

RATES OF DECK WATCHES

ON TRIAL

FOR PURCHASE BY THE BOARD OF ADMIRALTY,

AT THE

ROYAL OBSERVATORY, GREENWICH.

FROM 1903 OCTOBER 24 TO 1904 FEBRUARY 13.

(2) **ABSTRACT OF THE PRINCIPAL CHANGES OF RATES.**

Jan. 2-9.	Jan. 9-16.	Jan. 16-23.	Jan. 23-30.	Jan. 30 to Feb. 6.	Feb. 6-13.	Difference between greatest and least and Rate. Dial up.	Greatest difference between one week and next. Dial up.	Difference of Weekly Rates.			Total Number.	NAME OF MAKER		No.
Watch Horizontal. Dial up.						Pendant right Dial up.	Pendant right Dial up.	Pendant right Dial up.	Pendant right Dial up.	$a + 2b +$ $\frac{1}{2}(-c + \frac{d^2}{2})$				
0-0	+ 0-8	- 3-0	- 2-0	- 1-1	+ 0-8	7-1	2-8	- 6-8	- 8-9	- 5-3	20-4	2 Bonnikens	57066	
17-5	21-2	- 20-1	20-2	20-2	22-4	2-9	4-8	- 14-8	- 11-3	- 3-8	23-0	2 Paces and Sons	57081	
- 19-7	- 22-9	- 26-5	- 28-6	- 21-6	- 20-5	19-1	4-0	- 3-0	+ 1-1	- 3-8	31-4	2 Chandler	56946	
+ 14-0	- 17-6	+ 15-0	+ 12-2	+ 17-0	- 18-6	17-9	6-0	- 3-0	+ 3-0	- 8-0	34-0	2 Paces and Sons	56975	
+ 3-1	- 3-5	+ 1-6	+ 1-1	+ 0-7	+ 4-6	12-1	7-7	+ 16-9	+ 11-8	- 8-0	37-3	2 Smith and Bait	58014	
- 19-4	- 20-4	- 24-9	- 23-0	- 23-9	- 21-0	15-7	4-5	+ 16-9	+ 12-1	+ 14-9	37-7	2 Voemann	88251	
- 23-2	- 10-4	- 23-7	- 22-1	- 23-0	- 22-7	21-3	8-3	+ 3-8	+ 5-8	+ 6-2	41-8	1 Newcome and Co.,	151287	
- 23-0	- 17-2	- 21-9	- 24-1	- 25-0	- 24-9	19-7	7-9	- 6-4	- 8-4	- 10-8	41-8	1 Newcome and Co.,	151289	
- 30-2	- 12-5	- 1-7	- 1-0	- 16-1	- 16-8	18-8	7-9	- 8-8	+ 10-6	- 11-0	40-2	2 Cameron and Son	33321	
- 15-4	- 12-8	- 15-1	- 15-0	- 11-0	- 11-5	18-5	9-6	+ 6-2	+ 5-1	+ 4-9	42-5	2 Sims	74850	
- 10-5	- 5-1	- 16-5	- 14-6	- 13-5	- 7-5	24-4	8-9	- 0-1	- 1-9	+ 0-9	42-8	2 Fridlander	26514	
+ 22-1	+ 23-4	+ 23-2	+ 24-1	+ 20-7	+ 20-5	4-0	- 1-2	- 30-4	- 4-0	- 4-1	44-1	1 J. Hewitt	50378	
- 3-6	- 0-5	- 2-1	- 2-2	- 2-5	- 2-0	15-1	4-0	- 1-5	- 21-2	- 21-7	44-3	1 Preston	86213	
+ 4-5	- 1-1	+ 1-3	+ 1-0	+ 4-8	+ 0-9	6-7	+ 24-2	+ 22-4	+ 22-9	- 44-3	44-3	2 Voemann	76185	
- 44-5	- 46-2	- 52-2	- 51-0	- 50-8	- 50-0	24-5	6-0	- 10-8	- 10-9	- 12-1	45-7	2 Bonnikens	56985	
+ 5-4	+ 12-0	+ 2-5	+ 3-6	+ 8-1	+ 13-1	38-4	10-6	- 6-2	- 13-4	- 10-1	46-6	2 S. Smith and Sons	139388	
+ 5-9	+ 8-9	+ 7-4	+ 7-0	+ 9-8	+ 20-7	22-5	8-1	- 11-4	- 13-0	- 10-0	46-6	2 J. White and Son	37555	
- 30-6	- 20-8	- 25-1	- 28-0	- 31-1	- 31-7	18-6	8-0	- 28-5	- 28-8	- 25-8	46-8	1 Newcome and Co.,	148646	
