

ROYAL OBSERVATORY, GREENWICH, FROM 1891 OCTOBER 24 TO 1892 FEBRUARY 27—CLASS A.

(2) ABSTRACT OF THE PRINCIPAL CHANGES OF RATE.

Jan. 9-16.	Jan. 16-23.	Jan. 23-30.	Jan. 30 to Feb. 6.	Feb. 6-13.	Feb. 13-20.	Feb. 20-27.	Difference between greatest and least of the Weekly Rains.	Greatest difference between greatest and least of the Weekly Rains.	Difference of Weekly Rains.	Trial Number.	N A M E OF M A K E R.	No.
Watch Horizontal. Dial up.							Dial up.	Dial up.	Pendant up.	Pendant right Dial up.	Pendant left Dial up.	$a + 2b +$ $c \div (a + 2c)$
							a .	b .	c .	d .	e .	
+ 9.9	+ 7.0	+ 7.8	+ 11.8	+ 11.0	+ 5.0	+ 5.0	8.3	6.9	- 2.7	+ 19.7	- 33.8	30.0
+ 11.1	+ 10.8	+ 10.8	+ 10.8	+ 9.0	+ 9.0	+ 8.7	8.0	8.0	+ 3.9	+ 18.7	+ 61.7	30.0
+ 28.6	+ 30.9	+ 33.7	+ 34.4	+ 35.0	+ 37.5	+ 39.6	19.0	17.3	3.5	+ 19.5	+ 3.7	30.0
+ 5.6	- 8.7	- 6.7	- 4.6	- 9.5	- 13.5	- 13.6	10.0	8.6	- 2.3	- 37.9	- 71.4	48.4
+ 50.4	+ 52.6	+ 53.1	+ 55.8	+ 54.0	+ 51.0	+ 49.0	25.8	4.7	- 2.3	- 47.9	- 30.9	45.7
...	...	...	...	...	...	...	11.0	11.0	- 19.0	- 15.5	+ 55.3	49.8
- 2.5	- 1.1	- 4.4	- 3.5	- 2.0	- 8.0	- 2.0	34.4	7.5	11.8	14.6	- 37.3	51.7
- 4.7	- 5.2	- 4.7	- 0.1	- 2.5	- 7.0	- 10.0	30.0	13.9	- 17.1	- 11.7	- 6.7	59.3
+ 30.6	+ 31.8	+ 32.6	+ 34.1	+ 37.5	+ 33.0	+ 37.1	13.2	7.9	+ 4.3	- 38.0	+ 148.4	49.8
+ 39.5	+ 31.6	+ 35.0	+ 42.9	+ 35.5	+ 25.0	+ 25.4	32.5	12.3	- 1.2	- 18.5	+ 0.9	69.2
+ 51.1	+ 51.8	+ 55.8	+ 61.9	+ 59.0	+ 52.5	+ 49.3	31.8	9.5	- 8.5	- 7.2	- 43.6	63.4
+ 39.3	+ 31.3	+ 35.7	+ 38.0	+ 30.5	+ 20.5	+ 16.3	34.4	7.5	11.8	14.6	- 37.3	51.7
+ 45.4	+ 12.6	+ 14.5	+ 15.5	+ 14.5	+ 14.5	+ 8.5	15.3	8.7	- 17.9	+ 23.3	+ 2.3	64.0
+ 19.0	+ 15.5	+ 9.6	+ 5.0	+ 5.0	+ 11.0	+ 10.0	33.0	11.4	- 15.8	+ 41.4	- 70.4	64.0
- 4.0	- 3.5	+ 1.1	- 0.1	- 6.0	- 10.1	- 5.7	14.7	14.0	+ 1.2	+ 61.1	- 73.3	65.7
+ 10.0	+ 5.8	+ 1.1	+ 5.6	- 1.5	- 1.0	- 5.4	24.5	17.1	+ 11.1	+ 1.6	+ 19.5	69.7
+ 10.9	+ 23.0	+ 21.2	+ 14.6	+ 2.2	+ 22.5	+ 15.0	20.6	10.6	- 12.3	- 5.1	- 41.5	67.8
