

RATES OF BOX CHRONOMETERS
ON TRIAL
FOR PURCHASE BY THE BOARD OF ADMIRALTY
AT THE
ROYAL OBSERVATORY, GREENWICH.
FROM 1914 JUNE 20 TO 1915 JANUARY 9.

RATES OF BOX CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY.

Order of Merit.	NAME OF MAKER.	No.	Whether on or off Days.	(L) WEEKLY RATES															
				June 20-27.	June 27 to July 4.	July 4-11.	July 11-18.	July 18-25.	July 25 to Aug. 1.	Aug. 1-8.	Aug. 8-15.	Aug. 15-22.	Aug. 22-29.	Aug. 29 to Sept. 5.	Sept. 5-12.	Sept. 12-19.	Sept. 19-26.		
				±	±	±	±	±	±	±	±	±	±	±	±	±	±		
1	V. Kullberg.....	8784	2	- 4.4	- 4.9	- 4.4	- 4.7	- 4.0	- 4.7	- 4.5	- 4.6	- 5.0	- 5.1	- 4.8	- 3.8	- 3.9	- 4.2		
2	A. Johannsen & Co.....	7250	2	- 6.4	- 2.8	- 3.3	- 2.4	- 0.8	- 1.0	+ 0.6	+ 2.4	+ 1.6	+ 1.7	+ 2.3	+ 1.3	0.0	- 0.8		
3	A. Johannsen & Co.....	7255	2	- 1.9	- 3.0	- 2.4	- 0.9	- 7.9	- 8.4	- 8.0	- 5.0	- 7.6	- 8.6	- 6.9	- 6.2	- 7.6	- 8.6		
4	A. Johannsen & Co.....	7249	2	+ 1.0	+ 1.9	+ 4.2	+ 3.8	+ 4.9	+ 5.1	+ 3.3	+ 5.9	+ 7.6	+ 8.7	+ 7.6	+ 2.2	+ 1.7	+ 0.4		
5	A. Johannsen & Co.....	7246	2	- 0.6	+ 1.2	+ 1.1	+ 2.7	+ 3.9	+ 3.5	+ 4.9	+ 11.1	+ 10.5	+ 10.6	+ 7.8	+ 3.1	+ 3.2	+ 1.6		
6	A. W. Webb.....	5698	2	- 2.5	- 3.4	- 3.1	- 5.2	- 4.4	- 3.6	- 3.9	- 4.0	- 3.1	+ 0.8	+ 1.8	+ 5.7	+ 3.1	+ 1.2		
7	A. Johannsen & Co.....	7282	2	- 2.1	+ 0.8	+ 0.3	- 0.5	- 0.2	- 1.3	- 1.8	+ 2.7	+ 2.2	+ 4.1	+ 5.8	+ 5.6	+ 3.2	+ 2.6		
8	V. Kullberg.....	8654	2	- 3.1	- 2.8	- 3.8	- 11.0	- 10.1	- 12.0	- 11.1	- 10.9	- 12.3	- 12.5	- 10.2	- 9.8	- 11.1	- 13.0		
9	A. Johannsen & Co.....	6730	2	- 0.5	+ 1.9	+ 0.2	+ 2.8	+ 4.8	+ 3.4	- 0.2	- 0.7	- 6.8	- 4.0	+ 1.9	+ 3.8	+ 5.2	+ 6.9		
10	A. Johannsen & Co.....	6749	2	- 1.7	- 2.6	- 0.5	- 2.7	+ 0.1	- 2.1	- 3.1	- 0.2	- 0.9	- 0.4	+ 4.6	+ 9.1	+ 7.5	+ 8.4		
11	V. Kullberg.....	8695	2	- 4.3	- 3.8	- 2.5	- 4.5	- 4.6	- 4.1	- 0.0	- 2.5	- 4.3	- 7.8	- 5.2	- 3.1	- 5.1	- 6.1		
12	V. Kullberg.....	8706	2	+ 0.8	+ 1.2	+ 0.6	+ 0.8	- 0.2	+ 1.1	- 0.7	+ 1.6	+ 2.8	+ 4.3	+ 5.6	+ 3.4	+ 0.6	+ 2.9		
