

KG
11366
v.549

Gone
Chronograph Record.
Circle Readings
From Nov. 8 1875 to May 30 1876.
A. 20

Charles W. Sever, University Bookstore, Cambridge.

1803. 8 - 1^{pm} 2^s

11 - 1 3

17 - 1 6

21 - ~~2~~ 8

22 - 7

30 - 5

Dec 4 - 2

6 - 1

15 + 4

23 + 9

Jan 16 + 18

27 + 21

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

date. 1875, Nov. 8
 first minute-break. Nov. 11
 set at. Nov. 17

Sum
 Mean.

N. Coll.	S. Coll.
Obs. W.A.R. WA	
Rec. J.F.M.	

a.	s.	Mag.	REMARKS.
22 12 11 11 33.6	81 52 21 168	8.8 8.7	
13 05 12 26.5	90 51 12 484		22
13 57 13 18.0	85 51 23 140	9.0 8.8	
15 03 14 25.5	84 51 7 21	8.7 8.7	22
15 51 15 13.9	87 52 8 3.0	8.8 8.8	8.5
16 56 16 12.4	89 52 3 51.587	8.8 9.0	8.5
18 7 17 29.9	80 51 33 278	9.0 8.9	8.8
19 12 18 34.6	88 51 42 377	8.9 8.8	8.8
20 13 19 35.4	87 51 11 6.3	8.7 9.0 8.5 9.0	Perhaps wrong H lost 4th. wire of 1 st #
22 19 21 41.9	94 51 57 522	9.1 9.3	2 2 2
	51 15		

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

Nov. 8 40 2 57.1 7.9

Nov. 11 40 3 28.2 40.7

Nov. 8 40 2 0.2 12.8

Nov. 11 40 1 56.9 11.0

Nov. 8 55 2 49.4 59.7 55 3 38.7 47.9

Nov. 11 55 2 43.5 56.9 5

Nov. 8 55 1 53.6 4.1 55 2 13.3 21.2

Nov. 11 55 1 48.9 1.1

Nov. 8 0 0 47.0 57.7 0 0 59.9 8.8

Nov. 11 0 0 38.7 51.9

Nov. 8 30 1 41.2 50.9 30 1 43.4 52.9

Nov. 11 30 1 40.0 53.0

Nov. 8 20 1 48.4 58.6 20 1 47.9 56.7

Nov. 11 20 1 30.6 44.8

Nov. 8 50 2 51.6 2.8 50 2 56.2 5.1

Nov. 11 50 3 19.8 29.5 50 3 27.8 37.4

Nov. 8 50 3 45.4 58.0 50 3 27.8 37.4

Nov. 8 5 2 40.4 49.5 5 2 53.6 1.1

Nov. 11 5 2 33.5 46.0

N. Coll.	S. Coll.
Sum	
Mean.	

Date. 1875, Nov. 8

First minute-break. Nov. 11

C, set at.

Nov. 17

Sum

Mean.

α .	δ .	Mag.	REMARKS.	
22 23 05	50 51 10	9.2	reg. order	8.4
22 271	103	8.3		9.1
		9.1		
24 24	85 51 43	8.5		8.5
23 407	380			
		8.0		
26 06	95 57 35	9.4	lower #	9.3
25 272	301	9.2		
27 7	87 53 01	8.5		8.2
26 284	52 55.5	8.0		
28 19	91 53 30	8.7		8.7
27 397	246	8.5		8.9
		8.8		
29 39	80 53 48	9.0		8.4
28 541	433	8.5		
30 29	80 53 52	9.0	false rattle after 8	9.0
29 497	472	8.7		
31 40	73 53 45	7.5		7.5
30 548	401	7.7		
33 6	94 54 02	9.1		9.1
32 255	53 574	9.3		
34 34	89 54 1	8.7		
33 526	53 586	8.4		8.5

Runs.

Sum
Mean.

A.

C.

