RATES OF CHRONOMETERS

ON TRIAL

FOR PURCHASE BY THE BOARD OF ADMIRALTY,

AT THE

ROYAL OBSERVATORY, GREENWICH.

FROM 1890 JULY 5 TO 1891 JANUARY 24.

S O 11272—820—6/91 Wt. 22308. D & S.

(I.) WEEKLY RATES IN ORDER OF TIME.

NAME OF MAKER.	No.	Whether 2 or 8 Days.	Construction of Escapement and Balance, from the Description furnished by the Maker.	July 5—12	July 12—19	July 19—26	July 26 to Aug. 2	Aug. 2—9	Aug. 9—16	Aug. 16—23	Aug. 23—30 †	Aug. 30 to Sept. 6 †	Sept. 6—13 †	Sept. 13—20 †	Sept. 20—27
Uhrig	514	2	Uhrig's continually acting auxiliary.	−1·4	−1·5	−0·9	−0·3	−0·6	+0·5	−0·3	+1·7	+1·7	+2·6	+2·9	+3·1
Kullberg	5052	2	Reversed detent; short spring.	−4·4	−5·7	−6·3	−5·2	−4·8	−4·5	−5·1	−3·8	−5·7	−4·8	−3·0	−4·6
Kullberg	5055	2	Reversed detent; short spring.	+0·7	+1·7	+0·5	+2·3	+0·7	+1·9	+1·0	−0·6	−5·3	−5·7	−1·1	+3·7
Uhrig	515	2	Uhrig's continually acting auxiliary.	−2·1	−1·2	−1·7	−0·6	−0·4	−0·3	−1·4	+1·2	−2·2	−2·0	−4·9	−4·0
Usher & Cole	6507	2	Auxiliary to balance.	+3·2	+3·5	+4·0	+4·2	+5·0	+4·4	+4·6	+8·5	+6·4	+7·2	+8·1	+6·8
Kullberg	5050	2	Reversed detent; short spring.	−1·7	−1·1	−1·1	−0·4	−1·0	+0·3	+0·6	+2·5	−2·5	−2·6	−1·0	−0·4
Hamilton & Inches	2/6570	2	Auxiliary to balance.	−6·2	−7·5	−6·8	−6·5	−5·8	−5·5	−4·9	−2·0	−6·3	−6·6	−0·9	−0·5
Isaac	1855	2		+3·0	+4·8	+6·9	+7·1	+8·7	+9·4	+9·6	+13·2	+16·0	+18·6	+19·2	+13·1
Johannsen & Co.	3870	2	Auxiliary acting in heat. [spring.	+6·0	+6·5	+7·7	+8·5	+7·9	+9·2	+10·0	+12·3	+12·7	+11·9	+13·9	+12·2
Haswell & Sons	5001	2	Paillard's non-magnetic balance and	+2·0	+1·0	+2·7	+3·4	+2·4	+4·3	+3·7	+1·1	−1·0	+0·1	+2·2	+5·2
Isaac	1856	2		−0·1	−2·1	−2·5	+0·9	−0·3	−0·3	−0·3	−4·1	−6·7	−4·4	+1·3	+3·7
Johannsen & Co.	3904	2	Auxiliary acting in heat.	−1·8	−6·8	−8·3	−9·1	−10·9	−10·1	−10·4	−2·1	−11·0	−10·4	−6·3	−6·7
Isaac	1687	2	Lamina auxiliary.	+13·9	+15·2	+14·1	+15·0	+15·8	+14·9	+14·8	+19·6	+16·4	+16·7	+23·2	+19·9
Hume	2053	2	Auxiliary acting in heat.	+7·7	+4·8	+5·4	+6·0	+4·8	+5·7	+5·5	+3·0	+3·3	+3·4	+2·1	+3·7
Isaac	1789	2	Palladium spring; Isaac's balance.	−2·5	−4·2	−5·1	−6·5	−7·8	−7·0	−7·3	−7·7	−14·5	−13·4	−11·4	−11·2
			[spring.												
Haswell & Sons	5003	2	Paillard's non-magnetic balance and	−10·6	−11·2	−8·8	−9·0	−6·9	−5·8	−4·0	−2·5	−4·0	−4·5	+0·2	+3·9
Kullberg	5054	2	Reversed detent; short spring.	−7·1	−5·8	−2·8	−0·5	−1·1	−2·3	−4·3	−1·9	−3·0	−2·3	−0·6	−4·8
Hume	2048	2	Auxiliary acting in heat.	−1·2	−4·6	+2·2	−0·1	−9·7	−12·3	−12·6	+0·7	−7·3	−9·1	−1·8	−1·6
Johannsen & Co.	3905	2	Auxiliary acting in heat.	−5·8	−5·6	−5·3	−4·3	−3·7	−4·0	−5·3	+8·2	+1·5	+1·0	+8·8	+4·5
Moore	1818	2	Auxiliary acting in heat.	0·0	−2·7	−1·5	−0·1	+0·3	+0·2	+1·2	+8·3	+3·0	+2·7	+8·0	+2·5
Whyte & Co.	4773	2		−4·6	−4·7	−3·6	−2·5	−2·0	−2·1	−1·9	+2·5	−5·7	−4·5	−5·0	+6·5
Johannsen & Co.	3898	2	Auxiliary acting in heat.	+9·5	+7·2	+8·1	+8·0	+6·2	+3·8	+2·8	+6·2	+2·9	+1·9	+7·4	+11·1
Kirk & Co.	3/6372	2	Auxiliary to balance.	−12·8	−12·4	−13·6	−11·0	−11·0	−13·0	−15·2	−1·5	+0·7	+1·7	+1·0	−9·7
Klean & Co.	1005	2	[auxiliary.	+2·2	+0·2	−1·3	−1·3	−1·0	−1·0	−1·5	+5·4	−2·7	+0·8	+1·7	−7·3
Glover	385	2	Ordinary balance with gridiron	−6·0	−7·7	−7·4	−7·7	−7·5	−6·8	−5·4	+1·3	+2·9	+3·8	+9·0	+3·8
Pyott	860	2	Auxiliary compensation.	+11·9	+14·5	+17·0	+17·6	+18·7	+18·5	+18·2	+25·8	+19·0	+18·7	+24·5	+17·8
Hume	2050	2	Auxiliary acting in heat.	+4·9	+1·4	+2·5	+2·5	−2·6	−3·3	−5·4	−9·7	−11·9	−10·7	−16·4	−2·2
Keys	984	2	Ordinary balance with additions.	+21·0	+22·3	+24·8	+25·9	+24·7	+28·2	+29·9	+19·4	+14·0	+16·1	+23·6	+29·3
Kendal & Dent	1780	2	Aux. to balance; bright spring; reversed	−19·1	−16·7	−17·5	−19·7	−20·5	−22·1	−21·1	−23·0	−38·1	−40·3	−30·5	−32·7
Robinson & Wells	2971	2	Auxiliary compensation. [detent.	−7·0	−9·9	−9·2	−9·6	−8·1	−8·0	−6·4	+3·0	−3·1	+0·5	+10·0	+13·3
Moore	1811	2	Auxiliary acting in heat.	+9·1	+10·0	+11·2	+11·0	+10·0	+12·8	+14·2	−4·2	−4·8	−5·6	+1·5	+4·7
Russell	2324	2		+11·8	+13·9	+14·6	+15·4	+15·3	+15·6	+14·6	+12·4	−2·0	−1·5	+9·3	+15·2
J. Poole & Co.	5870	2	Poole's auxiliary to balance.	−7·0	−6·1	−9·6	−11·5	−11·8	−12·4	−13·2	−14·6	−26·3	−28·9	−17·8	−11·0
Pyott	916	2	Ordinary balance with auxiliary.	+17·3	+20·1	+25·0	+29·1	+30·8	+27·2	+26·8	+41·1	+25·9	+9·3	+14·9	+15·3
Robinson & Wells	2847	2	Auxiliary compensation.	+3·7	+3·2	+3·7	+7·1	+8·5	+11·2	+16·4	+16·9	+21·1	+22·9	+22·5	+27·0
J. Poole & Co.	5812	2	Poole's auxiliary to balance.	−10·9	−7·6	−7·4	−6·2	−6·4	−5·9	−6·4	−3·2	−13·8	−13·8	−5·0	−8·8
Keys	924	2	[in cold.	−2·5	−1·2	+1·1	+5·4	+6·5	+3·9	+2·0	+27·0	+15·7	+16·5	+28·6	+18·7
Glover	366	2	Ordinary balance with auxiliary acting	+7·6	+4·7	+3·8	+2·7	+2·8	+5·1	+6·0	−9·4	−11·7	−13·6	−8·0	−3·8
Chronometrical Thermometer			......	−181·2	−462·8	−510·5	−638·1	−698·0	−608·4	−509·6	−2413·8	−3527·8	−3527·6	−2367·2	−473·7
Mean Weekly Temperature			......	62°·2	63°·7	64°·8	66°·2	67°·1	66°·0	64°·7	85°·3	98°·5	98°·1	85°·4	64°·6
Extremes of Temperature as shown by the Self-Registering Thermometers			......	58°·9–63°·6	60°·0–66°·5	61°·9–66°·8	64°·2–68°·8	65°·3–69°·2	64°·2–67°·8	63°·7–66°·0	85°·0–85°·8	97°·5–99°·8	95°·8–100°·1	83°·2–87°·8	62°·5–67°·2