13	J. F. Woods.....	133	2	- 0.2	- 1.1	- 1.1	- 0.7	- 0.2	- 0.8	+ 0.2	- 3.3	- 11.4	- 13.3	- 7.1	- 5.0	- 2.3	- 0.9		
14	T. Mercer.....	8781	2	- 20.3	- 21.1	- 19.3	- 22.7	- 20.9	- 19.9	- 21.4	- 15.4	- 11.5	- 7.1	- 9.8	- 14.6	- 14.1	- 13.8		
15	A. W. Webb.....	5707	2	- 4.6	- 0.9	- 3.6	+ 1.0	+ 1.2	- 4.2	0.0	- 2.2	+ 5.0	+ 7.5	+ 9.9	+ 7.5	+ 5.3	+ 2.0		
16	T. Mercer.....	8783	2	- 2.5	- 4.3	- 2.7	- 4.6	- 5.1	- 2.9	- 4.8	- 5.0	- 4.6	- 3.6	- 3.8	- 5.0	- 2.0	- 0.8		
17	Usher & Cole.....	1955	2	- 0.1	- 4.0	- 4.1	- 6.7	- 6.1	- 4.0	- 7.1	- 2.4	- 3.0	- 6.2	+ 0.5	+ 0.5	- 5.3	- 3.1		
18	A. Johannsen & Co.....	7254	2	+ 1.2	+ 2.5	+ 7.2	+ 11.6	+ 15.1	+ 16.9	+ 16.7	+ 17.2	+ 17.1	+ 20.0	+ 19.1	+ 23.6	+ 21.8	+ 22.0		
19	A. Johannsen & Co.....	7124	2	+ 3.8	- 3.4	- 1.5	- 9.3	- 8.9	- 5.3	- 7.7	+ 3.0	- 5.5	+ 0.5	+ 0.8	+ 2.2	+ 2.0	+ 3.4		
20	A. W. Webb.....	5701	2	- 0.1	- 2.1	- 2.2	- 1.5	- 5.1	- 7.9	- 5.0	- 14.2	- 25.1	- 29.7	- 27.4	- 17.8	- 19.1	- 20.7		
21	J. F. Woods.....	151	2	- 0.3	- 1.0	+ 4.2	+ 5.3	+ 7.2	+ 8.5	+ 11.0	+ 12.3	+ 8.8	+ 14.1	+ 14.2	+ 12.3	+ 11.7	+ 12.2		
22	J. F. Woods.....	152	2	- 11.5	- 11.3	- 8.0	- 8.2	- 8.6	- 3.4	- 3.0	- 5.2	- 5.8	- 3.1	+ 2.2	+ 3.9	+ 5.0	+ 6.0		
23	J. F. Woods.....	124	2	- 20.9	- 16.3	- 11.5	- 12.1	- 17.3	- 19.9	- 20.8	- 17.0	- 17.3	- 17.0	- 14.6	- 9.3	+ 1.8	+ 0.6		
24	A. Johannsen & Co.....	7281	2	- 10.7	- 12.7	- 13.3	- 16.0	- 15.0	- 12.1	- 9.1	- 1.2	+ 5.3	+ 10.1	+ 5.4	- 4.9	- 7.5	- 7.6		
Chronometrical Thermometer.....				- 726.7	- 1211.8	- 830.8	- 1022.8	- 928.3	- 523.5	- 735.5	- 2188.3	- 2389.1	- 2147.0	- 2234.8	- 936.7	- 485.0	- 138.6		
Mean Weekly Temperature.....				67.4	72.9	68.2	70.9	69.2	69.9	67.1	80.5	97.9	100.4	86.0	69.5	64.6	61.4		
Extremes of Temperature as shown by the Self-Registering Thermometer.....				65.8	69.1	66.7	69.3	66.4	64.1	65.7	84.8	96.2	97.4	84.2	67.0	61.2	59.6		
				69.8	77.1	71.0	72.7	71.0	66.7	69.5	89.2	99.9	105.2	90.0	71.6	66.7	65.3		

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

AT THE ROYAL OBSERVATORY, GREENWICH, FROM 1914 JUNE 20 TO 1915 JANUARY 9.