+ 25-1	+ 31-5	+ 21-1	+ 30-0	+ 32-4	+ 37-9	21-2	12-4	- 4-6	+ 1-9	+ 1-2	46-8	1 Newcome and Co.,	148645	
- 7-4	- 3-8	- 0-7	- 0-4	- 0-8	- 4-4	16-8	5-3	+ 15-9	+ 12-9	+ 40-7	51-8	2 Paces and Sons	57080	
+ 6-1	+ 15-5	+ 13-5	+ 10-7	+ 6-9	+ 9-2	20-6	9-4	- 20-2	- 12-7	- 16-2	51-8	2 Thorncroft	10984	
- 15-0	- 14-1	- 14-8	- 11-4	- 11-4	- 11-1	20-2	14-2	- 19-9	- 5-4	- 4-0	52-3	2 Paces and Sons	57082	
- 11-7	- 11-7	- 13-3	- 10-8	- 8-7	- 8-7	19-6	10-3	- 17-3	- 17-3	- 17-7	52-7	2 Paces and Sons	57083	
- 21-1	- 14-4	- 14-0	- 12-4	- 10-5	- 8-8	19-8	13-6	- 17-8	- 18-6	- 2-1	52-8	1 Taylor and Oake	602	
+ 25-1	+ 32-6	+ 29-1	+ 24-8	+ 24-8	+ 25-2	11-9	8-0	- 21-8	- 18-8	- 40-5	53-7	2 Reid and Sons	33316	
+ 15-9	+ 14-1	+ 9-8	+ 8-3	+ 9-5	+ 8-9	19-8	6-8	- 25-9	- 23-8	- 27-4	54-4	2 Fridlander	26513	
- 4-4	- 8-6	- 11-5	- 10-4	- 10-0	- 12-3	14-7	14-7	+ 11-3	+ 13-9	+ 13-9	54-4	2 Voemann	88252	
+ 10-7	+ 9-4	+ 9-4	+ 8-	+ 8-	+ 8-	14-7	14-7	+ 11-3	+ 13-9	+ 13-9	54-4	2 J. Player and Son	38110	
+ 11-4	+ 9-7	+ 9-7	+ 8-0	+ 7-7	+ 7-6	19-9	15-3	+ 6-9	+ 7-5	+ 6-8	55-5	1 Newcome and Co.,	151291	
+ 3-2	+ 0-1	- 0-8	- 1-0	- 1-0	- 2-0	10-3	6-1	- 42-1	- 40-4	- 39-5	56-9	2 Preston	33310	
- 7-1	- 4-5	- 9-0	- 7-0	- 4-9	- 2-2	15-3	11-5	- 16-6	- 42-0	- 21-1	57-0	2 Anderson	36229	
- 39-8	- 38-5	- 42-8	- 41-0	- 38-1	- 36-9	16-4	13-4	+ 2-9	- 38-0	- 38-7	57-2	2 Mallory	50672	
- 7-9	- 7-9	- 11-2	- 9-6	- 8-6	- 6-1	16-4	15-1	+ 1-1	+ 7-4	+ 8-1	57-2	1 J. Hewitt	32159	
- 2-0	- 0-2	- 0-4	- 0-2	- 1-4	- 1-4	15-4	7-7	+ 3-9	+ 3-9	+ 3-9	58-0	1 L. Hall	17601	
+ 22-5	+ 24-0	+ 21-3	+ 24-2	+ 25-9	+ 31-6	22-1	12-5	- 16-7	- 18-1	- 4-1	58-4			
- 22-8	- 19-1	- 19-6	- 18-6	- 16-6	- 15-4	22-2	10-1	- 18-3	- 20-9	- 21-1	59-6	2 Bonnikens	56985	
- 21-1	- 17-1	- 17-6	- 16-6	- 14-6	- 13-4	22-8	10-1	- 14-9	- 17-3	- 13-4	59-2	2 Wales & McCulloch	56971	
+ 0-7	+ 8-7	+ 1-8	- 3-1	- 0-6	- 12-1	20-9	9-9	+ 21-5	+ 23-5	+ 24-9	59-2	2 O. Grier and Son	50494	
- 20-0	- 20-8	- 20-0	- 20-9	- 20-1	- 18-4	18-1	10-2	- 24-6	- 24-3	- 20-0	59-2	2 Chandler	56984	
- 24-9	- 19-6	- 24-8	- 25-2	- 19-0	- 15-0	22-4	13-9	+ 4-0	- 28-2	+ 10-4	59-5	2 Ollivant & Betofo	91188	
48-7	50-2	49-1	50-1	50-2	50-1									
The sign + indicates a gaining rate. The quantities a, b, c, d, e , in the formula $a + 2b + \frac{1}{2}(-c + \frac{d^2}{2})$, are taken numerically, without regard to sign.														
48-5, 49-7	47-52-8	46-1-54-1	45-50-8-3	44-9-53-7	43-50-54-2									