Sept. 27 to Oct. 4	Oct. 4—11	Oct. 11—18	Oct. 18—25	Oct. 25 to Nov. 1	Nov. 1—8	Nov. 8—15 †	Nov. 15—22 †	Nov. 22—29 †	Nov. 29 to Dec. 6 †	Dec. 6—13	Dec. 13—20	Dec. 20—27	Dec. 27 to Jan. 3	Jan. 3—10	Jan. 10—17	Jan. 17—24	NAME OF MAKER.	No.
+3·4	+2·8	+4·2	+4·1	+5·6	+6·2	+4·2	+1·6	+3·5	+5·0	+5·7	+6·1	+5·4	+4·9	+5·9	+6·9	+6·9	Uhrig	514
−5·7	−6·1	−6·1	−7·6	−8·5	−7·3	−6·4	−6·7	−4·8	−3·5	−7·8	−10·1	−9·8	−10·1	−10·3	−10·1	−8·9	Kullberg	5052
+3·6	+2·9	+4·1	+3·0	+3·2	+4·3	+3·5	+1·9	+4·0	+4·1	+1·4	+0·8	+2·0	−0·2	+2·7	+5·3	+1·4	Kullberg	5055
−4·8	−3·9	−3·0	−4·2	−2·3	−1·0	−0·5	−1·5	−1·6	−4·0	−8·4	−8·6	−9·8	−9·8	−10·7	−9·5	−7·4	Uhrig	515
+6·5	+4·8	+6·5	+7·7	+9·5	+8·1	+11·5	+7·9	+9·2	+10·2	+14·9	+15·4	+17·2	+17·3	+13·6	+13·2	+16·2	Usher & Cole	6507
−1·3	−2·4	−2·0	−2·8	−4·0	−2·6	+0·3	−2·2	−1·8	−0·3	−7·9	−5·6	−4·0	−6·3	−9·8	−5·4	−5·8	Kullberg	5050
+1·9	+1·3	+4·0	+2·0	+3·5	+3·4	+2·5	−1·9	+2·5	+6·1	+9·1	+9·7	+8·6	+7·2	+6·7	+6·1	+7·0	Hamilton & Inches	2/6570
+11·5	+8·6	+6·9	+5·6	+7·1	+7·8	+14·0	+16·5	+14·6	+14·9	+8·9	+10·3	+10·4	+11·2	+12·9	+13·8	+12·4	Isaac	1855
+13·5	+13·8	+16·4	+16·6	+17·9	+17·8	+15·7	+15·4	+14·4	+9·5	+17·6	+17·6	+17·3	+17·6	+18·0	+18·5	+20·4	Johannsen & Co.	3870
+3·6	+3·6	+4·9	+5·0	+6·2	+5·7	+3·1	−1·8	+0·6	+6·0	+11·6	+14·2	+18·2	+15·5	+14·6	+16·6	+16·4	Haswell & Sons	5001
+3·1	+3·4	+3·0	+2·0	+4·7	+3·3	+0·9	−2·8	+1·5	+5·3	+11·3	+8·6	+6·5	+11·0	+13·4	+14·3	+13·0	Isaac	1856
−3·1	−4·4	−1·5	−1·4	+0·3	−0·6	−4·6	−9·4	−6·2	−2·9	−0·7	+2·6	+3·1	+4·5	+3·7	+3·0	+3·0	Johannsen & Co.	3904
+17·8	+17·2	+20·0	+20·1	+22·5	+22·6	+22·9	+20·7	+24·4	+26·7	+34·3	+32·6	+30·7	+29·4	+26·1	+27·2	+27·5	Isaac	1687
+5·4	+5·6	+8·9	+9·3	+10·9	+11·3	0·0	+5·8	+5·2	−0·2	+11·8	+11·2	+11·0	+10·5	+10·8	+11·1	+11·4	Hume	2053
−13·2	−16·0	−18·7	−21·1	−21·7	−17·6	−13·4	−17·2	−16·2	−13·1	−11·5	−7·1	−8·6	−17·4	−18·2	−16·1	−17·2	Isaac	1789
+3·8	+3·4	+4·7	+5·9	+5·8	+7·4	+6·8	+0·6	+2·6	+4·9	+8·0	+10·2	+12·7	+10·9	+13·1	+13·8	+12·8	Haswell & Sons	5003
−7·5	−10·7	−13·1	−14·6	−13·4	−13·1	−5·6	−5·3	−3·6	−7·1	−16·9	−19·7	−19·5	−19·9	−18·6	−18·2	−18·2	Kullberg	5054
+1·2	−1·3	−2·2	−3·2	−0·9	0·0	+2·5	−9·8	−6·1	+1·4	−0·2	−0·8	−0·8	−1·4	−1·3	+0·7	+1·2	Hume	2048
+3·8	0·0	+0·2	−2·5	−3·5	−1·0	+9·9	+4·5	+5·6	+9·6	+1·9	+6·3	+2·3	+4·0	+7·2	+6·2	+5·7	Johannsen & Co.	3905
+2·8	+4·4	+9·6	+12·7	+14·5	+12·6	+21·7	+19·0	+19·0	+19·7	+20·7	+21·6	+22·2	+22·5	+21·8	+22·7	+21·8	Moore	1818
+7·3	+7·0	+8·8	+8·1	+7·9	+7·4	+12·1	+4·5	+9·7	+17·1	+11·3	+8·2	+7·3	+6·7	+7·6	+8·3	+7·9	Whyte & Co.	4773