IN ORDER OF TIME.																	NAME OF MAKER.		No.
Sept. 26 to Oct. 3.	Oct. 3-10.	Oct. 10-17.	Oct. 17-24.	Oct. 24-31. †	Oct. 31 to Nov. 7. †	Nov. 7-14. †	Nov. 14-21. †	Nov. 21-28.	Nov. 28 to Dec. 5.	Dec. 5-12.	Dec. 12-19.	Dec. 19-26.	Dec. 26 to Jan. 2.	Jan. 2-9.					
- 4.2	- 4.4	- 4.0	- 4.2	- 0.8	- 1.3	- 1.0	- 0.2	- 2.6	- 1.8	- 1.9	- 1.5	- 2.6	- 3.8	- 1.0	V. Kullberg.....	8734			
- 1.3	- 1.2	- 0.9	- 0.9	+ 3.4	+ 4.0	+ 4.6	+ 4.9	+ 5.0	+ 3.4	+ 3.4	+ 3.9	+ 5.2	+ 4.0	+ 5.0	A. Johannsen & Co.....	7250			
- 8.8	- 10.6	- 10.0	- 10.2	- 5.3	- 6.6	- 6.4	- 4.5	- 4.7	- 6.8	- 7.8	- 9.5	- 9.1	- 10.8	- 9.5	A. Johannsen & Co.....	7255			
- 1.1	+ 0.4	+ 1.7	+ 0.7	+ 0.6	+ 4.5	+ 5.6	+ 7.0	+ 3.0	+ 4.5	+ 6.6	+ 5.2	+ 6.2	+ 4.4	+ 5.8	A. Johannsen & Co.....	7249			
+ 2.2	+ 2.6	+ 0.4	- 0.6	+ 3.5	+ 4.2	+ 4.9	+ 7.7	+ 5.2	+ 4.5	+ 4.2	+ 3.4	+ 2.6	+ 0.7	+ 1.1	A. Johannsen & Co.....	7246			
+ 0.2	+ 1.6	- 0.4	+ 0.8	- 0.2	+ 6.0	+ 7.1	+ 6.7	+ 6.9	+ 1.7	+ 3.0	+ 4.1	+ 5.3	+ 6.6	..	A. W. Webb.....	5698			
+ 0.1	+ 1.4	+ 1.3	+ 1.3	+ 7.3	+ 9.0	+ 10.1	+ 12.7	+ 10.1	+ 8.5	+ 10.2	+ 9.3	+ 10.4	+ 7.1	+ 9.8	A. Johannsen & Co.....	7282			
- 12.7	- 12.6	- 11.8	- 10.7	- 9.0	- 5.7	- 3.1	+ 0.3	- 0.5	- 2.6	- 2.7	- 3.8	- 4.5	- 6.8	- 7.1	V. Kullberg.....	8654			
+ 6.4	+ 7.5	+ 3.7	+ 4.5	+ 3.5	+ 2.8	+ 4.0	+ 5.0	+ 6.3	+ 8.2	+ 8.6	+ 9.8	+ 4.0	+ 6.3	A. Johannsen & Co.....	6730				
+ 6.8	+ 6.5	+ 6.3	+ 5.0	+ 11.3	+ 10.4	+ 10.1	+ 12.0	+ 10.2	+ 7.7	+ 6.4	+ 5.6	+ 4.5	+ 1.9	+ 3.2	A. Johannsen & Co.....	6749			
- 6.9	- 8.8	- 10.6	- 13.4	- 6.3	- 6.2	- 5.5	- 4.7	- 7.3	- 10.8	- 8.5	- 10.7	- 13.2	- 14.8	- 14.7	V. Kullberg.....	8695			
+ 2.1	+ 0.2	- 1.0	- 2.3	+ 3.7	+ 5.3	+ 6.9	+ 9.3	+ 1.6	- 0.4	+ 0.2	- 0.2	0.0	- 4.1	- 1.8	V. Kullberg.....	8706			
- 1.5	- 2.4	- 2.1	- 2.8	- 6.1	- 10.7	- 10.1	- 4.9	- 3.5	- 4.6	- 3.2	- 2.9	- 3.0	- 4.5	- 2.8	J. F. Woods.....	133			
- 12.2	- 11.4	- 13.2	- 15.5	- 13.5	- 10.3	- 7.0	- 6.9	- 4.2	- 4.6	- 3.5	- 3.3	- 1.1	- 6.0	- 6.6	T. Mercer.....	8781			
- 2.8	- 5.1	- 5.9	- 7.6	+ 0.8	+ 9.7	+ 7.6	+ 2.7	- 2.3	- 5.7	- 7.8	- 6.1	- 8.6	- 8.2	- 6.1	A. W. Webb.....	5707			