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 or MAKER.	No.	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. 12-16.	Dec. 16-19.	Dec. 19-22.	Dec. 22-26.	Dec. 26 to Jan. 2.
		Watch Horizontal. Dial up.						Watch Vertical. Pendant up.	Watch Vertical. Pendant right.	Watch Vertical. Pendant left.	Watch Vertical. Pendant up.	Watch Horizontal. Dial up.	
Newsome and Co.	151091	+ 7.3	+ 8.0	+ 5.9	+ 10.4	+ 8.9	+ 8.5	+ 21.1	+ 36.4	+ 35.0	+ 39.4	+ 38.9	+ 30.5
Yoman	82316	+ 15.0	+ 12.6	+ 13.5	+ 7.5	+ 8.7	+ 7.6	+ 1.1	+ 22.2	+ 8.6	+ 36.4	+ 27.1	+ 6.6
Newsome and Co.	145927	+ 3.9	+ 5.8	+ 12.0	+ 10.4	+ 14.3	+ 14.7	+ 8.4	+ 4.0	+ 6.6	+ 6.1	+ 2.2	+ 6.2
Yoman	82312	+ 4.2	+ 3.5	+ 4.2	+ 3.8	+ 5.2	+ 2.7	+ 8.7	+ 3.0	+ 60.2	+ 7.9	+ 21.0	+ 17.1
Newsome and Co.	145735	+ 6.6	+ 4.4	+ 10.6	+ 5.7	+ 1.6	+ 9.6	+ 0.9	+ 12.3	+ 9.3	+ 7.5	+ 9.8	+ 5.1
Newsome and Co.	148644	+ 2.9	+ 10.5	+ 9.7	+ 16.8	+ 13.9	+ 16.6	+ 13.3	+ 18.9	+ 24.5	+ 31.7	+ 38.4	+ 25.6
Chandler	56980	+ 15.9	+ 19.2	+ 19.4	+ 21.2	+ 22.4	+ 29.7	+ 38.9	+ 27.1	+ 22.4	+ 29.7	+ 27.0	+ 43.6
Bonniksen	56987	+ 20.0	+ 20.5	+ 24.6	+ 17.9	+ 21.2	+ 20.1	+ 22.6	+ 13.1	+ 14.0	+ 17.7	+ 14.5	+ 20.9
H. White (Manchester)	35320	+ 2.1	+ 20.6	+ 21.4	+ 22.0	+ 22.4	+ 13.9	+ 25.8	+ 28.4	+ 22.6	+ 21.2	+ 19.3	+ 14.0
Hawthorn	1679	+ 6.6	+ 8.8	+ 10.9	+ 10.8	+ 9.2	+ 13.1	+ 0.4	+ 6.1	+ 2.1	+ 2.8	+ 3.9	+ 1.2
J. R. Dent & Sons	9294	+ 11.2	+ 7.8	+ 11.4	+ 8.7	+ 13.7	+ 9.2	+ 5.2	+ 16.5	+ 19.8	+ 20.1	+ 20.8	+ 0.2