+15·8	+17·3	+19·4	+20·4	+21·9	+20·3	+13·1	+15·6	+12·7	+4·3	+17·9	+17·7	+15·6	+17·3	+16·5	+17·1	+17·8	Johannsen & Co.	3898
−10·5	−12·5	−12·4	−13·2	−11·7	−10·2	−1·9	+0·4	−3·5	−11·7	−18·2	−18·4	−17·9	−17·2	−14·1	−15·2	−12·8	Kirk & Co.	3/6372
−17·4	−9·2	−5·5	−4·3	−1·5	0·0	+3·8	+6·7	+2·2	+6·9	+8·9	+10·8	+10·5	+12·2	+13·3	+12·6	+13·6	Klean & Co.	1005
+5·1	+4·0	+3·8	+2·5	+1·6	+3·3	+11·3	+14·8	+16·2	+15·7	+1·1	−1·7	−1·1	−0·4	+0·7	+2·7	+3·9	Glover	385
+17·8	+15·4	+13·2	+13·2	+13·7	+12·6	+30·1	+27·4	+23·9	+28·5	+15·7	+22·1	+25·5	+24·5	+21·8	+22·5	+21·7	Pyott	860
+3·8	+5·5	+5·9	+5·1	+5·4	+2·9	−6·7	−5·2	−13·0	−14·9	+0·9	+6·4	+5·9	+4·6	+2·2	+1·5	−0·1	Hume	2050
+31·8	+36·2	+38·5	+37·4	+37·7	+39·8	+24·8	+25·9	+29·4	+27·8	+33·6	+32·2	+31·3	+31·7	+33·5	+33·0	+34·6	Keys	984
−29·7	−30·2	−30·6	−33·9	−32·9	−31·0	−19·3	−25·4	−31·5	−28·7	−43·2	−42·9	−41·7	−40·9	−41·9	−41·7	−42·0	Kendal & Dent	1780
+15·8	+15·4	+15·0	+17·2	+15·3	+8·0	+7·3	−2·8	+1·5	+9·9	+21·4	+22·7	+24·9	+25·0	+21·2	+21·6	+20·0	Robinson & Wells	2971
+16·9	+18·1	+20·5	+16·3	+15·3	+11·3	−6·0	−2·8	+2·8	−3·4	+10·0	+13·8	+16·8	+10·2	+18·1	+18·5	+5·1	Moore	1811
+19·0	+18·3	+18·6	+19·6	+19·1	+21·0	+26·5	+14·4	+16·0	+25·6	+7·9	+8·8	+9·5	+8·0	+12·9	+13·3	+12·7	Russell	2324
−13·1	−15·1	−17·0	−18·3	−20·4	−18·2	−11·5	−22·6	−17·3	−8·3	−26·6	−35·9	−39·9	−39·1	−38·5	−34·7	−35·8	J. Poole & Co.	5870
+25·1	+29·9	+37·5	+46·6	+38·1	+47·4	+41·4	+34·0	+36·5	+40·6	+52·4	+51·6	+41·8	+49·3	+50·9	+53·1	+42·5	Pyott	916
+32·6	+31·3	+34·4	+35·3	+34·0	+33·7	+20·7	+23·6	+17·5	+6·5	+29·0	+34·1	+34·7	+33·9	+31·9	+33·2	+30·6	Robinson & Wells	2847
−8·0	−10·0	−14·0	−15·0	−16·3	−14·7	−1·6	−7·4	−5·0	−3·0	−28·5	−33·1	−36·4	−33·2	−30·1	−28·3	−28·4	J. Poole & Co.	5812
+22·5	+19·8	+17·6	+18·2	+18·4	+17·0	+35·7	+30·3	+21·0	+21·3	+20·8	+20·5	+22·4	+27·2	+28·0	+26·9	−23·9	Keys	924
−4·8	+0·3	+10·0	+5·0	+10·8	+11·2	−11·6	−10·9	−14·0	−21·5	−0·4	+10·3	+5·7	+20·6	+31·7	+32·6	+37·4	Glover	366
−343·8	−174·9	+136·2	+177·2	+339·0	+270·3	−1553·9	−3036·6	−2724·9	−1567·0	+999·9	+1362·9	+1412·7	+1363·0	+1110·0	+1056·6	+1087·2	Chronometrical Thermometer.	
64°·1	61°·5	58°·0	58°·6	57°·5	58°·8	75°·4	92°·1	91°·4	74°·8	48°·6	45°·8	43°·1	43°·6	47°·5	47°·8	47°·4	Mean Weekly Temperature.	
60°·9–66°·0	58°·0–63°·3	54°·8–61°·4	54°·0–61°·8	52°·2–61°·5	54°·3–65°·8	74°·3–76°·3	91°·0–93°·4	90°·0–93°·2	74°·0–75°·9	43°·0–53°·6	40°·3–51°·2	34°·2–48°·6	38°·0–50°·6	42°·2–53°·7	39°·3–54°·2	39°·9–54°·5	Extremes of Temperature as shown by the Self-Registering Thermometers.	