- 0.8	- 0.2	+ 0.4	+ 2.7	- 8.6	- 7.2	- 4.4	- 2.4	+ 3.0	+ 1.4	+ 2.1	+ 3.0	+ 7.4	+ 5.3	+ 6.4	T. Mercer.....	8782			
- 5.8	- 11.0	- 16.1	- 18.0	- 9.9	- 9.5	- 7.1	- 7.3	+ 0.9	- 1.7	- 1.8	- 2.2	- 1.8	- 13.3	- 11.3	Usher & Cole.....	1955			
+ 21.4	+ 20.8	+ 21.3	+ 21.7	+ 20.8	+ 20.8	+ 24.0	+ 26.6	+ 26.7	+ 24.1	+ 28.1	+ 25.3	+ 26.5	+ 24.8	+ 24.1	A. Johannsen & Co.....	7254			
+ 1.0	- 1.3	- 4.4	- 5.4	+ 6.6	+ 11.9	+ 11.5	+ 12.1	+ 10.5	+ 9.5	+ 10.0	+ 4.0	+ 2.6	+ 0.2	0.0	A. Johannsen & Co.....	7124			
- 19.9	- 19.4	- 18.7	- 19.8	- 20.6	- 22.0	- 23.6	- 22.6	- 27.6	- 23.9	- 21.2	- 20.2	- 22.5	- 21.0	- 19.4	A. W. Webb.....	5701			
+ 9.7	+ 9.9	+ 10.8	+ 11.1	+ 8.2	+ 9.6	+ 12.7	+ 21.5	+ 29.1	+ 21.0	+ 19.4	+ 19.7	+ 22.4	+ 20.1	+ 18.0	J. F. Woods.....	151			
+ 4.3	+ 6.7	+ 6.7	+ 5.1	+ 1.1	- 2.2	- 1.6	+ 4.0	+ 15.8	+ 15.4	+ 17.2	+ 16.8	+ 16.8	+ 18.2	+ 18.6	J. F. Woods.....	152			
+ 1.1	+ 2.7	+ 1.5	- 6.3	- 4.1	- 13.0	- 4.3	- 1.3	- 0.4	+ 9.0	+ 8.2	+ 9.0	+ 2.8	+ 10.4	+ 4.4	J. F. Woods.....	124			
- 6.1	- 5.6	+ 1.0	+ 3.1	+ 13.1	+ 19.5	+ 24.1	+ 27.5	+ 15.3	+ 11.6	+ 12.7	+ 12.2	+ 15.9	+ 12.7	+ 13.5	A. Johannsen & Co.....	7281			
- 195.8	- 145.1	+ 35.1	+ 128.2	- 1679.6	- 2583.4	- 2619.1	- 1799.9	+ 468.7	+ 40.5	+ 281.0	+ 250.0	+ 610.6	+ 626.7	+ 516.6	Chronometrical Thermometer.				
61.5	61.0	59.2	58.0	79.1	92.2	93.2	80.9	56.4	56.6	56.3	57.1	52.2	52.6	54.2	Mean Weekly Temperature.				
59.1	60.0	57.3	57.0	78.2	91.2	91.5	79.9	56.5	57.0	52.4	54.5	48.3	49.0	50.5	{ Extremes of Temperature as shown by the Self-Registering Thermometer.				
63.3	63.5	61.7	59.2	81.0	93.5	99.1	81.8	58.9	62.2	59.3	59.3	59.0	54.6	57.5					
The Chronometrical Thermometer differs from an ordinary Chronometer only in the construction of the balance, the position of the metals forming the compensating ring being reversed. By this arrangement the effect of temperature is much nullified.																			
Only those Chronometers have been included in this list for which δ did not exceed 12 seconds.																			