Pointer.	Stroke.	Rev.	A.	C.	REMARKS.			
Nov. 8	45	4	45.9	55.4	45	4	53.4	3.9
Nov. 11	45	4	49.1	3.0				
Nov. 8	20	0	55.8	5.5	20	0	56.1	3.9
Nov. 11	20	1	27.8	41.2				
Nov. 8	30	0	16.1	26.9	30	1	3.3	11.4
Nov. 11	30	0	14.1	27.5				
Nov. 8	0	4	10.9	19.4	0	4	28.5	35.9
Nov. 11	0	4	18.7	29.5				
Nov. 8	35	0	9.1	19.9	35	1	3.5	11.1
Nov. 11	35	0	57.9	9.9	35	0	42.9	50.9
Nov. 8	15	1	18.3	28.1	15	1	27.0	33.8
Nov. 11	15	1	24.4	36.4				
Nov. 8	10	2	29.3	39.8	10	2	6.5	34.1
Nov. 11	10	2	25.9	38.5				
Nov. 8	15	4	18.5	27.1	15	4	27.9	34.4
Nov. 11	15	4	12.5	22.0				
Nov. 8	0	2	17.1	26.2	0	2	17.0	24.2
Nov. 11	0	2	10.1	22.5				
Nov. 8	0	4	4.6	14.8	stopped on account of the extremely bad seeing.			
Nov. 11	0	3	58.7	10.3				
					0	4	4.0	9.9

Date.

1875, Nov. 11

First minute-break.

Nov. 17

Sum

Mean.

N. Coll.

S. Coll.

c, set at.

a.		s.		Mag.	REMARKS.
22 35 31	90	53 15	8.6	22	
34 50.0		10.0	8.3		
36 11	88	53 24	8.5		
35 29.8		19.5			
37 21	94	52 29	9.2		
36 40.0		23.9	9.2		
38 17	92	52 58	8.5		
37 36.8		53.1	8.7		
39 13	91	53 05	7.0		
38 32.3		59.9	7.4		
40 17	90	54 00	8.8		
39 35.3		55.1	9.1		
41 30	83	53 10	8.5		an 8.0 mag. falls below
40 48.5		4.7	8.8		
42 24	90	52 03	8.5		
41 43.2		51.8	8.5		
43 50	94	50 48	9.5		
43 80		43.1	9.5		
44 18	80	53 15	8.3		
44 6.1		9.7	8.2		

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45 4 56.6 8.7

45 4 58.2 6.3

40 0 30.5 43.2

lost

35 0 48.6 55.3

35 0 47.7 53.0

5 1 16.1 27.8

5 1 18.1 25.7

55 4 51.2 41.0

55 4 51.1 56.9

0 4 6.0 17.3

0 4 2.6 9.3

50 4 30.4 41.9

50 4 44.6 49.7

0 1 19.7 31.5

0 1 23.5 30.5

15 1 23.5 37.8

15 1 29.1 37.7

45 4 48.0 58.2

45 4 56.0 3.3

Date. 1875, Nov. 11
First minute-break. Nov. 17

N. Coll.	S. Coll.
Sum	
Mean.	

c. set at.

α .	δ .	Mag.	REMARKS.
22 45-41 85 44 58.3	53 27 2205 1	8.6 8.3	
46 35 83 80-52.4	53 2 52-57.0	8.5 8.2	
47 58 83 47 14.9	53 16 11.2 1	9.2 9.2	
49 26 80 48 43.7	50 50 45.2	8.7 8.8	lower + foll. #
51 10 81 50 28.1	51 45 39.8	9.0 9.1	
52 17 88 51 85.9	52 2 51 56.6	8.8 8.7	lost mid. wire
53 12 88 52 29.1	52 55 50.2	9.0 9.0	2
54 6 80 53 23.5	53 1 52-55.3	9.1 8.5 8.7	2 2 upper + foll. of 3 #'s
54 56 89 54 13.6	52 11 6.0	8.8 9.0	
56 11 51 55 28.4	52 9 3.8	7.8 7.5	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

35 2 2.3 14.1

35 1 56.0 2.9

0 3 9.0 20.2

0 3 8.7 15.4

45 3 17.0 27.9

45 3 18.6 24.7

10 4 7.4 20.0

10 4 13.0 20.0

15 4 48.0 59.3

15 4 38.9 44.9

0 3 24.2 37.5

0 3 30.3 35.6

5 4 22.8 34.9

5 4 17.1 23.0

0 1 51.6 3.9

0 3 25.8 36.0

0 4 35.1 45.1

50 3 8.7 20.1

50 3 12.9 19.0

55 0 43.1 55.1

55 0 36.8 44.0

1875phae.pro.1553R

Date.

