

RATES OF DECK WATCHES
ON TRIAL
FOR PURCHASE BY THE BOARD OF ADMIRALTY,
AT THE
ROYAL OBSERVATORY, GREENWICH.
FROM 1894 OCTOBER 27 TO 1895 FEBRUARY 16.

S.O 11814.

(1) WEEKLY RATES IN ORDER OF TIME.

NAME OF MAKER.	No.	Oct. 27 to Nov. 8.	Nov. 8-10.	Nov. 10-17.	Nov. 17-24.	Nov. 24 to Dec. 1.	Dec. 1-8.	Dec. 8-15.	Dec. 15-19.	Dec. 19-22.	Dec. 22-25.	Dec. 25-29.	Dec. 29 to Jan. 5.
		Watch Horizontal. Dial up.				Watch Vertical. Pendant up.		Watch Vertical. Pendant right.		Watch Vertical. Pendant left.		Watch Horizontal. Dial up.	
Johannsen and Co.	6507	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Isaac	10890	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
J. White and Son	8216	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Pritham	35313	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Usher and Cole	35315	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Johannsen and Co.	6506	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Usher and Cole	35315	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
J. White and Son	8216	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
J. B. Dent	9268	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
J. White and Son	34617	+0.0	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Carley	48381	+0.0	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Hilbrand	1383	+0.0	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Usher and Cole	28676	+0.0	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Bannister	6187	+0.0	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Johannsen and Co.	6495	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Brookbank, Atkins and Moore.	74913	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Bolton Smith	171	+4.4	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6
Bannister	1712	+4.4	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6	+0.6
Usher and Cole	28674	+8.1	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3
Brookbank, Atkins and Moore.	81776	+24.6	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5
Brookbank, Atkins and Moore.	74914	+24.6	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5	+25.5
M. F. Dent	31215	+10.1	+4.7	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0
Usher and Cole	28723	+10.1	+4.7	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0
Johannsen and Co.	6509	+0.9	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4	+10.4
Hall	1074	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
J. B. Dent	31215	+10.1	+4.7	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0
Usher and Cole	28676	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Johannsen and Co.	6495	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Brookbank, Atkins and Moore.	74921	+13.1	+12.9	+14.0	+20.1	+19.2	+19.2	+19.2	+19.2	+19.2	+19.2	+19.2	+19.2
Johannsen and Co.	6491	+10.4	+25.1	+21.3	+23.0	+15.8	+14.4	+23.4	+9.1	+33.4	+11.4	+9.4	+33.4
Hall	1070	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
J. White and Son	8227	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Brookbank, Atkins and Moore.	8227	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Johannsen and Co.	6490	+10.7	+21.4	+21.4	+20.4	+19.9	+19.6	+17.7	+19.3	+19.1	+19.1	+19.1	+19.1
Mean Weekly Temperature		55.2	55.0	55.1	55.0	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3
Extremes of Temperature shown by the Self-Registering Thermometers		55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4	55.4-55.4

* The Weekly Rates have been computed from the rates for three days.
 † The Weekly Rates have been computed from the rates for four days.
 During the period Dec. 5 to Jan. 5, the watches were placed in an oven heated by jets of gas, the temperature being regulated by Kailberg'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.

(2) ABSTRACT OF THE PRINCIPAL CHANGES OF RATE.