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.

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

(II.) WEEKLY RATES IN THE ORDER OF TEMPERATURE AS DETERMINED GENERALLY BY THE CHRONOMETRICAL THERMOMETER.

NAME OF MAKER.	No.	Whether 2 or 8 Days.	Construction of Escapement and Balance, from the Description furnished by the Maker.	Dec. 20—27	Dec. 27 to Jan. 3.	Dec. 13—20	Jan. 3—10	Jan. 17—24	Jan. 10—17	Dec. 6—13	Oct. 25. to Nov. 1	Nov. 1—8	Oct. 18—25	Oct. 11—18	Oct. 4—11
Uhrig	514	2	Uhrig's continually acting auxiliary.	s +5·4	s +4·9	s +6·1	s +5·9	s +6·9	s +6·9	s +5·7	s +5·6	s +6·2	s +4·1	s +4·2	s +2·8
Kullberg	5052	2	Reversed detent; short spring.	−9·8	−10·1	−10·1	−10·3	−8·9	−10·1	−7·8	−8·5	−7·3	−7·6	−6·1	−6·1
Kullberg	5055	2	Reversed detent; short spring.	+2·0	−0·2	+0·8	+2·7	+1·4	+5·3	+1·4	+3·2	+4·3	+3·0	+4·1	+2·9
Uhrig	515	2	Uhrig's continually acting auxiliary.	−9·8	−9·8	−8·6	−10·7	−7·4	−9·5	−8·4	−2·3	−1·0	−4·2	−3·0	−3·9
Usher & Cole	6507	2	Auxiliary to balance.	+17·2	+17·3	+15·4	+13·6	+16·2	+13·2	+14·9	+9·5	+8·1	+7·7	+6·5	+4·8
Kullberg	5050	2	Reversed detent; short spring.	−4·0	−6·3	−5·6	−9·8	−5·8	−5·4	−7·9	−4·0	−2·6	−2·8	−2·0	−2·4
Hamilton & Inches	2/5570	2	Auxiliary to balance.	+8·6	+7·2	+9·7	+6·7	+7·0	+6·1	+9·1	+3·5	+3·4	+2·0	+4·0	+1·3
Isaac	1855	2		+10·4	+11·2	+10·3	+12·9	+12·4	+13·8	+8·9	+7·1	+7·8	+5·6	+6·9	+8·6
Johannsen & Co.	3870	2	Auxiliary acting in heat. [spring.	+17·3	+17·6	+17·6	+18·0	+20·4	+18·5	+17·6	+17·9	+17·8	+16·6	+16·4	+13·8
Haswell & Sons	5001	2	Paillard's non-magnetic balance and	+18·2	+15·5	+14·2	+14·6	+16·4	+16·6	+11·6	+6·2	+5·7	+5·0	+4·9	+3·6
Isaac	1856	2		+6·5	+11·0	+8·6	+13·4	+13·0	+14·3	+11·3	+4·7	+3·3	+2·0	+3·0	+3·4
Johannsen & Co.	3904	2	Auxiliary acting in heat.	+3·1	+4·5	+2·6	+3·7	+3·0	+3·0	−0·7	+0·3	−0·6	−1·4	−1·5	−4·4
Isaac	1687	2	Lamina auxiliary.	+30·7	+29·4	+32·6	+26·1	+27·5	+27·2	+34·3	+22·5	+22·6	+20·1	+20·0	+17·2
Hume	2053	2	Auxiliary acting in heat.	+11·0	+10·5	+11·2	+10·8	+11·4	+11·1	+11·8	+10·9	+11·3	+9·3	+8·9	+5·6
Isaac	1789	2	Palladium spring; Isaac's balance.	−8·6	−17·4	−7·1	−18·2	−17·2	−16·1	−11·5	−21·7	−17·6	−21·1	−18·7	−16·0
Haswell & Sons	5003	2	[spring. Paillard's non-magnetic balance and	+12·7	+10·9	+10·2	+13·1	+12·8	+13·8	+8·0	+5·8	+7·4	+5·9	+4·7	+3·4
Kullberg	5054	2	Reversed detent; short spring.	−19·5	−19·9	−19·7	−18·6	−18·2	−18·2	−16·9	−13·4	−13·1	−14·6	−13·1	−10·7
Hume	2048	2	Auxiliary acting in heat.	−0·8	−1·4	−0·8	−1·3	+1·2	+0·7	−0·2	−0·9	0·0	−3·2	−2·2	−1·3
Johannsen & Co.	3905	2	Auxiliary acting in heat.	+2·3	+4·0	+6·3	+7·2	+5·7	+6·2	+1·9	−3·5	−1·0	−2·5	+0·2	0·0
Moore	1818	2	Auxiliary acting in heat.	+22·2	+22·5	+21·6	+21·8	+21·8	+22·7	+20·7	+14·5	+12·6	+12·7	+9·6	+4·4
Whyte & Co.	4773	2		+7·3	+6·7	+8·2	+7·6	+7·9	+8·3	+11·3	+7·9	+7·4	+8·1	+8·8	+7·0
Johannsen & Co.	3898	2	Auxiliary acting in heat.	+15·6	+17·3	+17·7	+16·5	+17·8	+17·1	+17·9	+21·9	+20·3	+20·4	+19·4	+17·3
Kirk & Co.	2/5573	2	Auxiliary to balance.	−17·9	−17·2	−18·4	−14·1	−12·8	−15·2	−18·2	−11·7	−10·2	−13·2	−12·4	−12·5
Klean & Co.	1005	2	[auxiliary.	+10·5	+12·2	+10·8	+13·3	+13·6	+12·6	+8·9	−1·5	0·0	−4·3	−5·5	−9·2
Glover	385	2	Ordinary balance with gridiron	−1·1	−0·4	−1·7	+0·7	+3·9	+2·7	+1·1	+1·6	+3·3	+2·5	+3·8	+4·0
Pyott	860	2	Auxiliary compensation.	+25·5	+24·5	+22·1	+21·8	+21·7	+22·5	+15·7	+13·7	+12·6	+13·2	+13·2	+15·4
Hume	2050	2	Auxiliary acting in heat.	+5·9	+4·6	+6·4	+2·2	−0·1	+1·5	+0·9	+5·4	+2·9	+5·1	+5·9	+5·5
Keys	984	2	Ordinary balance with additions.	+31·3	+31·7	+32·2	+33·5	+34·6	+33·9	+33·6	+37·7	+39·8	+37·4	+38·5	+36·2
Kendal & Dent	1780	2	Aux. to balance; bright spring; reversed	−41·7	−40·9	−42·9	−41·9	−42·0	−41·7	−43·2	−32·9	−31·0	−33·9	−30·6	−30·2
Robinson & Wells	2971	2	Auxiliary compensation. [detent.	+24·9	+25·0	+22·7	+21·2	+20·0	+21·6	+21·4	+15·3	+8·0	+17·2	+15·0	+15·4
Moore	1811	2	Auxiliary acting in heat.	+16·8	+10·2	+13·8	+18·1	+5·1	+18·5	+10·0	+15·3	+11·3	+16·3	+20·5	+18·1
Russell	2324	2		+9·5	+8·0	+8·8	+12·9	+12·7	+13·3	+7·9	+19·1	+21·0	+19·6	+18·6	+18·3
J. Poole & Co.	5870	2	Poole's auxiliary to balance.	−39·9	−39·1	−35·9	−38·5	−35·8	−34·7	−26·6	−20·4	−18·2	−18·3	−17·0	−15·1
Pyott	916	2	Ordinary balance with auxiliary.	+41·8	+49·3	+51·6	+50·9	+42·5	+53·1	+52·4	+38·1	+47·4	+46·6	+37·5	+29·9
Robinson & Wells	2847	2	Auxiliary compensation.	+34·7	+33·9	+34·1	+31·9	+30·6	+33·2	+29·0	+34·0	+33·7	+35·3	+34·4	+31·3
J. Poole & Co.	5812	2	Poole's auxiliary to balance.	−36·4	−33·2	−33·1	−30·1	−28·4	−28·3	−28·5	−16·3	−14·7	−15·0	−14·0	−10·0
Keys	924	2	[in cold.	+22·4	+27·2	+20·5	+28·0	+23·9	+26·9	+20·8	+18·4	+17·0	+18·2	+17·6	+19·8
Glover	366	2	Ordinary balance with auxiliary acting	+5·7	+20·6	+10·3	+31·7	+37·4	+32·6	−0·4	+10·8	+11·2	+5·0	+10·0	+0·3
Chronometrical Thermometer			......	s +1412·7	s +1363·0	s +1362·9	s +1110·0	s +1087·2	s +1056·6	s +999·9	s +339·0	s +270·3	s +177·2	s +136·2	s −174·9
Mean Weekly Temperature			......	43°·1	43°·6	45°·8	47°·5	47°·4	47°·8	48°·6	57°·5	58°·8	58°·6	58°·0	61°·5
Extremes of Temperature as shown by the Self-Registering Thermometers			......	34°·2–48°·6	38°·0–50°·6	40°·3–51°·2	42°·2–53°·7	39°·9–54°·5	39°·3–54°·2	43°·0–53°·6	52°·2–61°·8	54°·3–65°·8	54°·0–61°·8	54°·8–61°·4	58°·0–63°·3