1875, Nov. 11

First minute-break.

Nov. 17

set at.

Sum

Mean.

N. Coll.

S. Coll.

α .

δ .

Mag.

REMARKS.

22 57 12 83 53 116
56 246

8.3

8.5

58 24 82 53 49
57 397

8.7

8.7

59 1 84 52 21
58 182

8.5

8.5

58 59 88 52 33
59 112

8.7

8.4

1 30 88 52 7
0 415

5.3

6.3

3 26 88 50 50
2 416

9.0

9.0

5 22 92 52 16
4 370

9.4

9.1

8.8

6 21 88 52 29
5 362

7.9

8.4

7 25 83 52 25
6 442

8.0

8.2

8 42 93 53 52
7 570

9.0

9.1

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

15 3 11.5 22.1

15 3 9.2 14.5

30 4 22.9 33.9

30 4 22.0 27.1

40 4 14.1 24.3

40 4 11.9 17.9

30 2 32.8 44.5

30 2 36.8 42.9

55 2 20.8 32.1

55 2 15.2 20.4

10 3 37.5 49.4

10 3 49.0 55.5

45 3 29.3 40.5

~~45 1 35.4 42.1~~

35 0 9.2 21.0

~~35 0 2.8 9.8~~

35 4 17.6 29.7

~~35 4 16.1 21.9~~

10 2 1.4 12.8 seeing very good indeed

~~10 2 15.1 20.9~~

Dec 6

Date.

1875, Nov. 24

First minute-break.

(Dec 2)

Set at.

Sum
Mean.

N. Coll.

S. Coll.

Obs. W.A.P.
Rec. J.F.M.

α .

δ .

Mag.

REMARKS.

h. m. s. mag
22 26 0 7.6 50° 12' 8.0 222
22 20 21.3 7.5

26 42 87 51 57 8.7
26 30 52.1

27 56 90 53 29 8.7
27 16.1 24.3 9.0

29 4 93 53 20 7.5
28 24.2 19.9

30 7 90 53 0 8.7 lost 1st wire ?
29 27.4 52.5 53.3

31 39 80 50 27 7.8
30 58.0 21.9

33 7 95 51 40 9.0 2nd 8 pr
32 26.2 36.9 9.5

34 37 92 50 24 9.0 222
33 56.3 19.7 9.0

35 19 93 52 23 9.4 a 9.1 mag. pr.
34 38.9 18.3 (2nd 8 pr. Dec 6)

36 22 80 53 42 7.0
35 41.4 37.6 7.7

Runs.

Sum
Mean.

A.

C.

Pointer.	Stroke.	Rev.	A.	C.	REMARKS.			
mage for Dec. 6	50	1	56.5	5.1	readings for Dec. 6 in black			
					~~50~~	~~2~~	~~44.2~~	~~48.5~~
	5	2	46.1	52.8				
9.0	5	3	0.1	58.3	50	3	26.7	30.7
	35	0	46.1	52.3				
	35	0	46.1	52.3				
	~~35~~	~~0~~	~~3.3~~	~~52.8~~	~~35~~	~~1~~	~~3.3~~	~~52.8~~
					40	0	4.4	10.3
	35	4	54.2	0.5				
	~~35~~	~~4~~	~~54.2~~	~~0.5~~	~~35~~	~~4~~	~~44.9~~	~~42.9~~
	0	4	49.0	54.9				
	~~0~~	~~4~~	~~54.2~~	~~53.0~~	~~0~~	~~4~~	~~54.2~~	~~54.0~~
~~9.0~~	35	2	56.6	2.9	20	0	42.6	47.2
9.0	~~35~~	~~2~~	~~56.6~~	~~2.9~~	~~35~~	~~3~~	~~6.1~~	~~6.4~~
	20	2	38.9	45.7				
	~~20~~	~~2~~	~~38.9~~	~~45.7~~	~~20~~	~~2~~	~~38.9~~	~~45.7~~
	35	4	51.3	57.6				
9.3	~~35~~	~~4~~	~~58.8~~	~~57.2~~	~~40~~	~~0~~	~~0.8~~	~~1.5~~
					35	0	22.9	28.9
	40	2	32.1	39.5				
8.9					40	2	8.7	13.2
9.2					40	1	57.0	1.5
	20	1	58.2	4.4				
8.0	~~20~~	~~2~~	~~1.7~~	~~59.3~~	~~20~~	~~1~~	~~57.1~~	~~53.9~~
					20	2	7.8	11.9

Dec. 6
 1875, Nov. 24
 (Dec. 1)
 Dec. 14

First minute-break.

set at.