Jan. 5-12.	Jan. 12-19.	Jan. 19-26.	Jan. 26 to Feb. 2.	Feb. 2-9.	Feb. 9-16.	Difference between greatest and least Weekly Rates.	Greatest difference between one week and the next.	Difference of Weekly Rates.	trial Number.	NAME OF MAKER.	No.
						Dial up.	Dial up.	Pendant right Dial up.	Pendant left Dial up.	Pendant right Dial up.	
+20.8	+27.2	+27.4	+20.6	+23.0	+18.1	13.1	4.9	+7.3	+0.5	+7.7	29.0
+11.7	+13.9	+13.0	+9.9	+10.9	+10.9	13.1	4.9	+7.3	+0.5	+7.7	29.0
+13.2	+23.0	+23.3	+21.3	+16.6	+13.7	14.9	9.6	+0.4	+0.4	+0.4	47.4
+23.4	+24.4	+25.0	+24.3	+23.0	+20.9	14.9	9.6	+0.4	+0.4	+0.4	47.4
+1.8	+5.3	+3.8	+7.7	+7.7	+7.7	8.6	+0.4	+0.4	+0.4	+0.4	40.0
+17.8	+18.4	+19.9	+17.4	+22.8	+24.4	14.6	9.7	+0.4	+0.4	+0.4	47.8
+14.3	+19.0	+19.7	+13.3	+10.4	+8.8	10.4	6.0	+2.3	+1.3	+3.6	48.1
+10.9	+9.6	+6.9	+11.9	+12.1	+13.6	11.9	8.5	+0.3	+2.5	+4.0	44.0
+10.6	+10.3	+13.2	+17.3	+20.9	+20.9	14.9	10.6	+0.5	+0.7	+2.3	44.0
+8.3	+14.3	+13.8	+13.7	+13.1	+13.8	24.1	6.0	+11.3	+21.4	+23.0	49.2
-0.1	+0.4	+1.7	+7.0	+13.2	+13.9	24.1	8.9	+10.3	+6.1	+19.1	58.7
+17.0	+23.4	+23.4	+43.4	+43.9	+48.8	23.8	7.8	+10.7	+12.3	+15.8	58.6
+13.3	+8.6	+13.6	+15.6	+16.5	+13.8	12.7	7.3	+10.6	+0.4	+0.7	67.1
+17.1	+16.4	+15.3	+15.3	+20.2	+20.2	23.2	13.2	+5.0	+0.0	+0.0	58.6
+10.9	+9.4	+0.7	+5.3	+3.9	+2.4	23.1	14.6	+0.3	+0.7	+2.4	59.3
+0.5	+2.4	+0.1	+0.1	+1.9	+1.9	17.3	8.4	+43.6	+10.9	+0.2	59.3
+21.7	+27.4	+28.8	+31.5	+29.0	+29.0	24.9	10.7	+4.1	+0.7	+0.5	60.2
+33.3	+23.9	+26.8	+20.8	+24.2	+23.7	36.7	5.6	+2.4	+5.3	+6.2	61.7
+8.5	+10.7	+7.6	+11.8	+14.4	+17.2	36.0	17.8	+0.2	+5.9	+5.0	62.5
+15.1	...	...	...	...	...	18.9	18.0	+3.5	+1.7	+30.3	68.8
+33.6	+37.7	+44.3	+40.0	+38.1	+38.2	25.6	9.0	+19.5	+38.1	+1.0	64.7
+1.6	+1.6	+17.6	+23.5	+16.4	+12.7	28.0	19.0	+0.4	+4.5	+3.3	65.8
+0.5	+0.4	+4.3	+0.6	+4.6	+12.8	19.2	13.8	+16.2	+16.4	+54.0	66.8
+0.8	+11.1	+13.3	+14.7	+15.1	+15.8	19.3	16.9	+17.6	+22.4	+7.2	69.8
+39.3	+0.6	+0.4	+0.7	+0.5	+23.9	37.7	0.6	+10.4	+0.4	+2.6	67.1
+15.3	+5.6	+7.6	+10.6	+18.6	+30.3	34.4	10.7	+12.0	+31.9	+0.2	67.3
+30.7	+26.3	+26.8	+24.1	+24.4	+24.4	40.3	8.5	+10.0	+27.5	+1.9	67.3
+13.6	+21.3	+23.9	+20.4	+21.7	+23.4	31.7	10.1	+11.3	+19.7	+0.0	69.1
+15.8	+15.0	+13.0	+14.0	+15.4	+15.0	30.2	17.4	+23.0	+4.6	+16.4	70.0
+0.3	+4.6	+7.7	+7.7	+5.5	+5.0	39.7	13.0	+0.7	+0.8	+27.4	72.0
+7.3	+6.7	+13.0	+13.0	+13.0	+13.0	31.0	17.0	+1.8	+7.7	+39.3	72.6
+19.5	+9.5	+13.3	+0.7	+0.0	+0.9	29.4	13.4	+17.3	+35.1	+28.0	72.6
+3.0	+2.0	+16.1	+17.6	+9.5	+1.1	37.7	14.1	+37.8	+5.2	+4.1	75.4
48.4	48.9	48.9	48.0	48.1	48.0	48.1-48.1	48.1-48.1	48.1-48.1	48.1-48.1	48.1-48.1	48.1-48.1

The sign + indicates a gaining rate.