+ 9.4	+ 7.6	+ 23.9	+ 23.5	+ 24.8	+ 21.7	+ 21.1	19.9	10.3	+ 4.8	+ 53.5	- 35.4	70.7
+ 3.6	+ 2.5	- 2.1	- 0.0	- 2.0	- 20.5	- 24.5	21.9	12.2	- 21.3	- 48.0	- 71.0	71.0
					- 2.5	- 17.3	25.3	14.8	+ 19.1	- 20.1	+ 20.2	71.2
+ 25.1	+ 21.8	+ 19.7	+ 15.0	+ 15.5	+ 16.5	+ 17.7	36.8	13.6	+ 5.4	- 13.2	- 25.5	72.3
- 8.5	- 13.0	- 7.2	- 7.3	- 14.0	- 27.5	- 26.2	31.4	- 13.5	+ 11.5	+ 41.4	- 23.7	75.0
+ 17.4	+ 7.7	+ 14.4	+ 15.5	+ 15.5	+ 15.5	+ 15.5	35.4	16.5	+ 5.4	- 13.2	- 25.5	80.7
- 12.3	- 12.5	- 4.4	- 4.1	- 5.0	+ 4.0	- 6.2	21.0	16.7	+ 10.7	+ 36.1	+ 27.7	85.5
+ 68.7	+ 67.0	+ 60.4	+ 65.6	+ 61.0	+ 67.7	+ 63.0	44.3	12.2	- 23.5	- 23.3	- 12.1	86.4
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	30.9	30.9	+ 30.9	+ 30.9	+ 30.9	99.0
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	30.9	30.9	+ 30.9	+ 30.9	+ 30.9	99.0
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	30.9	30.9	+ 30.9	+ 30.9	+ 30.9	99.0
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	30.9	30.9	+ 30.9	+ 30.9	+ 30.9	99.0
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	30.9	30.9	+ 30.9	+ 30.9	+ 30.9	99.0
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9	30.9	30.9	+ 30.9	+ 30.9	+ 30.9	99.0
+ 17.6	+ 15.0	+ 1.0	+ 13.0	+ 20.0	+ 11.5	+ 3.3	36.0	22.1	- 12.7	- 4.1	- 1.0	87.5
+ 24.9	+ 25.3	+ 38.9	+ 42.9	+ 35.5	+ 23.5	+ 24.1	43.6	22.8	- 2.4	+ 8.9	- 40.9	89.0
+ 32.9	+ 7.2	- 2.5	- 30.5	- 30.5	- 30.5	- 30.5	35.2	22.9	+ 1.9	+ 10.9	- 19.9	90.0
+ 22.4	+ 28.0	+ 23.5	+ 33.0	+ 21.0	+ 24.5	+ 20.5	36.1	17.0	- 30.6	+ 39.0	+ 0.1	92.0
- 59.9	- 56.5	- 55.2	- 55.8	- 55.0	- 62.5	- 56.0	34.1	12.6	+ 12.6	- 69.1	- 10.2	95.0
+ 22.8	+ 19.8	+ 13.9	+ 19.3	+ 9.5	+ 15.5	+ 8.0	31.9	29.2	+ 5.5	+ 3.4	- 19.0	97.3
+ 10.7	+ 8.0	+ 3.1	+ 10.9	+ 15.5	+ 15.5	+ 15.5	29.3	22.9	+ 1.9	+ 9.3	- 19.9	73.0
+ 5.5	+ 3.2	+ 10.5	+ 13.5	+ 14.0	+ 11.0	+ 6.0	24.4	28.6	- 9.5	- 1.3	+ 9.3	98.2
+ 10.2	+ 19.1	+ 24.1	+ 23.3	+ 14.0	+ 11.0	+ 9.0	30.7	23.1	- 28.0	+ 5.8	+ 4.8	98.5
+ 30.9	+ 30.9	+ 30.9	+ 30.9	+ 30.9								