RATES OF BOX CHRONOMETERS ON TRIAL FOR PURCHASE BY THE ADMIRALTY.

Order of Merit.	NAME OF MAKER.	No.	Winches 2 & 8 Days.	ADDRESS OF MAKER.	Construction of Escapement, Balance, and Spring, from a Description furnished by the Maker.	(II.) ABSTRACT OF	
						Least Weekly Sum.	Extremes of Temperature.
1	V. Kullberg.....	8784	2	105 Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 64	65.8 - 69.8
2	A. Johansen & Co....	7250	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 44	65.8 - 69.8
3	A. Johansen & Co....	7235	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 10.8	49.0 - 54.6
4	A. Johansen & Co....	7249	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 1.1	59.1 - 63.3
5	A. Johansen & Co....	7246	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 0.6	65.8 - 69.8 57.0 - 59.2
6	A. W. Webb.....	5698	2	69 Charlton Road, Blackheath, S.E.	Auxiliary to balance; bright steel spring.	- 5.2	68.3 - 72.7
7	A. Johansen & Co....	7282	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 2.1	65.8 - 69.8
8	V. Kullberg.....	8654	2	105 Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 13.0	59.8 - 65.3
9	A. Johansen & Co....	6730	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 6.3	96.2 - 99.9
10	A. Johansen & Co....	6749	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 3.1	65.7 - 69.3
11	V. Kullberg.....	8695	2	105 Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 14.3	49.0 - 54.6
12	V. Kullberg.....	8706	2	105 Liverpool Road, London, N.	Kullberg's auxiliary balance; palladium spring.	- 4.1	49.0 - 54.6
13	J. F. Woods.....	133	2	7 Harley Street, London, W.	Auxiliary to balance acting in cold; palladium spring.	- 13.3	97.4 - 105.2
14	T. Mercer.....	8781	2	Eywood Road, St. Albans.	Auxiliary to balance acting in heat; palladium spring.	- 22.7	68.3 - 72.7
15	A. W. Webb.....	5707	2	69 Charlton Road, Blackheath, S.E.	Auxiliary to balance; bright steel spring.	- 8.6	48.8 - 58.0
16	T. Mercer.....	8782	2	Eywood Road, St. Albans.	Auxiliary to balance acting in heat; palladium spring.	- 8.6	72.2 - 81.0
17	Usher & Cole.....	1955	2	339 St. John Street, Clerkenwell, E.C.	Auxiliary to balance acting in cold; palladium spring.	- 15.0	57.0 - 59.2
18	A. Johansen & Co....	7254	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	+ 1.2	65.8 - 69.8
19	A. Johansen & Co....	7124	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 9.3	68.3 - 72.7
20	A. W. Webb.....	5701	2	69 Charlton Road, Blackheath, S.E.	Auxiliary to balance; bright steel spring.	- 29.7	97.4 - 105.2
21	J. F. Woods.....	151	2	7 Harley Street, London, W.	Auxiliary to balance acting in cold; palladium spring.	- 6.3	65.8 - 69.8
22	J. F. Woods.....	152	2	7 Harley Street, London, W.	Auxiliary to balance acting in cold; palladium spring.	- 11.5	65.8 - 69.8
23	J. F. Woods.....	124	2	7 Harley Street, London, W.	Auxiliary to balance acting in cold; palladium spring.	- 29.9	65.8 - 69.8
24	A. Johansen & Co....	7281	2	149 Minories, London, E.	Auxiliary to balance acting in heat; palladium spring.	- 18.0	68.3 - 72.7

The Chronometers are placed in order of merit, their respective positions being determined by considerations of the irregularities of rate exhibited in the Table above.
The sign + indicates a gaining rate.

AT THE ROYAL OBSERVATORY, GREENWICH, FROM 1914 JUNE 20 TO 1915 JANUARY 9.