The quantities a, b, c, d, e , in the formula $a + b + c + d + e$, are taken numerically, without regard to sign.

Brookbank, Atkins and Moore, 81776. The mangroving of this watch broke during the 13th week of the trial.
 Hall, 1070. The mangroving of this watch broke during the 13th week of the trial.

RATES OF DECK WATCHES ON TRIAL FOR PURCHASE BY THE ADMIRALTY AT THE

(1) WEEKLY RATES IN ORDER OF TIME.

NAME OF MAKER.	No.	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. 15-18.	Dec. 18-22.	Dec. 22-25.	Dec. 25-29.	Dec. 29 to Jan. 5.
		Watch Horizontal. Dial up.	Watch Vertical. Pendant up.	Watch Vertical. Pendant right.	Watch Vertical. Pendant left.	Watch Vertical. Pendant up.	Watch Vertical. Pendant up.	Watch Horizontal. Dial up.					
Johannsen and Co.	6514	+ 1.2	+ 7.7	+ 21.1	+ 15.6	+ 5.9	+ 10.1	+ 8.9	+ 22.8	+ 49.2	+ 58.4	+ 27.5	+ 49.0
Johannsen and Co.	6498	+ 1.7	+ 9.4	+ 5.8	+ 3.3	+ 0.1	+ 0.3	+ 16.2	+ 20.6	+ 13.3	+ 21.2	+ 28.5	+ 2.7
J. White and Son	35384	+ 0.1	+ 5.3	+ 3.1	+ 0.2	+ 11.9	+ 11.6	+ 15.2	+ 5.1	+ 13.3	+ 10.3	+ 18.0	+ 48.7
Fridham	35384	+ 3.8	+ 4.4	+ 0.4	+ 0.0	+ 10.0	+ 3.0	+ 10.3	+ 1.4	+ 35.3	+ 5.0	+ 9.0	
Johannsen and Co.	6515	+ 3.4	+ 4.6	+ 3.8	+ 7.1	+ 22.4	+ 12.3	+ 35.0	+ 38.4	+ 35.8	+ 35.8	+ 35.8	
Weir	51988	+ 12.6	+ 20.2	+ 15.4	+ 15.9	+ 13.3	+ 10.0	+ 27.4	+ 10.3	+ 17.3	+ 37.3	+ 19.3	+ 30.8
Johannsen and Co.	6510	+ 2.2	+ 1.9	+ 2.4	+ 11.0	+ 3.7	+ 7.0	+ 12.0	+ 25.4	+ 9.1	+ 20.3	+ 23.7	+ 2.4
Brookbank, Atkins and Moore	74518	+ 9.7	+ 8.7	+ 1.2	+ 4.4	+ 10.0	+ 10.4	+ 9.8	+ 1.3	+ 9.1	+ 71.3	+ 8.0	+ 9.6
Hall	3972	+ 8.6	+ 2.1	+ 10.4	+ 0.3	+ 5.8	+ 7.3	+ 2.6	+ 9.2	+ 9.7	+ 85.9	+ 3.3	+ 9.8