NAME OF MAKER.	No.	July 5—12	Sept. 27 to Oct. 4	July 12—19	Sept. 20—27	Aug. 16—23	July 19—26	Aug. 9—16	July 26 to Aug. 2	Aug. 2—9	Nov. 8—15 †	Nov. 29 to Dec. 6 †	Sept. 13—20 †	Aug. 23—30 †	Nov. 22—29 †	Nov. 15—22 †	Sept. 6—13 †	Aug. 30 to Sept. 6 †
Uhrig	514	s −1·4	s +3·4	s −1·5	s +3·1	s −0·3	s −0·9	s +0·5	s −0·3	s −0·6	s +4·2	s +5·0	s +2·9	s +1·7	s +3·5	s +1·6	s +2·6	s +1·7
Kullberg	5052	−4·4	−5·7	−5·7	−4·6	−5·1	−6·3	−4·5	−5·2	−4·8	−6·4	−3·5	−3·0	−3·8	−4·8	−6·7	−4·8	−5·7
Kullberg	5055	+0·7	+3·6	+1·7	+3·7	+1·0	+0·5	+1·9	+2·3	+0·7	+3·5	+4·1	−1·1	−0·6	+4·0	+1·9	−5·7	−5·3
Uhrig	515	−2·1	−4·8	−1·2	−4·0	−1·4	−1·7	−0·3	−0·6	−0·4	−0·5	−4·0	−4·9	+1·2	−1·6	−1·5	−2·0	−2·2
Usher & Cole	6507	+3·2	+6·5	+3·5	+6·8	+4·6	+4·0	+4·4	+4·2	+5·0	+11·5	+10·2	+8·1	+8·5	+9·2	+7·9	+7·2	+6·4
Kullberg	5050	−1·7	−1·3	−1·1	−0·4	+0·6	−1·1	+0·3	−0·4	−1·0	+0·3	−0·3	−1·0	+2·5	−1·8	−2·2	−2·6	−2·5
Hamilton & Inches	2/5570	−6·2	+1·9	−7·5	−0·5	−4·9	−6·8	−5·5	−6·5	−5·8	+2·5	+6·1	−0·9	−2·0	+2·5	−1·9	−6·6	−6·3
Isaac	1855	+3·0	+11·5	+4·8	+13·1	+9·6	+6·9	+9·4	+7·1	+8·7	+14·0	+14·9	+19·2	+13·2	+14·6	+16·5	+18·6	+16·0
Johannsen & Co.	3870	+6·0	+13·5	+6·5	+12·2	+10·0	+7·7	+9·2	+8·5	+7·9	+15·7	+9·5	+13·9	+12·3	+14·4	+15·4	+11·9	+12·7
Haswell & Sons	5001	+2·0	+3·6	+1·0	+5·2	+3·7	+2·7	+4·3	+3·4	+2·4	+3·1	+6·0	+2·2	+1·1	+0·6	−1·8	+0·1	−1·0
Isaac	1856	−0·1	+3·1	−2·1	+3·7	−0·3	−2·5	−0·3	+0·9	−0·3	+0·9	+5·3	+1·3	−4·1	+1·5	−2·8	−4·4	−6·7
Johannsen & Co.	3904	−1·8	−3·1	−6·8	−6·7	−10·4	−8·3	−10·1	−9·1	−10·9	−4·6	−2·9	−6·3	−2·1	−6·2	−9·4	−10·4	−11·0
Isaac	1687	+13·9	+17·8	+15·2	+19·9	+14·8	+14·1	+14·9	+15·0	+15·8	+22·9	+26·7	+23·2	+19·6	+24·4	+20·7	+16·7	+16·4
Hume	2053	+7·7	+5·4	+4·8	+3·7	+5·5	+5·4	+5·7	+6·0	+4·8	0·0	−0·2	+2·1	+3·0	+5·2	+5·8	+3·4	+3·3
Isaac	1789	−2·5	−13·2	−4·2	−11·2	−7·3	−5·1	−7·0	−6·5	−7·8	−13·4	−13·1	−11·4	−7·7	−16·2	−17·2	−13·4	−14·5
Haswell & Sons	5003	−10·6	+3·8	−11·2	+3·9	−4·0	−8·8	−5·8	−9·0	−6·9	+6·8	+4·9	+0·2	−2·5	+2·6	+0·6	−4·5	−4·0
Kullberg	5054	−7·1	−7·5	−5·8	−4·8	−4·3	−2·8	−2·3	−0·5	−1·1	−5·6	−7·1	−0·6	−1·9	−3·6	−5·3	−2·3	−3·0
Hume	2048	−1·2	+1·2	−4·6	−1·6	−12·6	+2·2	−12·3	−0·1	−9·7	+2·5	+1·4	−1·8	+0·7	−6·1	−9·8	−9·1	−7·3
Johannsen & Co.	3905	−5·8	+3·8	−5·6	+4·5	−5·3	−5·3	−4·0	−4·3	−3·7	+9·9	+9·6	+8·8	+8·2	+5·6	+4·5	+1·0	+1·5
Moore	1818	0·0	+2·8	−2·7	+2·5	+1·2	−1·5	+0·2	−0·1	+0·3	+21·7	+19·7	+8·0	+8·3	+19·0	+19·0	+2·7	+3·0
Whyte & Co.	4773	−4·6	+7·3	−4·7	+6·5	−1·9	−3·6	−2·1	−2·5	−2·0	+12·1	+17·1	−5·0	+2·5	+9·7	+4·5	−4·5	−5·7