Sum
 Mean.

N. Coll.	S. Coll.

a.	8.	Mag.	REMARKS.				
22 37 41 36.5 94	9.2 51 1 55.7	9.1 ~~9.3~~	Readings of mic. & mag's for Dec. 14, in blue				
39 15 38 37.5	8.8 51 5 51.7	8.8 ~~8.9~~	5	2	54.7	57.9	9.0
40 22 39 40.2	8.5 53 40 34.9	8.4 ~~8.7~~	20	4	31.5	33.9	9.0
41 35 40 58.0	8.1 53 7 22	7.6 ~~7.8~~	55 2 22 2	17.4 md. of 3 #12	20.8		8.2
42 9 41 28.6	8.8 51 11 10.4	8.3 ~~8.5~~	45	4	17.9	21.1	8.5
43 7 42 25.1	8.6 53 28 28.3	8.0 ~~8.5~~	35	1	17.9	20.5	8.7
(mean R.A. & S. Dec. 6)							
44 15 43 35.7	9.3 53 11 5.8	9.3 ~~9.4~~	50	3	55.3	57.7	9.2
45 19 44 35.5	8.8 53 5 0.1	9.0 ~~8.9~~	55	3	58.1	1.6	8.5
46 20 45 37.5	8.4 53 6 0.7	8.6 ~~8.5~~	55	3	51.2	54.6	8.6
48 18 47 35.9	8.0 52 39 33.9	8.7	25	0	42.9	45.2	9.0

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

mags 3
Dec. 6

0 3 54.1 1.4

readings for Dec. 6
in black.

9.2

~~0 3 58.9 56.0~~~~0 3 57.5 56.7~~

5 2 42.9 48.9

0 3 55.4 59.9

8.7

~~5 2 51.3 50.3~~~~5 2 46.1 45.9~~

20 4 17.1 22.9

5 2 43.6 48.1

8.6

~~20 4 29.1 28.4~~~~20 4 19.0 16.2~~

55 2 10.4 15.9

20 4 21.0 23.9

8.1

~~55 2 21.6 20.9~~~~55 2 17.4 16.8~~

45 4 15.3 22.1

55 2 12.9 16.1

8.8

~~45 4 20.5 21.0~~~~45 4 23.0 22.2~~

35 1 14.8 20.9

45 4 16.4 20.4

8.8

~~35 1 31.0 30.1~~~~35 1 42.0 40.1~~

9.4

50 3 53.5 58.4

35 1 16.9 20.1

9.4

~~50 4 4.0 2.2~~~~50 4 8.9 6.5~~

55 3 59.0 4.9

50 3 49.6 51.9

8.7

~~55 4 12.9 10.9~~~~55 4 19.5 19.4~~

55 3 43.8 49.9

55 3 59.8 2.9

mags
8.9~~55 3 54.1 53.7~~~~55 4 4.0 4.1~~

25 0 37.7 44.8

55 3 42.1 46.6

8.9

25 0 30.2 35.3

Date.

First minute-break.

set at.

1875, Nov. 24

Dec 6

Dec, 14 in blue

Sum

Mean.

N. Coll.

S. Coll.

a.

s.

Mag.

REMARKS.