McGregor	41984	+ 3.0	+ 0.4	+ 9.7	+ 3.4	+ 6.1	+ 7.4	+ 9.1	+ 13.0	+ 4.2	+ 0.3	+ 3.2	+ 23.3
Holland	3790	+ 8.9	+ 21.1	+ 62.0	+ 61.7	+ 69.4	+ 61.6	+ 49.5	+ 41.3	+ 21.0	+ 15.6	+ 63.9	+ 39.3
Johannsen and Co.	6517	+ 0.9	+ 10.6	+ 13.4	+ 6.9	+ 3.7	+ 4.3	+ 12.1	+ 53.7	+ 30.8	+ 35.4	+ 49.5	+ 23.4
Buckney	35790	+ 23.3	+ 13.3	+ 15.9	+ 25.4	+ 28.6	+ 29.1	+ 15.7	+ 15.4	+ 2.3	+ 75.4	+ 24.7	+ 4.0
J. White and Son	35138	+ 15.4	+ 12.1	+ 15.2	+ 19.0	+ 13.9	+ 17.6	+ 11.7	+ 9.1	+ 40.8	+ 6.7	+ 11.7	
J. B. Dent	3970	+ 50.4	+ 64.8	+ 67.5	+ 68.9	+ 67.4	+ 64.4	+ 61.3	+ 27.3	+ 32.1	+ 24.3	+ 6.3	+ 42.2
Hall	3887	+ 5.8	+ 3.7	+ 3.0	+ 0.9	+ 10.3	+ 12.3	+ 1.9	+ 43.8	+ 5.4	+ 13.8	+ 22.2	+ 3.3
Bolton Smith	178	+ 1.3	+ 4.3	+ 1.6	+ 0.9	+ 7.3	+ 5.8	+ 4.0	+ 100.1	+ 31.5	+ 40.3	+ 73.6	+ 3.9
Brookbank, Atkins and Moore	74449	+ 1.8	+ 1.5	+ 0.3	+ 3.5	+ 8.5	+ 17.5	+ 15.8	+ 0.5	+ 108.4	+ 13.7	+ 17.7	+ 20.9
Hall	1672	+ 24.9	+ 27.3	+ 22.7	+ 28.0	+ 18.0	+ 15.6	+ 41.5	+ 45.9	+ 42.9	+ 53.0	+ 69.5	+ 59.7
Hall	1673	+ 0.7	+ 3.1	+ 3.7	+ 1.4	+ 1.4	+ 0.4	+ 3.8	+ 23.1	+ 15.4	+ 0.0	+ 1.2	+ 24.0
Bolton Smith	179	+ 1.3	+ 4.2	+ 6.8	+ 3.3	+ 17.3	+ 24.0	+ 33.6	+ 30.3	+ 113.8	+ 64.6	+ 52.9	+ 27.8
Johannsen and Co.	6493	+ 3.9	+ 8.2	+ 7.5	+ 10.2	+ 13.4	+ 1.1	+ 0.4	+ 0.4	+ 0.4	+ 6.5	+ 21.4	+ 18.5
M. F. Dent	31214	+ 28.9	+ 12.1	+ 12.1	+ 14.5	+ 9.4	+ 9.3	+ 16.6	+ 3.5	+ 34.1	+ 35.7	+ 3.9	+ 17.0
Usher and Cole	35792	+ 3.1	+ 3.7	+ 5.8	+ 3.6	+ 4.1	+ 3.3	+ 16.7	+ 21.2	+ 15.9	+ 3.0	+ 35.9	+ 23.9
Mean Weekly Temperature...		56°2	56°0	56°1	56°0	55°5	55°2	77°2	81°4	80°3	79°3		
Extremes of Temperature as shown by the Self-Registering Thermometers...		55°5-56°4	55°4-56°5	55°5-57°0	55°0-56°4	46°1-55°8	45°1-55°9	56°1-56°5	55°3-56°9	55°4-56°1	77°9-82°4		