Johannsen & Co.	3898	+9·5	+15·8	+7·2	+11·1	+2·8	+8·1	+3·8	+8·0	+6·2	+13·1	+4·3	+7·4	+6·2	+12·7	+15·6	+1·9	+2·9
Kirk & Co.	2/5573	−12·8	−10·5	−12·4	−9·7	−15·2	−13·6	−13·0	−11·0	−11·0	−1·9	−11·7	+1·0	−1·5	−3·5	+0·4	+1·7	+0·7
Klean & Co.	1005	+2·2	−17·4	+0·2	−7·3	−1·5	−1·3	−1·0	−1·3	−1·0	+3·8	+6·9	+1·7	+5·4	+2·2	+6·7	+0·8	−2·7
Glover	385	−6·0	+5·1	−7·7	+3·8	−5·4	−7·4	−6·8	−7·7	−7·5	+11·3	+15·7	+9·0	+1·3	+16·2	+14·8	+3·8	+2·9
Pyott	860	+11·9	+17·8	+14·5	+17·8	+18·2	+17·0	+18·5	+17·6	+18·7	+30·1	+28·5	+24·5	+25·8	+23·9	+27·4	+18·7	+19·0
Hume	2050	+4·9	+3·8	+1·4	−2·2	−5·4	+2·5	−3·3	+2·5	−2·6	−6·7	−14·9	−16·4	−9·7	−13·0	−5·2	−10·7	−11·9
Keys	984	+21·0	+31·8	+22·3	+29·3	+29·9	+24·8	+28·2	+25·9	+24·7	+24·8	+27·8	+23·6	+19·4	+29·4	+25·9	+16·1	+14·0
Kendal & Dent	1780	−19·1	−29·7	−16·7	−32·7	−21·1	−17·5	−22·1	−19·7	−20·5	−19·3	−28·7	−30·5	−23·0	−31·5	−25·4	−40·3	−38·1
Robinson & Wells	2971	−7·0	+15·8	−9·9	+13·3	−6·4	−9·2	−8·0	−9·6	−8·1	+7·3	+9·9	+10·0	+3·0	+1·5	−2·8	+0·5	−3·1
Moore	1811	+9·1	+16·9	+10·0	+4·7	+14·2	+11·2	+12·8	+11·0	+10·0	−6·0	−3·4	+1·5	−4·2	+2·8	−2·8	−5·6	−4·8
Russell	2324	+11·8	+19·0	+13·9	+15·2	+14·6	+14·6	+15·6	+15·4	+15·3	+26·5	+25·6	+9·3	+12·4	+16·0	+14·4	−1·5	−2·0
J. Poole & Co.	5870	−7·0	−13·1	−6·1	−11·0	−13·2	−9·6	−12·4	−11·5	−11·8	−11·5	−8·3	−17·8	−14·6	−17·3	−22·6	−28·9	−26·3
Pyott	916	+17·3	+25·1	+20·1	+15·3	+26·8	+25·0	+27·2	+29·1	+30·8	+41·4	+40·6	+14·9	+41·1	+36·5	+34·0	+9·3	+25·9
Robinson & Wells	2847	+3·7	+32·6	+3·2	+27·0	+16·4	+3·7	+11·2	+7·1	+8·5	+20·7	+6·5	+22·5	+16·9	+17·5	+23·6	+22·9	+21·1
J. Poole & Co.	5812	−10·9	−8·0	−7·6	−8·8	−6·4	−7·4	−5·9	−6·2	−6·4	−1·6	−3·0	−5·0	−3·2	−5·0	−7·4	−13·8	−13·8
Keys	924	−2·5	+22·5	−1·2	+18·7	+2·0	+1·1	+3·9	+5·4	+6·5	+35·7	+21·3	+28·6	+27·0	+21·0	+30·3	+16·5	+15·7
Glover	366	+7·6	−4·8	+4·7	−3·8	+6·0	+3·8	+5·1	+2·7	+2·8	−11·6	−21·5	−8·0	−9·4	−14·0	−10·9	−13·6	−11·7
Chronometrical Thermometer		s −181·2	s −343·8	s −462·8	s −473·7	s −509·6	s −510·5	s −608·4	s −638·1	s −698·0	s −1553·9	s −1567·0	s −2367·2	s −2413·8	s −2724·9	s −3036·6	s −3527·6	s −3527·8
Mean Weekly Temperature		62°·2	64°·1	63°·7	64°·6	64°·7	64°·8	66°·0	66°·2	67°·1	75°·4	74°·8	85°·4	85°·3	91°·4	92°·1	98°·1	98°·5
Extremes of Temperature as shown by the Self-Registering Thermometers		58°·9–63°·6	60°·9–66°·0	60°·0–66°·5	62°·5–67°·2	63°·7–66°·0	61°·9–66°·8	64°·2–67°·8	64°·2–68°·8	65°·3–69°·2	74°·3–76°·3	74°·0–75°·9	83°·2–87°·8	85°·0–85°·8	90°·0–93°·2	91°·0–93°·4	95°·8–100°·1	97°·5–99°·8