Mags for
Dec 6

22 49 56 55 14.2	80	51 57 ~~51~~ 57 57.5	7.5 7.8		8.0
51 14 51 31.8	81	52 57 46.1	9.3 9.0	2 nd & 3 rd wire?	9.5
52 11 57 29.1	85	51 48 42.8	9.6 9.8	lost 4 th wire lost 4 th wire	
53 47 53 46	86	53 1 52 56.0	8.4 8.4	Warm	8.5
23 6 28 5- 43.8	82	52 07 2.9	8.5	pr. & lower #	8.0
8 42 7 57.0	83	53 52 47.2	9.2		9.2
10 11 9 26.0	88	53 10 10.1	8.8	ref. 1 st stroke 1 st wire	8.5 8.9
11 52 11 46	80	53 20 14.8	9.1		9.0
12 44 11 58.7	92	53 27 22.0	9.2	(false obs. pr. lower & foll. # Dec 6)	9.3
14 30 13 40.6	88	52 34 29.0	8.5		8.7

Runs.

Sum
Mean.

A.

C.

Pointer.	Stroke.	Rev.	A.	C.	REMARKS.			
Nov. 24	5	3	28.0	33.7	~~for Nov 24~~ readings for Dec 6			
	5	3	26.5	30.05	3	26.7	30.3	
Nov. 24	10	8	26.0	32.1				
	10	3	24.1	27.4	10	3	21.4	26.5
Nov. 24	15	2	6.0	14.1				
	15	2	2.0	4.9		clouds		
Nov. 24	0	3	15.9	21.4				
	0	3	15.2	16.9	0	3	9.5	12.8
Nov. 24			clouds					
	55	2	42.2	45.8	55	2	50.1	53.9
Nov. 24			clouds					
	15	2	37.8	40.8	15	1	2.9	6.9
	45	4	12.7	15.5	50 45	0 4	52.3 22.6	55.4 26.2
	40	4	16.5	17.5	40	4	1.0	4.0
	40	0	37.3	40.2	40	0	30.1	33.2
	30	1	5.6	8.6	30	1	6.0	9.5

Date.

1875, Nov. 24

first minute-break.

Dec. 14

set at.

Sum
Mean.

N. Coll.

S. Coll.

a.

s.

Mag.

REMARKS.

Mags for
Dec. 6

23 11-59 9.4 51 26

15 13.9

20.2

9.3

9.3

foll. #

9.1

16 56 87 53 19

16 9.7

12.8

8.5

8.7

lost last 2 wires

8.6

17 52 9.0 53 54

17 6.0

4.8

8.8

(lower 1 pr. # Dec. 6)

9.1

18 44 8.8 52 43

18 5.8

37.0

7.8

8.0

19 49 8.9 52 40

19 3.2

3.96

7.5

7.7

20 36 9.0 52 44

19 5.8

3.86

8.7

2

8.7

21 25 8.2 51 42

22 25 8.0 50 19

50.19

23 46 9.2 51 26

9.1

9.2

9.1

24 26 8.5 51 50

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

reading for Dec 6

Nov. 24

35

4

4.9

10.9

35

4

6.1

9.8

40

0

20.2

23.8

Nov. 24

45

1

35.8

42.2

45

1

42.9

46.9

45

1

38.9

41.4

10

2

28.2

32.2

10

2

19.9

22.0

20

2

30.2

33.2

20

2

26.7

28.6

25

0

18.2

21.9

25

0

16.0

19.1

20

0

29.0

32.2

20

0

31.8

34.0

not seen

not seen

Nov. 24

40

1

38.9

46.3

40

1

25.9

31.1

40

1

35.2

39.6

Nov. 24

not seen

not seen

N. Coll.

S. Coll.

Date.

1875 Dec. 6
~~Nov. 24~~

First minute-break.

Dec. 14

Sum

Mean.

c, set at.

a.

s.

Mag.

REMARKS.

2	23 25-34 2.4 477	80	52 27 2.16	9.0 9.0	
	26 32 2.5-45.5	80	52 59 5.32	7.0 7.0	
	27 55 27 84	88	52 52 4.0	8.9 8.9	false obs for.
	28 46 28 2	90 8.5	51 58 5.29	8.0 8.4	
	29 58 29 11.6	93	50 25 2.41	9.2 9.4	222
	30 30 29 42.1	84	53 15 9.2	8.3 8.5	
	31 ~~5~~ 30 24.5	84	50 14 4.7	9.0 9.1	star?
	32 55 32 67	85	53 58 5.18	8.4 8.5	
	35 2	88	57 36		
	36 45 36 12	84	52 38 32.6	8.8 8.9	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

40 0 0.1 5.4

35 4 57.2 58.1

5 1 2.8 6.3

5 1 6.0 8.0

10 2 6.4 10.8

10 2 29.4 31.6

5 1 42.3 46.2

5 1 54.1 55.5

35 0 26.4 31.0

35 0 26.9 29.1

50 0 22.9 26.4

50 0 38.2 40.2

50 1 44.7 50.0

50 1 24.0 26.5

5 2 32.6 35.7

5 2 26.2 27.0

not seen

not seen

25 2 6.1 10.1 seeing very good indeed

25 2 1.0 2.1 seeing pretty bad

ate.