* The Weekly Rates have been computed from the rates for three days. † The Weekly Rates have been computed from the rates for four days. During the period Dec. 8 to Jan. 5, the watches were placed in an oven heated by jets of gas, the temperature being regulated by Kailberg'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.

ROYAL OBSERVATORY, GREENWICH, FROM 1894 OCTOBER 27 TO 1895 FEBRUARY 16—CLASS A. (continued).

(2) ABSTRACT OF THE PRINCIPAL CHANGES OF RATE.

WATCHES TRIED IN THE TRIAL.						WATCHES TRIED IN THE TRIAL.					WATCHES TRIED IN THE TRIAL.		WATCHES TRIED IN THE TRIAL.		WATCHES TRIED IN THE TRIAL.		WATCHES TRIED IN THE TRIAL.		WATCHES TRIED IN THE TRIAL.	
Jan. 5-12.	Jan. 12-19.	Jan. 19-26.	Jan. 26 to Feb. 2.	Feb. 2-9.	Feb. 9-16.	Difference between greatest and least Weekly Rates.	Greatest difference between one week and the next.	Difference of Weekly Rates.					Trials Number.	NAME OF MAKER.		No.				
Watch Horizontal. Dial up.						Dial up.	Dial up.	Pendant up.	Dial up.	Dial up.	Pendant left.	Pendant right.	$a + 2b + c + d + e$							
						a.	b.	c.	d.	e.										
+ 34.3	+ 31.9	+ 31.7	+ 35.1	+ 32.6	+ 31.9	38°8	15°4	+ 5.2	+ 26.7	+ 20.9	79.5	Johannsen and Co.	6514			6514				
- 1.7	- 0.4	- 0.6	- 4.2	- 1.0	- 9.1	18°9	16°5	+ 20.1	- 38.0	- 38.0	77.9	Johannsen and Co.	6498			6498				
+ 40.6	+ 34.0	+ 35.4	+ 33.9	+ 35.1	+ 30.8	43°9	19°1	- 17.9	- 15.3	- 13.2	82.0	J. White and Son.	35384			35384				
+ 13.1	+ 20.4	+ 24.2	+ 25.8	+ 20.6	+ 19.4	44°2	13°8	- 10.7	- 9.1	- 21.7	82.5	Fridham	35312			35312				
+ 42.9	+ 31.9	+ 33.7	+ 35.6	+ 30.9	+ 25.7	45°3	16°1	+ 0.2	+ 11.5	+ 14.0	82.9	Johannsen and Co.	6515			6515				
+ 30.5	+ 15.0	+ 15.2	+ 4.8	- 0.1	- 3.0	33°8	17°4	- 14.3	- 46.4	+ 8.3	84.9	Weir	51988			51988				
- 11.3	- 9.4	- 5.3	- 11.1	- 14.2	- 17.8	29°8	19°0	+ 24.3	- 13.9	+ 15.5	84.9	Johannsen and Co.	6510			6510				
- 6.9	- 3.4	- 3.0	- 6.7	- 10.1	- 18.9	29°6	19°6	- 7.2	- 9.2	- 30.5	84.9	Brookbank, Atkins and Moore	74518			74518				
- 7.6	- 9.1	+ 13.5	+ 13.3	+ 15.3	+ 20.7	30°5	13°7	+ 0.4	- 65.5	- 79.7	85.6	Hall	3972			3972				