Newsome and Co.	145738	+ 10.0	+ 6.0	+ 10.8	+ 7.9	+ 11.2	+ 14.5	+ 1.2	+ 13.7	+ 9.3	+ 12.4	+ 11.9	+ 0.1
J. Hewitt	59171	+ 11.5	+ 8.4	+ 5.8	+ 7.6	+ 4.4	+ 7.6	+ 19.3	+ 3.2	+ 18.9	+ 2.8	+ 1.6	+ 2.0
Newsome and Co.	145705	+ 9.7	+ 14.2	+ 13.6	+ 14.2	+ 13.6	+ 14.2	+ 13.6	+ 14.2	+ 13.6	+ 14.2	+ 13.6	+ 14.2
J. White and Sons	35174	+ 11.1	+ 36.2	+ 38.4	+ 28.4	+ 38.6	+ 4.7	+ 0.8	+ 4.5	+ 50.2	+ 18.4	+ 44.1	+ 59.9
P. and A. Guye, Ltd.	12946	+ 4.1	+ 6.0	+ 5.7	+ 8.2	+ 8.5	+ 8.1	+ 19.7	+ 5.1	+ 40.4	+ 29.5	+ 6.7	+ 24.9
Newsome and Co.	151338	+ 9.9	+ 3.2	+ 3.9	+ 6.7	+ 3.2	+ 4.1	+ 6.9	+ 10.0	+ 11.0	+ 10.2	+ 16.1	
J. Player and Son	30294	+ 23.3	+ 25.5	+ 21.4	+ 36.2	+ 30.6	+ 38.2	+ 18.6	+ 33.6	+ 32.7	+ 36.2	+ 38.2	+ 31.0
Pots and Sons	30313	+ 13.1	+ 6.0	+ 2.1	+ 2.8	+ 1.9	+ 1.5	+ 10.7	+ 4.6	+ 9.9	+ 15.6	+ 15.1	+ 10.8
Newsome and Co.	151092	+ 13.6	+ 11.9	+ 10.0	+ 17.7	+ 16.7	+ 17.4	+ 24.3	+ 3.7	+ 2.6	+ 8.2	+ 9.5	+ 86.1
J. Player and Son	30291	+ 8.7	+ 10.2	+ 11.6	+ 13.1	+ 13.7	+ 15.1	+ 5.1	+ 3.8	+ 2.8	+ 6.5	+ 1.2	
Newsome and Co.	151336	+ 18.4	+ 10.5	+ 10.8	+ 6.1	+ 12.8	+ 9.5	+ 36.2	+ 3.2	+ 7.3	+ 3.2	+ 1.3	+ 1.2
L. Hall	1783	+ 30.9	+ 31.3	+ 25.9	+ 15.9	+ 21.8	+ 8.9	+ 21.1	+ 7.5	+ 37.1	+ 7.2	+ 18.8	+ 36.8
Newsome and Co.	151340	+ 15.6	+ 18.6	+ 19.6	+ 22.1	+ 19.3	+ 21.8	+ 14.6	+ 26.0	+ 27.1	+ 6.1	+ 17.4	+ 6.1
P. and A. Guye, Ltd.	11671	+ 17.1	+ 16.2	+ 15.3	+ 13.9	+ 10.6	+ 3.3	+ 0.0	+ 27.0	+ 26.6	+ 6.1	+ 19.1	+ 14.2
Newsome and Co.	151089	+ 2.0	+ 1.8	+ 6.3	+ 8.1	+ 9.1	+ 14.3	+ 12.9	+ 6.0	+ 7.2	+ 6.1	+ 5.8	+ 4.6