THE PRINCIPAL CHANGES OF RATE DURING THE 29 WEEKS.

Mean Temperature.	Greatest Weekly Sum.	Extremes of Temperature.	Mean Temperature.	Difference between Greatest and Least. (a)	Greatest Difference between one Week and the next. (b)	Mean Temperature for these two Weeks.	Trial No. a + 2 b.	NAME OF MAKER.	No.
67.4	- 0.2	79.9 - 81.8	80.9	0.2	3.4	58.0 - 79.1	13.0	V. Kullberg.....	8784
67.4	+ 5.2	48.8 - 58.0	53.2	9.8	4.3	58.0 - 79.1	18.2	A. Johansen & Co....	7250
52.6	+ 1.9	65.8 - 69.8	67.4	8.9	4.9	58.0 - 79.1	18.7	A. Johansen & Co....	7235
61.5	+ 8.6	67.4 - 105.2	100.4	9.7	5.0	86.0 - 69.5	20.9	A. Johansen & Co....	7249
67.4 58.0	+ 11.1	94.8 - 89.2	86.5	11.7	6.2	67.1 - 86.5	24.1	A. Johansen & Co....	7246
70.9	+ 7.1	91.5 - 99.1	93.2	12.3	6.2	79.1 - 92.2	24.7	A. W. Webb.....	5698
67.4	+ 12.7	79.9 - 81.8	80.9	14.8	6.0	58.0 - 79.1	28.8	A. Johansen & Co....	7282
61.4	+ 0.3	79.9 - 81.8	80.9	13.3	7.2	68.2 - 70.9	27.7	V. Kullberg.....	8654
97.9	+ 9.8	48.8 - 58.0	53.2	16.1	5.8	53.2 - 52.6	27.7	A. Johansen & Co....	6730
67.1	+ 12.0	79.9 - 81.8	80.9	15.1	6.3	58.0 - 79.1	27.7	A. Johansen & Co....	6749
52.6	- 2.5	66.7 - 71.9 84.8 - 89.2	69.2 86.5	12.3	8.1	58.0 - 79.1	28.5	V. Kullberg.....	8695
52.6	+ 9.3	79.9 - 81.8	80.9	13.4	7.7	80.9 - 55.4	29.8	V. Kullberg.....	8706
100.4	+ 0.2	65.7 - 69.3	67.1	12.5	8.1	86.5 - 97.9	29.7	J. F. Woods.....	133
70.9	- 1.1	48.8 - 58.0	53.2	21.6	6.0	67.1 - 86.5	33.6	T. Mercer.....	8781
53.2	+ 9.9	84.2 - 90.0	86.0	18.5	8.9	79.1 - 92.2	36.3	A. W. Webb.....	5707
79.1	+ 7.4	48.8 - 58.0	53.2	16.0	11.3	58.0 - 79.1	38.6	T. Mercer.....	8782
58.0	+ 0.9	50.5 - 59.9	55.4	18.9	11.5	53.2 - 52.6	41.9	Usher & Cole.....	1955
67.4	+ 30.7	60.5 - 58.9	55.4	29.5	6.6	55.4 - 59.6	42.7	A. Johansen & Co....	7254
70.9	+ 13.1	79.9 - 81.8	80.9	22.4	10.9	58.9 - 79.1	46.4	A. Johansen & Co....	7124
100.4	- 0.1	65.8 - 69.8	67.4	29.6	10.9	86.5 - 97.9	51.4	A. W. Webb.....	5701
67.4	+ 29.1	60.5 - 58.9	55.4	35.4	8.8	93.2 - 80.9	53.0	J. F. Woods.....	151
67.4	+ 18.6	50.5 - 57.5	54.2	30.1	11.8	80.9 - 55.4	53.7	J. F. Woods.....	152
67.4	+ 10.4	49.0 - 54.6	52.6	31.3	11.3	96.0 - 69.5	58.9	J. F. Woods.....	124
70.9	+ 27.5	79.9 - 81.8	80.9	43.5	11.7	80.9 - 55.4	66.0	A. Johansen & Co....	7281

The Trial No. a + 2 b 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.