+ 0.5	- 3.5	- 0.4	- 2.6	- 6.3	+ 2.8	30°5	32°8	- 11.3	- 20.4	- 16.4	87.0	McGregor	41984			41984				
- 55.6	- 55.8	- 62.0	- 58.5	- 58.3	- 68.8	37°0	17°3	- 3.2	+ 23.4	+ 51.0	87.3	Holland	3790			3790				
+ 16.4	+ 9.3	+ 5.1	- 15.5	+ 14.2	+ 12.7	36°8	10°5	+ 33.8	+ 13.0	+ 27.6	88.1	Johannsen and Co.	6517			6517				
- 9.0	- 12.4	+ 1.6	+ 2.0	+ 2.8	+ 6.6	32°0	14°0	+ 31.3	+ 15.7	- 54.0	88.7	Buckney	35790			35790				
+ 12.7	+ 10.6	+ 7.0	+ 0.1	- 3.6	+ 4.5	32°3	24°4	- 0.0	- 2.3	- 25.1	89.2	J. White and Son.	35138			35138				
- 59.3	- 58.5	- 63.7	- 60.6	- 53.0	- 53.1	37°6	23°1	+ 1.9	+ 15.7	+ 17.8	89.6	J. B. Dent	3970			3970				
+ 10.9	- 17.0	- 13.3	- 20.7	- 22.7	- 23.9	35°7	14°7	+ 45.4	+ 2.8	+ 10.2	90.0	Hall	3887			3887				
+ 4.4	+ 12.6	+ 3.9	+ 10.9	+ 6.4	+ 6.9	19°9	8°2	+ 35.6	+ 25.2	+ 24.0	90.3	Bolton Smith	178			178				
+ 2.5	+ 0.1	+ 0.9	- 1.2	- 3.1	- 5.9	36°7	33°4	+ 1.4	- 13.7	- 57.3	91.9	Brookbank, Atkins and Moore	74449			74449				
+ 38.9	+ 39.0	+ 42.6	+ 31.7	+ 25.3	+ 23.1	41°7	22°9	+ 7.6	- 7.7	+ 2.4	92.0	Hall	1672			1672				
+ 12.4	+ 6.0	- 10.7	- 11.1	- 19.0	- 21.4	45°4	18°4	- 24.9	+ 1.5	+ 13.9	92°3	Hall	1673			1673				
+ 32.2	+ 15.0	+ 9.1	+ 16.0	+ 20.6	+ 27.4	37°2	17°2	+ 10.9	+ 38.1	+ 33.9	97.4	Bolton Smith	179			179				
- 39.2	- 43.7	- 41.2	- 35.5	- 33.9	- 29.4	44°5	20°7	+ 19.6	+ 8.5	+ 1.9	97.7	Johannsen and Co.	6493			6493				
- 2.7	- 15.9	- 4.3	- 1.9	- 3.7	- 5.3	35°8	18°3	+ 17.0	- 9.5	- 9.5	97.9	M. F. Dent	31214			31214				
- 0.7	- 3.2	+ 2.6	- 1.4	- 4.0	- 9.4	33°3	24°6	+ 13.3	- 35.2	- 23.2	99.1	Usher and Cole	35792			35792				
45°4	45°9	45°9	44°0	41°1	35°0	The sign + indicates a gaining rate. The quantities a, b, c, d, e, in the formula $a + 2b + c + d + e$, are taken numerically, without regard to sign.														
41°1-55°1	45°5-51°4	44°2-54°0	35°4-55°5	35°4-45°4	25°8-45°2	Fridham, 35312. The maladjusting of this watch broke during the 2nd week of the trial. It was sent to the maker and returned the same week. Only those watches have been included in this list for which the trial number did not exceed 100.														