Newsome and Co.	151339	+ 11.9	+ 8.9	+ 9.7	+ 10.6	+ 9.7	+ 10.6	+ 9.7	+ 10.6	+ 9.7	+ 10.6	+ 9.7	+ 10.6
J. Hewitt	58347	+ 2.9	+ 11.5	+ 8.3	+ 13.2	+ 9.0	+ 8.8	+ 7.2	+ 26.6	+ 23.3	+ 26.6	+ 23.3	+ 26.6
J. Hewitt	37241	+ 10.0	+ 6.3	+ 5.7	+ 18.3	+ 16.3	+ 23.9	+ 19.4	+ 18.7	+ 11.7	+ 9.5	+ 18.2	+ 13.7
Newsome and Co.	145700	+ 7.7	+ 5.7	+ 0.3	+ 1.9	+ 12.0	+ 1.1	+ 8.4	+ 15.9	+ 15.0	+ 10.5	+ 18.2	+ 11.6
Newsome and Co.	145699	+ 14.5	+ 2.8	+ 3.7	+ 11.0	+ 8.1	+ 0.2	+ 19.2	+ 23.6	+ 28.2	+ 2.6	+ 31.2	+ 15.8
G. Carley and Co.	50443	+ 15.1	+ 8.2	+ 9.8	+ 15.9	+ 23.2	+ 20.0	+ 21.5	+ 13.5	+ 8.6	+ 13.1	+ 11.8	+ 22.9
Kendal and Dent	31333	+ 4.3	+ 0.9	+ 4.5	+ 2.6	+ 10.2	+ 11.3	+ 29.6	+ 41.0	+ 41.1	+ 2.4	+ 7.3	+ 7.3
Uhrhardt	190365	+ 13.8	+ 10.0	+ 18.3	+ 15.5	+ 17.7	+ 9.1	+ 29.1	+ 23.5	+ 4.9	+ 11.9	+ 29.6	+ 20.1
Uhrhardt and Cole	30684	+ 23.1	+ 24.6	+ 12.0	+ 24.1	+ 26.8	+ 19.3	+ 30.6	+ 22.2	+ 10.7	+ 61.6	+ 29.1	+ 44.1
L. Hall	1781	+ 7.7	+ 10.2	+ 15.3	+ 15.4	+ 13.1	+ 19.1	+ 7.2	+ 35.0	+ 28.0	+ 44.4	+ 47.1	+ 2.8
Bonniksen	56979	+ 30.8	+ 29.0	+ 32.8	+ 32.9	+ 31.9	+ 35.5	+ 41.8	+ 40.6	+ 42.9	+ 45.3	+ 47.0	+ 47.0
Kendal and Dent	31333	+ 4.3	+ 0.9	+ 4.5	+ 2.6	+ 10.2	+ 11.3	+ 29.6	+ 41.0	+ 41.1	+ 2.4	+ 7.3	+ 7.3
Uhrhardt	190367	+ 16.4	+ 10.9	+ 1.9	+ 4.3	+ 3.7	+ 3.0	+ 15.5	+ 4.0	+ 25.4	+ 4.0	+ 6.8	+ 14.6
J. Player and Son	32316	+ 5.3	+ 1.5	+ 1.9	+ 1.0	+ 2.7	+ 5.3	+ 14.6	+ 11.2	+ 10.5	+ 9.5	+ 10.9	+ 14.6
Mean Weekly Temperature	56.3	56.6	54.4	54.4	54.3	49.4	84.7	86.1	88.5	88.5	88.5	85.5	85.5