The quantities a, b, c, d, e , in the formula $a + 2b + \frac{1}{3}(c + \frac{d}{3} + e)$, are taken numerically, without regard to sign.

E. Dent & Co., 45550. The mainspring of this watch broke in the 14th week of the trial.
Brookbank, Atkins and Moore, 74356. The mainspring of this watch broke in the 14th week of the trial.
Kendal & Dent, 25450; Holland, 3661. These watches not having been rated throughout the whole period of the trial, their position in the list is not necessarily correct.

(1) WEEKLY RATES IN ORDER OF TIME

NAME OF MAKER.	No.	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.
		Watch Horizontal. Dial up.					Watch Horizontal Dial up.	Watch Vertical. Pendant up.	Watch Horizontal. Dial up.		
Usher and Cole	25897	+ 22.6	+ 24.0	+ 22.0	+ 17.6	+ 20.6	+ 10.8	- 7.5	- 9.2	- 5.7	- 8.3
Kendal and Dent	21215	+ 33.9	+ 39.7	+ 39.0	+ 30.3	+ 29.7	+ 26.0	+ 27.3	+ 30.3	+ 26.8	+ 12.4
Isaac	10850	- 15.8	- 9.8	- 9.3	- 14.1	- 19.1	- 10.7	- 8.8	- 5.7	- 28.8	- 20.7
Isaac	13245	+ 18.0	+ 35.9	+ 31.8	+ 33.1	+ 34.4	+ 18.4	+ 23.9	- 23.3	+ 30.3	+ 17.2
Buckney	2222	+ 1.2	- 2.7	- 1.5	- 5.6	- 1.0	- 8.3	- 28.0	- 28.0	- 27.2	- 25.4
Buckney	2219	- 17.0	- 13.9	- 14.9	- 20.6	- 16.3	- 24.5	- 23.7	- 22.3	- 27.4	- 25.1
J. Poole and Co.	6568	- 3.2	- 0.8	+ 4.4	+ 5.2	+ 0.8	+ 2.7	+ 18.1	+ 12.3	+ 18.9	- 9.1
Brookbank and Atkins	74359	- 5.7	- 10.2	- 10.6	- 10.5	- 9.7	- 7.0	+ 17.0	- 10.3	+ 18.6	+ 0.7
Kendal and Dent	21216	- 42.3	- 49.0	- 47.3	- 51.3	- 52.3	- 54.6	- 31.5	- 20.9	- 33.9	- 54.2
Usher and Cole	3944	- 15.4	- 10.7	- 10.1	- 12.3	- 8.8	- 16.3	- 24.6	- 11.1	- 15.9	- 22.6
J. Poole and Co.	6197	+ 8.7	+ 6.9	+ 10.0	+ 11.3	+ 12.3	+ 5.3	- 0.0	- 7.6	+ 1.1	+ 5.7
J. Poole and Co.	6566	+ 56.0	+ 48.3	+ 65.6	+ 56.4	+ 63.6	+ 54.2	+ 60.5	+ 67.0	+ 62.6	+ 82.5
Buckney	2218	+ 43.3	+ 43.1	+ 23.8	+ 16.6	+ 1.2	- 1.4	+ 12.6	- 5.3	+ 12.1	- 9.9
Buckney	2221	+ 8.3	+ 12.4	+ 9.9	+ 14.0	+ 7.8	+ 1.7	+ 22.1	+ 16.3	+ 8.4	- 19.9
Brookbank and Atkins	74360	+ 33.6	+ 28.8	+ 39.3	+ 31.5	+ 26.1	+ 18.4	+ 50.5	+ 20.3	+ 53.4	+ 22.4
Buckney	2223	- 40.3	- 43.3	- 42.0	- 45.9	- 46.1	- 55.1	- 42.6	- 88.7	- 69.0	- 78.6
Buckney	2220	- 35.1	- 52.5	- 57.0	- 62.4	- 75.3	- 68.9	- 77.9	- 114.8	- 110.5	- 124.7
Ashley	4216	+ 41.7	+ 36.5	+ 44.1	+ 28.9	+ 38.2	+ 35.1	+ 80.7	+ 33.2	+ 33.3	+ 17.9
Ashley	4189	- 30.1	- 33.0	- 35.0	- 39.5	- 42.4	- 41.6	+ 12.0	+ 3.4	+ 6.8	- 57.6
Ashley	4188	- 16.1	- 15.8	- 16.0	- 21.1	- 32.9	- 33.0	+ 20.5	+ 31.7	+ 26.8	- 40.1
Hall	15023	- 64.2	- 48.6	- 43.1	- 42.3	- 50.0	- 69.8	- 22.3	- 42.7	- 58.0	- 123.3
Mean Weekly Temperature		57.6	56.1	55.6	57.8	53.5	53.4	79.8	80.3	79.7	50.2
Extremes of Temperature as shown by the Self-Registering Thermometers		53.7-57.4	53.4-60.4	49.1-64.6	53.2-61.9	49.4-57.5	45.4-60.8	77.0-82.8	78.0-82.8	78.0-81.6	44.3-56.8
During the period Dec. 5 to 26, 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.											

(2) ABSTRACT OF THE PRINCIPAL CHANGES OF RATE.