Dec 6

first minute-break.

set at.

Sum
Mean.

N. Coll.

S. Coll.

α .

δ .

Mag.

REMARKS.

0 21 6 80 54 33
20 118 270

22 2 8.3 54 7 9.0
21 80 1.2

22 58 89 54 42 9.0
22 40 306

23 56 85 55 4 8.4

25 29 81 54 31 8.4
24 342 249

26 55 80 54 14 8.2 suspected close comp. folls.
26 04 8.2

28 32 88 54 37 9.0
27 367 308

29 35 94 54 13 9.4
28 436 73

30 44 92 54 36 9.6 some wires lost
29 482 300 8.8

31 35 90 53 51

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

30 2 72 97

~~20 3 42.9 46.1~~

20 3 42.9 46.1

~~30 4 14.6 17.1~~

30 4 14.6 17.1

50 1 27.5 30.9

25 3 37.8 39.9

50 1 50.4 51.9

25 4 3.7 5.8
25 3 17.1 20.2

lost

Date. 1875, Dec. 6
 First minute-break. Dec. 13
 c, set at.

N. Coll.	S. Coll.
Obs. W.A.R.	Rec. J.F.M.
Sum	
Mean.	

a.	b.	Mag.	REMARKS.
0 32 47 31 53.7	89 50 3 99 58.1	8.8 8.8	2
33 36 86 32 40.5	54 18 116	8.4 8.7	2
34 28 33 31.6	82 54 59 83.2	8.5 8.5	
36 39 35 43.4	85 54 56 49.6	8.4 8.4	22
37 21 36 25.2	89 54 13 74	8.6 8.6	
38 30 37 34.2	80 54 17 112	8.0 9.3 8.0 9.4	2 nd 8 pr.
40 3 39 5.9	90 54 52 40.8	8.6 8.8	pr. #
41 8 40 11.5	80 54 7 10.6	8.7 8.6	
42 8 41 11.0	80 54 52 46.5	9.0 9.2	
43 4 42 10.2	80 49 56 49 50.6	8.3 8.3	fol. #

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

0 1 2.5 6.8

0 0 58.2 3.6

45 2 51.1 52.5

45 2 46.1 50.1

5 1 12.5 16.9

5 1 2.2 7.0

5 4 35.9 37.9

5 4 38.9 42.5

50 2 8.9 11.6

50 2 3.8 8.3

45 3 4.2 7.5

45 3 5.9 10.6

10 3 14.0 16.5

10 3 16.7 20.6

55 3 18.6 22.0

55 3 15.9 20.2

10 2 53.9 55.8

10 2 53.7 57.1

5 8 41.4 45.1

5 3 45.1 49.2

Date. 1875, Dec. 6
 First minute-break. Dec. 13
 c, set at.

N. Coll.	S. Coll.
Sum	
Mean.	

a.	b.	Mag.	REMARKS.
0 59 40 58 41.0	57 54 18 120	5.0 5.5	
1 0 30 59 31.0	87 54 29 229	8.5 9.0	
4 27 0 272	88 53 27 223	8.8 9.0	
2 56 1 56.5	87 53 48 429	8.6 8.7	2 2 2
3 36 2 35.8	94 53 28 226	9.4 9.4 9.3 9.2	2 nd 8 hr.
4 59 3 42.9	8.2 50 50 ~~5.4~~ 457	8.8 9.0	mean 8
5 59 4 52.4	87 50 21 ~~161~~ 161	8.5 9.0	2
6 48 5 48.5	94 53 19 145	9.4 9.4	
8 19 7 19.9	90 53 45 398	9.0 9.0	2
9 11 8 11.5	83 53 5 01	8.6 8.5 8.8 8.6	reg. order