* 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. 4, 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 1903 OCTOBER 24 TO 1904 FEBRUARY 13.

(2) ABSTRACT OF THE PRINCIPAL CHANGES OF RATES.

Jan. 2-9.		Jan. 9-16.		Jan. 16-23.		Jan. 23-30.		Jan. 30 to Feb. 6.		Feb. 6-13.		Difference between greatest and least Weekly Rates.		Difference of Weekly Rates.				Trial Number.		NAME or MAKER.		No.					
												Dial up. a.		Dial up. b.		Pendant up c.		Pendant right d.		Pendant left e.		$\alpha + 2\beta + \frac{1}{2}(\gamma + \frac{\delta + \epsilon}{2})$					
+ 21.3	*	+ 23.1	*	+ 24.2	*	+ 21.1	*	+ 17.9	*	+ 20.1	*	+ 24.6	*	+ 12.6	*	+ 11.9	*	+ 9.2	*	+ 13.6	*	+ 14.3	*	59.6	Newsome and Co.	151091	
+ 15.7	*	+ 14.2	*	+ 12.3	*	+ 18.7	*	+ 14.0	*	+ 19.7	*	+ 18.6	*	+ 9.1	*	+ 28.6	*	+ 12.5	*	+ 40.3	*	+ 18.4	*	59.9	Yoman	82316	
+ 7.6	*	+ 5.4	*	+ 0.8	*	+ 6.4	*	+ 3.8	*	+ 5.3	*	+ 23.3	*	+ 13.8	*	+ 10.9	*	+ 13.9	*	+ 18.4	*	+ 9.6	*	60.0	Newsome and Co.	145667	
+ 11.9	*	+ 1.6	*	+ 5.0	*	+ 0.5	*	+ 11.0	*	+ 1.0	*	+ 11.0	*	+ 13.8	*	+ 11.0	*	+ 13.8	*	+ 13.8	*	+ 13.8	*	60.2	Yoman	82312	
+ 1.6	*	+ 0.1	*	+ 5.0	*	+ 0.4	*	+ 1.4	*	+ 7.9	*	+ 18.5	*	+ 13.8	*	+ 13.2	*	+ 11.4	*	+ 9.8	*	+ 10.0	*	61.2	Newsome and Co.	145735	
+ 11.5	*	+ 3.3	*	+ 0.6	*	+ 2.4	*	+ 1.4	*	+ 3.9	*	27.0	*	14.1	*	+ 6.7	*	+ 5.0	*	+ 12.2	*	+ 12.2	*	61.5	Newsome and Co.	148644	
+ 45.8	*	+ 45.4	*	+ 50.8	*	+ 48.1	*	+ 45.8	*	+ 45.9	*	34.9	*	7.3	*	+ 13.2	*	+ 17.9	*	+ 16.7	*	+ 16.7	*	61.9	Chandler	56980	
+ 39.4	*	+ 40.4	*	+ 44.2	*	+ 48.1	*	+ 43.4	*	+ 45.2	*	27.3	*	15.3	*	+ 10.5	*	+ 10.3	*	+ 6.6	*	+ 6.6	*	62.4	Bonniksen	56987	
+ 1.1	*	+ 1.4	*	+ 5.4	*	+ 5.4	*	+ 5.0	*	+ 2.8	*	31.1	*	14.3	*	+ 3.0	*	+ 2.7	*	+ 1.5	*	+ 1.5	*	62.7	H. White (Manchester)	35320	
+ 19.8	*	+ 17.4	*	+ 21.9	*	+ 20.1	*	+ 17.8	*	+ 15.1	*	21.5	*	18.6	*	+ 5.8	*	+ 2.9	*	+ 3.6	*	+ 3.6	*	62.7	Harcornb	1679	
+ 10.5	*	+ 1.8	*	+ 6.8	*	+ 0.0	*	+ 9.6	*	+ 10.9	*	24.6	*	10.3	*	+ 21.4	*	+ 22.5	*	+ 22.8	*	+ 22.8	*	63.5	J. R. Dent & Sons	9294	
