 7.0	+ 4.3	+ 7.6	+ 6.9	+ 14.1	+ 10.0	+ 2.8	+ 5.7	+ 14.0	+ 10.9	+ 5.6	+ 1.2	+ 2.5	Wiggins.....	096		
- 38.7	- 7.0	- 6.6	- 8.1	- 10.9	- 11.9	- 9.4	- 4.0	- 3.5	- 4.3	- 1.1	- 4.3	- 3.9	- 2.7	- 2.8	Cartier.....	54355			
+ 5.4	+ 25.2	+ 7.5	+ 13.7	+ 11.1	+ 13.9	+ 17.0	+ 4.0	+ 28.4	+ 19.8	+ 28.8	+ 23.8	+ 24.2	+ 23.9	+ 22.0	Usher & Cole.....	5107			
+ 7.2	+ 8.2	+ 6.3	+ 8.4	+ 7.6	+ 8.6	+ 5.0	+ 9.0	+ 12.4	+ 9.7	+ 14.6	+ 19.3	+ 19.8	+ 18.6	+ 17.3	Wylie Thomson.....	0912			
- 1.8	- 12.1	- 3.4	- 6.6	- 2.6	- 4.3	- 6.7	- 11.2	- 9.9	- 7.3	- 16.3	- 12.0	- 11.7	- 18.4	- 16.3	Lindqvist.....	106			
- 7.0	- 27.3	- 16.9	- 18.9	- 9.1	- 12.1	- 10.1	- 4.0	- 3.5	- 4.3	- 1.1	- 4.3	- 3.9	- 2.7	- 2.8	Lindqvist.....	111			
+ 12.6	+ 27.8	+ 16.9	+ 18.9	+ 9.1	+ 12.1	+ 10.1	+ 4.0	+ 3.5	+ 4.3	+ 1.1	+ 4.3	+ 3.9	+ 2.7	+ 2.8	Lindqvist.....	111			
- 69.7	- 69.2	- 72.4	- 112.0	- 116.2	- 119.2	- 124.7	- 150.6	- 157.6	- 255.1	- 294.7	- 622.8	- 312.6	- 360.5	- 361.9	Chronometrical Thermometer.				
65.8	64.7	65.8	71.2	71.9	72.3	72.6	73.7	74.5	86.8	87.3	91.4	93.2	97.5	99.4	Mean Weekly Temperature.				
(Extremes of Temperature as shown by the Self-registering Thermometer.)																			