Jan. 9-16.	Jan. 16-23.	Jan. 23-30.	Jan. 30 to Feb. 6.	Feb. 6-13.	Feb. 13-20.	Feb. 20-27.	Difference between greatest and least Weekly Rates. Pendant up. a.	Greatest difference between one week and the next. Pendant up. b.	Difference of Weekly Rates. Pendant up. c.	Trial Number. $a + 2b + \frac{c}{2}$	NAME OF MAKER.	No.
+ 5.1	+ 4.1	- 6.7	+ 2.2	+ 0.2	+ 5.0	- 2.4	32.3	18.3	- 4.1	71.0	Usher and Cole	25897
+ 9.0	+ 1.1	+ 4.6	+ 2.9	+ 2.5	- 1.5	+ 3.8	41.2	14.3	+ 12.2	75.9	Kendal and Dent	21215
- 25.5	- 29.4	- 25.6	- 19.5	- 23.6	- 26.5	- 29.0	35.0	23.1	+ 10.0	76.2	Isaac	10850
+ 12.5	+ 0.4	+ 3.3	+ 13.2	+ 3.6	+ 3.0	- 6.0	40.4	16.0	- 51.4	78.1	Isaac	13245
- 21.0	- 24.4	- 33.3	- 34.1	- 38.5	- 34.0	- 37.0	30.7	19.7	- 0.4	79.3	Buckney	2222
- 28.9	- 28.4	- 28.0	- 28.0	- 24.5	- 43.5	- 60.3	46.4	16.8	+ 8.3	84.2	Buckney	2219
- 9.0	- 11.1	- 4.4	+ 1.8	- 1.7	- 9.0	- 7.0	30.0	28.0	- 6.2	89.1	J. Poole and Co.	6568
+ 4.1	- 1.6	- 8.4	- 2.6	- 5.5	- 10.5	- 18.5	21.1	24.0	- 28.1	93.2	Brookbank and Atkins	74359
- 45.9	- 47.6	- 40.5	- 43.4	- 43.4	- 49.5	- 46.3	32.7	30.0	+ 11.8	98.6	Kendal and Dent	21216
- 16.0	- 14.6	- 35.5	- 35.2	- 30.5	- 22.5	- 24.5	47.1	32.4	+ 9.2	116.5	Usher and Cole	3944
- 20.8	- 21.9	- 24.1	- 20.4	- 31.9	- 37.5	- 33.5	49.8	32.1	- 8.2	118.1	J. Poole and Co.	6197
+ 48.5	+ 36.2	+ 66.8	+ 7.0	+ 66.1	+ 62.0	+ 66.5	45.3	24.0	- 15.3	121.9	J. Poole and Co.	6566
- 2.0	- 9.0	+ 4.9	- 2.6	- 12.0	- 34.3	- 77.6	19.3	- 17.7	125.1	125.1	Buckney	2218
- 23.3	- 31.8	- 22.6	- 19.6	- 25.5	- 38.5	- 45.0	65.1	32.8	+ 1.0	131.2	Buckney	2221
+ 28.3	+ 21.0	+ 15.1	+ 23.9	+ 19.4	+ 12.0	+ 3.9	49.5	39.1	- 26.7	140.1	Brookbank and Atkins	74360
- 80.0	- 84.1	- 83.0	- 79.1	- 83.1	- 90.5	- 97.1	56.8	32.0	- 42.9	143.3	Buckney	2223
- 131.6	- 137.9	- 118.7	- 128.6	- 120.0	- 140.0	- 133.3	104.9	24.2	+ 11.0	158.8	Buckney	2220
+ 45.9	+ 34.2	+ 23.0	+ 33.8	+ 27.0	+ 38.0	+ 47.9	62.8	45.6	- 33.6	170.9	Ashley	4216
- 62.3	- 64.8	- 66.4	- 40.8	- 26.0	- 45.5	- 43.3	76.8	56.8	- 6.0	193.4	Ashley	4189
- 39.6	- 38.5	- 29.8	- 30.2	- 44.0	- 66.5	- 58.4	93.3	66.9	+ 8.1	231.2	Ashley	4188
- 128.4	- 140.2	- 152.7	- 134.5	- 158.7	- 160.0	- 177.1	154.8	95.5	- 2.5	347.1	Hall	15023
47.5	47.3	53.2	53.1	51.1	44.0	45.9						
48.9-53.9	48.0-55.0	47.0-51.6	49.9-58.6	46.0-54.6	46.1-50.0	47.2-58.8						

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.