+ 16.2	*	+ 6.9	*	+ 17.2	*	+ 20.7	*	+ 18.5	*	+ 17.7	*	20.8	*	16.3	*	+ 14.3	*	+ 9.9	*	+ 13.5	*	+ 13.5	*	63.9	Newsome and Co.	145738	
+ 9.8	*	+ 12.2	*	+ 10.6	*	+ 10.6	*	+ 10.6	*	+ 10.6	*	11.8	*	18.8	*	+ 11.1	*	+ 7.9	*	+ 11.4	*	+ 11.4	*	65.6	J. Hewitt	59171	
+ 31.6	*	+ 25.0	*	+ 28.6	*	+ 28.5	*	+ 23.2	*	+ 12.7	*	21.9	*	10.8	*	+ 20.9	*	+ 9.0	*	+ 4.1	*	+ 4.1	*	66.2	Newsome and Co.	145705	
+ 56.8	*	+ 58.6	*	+ 61.8	*	+ 59.2	*	+ 58.4	*	+ 56.8	*	32.9	*	10.2	*	+ 11.6	*	+ 5.7	*	+ 87.5	*	+ 87.5	*	66.3	J. White and Sons	35174	
+ 36.0	*	+ 32.4	*	+ 32.3	*	+ 31.6	*	+ 30.4	*	+ 30.5	*	31.9	*	11.6	*	+ 16.4	*	+ 18.1	*	+ 1.8	*	+ 1.8	*	66.6	P. and A. Guye, Ltd.	12946	
+ 2.8	*	+ 0.8	*	+ 3.8	*	+ 7.0	*	+ 5.8	*	+ 1.3	*	26.0	*	19.8	*	+ 3.5	*	+ 5.4	*	+ 6.8	*	+ 6.8	*	67.6	Newsome and Co.	151338	
+ 31.9	*	+ 31.0	*	+ 31.3	*	+ 28.4	*	+ 26.4	*	+ 27.9	*	19.6	*	19.6	*	+ 11.1	*	+ 7.9	*	+ 11.4	*	+ 11.4	*	67.6	J. Player and Son	30294	
+ 12.2	*	+ 17.8	*	+ 24.8	*	+ 24.0	*	+ 28.0	*	+ 27.0	*	41.1	*	9.2	*	+ 9.8	*	+ 8.8	*	+ 15.0	*	+ 15.0	*	68.0	Pots and Sons	30313	
+ 24.6	*	+ 26.4	*	+ 23.5	*	+ 23.7	*	+ 27.0	*	+ 24.8	*	29.1	*	11.6	*	+ 23.6	*	+ 27.6	*	+ 22.0	*	+ 22.0	*	69.2	Newsome and Co.	151092	
+ 16.7	*	+ 18.3	*	+ 19.8	*	+ 17.4	*	+ 16.7	*	+ 14.8	*	24.9	*	21.2	*	+ 2.7	*	+ 2.9	*	+ 4.4	*	+ 4.4	*	69.3	J. Player and Son	30291	
+ 2.2	*	+ 7.3	*	+ 8.1	*	+ 2.9	*	+ 3.7	*	+ 1.3	*	26.5	*	9.4	*	+ 30.1	*	+ 27.4	*	+ 23.9	*	+ 23.9	*	70.2	Newsome and Co.	151338	
+ 30.5	*	+ 30.0	*	+ 29.7	*	+ 29.7	*	+ 29.7	*	+ 29.7	*	29.9	*	11.6	*	+ 11.6	*	+ 11.6	*	+ 11.6	*	+ 11.6	*	70.6	J. Hall	56989	
+ 17.5	*	+ 17.5	*	+ 19.7	*	+ 20.2	*	+ 24.2	*	+ 24.7	*	18.6	*	11.5	*	+ 35.5	*	+ 36.1	*	+ 38.4	*	+ 38.4	*	71.2	Newsome and Co.	151340	
+ 3.7	*	+ 23.1	*	+ 20.0	*	+ 23.7	*	+ 20.4	*	+ 23.6	*	29.8	*	14.4	*	+ 18.0	*	+ 33.7	*	+ 2.0	*	+ 2.0	*	72.2	P. and A. Guye, Ltd.	11971	
+ 20.5	*	+ 18.4	*	+ 21.3	*	+ 23.3	*	+ 30.1	*	+ 28.2	*	40.2	*	15.9	*	+ 3.1	*	+ 1.6	*	+ 1.7	*	+ 1.7	*	74.3	Newsome and Co.	151093	
+ 16.6	*	+ 12.8	*	+ 16.3	*	+ 15.5	*	+ 17.3	*	+ 18.0	*	27.7	*	13.3	*	+ 28.2	*	+ 35.9	*	+ 2.4	*	+ 2.4	*	74.8	Newsome and Co.	127344	