NAME OF MAKER.	No.	Whether a or b Days.	ADDRESS OF MAKER.	Construction of Case, Balance, and Spring, from the Description furnished by the Maker.	(III.) ABSTRACT OF	
					Least Weekly Sum.	Extremes of Temperature.
Kullberg.....	7273	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 12.0	86.6 - 104.0
Kullberg.....	7389	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 11.9	46.8 - 55.1
Kullberg.....	7807	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	+ 0.8	46.8 - 55.1
Johannes.....	5693	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 0.3	46.8 - 55.1
Johannes.....	5687	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 1.9	45.4 - 53.1
Johannes.....	5692	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 2.3	49.8 - 58.0
Johannes.....	5728	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 4.1	63.9 - 67.9
Kullberg.....	7903	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 2.4	49.8 - 58.0
Johannes.....	5693	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 0.3	46.8 - 55.1
Kullberg.....	7259	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 6.3	45.4 - 53.1
Johannes.....	5709	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 11.1	82.1 - 93.6
Johannes.....	5794	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 2.1	61.8 - 72.7
Johannes.....	5694	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 6.9	45.4 - 53.1
Usher & Cole.....	1927	2	105, St John Street Road, E.C.	Auxiliary compensation balance acting in cold; palladium spring.	- 20.9	61.8 - 72.7
Poynt.....	999	2	65, Hyde Vale, Blackheath, S.E.	Improved ordinary balance; bright steel spring.	+ 3.9	35.8 - 103.6
Kullberg.....	7387	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 15.7	46.8 - 55.1
Kullberg.....	7361	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 7.3	49.8 - 58.0
M. F. Dent.....	3272	2	23 & 24, Cockspur St., Charing Cross, S.W.	Auxiliary to balance acting in heat; palladium spring.	- 3.6	61.8 - 72.7
D. Keys.....	894	2	149, Minories, London, E.	Auxiliary to balance; blue steel spring.	- 20.4	61.8 - 72.7
Liley.....	1096	2	10, London St., Fenchurch St., London, E.C.	Auxiliary compensation balance acting in cold; palladium spring.	- 22.5	46.8 - 55.1
S. Smith & Sons.....	7998	2	9, Strand, London, W.C.	Auxiliary to balance acting in cold; palladium spring.	+ 2.3	61.8 - 72.7
Webb.....	5678	2	23, Abchurch Lane, London, E.C.	Ordinary balance; palladium spring.	- 8.5	61.8 - 72.7
Kullberg.....	7275	2	105, Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 8.7	35.8 - 103.6
Olivant & Batford.....	31074	2	12, St. Ann Street, Manchester.	Auxiliary compensation spring acting in cold; steel spring.	- 9.0	49.8 - 58.0
J. Player.....	32008	2	Bedford Street, Coventry.	Kullberg's split rim balance with auxiliary acting in heat and cold; palladium spring.	- 2.4	71.2 - 80.9
Johannes.....	5691	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 4.9	61.8 - 72.7
Liley.....	1565	2	10, London Street, Fenchurch Street, S.E.	Auxiliary compensation spring acting in cold; palladium spring.	- 6.7	35.8 - 103.6
M. F. Dent.....	32074	2	23 & 24, Cockspur St., Charing Cross, S.W.	Auxiliary to balance acting in heat; palladium spring.	- 17.5	46.8 - 55.1
Johannes.....	5694	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 17.5	46.8 - 55.1
Hughes & Son.....	1233	2	59, Fenchurch Street, London.	Auxiliary compensation balance; palladium spring.	+ 5.9	61.8 - 72.7
C. Frohman.....	10051	2	115, New Road Street, London, W.	Auxiliary compensation balance; bright steel spring.	- 4.0	61.8 - 72.7
Johannes.....	5738	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 5.5	61.8 - 72.7
Johannes.....	5693	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 9.4	61.8 - 72.7
I. Hall.....	1705	2	149, Minories, London, E.	Garrard's auxiliary balance; steel bracelet spring.	+ 16.2	39.8 - 104.0
Johannes.....	5698	2	149, Minories, London, E.	Auxiliary compensation balance acting in heat; palladium spring.	- 14.0	82.1 - 93.6
Usher & Cole.....	0949	2	105, St John Street Road, London, E.C.	Auxiliary compensation balance acting in cold; steel spring.	- 8.5	45.4 - 53.1
Wiggins.....	596	2	10, Tower Hill, London, E.	Ordinary balance improved; steel spring.	- 8.6	49.8 - 58.0
Gardner.....	5/4355	2	20, Lloyd Square, London, W.C.	Auxiliary compensation balance; palladium spring.	- 12.1	61.8 - 72.7
Usher & Cole.....	1917	2	105, St John Street Road, London, E.C.	Auxiliary compensation balance acting in cold; steel spring.	- 1.4	61.8 - 72.7
Wylie Thomson.....	5/3962	2	144, Broadmead Road, Glasgow.	Plus bar balance compensated for extreme without auxiliary; steel spring.	- 2.3	61.8 - 72.7
Indyprivat.....	106	2	13, Aldeney Street, Fimlico, S.W.	Balance for extremes of temperature; reversed device; bright steel spring.	- 30.2	45.4 - 53.1
Poynt.....	994	2	65, Hyde Vale, Blackheath, S.E.	Ordinary balance with additions; bright steel spring.	+ 13.8	61.8 - 72.7
Lindqvist.....	111	2	13, Aldeney Street, Fimlico, S.W.	Balance for extremes of temperature; reversed device; bright steel spring.	+ 1.4	61.8 - 72.7

The sign + indicates that the rate is gaining.

THE PRINCIPAL CHANGES OF RATE DURING THE 20 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 between two Weeks.	Trial No. a + 2b.	NAME OF MAKER.	No.
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7273
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7389
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7807
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5693
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5687
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5692
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7903
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5693
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7259
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5709
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5794
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5694
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	1927
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	999
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7387
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7361
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	3272
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	894
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	1096
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	7998
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5678
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	31074
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	32008
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5691
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	1565
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	32074
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5694
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	1233
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	10051
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5738
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5693
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5698
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	0949
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	596
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5/4355
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	1917
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	5/3962
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	106
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	994
99.4	- 3.0	63.9 - 67.9	65.8	9.0	3.0	86.8 - 99.4	15.0	Kullberg.....	111

The Chronometers are placed in order of merit, their respective positions being indicated 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 which did not exceed 12 seconds.

* The weekly rates have been computed from the rates for three days.