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.

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

Name of Maker.	No.	Whether 2 or 8 Days.	Address of Maker.	Construction of Escapement and Balance, from the Description furnished by the Maker.	(III.) Abstract of the Principal Changes of Rate during the 29 Weeks. Least Weekly Sum.	Extremes of Temperature.	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.
					s	° °	°	s	° °	°	s	s	° °			
Uhrig	514	2	8, Quadrant Road, Essex Road, N.	Uhrig's continually acting auxiliary.	− 1·5	60·0 — 66·5	63·7	+ 6·9	{39·3 — 54·2 {39·9 — 54·5	{47·8 {47·4	8·4	2·6	75·4 — 92·1	13·6	Uhrig	514
Kullberg	5052	2	105, Liverpool Road, N.	Reversed detent; short spring.	− 10·3	42·2 — 53·7	47·5	− 3·0	83·2 — 87·8	85·4	7·3	4·3	74·8 — 48·6	15·9	Kullberg	5052
Kullberg	5055	2	105, Liverpool Road, N.	Reversed detent; short spring.	− 5·7	95·8 —100·1	98·1	+ 5·3	39·3 — 54·2	47·8	11·0	4·8	85·4 — 64·6	20·6	Kullberg	5055
Uhrig	515	2	8, Quadrant Road, Essex Road, N.	Uhrig's continually acting auxiliary.	− 10·7	42·2 — 53·7	47·5	+ 1·2	85·0 — 85·8	85·3	11·9	4·4	74·8 — 48·6	20·7	Uhrig	515
Usher & Cole	6507	2	105, St. John Street Road, E.C.	Auxiliary to balance.	+ 3·2	58·9 — 63·6	62·2	+ 17·3	38·0 — 50·6	43·6	14·1	4·7	74·8 — 48·6	23·5	Usher & Cole	6507
Kullberg	5050	2	105, Liverpool Road, N.	Reversed detent; short spring.	− 9·8	42·2 — 53·7	47·5	+ 2·5	85·0 — 85·8	85·3	12·3	7·6	74·8 — 48·6	27·5	Kullberg	5050
Hamilton & Inches	$\frac{2}{6570}$	2	88, Princes Street, Edinburgh.	Auxiliary to balance.	− 7·5	60·0 — 66·5	63·7	+ 9·7	40·3 — 51·2	45·8	17·2	5·7	98·1 — 85·4	28·6	Hamilton & Inches	$\frac{2}{6570}$
Isaac	1855	2	10, Spencer Street, Clerkenwell, E.C.		+ 3·0	58·9 — 63·6	62·2	+ 19·2	83·2 — 87·8	85·4	16·2	6·2	58·8 — 75·4	28·6	Isaac	1855
Johannsen & Co.	3870	2	149, Minories, E.C.	Auxiliary acting in heat.	+ 6·0	58·9 — 63·6	62·2	+ 20·4	39·9 — 54·5	47·4	14·4	8·1	74·8 — 48·6	30·6	Johannsen & Co.	3870
Haswell & Sons	5001	2	49 & 50, Spencer Street, Clerkenwell, E.C.	Paillard's non-magnetic balance and spring.	− 1·8	91·0 — 93·4	92·1	+ 18·2	34·2 — 48·6	43·1	20·0	5·6	74·8 — 48·6	31·2	Haswell & Sons	5001
Isaac	1856	2	10, Spencer Street, Clerkenwell, E.C.		− 6·7	97·5 — 99·8	98·5	+ 14·3	39·3 — 54·2	47·8	21·0	6·0	74·8 — 48·6	33·0	Isaac	1856
Johannsen & Co.	3904	2	149, Minories, E.C.	Auxiliary acting in heat.	− 11·0	97·5 — 99·8	98·5	+ 4·5	38·0 — 50·6	43·6	15·5	8·9	85·3 — 98·5	33·3	Johannsen & Co.	3904
Isaac	1687	2	10, Spencer Street, Clerkenwell, E.C.	Lamina auxiliary.	+ 13·9	58·9 — 63·6	62·2	+ 34·3	43·0 — 53·6	48·6	20·4	7·6	74·8 — 48·6	35·6	Isaac	1687
Hume	2053	2	No. 6 Side, near the Quay, Newcastle-on-Tyne.	Auxiliary acting in heat.	− 0·2	74·0 — 75·9	74·8	+ 11·8	43·0 — 53·6	48·6	12·0	12·0	74·8 — 48·6	36·0	Hume	2053
Isaac	1789	2	10, Spencer Street, Clerkenwell, E.C.	Palladium spring; Isaac's balance.	− 21·7	52·2 — 61·5	57·5	− 2·5	58·9 — 63·6	62·2	19·2	8·8	43·1 — 43·6	36·8	Isaac	1789
Haswell & Sons	5003	2	49 & 50, Spencer Street, Clerkenwell, E.C.	Paillard's non-magnetic balance and spring.	− 11·2	60·0 — 66·5	63·7	+ 13·8	39·3 — 54·2	47·8	25·0	6·2	75·4 — 92·1	37·4	Haswell & Sons	5003
Kullberg	5054	2	105, Liverpool Road, N.	Reversed detent; short spring.	− 19·9	38·0 — 50·6	43·6	− 0·5	64·2 — 68·8	66·2	19·4	9·8	74·8 — 48·6	39·0	Kullberg	5054
Hume	2048	2	No. 6 Side, near the Quay, Newcastle-on-Tyne.	Auxiliary acting in heat.	− 12·6	63·7 — 66·0	64·7	+ 2·5	74·3 — 76·3	75·4	15·1	13·3	64·7 — 85·3	41·7	Hume	2048