+ 15.7	*	+ 10.0	*	+ 14.5	*	+ 11.7	*	+ 7.1	*	+ 8.8	*	38.9	*	11.5	*	+ 28.9	*	+ 24.8	*	+ 28.1	*	+ 28.1	*	75.2	J. Hewitt	59833	
+ 20.4	*	+ 37.6	*	+ 38.3	*	+ 38.3	*	+ 38.3	*	+ 38.3	*	47.7	*	14.0	*	+ 3.9	*	+ 14.0	*	+ 7.6	*	+ 7.6	*	76.6	J. Hewitt	57341	
+ 7.7	*	+ 1.3	*	+ 8.4	*	+ 5.7	*	+ 11.9	*	+ 9.6	*	23.5	*	17.6	*	+ 27.1	*	+ 28.0	*	+ 0.8	*	+ 0.8	*	77.0	Newsome and Co.	151091	
+ 17.9	*	+ 23.0	*	+ 10.7	*	+ 4.4	*	+ 3.0	*	+ 7.1	*	27.4	*	15.4	*	+ 12.2	*	+ 10.7	*	+ 14.9	*	+ 14.9	*	77.0	Newsome and Co.	145990	
+ 0.1	*	+ 2.9	*	+ 5.1	*	+ 11.1	*	+ 8.7	*	+ 11.1	*	38.8	*	17.8	*	+ 18.6	*	+ 13.6	*	+ 9.1	*	+ 9.1	*	78.5	Usher and Cole	30443	
+ 0.3	*	+ 2.4	*	+ 7.7	*	+ 3.3	*	+ 3.3	*	+ 7.6	*	29.0	*	10.4	*	+ 12.9	*	+ 6.0	*	+ 0.4	*	+ 0.4	*	79.4	Usher and Cole	30505	
+ 33.8	*	+ 36.8	*	+ 27.8	*	+ 32.1	*	+ 36.3	*	+ 36.3	*	40.7	*	14.0	*	+ 11.8	*	+ 11.8	*	+ 28.8	*	+ 28.8	*	80.2	Usher and Cole	30694	
+ 27.4	*	+ 30.2	*	+ 19.8	*	+ 17.7	*	+ 26.0	*	+ 30.0	*	38.8	*	17.5	*	+ 11.8	*	+ 28.8	*	+ 24.1	*	+ 24.1	*	80.2	Usher and Cole	30694	
+ 0.5	*	+ 6.7	*	+ 10.7	*	+ 7.6	*	+ 8.6	*	+ 0.8	*	21.9	*	11.9	*	+ 43.3	*	+ 30.2	*	+ 48.6	*	+ 48.6	*	80.5	L. Hall	1781	
+ 68.0	*	+ 64.2	*	+ 69.1	*	+ 67.5	*	+ 64.1	*	+ 63.4	*	40.1	*	10.7	*	+ 17.7	*	+ 1.7	*	+ 4.0	*	+ 4.0	*	81.0	Bonniksen	56979	
+ 38.3	*	+ 25.1	*	+ 28.0	*	+ 25.0	*	+ 28.0	*	+ 28.0	*	42.6	*	13.2	*	+ 15.7	*	+ 14.6	*	+ 14.6	*	+ 14.6	*	81.8	Kendall and Dent	13138	
+ 13.9	*	+ 14.1	*	+ 22.8	*	+ 20.0	*	+ 19.6	*	+ 12.4	*	32.1	*	18.5	*	+ 0.8	*	+ 31.0	*	+ 2.6	*	+ 2.6	*	82.2	Ehrhardt	38097	
+ 4.1	*	+ 3.4	*	+ 7.6	*	+ 6.0	*	+ 5.2	*	+ 4.3	*	29.2	*	19.1	*	+ 25.2	*	+ 25.1	*	+ 24.1	*	+ 24.1	*	82.7	J. Player and Son	13315	
48.7	50.2	49.1	50.1	50.2	50.1																						

The sign + indicates a gaining rate.
The quantities $\alpha, \beta, \gamma, \delta, \epsilon$ in the formula $\alpha + 2\beta + \frac{1}{2}(\gamma + \frac{\delta + \epsilon}{2})$ are taken numerically, without regard to sign.

[illegible]

‡ These Deck Watches have the "Karrusel" movement.