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45 2 23.4 25.5

45 2 24.0 28.2

35 1 42.3 45.5

35 1 43.5 47.2

35 2 13.5 15.9

35 2 8.4 12.0

15 1 41.8 44.5

15 1 36.9 41.1

35 2 40.5 42.2

35 2 14.8 16.4

35 2 37.7 41.5

35 2 21.0 25.1

10 4 21.0 23.9

lost

40 3 18.1 22.5

sure 40 0 6.7 12.4

45 0 4.7 7.7

45 0 6.2 11.2

15 4 40.4 41.8

15 4 42.0 44.9

55 4 57.0 58.5

55 4 56.5 59.8

Date. 1875, Dec. 6
Dec. 13

First minute-break.

c, set at.

Sum
Mean.

N. Coll.

S. Coll.

a.

δ.

Mag.

REMARKS.

1 10 13 8.0 53 14 8.3
7 126 91
8.2

11 9 8.7 53 48 8.5
10 95 438
9.0

12 19 8.7 53 9 9.0
11 194 8.9
9.1

13 10 7.3 53 57 7.0
12 105 523
7.5

14 3 8.8 53 57 9.0
13 26 537
9.2

15 15 9.0 53 53 9.0
14 107 413
9.0

16 8 8.0 53 41 8.4
15 85 36.0
8.3

17 9 8.7 53 43 9.0
16 75 382
9.0

19 28 9.2 54 18 9.2
18 260 131
9.1

20 50 8.0 54 36 8.5
19 481 310
8.0

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

50 0 24.9 27.5

50 0 24.8 28.0

15 1 29.7 31.9

15 1 33.2 37.9

55 0 26.1 28.9

55 0 29.9 35.1

5 2 30.4 32.3

5 2 25.8 29.9

5 0 59.3 1.5

5 1 1.6 6.3

10 1 24.4 27.0

10 1 17.5 21.4

20 3 29.5 30.1

20 3 29.1 33.9

20 1 41.6 44.2

20 1 37.3 40.2

45 2 1.9 4.5

45 2 8.1 12.1

25 3 0.8 2.8 Seeing very good indeed

25 2 52.9 0.9 Seeing very good

Date. 1876, Jan. 10
First minute-break. Jan. 11
c, set at.

N. Coll.	S. Coll.
Sum	
Mean.	

a.	s.	Mag.	REMARKS.
1 ^h 29 ^m 8 ^s 89 50 40			
30 87 90 51 52			
31 28 76 51 39			
32 24 31 21.6	84 57 53 47.6	8.5 8.6	
33 29 32 26.0	93 07 56 50.8	9.0	
34 29 33 26.7	92 51 32 26.3	9.3 9.2	
35 22 34 19.7	90 51 24 18.9	8.7 9.0	lost 1 st wire
36 31 35 28.8	95 51 28 22.9	9.0 9.2	
37 37 36 34.0	95 51 57 51.6	9.5 9.5	pr. #
38 49 37 49.1	90 50 25 23.0	9.2 9.0	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

30 0 33.2 373

30 0 35.9 40.7

25 2 5.7 9.7

50 1 27.2 32.9

50 1 17.2 22.2

55 4 21.9 25.9

55 3 59.6 2.6

55 0 4.7 9.4

50 4 57.9 1.9

25 1 20.3 25.8

25 1 23.4 26.9

50 4 13.2 18.4

50 3 59.0 1.5

Date. 1876, Jan. 10
 Last minute-break. Jan 11
 c, set at.

Sum
 Mean.

N. Coll.	S. Coll.

a.	δ.	Mag.	REMARKS.
~~21 40 56~~	~~94 52 35~~	8.5	
1 40 6	88 52 36	8.4	
39 13	31.3		
42 24	94 57 53	9.2	
41 21.7	45.2	9.5	
43 24	86 57 10	8.3	
42 21.0	50	7.8	
45 7	91 52 2	9.0	fall. #
44 4.0	51 55.9	9.2	
46 52	87 51 26	8.7	false stroke after 2 nd stroke for δ
45 47.0	31.4	8.6	
48 17	92 57 53	9.1	
47 12.7	48.4	9.2	
49 32	83 52 33	8.4	22
48 25.0	27.7	8.4	
50 13	91 52 00	8.9	
49 8.4	51 55.2	8.8	
51 50	84 52 39	8.4	22
50 44.9	32.7	8.6	fall of 3 #5
52 24	91 52 21	8.5	
51 21.7	16.1	9.0	close double
		9.0	mean δ + R.A.