Johannsen & Co.	3905	2	149, Minories, E.C.	Auxiliary acting in heat.	− 5·8	58·9 — 63·6	62·2	+ 9·9	74·3 — 76·3	75·4	15·7	13·5	64·7 — 85·3	42·7	Johannsen & Co.	3905
Moore	1818	2	102, High Street, Belfast.	Auxiliary acting in heat.	− 2·7	60·0 — 66·5	63·7	+ 22·7	39·3 — 54·2	47·8	25·4	9·1	58·8 — 75·4	43·6	Moore	1818
Whyte & Co.	4773	2	144, Broomielaw, Glasgow.		− 5·7	97·5 — 99·8	98·5	+ 17·1	74·0 — 75·9	74·8	22·8	11·5	85·4 — 64·6	45·8	Whyte & Co.	4773
Johannsen & Co.	3898	2	149, Minories, E.C.	Auxiliary acting in heat.	+ 1·9	95·8 —100·1	98·1	+ 21·9	52·2 — 61·5	57·5	20·0	13·6	74·8 — 48·6	47·2	Johannsen & Co.	3898
Kirk & Co.	$\frac{2}{6572}$	2	7, Whitefriar Gate, Hull.	Auxiliary to balance.	− 18·4	40·3 — 51·2	45·8	+ 1·7	95·8 —100·1	98·1	20·1	13·7	64·7 — 85·3	47·5	Kirk & Co.	$\frac{2}{6572}$
Klean & Co.	1005	2	70, Myddelton Street, Clerkenwell, E.C.		− 17·4	60·9 — 66·0	64·1	+ 13·6	39·9 — 54·5	47·4	31·0	10·1	64·6 — 64·1	51·2	Klean & Co.	1005
Glover	385	2	8, Wrotham Road, Camden New Town.	Ordinary balance with gridiron auxiliary.	− 7·7	{60·0—66·5 {64·2—68·8	{63·7 {66·2	+ 16·2	90·0 — 93·2	91·4	23·9	14·6	74·8 — 48·6	53·1	Glover	385
Pyott	860	2	74, West India Dock Road, E.	Auxiliary compensation.	+ 11·9	58·9 — 63·6	62·2	+ 30·1	74·3 — 76·3	75·4	18·2	17·5	58·8 — 75·4	53·2	Pyott	860
Hume	2050	2	No. 6 Side, near the Quay, Newcastle-on-Tyne.	Auxiliary acting in heat.	− 16·4	83·2 — 87·8	85·4	+ 6·4	40·3 — 51·2	45·8	22·8	15·8	74·8 — 48·6	54·4	Hume	2050
Keys	984	2	15, Craven Street, Strand, W.C.	Ordinary balance, with additions.	+ 14·0	97·5 — 99·8	98·5	+ 39·8	54·3 — 65·8	58·8	25·8	15·0	58·8 — 75·4	55·8	Keys	984
Kendal & Dent	1780	2	106, Cheapside, E.C.	Auxiliary to balance; bright spring; reversed [detent.	− 43·2	43·0 — 53·6	48·6	− 16·7	60·0 — 66·5	63·7	26·5	15·1	85·3 — 98·5	56·7	Kendal & Dent	1780
Robinson & Wells	2971	2	Shrewsbury.	Auxiliary compensation.	− 9·9	60·0 — 66·5	63·7	+ 25·0	38·0 — 50·6	43·6	34·9	11·5	74·8 — 48·6	57·9	Robinson & Wells	2971
Moore	1811	2	102, High Street, Belfast.	Auxiliary acting in heat.	− 6·0	74·3 — 76·3	75·4	+ 20·5	54·8 — 61·4	58·0	26·5	18·4	64·7 — 85·3	63·3	Moore	1811
Russell	2324	2	18, Church Street, Liverpool.		− 2·0	97·5 — 99·8	98·5	+ 26·5	74·3 — 76·3	75·4	28·5	17·7	74·8 — 48·6	63·9	Russell	2324
J. Poole & Co.	5870	2	33, Spencer Street, Clerkenwell, E.C.	Poole's auxiliary to balance.	− 39·9	34·2 — 48·6	43·1	− 6·1	60·0 — 66·5	63·7	33·8	18·3	74·8 — 48·6	70·4	J. Poole & Co.	5870
Pyott	916	2	74, West India Dock Road, E.	Ordinary balance with auxiliary.	+ 9·3	95·8 —100·1	98·1	+ 53·1	39·3 — 54·2	47·8	43·8	16·6	98·5 — 98·1	77·0	Pyott	916
Robinson & Wells	2847	2	Shrewsbury.	Auxiliary compensation.	+ 3·2	60·0 — 66·5	63·7	+ 35·3	54·0 — 61·8	58·6	32·1	22·5	74·8 — 48·6	77·1	Robinson & Wells	2847
J. Poole & Co.	5812	2	33, Spencer Street, Clerkenwell, E.C.	Poole's auxiliary to balance.	− 36·4	34·2 — 48·6	43·1	− 1·6	74·3 — 76·3	75·4	34·8	25·5	74·8 — 48·6	85·8	J. Poole & Co.	5812
Keys	924	2	15, Craven Street, Strand, W.C.		− 2·5	58·9 — 63·6	62·2	+ 35·7	74·3 — 76·3	75·4	38·2	25·0	64·7 — 85·3	88·2	Keys	924
Glover	366	2	8, Wrotham Road, Camden New Town.	Ordinary balance with auxiliary acting in cold.	− 21·5	74·0 — 75·9	74·8	+ 37·4	39·9 — 54·5	47·4	58·9	22·8	58·8 — 75·4	104·5	Glover	366

The sign + indicates that the rate is gaining.

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.