RATES OF DECK WATCHES ON TRIAL FOR PURCHASE BY THE ADMIRALTY AT THE

(1) WEEKLY RATES IN ORDER OF TIME

NAME OF MAKER.	No.	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.
		Watch Horizontal. Dial up.						Watch Vertical. Pendant up.		Watch Horizontal. Dial up.	
Bolton Smith	178	+ 22.4	+ 22.8	+ 22.8	+ 20.4	+ 15.7	+ 17.0	+ 20.7	+ 10.3	+ 20.4	
Usher and Cole	1452	- 12.3	- 10.6	- 22.3	- 24.5	- 27.1	- 28.6	- 10.8	- 12.8	- 13.8	- 22.5
Kendal and Dent	3847	+ 24.8	+ 20.8	+ 22.8	+ 22.8	+ 25.2	+ 23.7	+ 22.8	+ 21.1	+ 21.0	+ 41.0
Buckney	30729	- 10.9	- 10.8	- 10.4	- 6.3	- 8.5	- 8.1	+ 8.1	+ 2.5	+ 1.0	- 10.9
Usher and Cole	1463	- 17.6	- 25.6	- 24.4	- 20.8	- 22.5	- 21.1	- 6.2	+ 8.0	- 8.4	
Brookbank, Atkins and Moore	74851	+ 10.5	+ 5.6	+ 6.2	+ 6.4	+ 3.9	+ 2.6	- 3.4	- 2.1	- 9.9	- 20.7
J. White and Son	34455	+ 23.8	+ 26.8	+ 21.7	+ 21.8	+ 25.2	+ 27.5	+ 23.4	+ 20.0	+ 20.8	+ 75.9
Usher and Cole	38664	+ 12.6	- 6.4	- 2.6	- 8.9	- 5.7	- 8.5	+ 2.2	+ 20.8	+ 1.3	- 19.5
Usher and Cole	3945	+ 10.4	- 7.6	+ 6.0	+ 8.4	+ 5.3	+ 4.0	+ 10.1	+ 8.5	- 7.4	- 10.2
Bolton Smith	180	- 33.2	- 24.7	- 25.5	- 21.3	- 22.9	- 21.0	- 27.0	- 165.0	- 25.9	- 32.3
Kendal and Dent	13929	+ 22.4	+ 17.0	+ 19.1	+ 14.5	+ 13.7	+ 12.7	+ 20.1	+ 22.8	+ 24.3	+ 10.7
Buckney	30905	+ 8.1	+ 1.9	- 9.8	+ 0.9	- 19.6	- 22.1	+ 7.4	+ 24.0	+ 21.2	- 10.4
Usher and Cole	38669	- 20.8	- 22.5	- 27.7	- 28.0	- 25.2	- 29.3	- 14.2	+ 3.6	- 20.7	- 65.6
Usher and Cole	28566	+ 12.9	+ 9.7	+ 10.7	+ 0.7	+ 2.5	+ 4.5	- 11.3	- 80.1	- 24.7	- 14.2
Ballantyne	32379	+ 10.7	+ 12.7	- 7.7	- 27.2	- 33.1	- 29.9	- 48.0	- 32.3	- 30.8	- 32.1
Bolton Smith	177	+ 12.0	+ 9.3	+ 3.2	- 1.5	- 14.1	- 19.5	- 16.3	- 14.5	- 10.8	- 42.3
Ballantyne	32678	- 22.3	- 60.9	- 91.3	- 24.7	- 95.5	- 91.4	- 65.3	- 43.7	- 64.8	- 77.6
"S. Smith and Son	193-13	- 3.5	- 8.4	- 20.1	- 27.5	- 31.6	- 34.0	- 26.6	+ 13.4	- 27.4	- 30.3
Kendal and Dent	21272	- 10.9	- 48.1	- 39.3	- 27.7	- 18.0	- 16.0	- 33.1	+ 64.6	- 13.3	- 30.3
Buckney	30902	+ 56.3	+ 57.2	+ 55.7	+ 45.6	+ 51.4	+ 50.0	+ 56.5	+ 7.0	+ 101.6	+ 74.1
Usher and Cole	28568	- 15.6	- 15.6	- 21.3	- 20.1	- 27.8	- 27.2	+ 0.9	- 2.5	+ 2.3	- 43.1
"S. Smith and Son	193-15	- 19.2	- 20.4	- 30.6	- 41.8	- 45.4	- 47.5	- 26.0	- 80.7	- 35.9	- 60.2
Kendal and Dent	3849	- 2.5	- 2.2	- 9.8	- 17.6	- 15.2	- 20.1	+ 6.5	- 2.6	+ 21.9	- 23.1
Buckney	30746	- 0.1	- 13.8	- 24.4	- 33.9	- 28.4	- 34.6	- 15.2	+ 9.9	- 22.5	- 18.7
Buckney	30008	- 1.1	+ 17.4	+ 28.9	+ 30.1	+ 27.3	+ 26.4	+ 12.4	+ 12.1	+ 91.3	+ 29.3
"S. Smith and Son	193-17	- 20.3	- 22.7	- 35.6	- 44.9	- 53.0	- 54.5	- 12.5	- 5.7	- 1.3	- 23.8
"S. Smith and Son	193-18	- 20.0	- 20.8	- 45.7	- 55.6	- 55.6	- 64.1	- 14.3	+ 21.4	+ 9.4	- 21.1
Usher and Cole	3947	- 4.7	- 12.3	- 27.0	- 35.9	- 52.8	- 52.8	- 13.3	+ 0.3	- 15.3	- 21.6
Mean Weekly Temperature		59.2	59.0	54.1	54.0	53.5	52.2	77.2	81.4	80.3	60.1
Extremes of Temperature as shown by the Self-Registering Thermometers		55.5-59.4	55.4-61.9	50.5-57.9	51.0-59.4	49.1-58.3	45.1-58.9	56.1-56.5	58.3-58.9	59.4-58.1	41.3-51.2

During the period Dec. 8 to Dec. 20, the watches were placed in an oven 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.

ROYAL OBSERVATORY, GREENWICH, FROM 1894 OCTOBER 27 TO 1895 FEBRUARY 9—CLASS B.

(2) ABSTRACT OF THE PRINCIPAL CHANGES OF RATE.

Jan. 5-12.	Jan. 12-19.	Jan. 19-26.	Jan. 26 to Feb. 2.	Feb. 2-9.	Difference between greatest and least Weekly Rates.	Greatest difference between one week and the next.	Difference of Weekly Rates.	Trial Number.	NAME OF MAKER.	No.
Watch Horizontal. Dial up.					Dial up. a.	Dial up. b.	Pendant up. -Dial up. c.	$a + 2b + \frac{c}{2}$		
+ 14.6	+ 10.1	+ 15.8	+ 4.7	- 0.4	23.6	11.1	- 8.3	50.0	Bolton Smith	178
- 13.0	- 15.1	- 4.8	- 13.5	- 20.1	23.8	17.8	- 0.5	59.7	Usher and Cole	1452
+ 42.9	+ 42.2	+ 48.8	+ 33.7	+ 20.9	20.4	15.1	- 2.5	59.9	Kendal and Dent	3847
- 10.7	- 3.6	- 4.2	- 22.4	- 24.8	20.9	13.2	- 2.4	70.5	Buckney	30729
- 10.3	- 11.1	- 16.0	- 14.7	- 14.5	37.8	20.4	- 0.1	81.7	Usher and Cole	1463
- 31.0	- 27.8	- 27.0	- 24.7	- 25.6	40.1	19.3	+ 4.8	82.0	Brookbank, Atkins and Moore	74851
+ 71.0	+ 62.2	+ 72.0	+ 73.4	+ 68.4	49.6	23.1	+ 4.4	92.0	J. White and Son	34455
- 19.5	- 14.5	- 10.7	- 23.9	- 33.8	44.4	20.8	+ 26.8	101.4	Usher and Cole	28564
- 26.2	- 15.6	- 13.8	- 20.8	- 50.8	61.2	21.3	+ 7.1	107.4	Usher and Cole	3945
- 27.0	- 29.7	- 28.9	- 29.2	- 43.3	17.4	14.0	- 138.1	114.5	Bolton Smith	180
+ 6.3	+ 9.9	+ 14.8	+ 1.9	- 6.0	40.3	23.6	- 55.0	115.5	Kendal and Dent	13929
- 27.8	- 25.8	- 14.7	- 15.6	- 18.0	49.0	31.6	+ 19.7	123.1	Buckney	30905
- 69.3	- 68.9	- 65.1	- 65.8	- 72.2	63.0	24.9	+ 24.9	123.3	Usher and Cole	28566
- 21.4	- 20.1	- 25.5	- 42.4	- 62.4	65.5	16.9	- 63.1	130.2	Usher and Cole	28566
- 41.4	- 47.2	- 50.4	- 65.0	- 78.0	90.7	20.4	+ 7.1	135.1	Ballantyne	32379
- 49.2	- 49.5	- 50.3	- 61.4	- 60.5	78.4	31.5	- 0.9	135.9	Bolton Smith	177
- 81.0	- 80.9	- 86.4	- 81.8	- 80.9	67.2	22.6	+ 10.9	142.4	Ballantyne	32678
- 66.0	- 69.7	- 70.9	- 68.7	- 89.2	85.7	19.3	+ 4.6	144.5	"S. Smith and Son	193-13
- 31.5	- 27.1	- 20.2	- 32.6	- 45.5	35.7	22.2	+ 90.3	145.3	Kendal and Dent	21272
+ 58.1	+ 57.1	+ 55.2	+ 49.9	+ 44.6	55.7	27.5	- 56.1	156.8	Buckney	30902
- 47.3	- 48.9	- 41.5	- 57.0	- 63.2	65.5	45.4	- 4.1	159.4	Usher and Cole	28568
- 79.3	- 91.4	- 93.1	- 102.5	- 109.2	90.0	24.3	- 49.7	163.5	"S. Smith and Son	193-15
- 53.0	- 29.9	- 23.8	- 45.5	- 45.5	69.7	45.0	+ 16.7	167.1	Kendal and Dent	3849
- 12.9	+ 4.6	+ 19.1	- 23.0	- 26.9	63.0	52.1	+ 29.5	171.2	Buckney	30726
+ 71.8	+ 54.6	+ 22.5	+ 10.7	+ 14.9	92.4	22.1	- 20.8	179.5	Buckney	30008
- 46.5	- 65.4	- 52.2	- 20.3	- 23.9	90.6	42.0	+ 1.3	177.3	"S. Smith and Son	193-17
- 42.5	- 63.7	- 55.3	- 60.3	- 68.5	77.9	49.8	- 2.9	180.9	"S. Smith and Son	193-18
- 47.6	- 61.3	- 74.7	- 63.7	- 50.1	70.0	55.2	+ 14.5	189.7	Usher and Cole	3947
45.4	45.9	48.9	44.0	41.1	The sign + indicates a gaining rate. The quantities a, b, c, in the formula $a + 2b + \frac{c}{2}$, are taken numerically, without regard to sign.					
51.1-53.1	50.6-51.4	44.2-54.0	38.4-50.5	23.4-40.4						

Only those watches have been included in this list for which the trial number did not exceed 200.
* This signifies that the watch is non-magnetic.