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45 1 37.9 42.1

45 1 38.5 41.2

25 4 54.9 58.0

25 4 52.7 55.2

10 3 19.9 24.1

10 3 18.0 21.4

20 2 18.9 23.1

20 2 9.6 14.4

45 1 20.9 26.4

45 1 15.7 20.7

25 4 44.8 49.1

25 4 45.8 49.2

50 1 6.0 10.9

50 1 5.2 7.9

20 3 15.1 19.2

20 3 23.5 26.9

45 0 15.1 21.1

45 0 17.6 21.9

0 2 39.5 44.4

0 2 42.8 45.7

Date. 1876, Jan. 10

First minute-break. Jan. 11

set at.

Sum

Mean.

N. Coll.

S. Coll.

a.		δ.		Mag.	REMARKS.
2 ^h 2 ^m 8 ^s 1 0.4	8.5	52 36 5 31.5		8.5	
3 37 2 44.6	8.5	58 40 3.52		9.4	
5 8 4 1.5	9.4	53 8 2.9		9.5 9.4	
6 10 5 3.1	8.5	53 56 5.1		8.3 8.4	
~~8 20~~ 7 37 6.344	~~8.8~~ 9.2	~~52 52~~ 51 41 86.8		9.0 9.2	22
8 20 7.101	8.8	52 52 47.7		8.8	
9 26 8 1.0	9.0	53 8 3.1		8.9 9.0	22
10 13 9 5.0	9.0	53 30 25.2		8.6 8.8	
11 43 10 34.6	8.8	53 38 31.3		9.0	
12 53 11 43.6	9.2	53 52 46.8		9.1 9.0	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45	2	15.0	20.7
----	---	------	------

40	2	52.8	55.8
----	---	------	------

15	0	21.3	26.8
----	---	------	------

15	0	19.9	25.4
----	---	------	------

25	2	23.8	27.2
----	---	------	------

25	2	26.1	29.9
----	---	------	------

40	1	35.4	41.4
----	---	------	------

40	1	36.7	42.1
----	---	------	------

30	1	15.8	20.3
----	---	------	------

15	0	25.9	31.8
----	---	------	------

15	0	31.8	35.8
----	---	------	------

50	3	12.5	15.2
----	---	------	------

50	3	11.4	14.2
----	---	------	------

45	2	6.2	11.3
----	---	-----	------

lost

30	1	43.4	46.5
----	---	------	------

30	1	41.9	46.0
----	---	------	------

Date. 1876, Jan. 10
 first minute-break. Jan. 11

Sum
 Mean.

N. Coll.

S. Coll.

set at.

a.	s.	Mag.	REMARKS.
14 59 13 50.2	84 52 6 1.4	8.3 8.0	
15 43 14 34.4	80 52 52 47.5	8.8 8.9	
17 9 16 0.8	80 52 47 43.0	8.8 8.6	
18 43 17 34.6	92 52 58 53.9	9.0 9.1	# ? 2 stars above
19 59 18 50.7	88 52 58 53.3	9.0 9.3	A faint # pr. above
20 57 19 48.9	83 52 29 24.6	8.5 8.1	
22 4 20 58.7	75 52 37 32.2	8.9 8.9 8.8 8.8	very close double, mean S + R.A. " " " "
23 9 22 0.6	85 52 16 11.5	8.0 8.4	
25 9	85 52 4	8.2 8.3	wrong #?
26 35 25 20.9	85 53 8 2.8	8.9 8.8	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

15 2 12.4 17.1

15 2 16.6 20.1

30 1 48.9 53.2

30 1 33.3 38.1

35 1 0.9 4.9

35 0 56.8 0.8

20 3 22.0 25.6

20 3 6.0 8.9

25 0 7.7 11.9

25 0 19.5 24.8

50 4 1.4 5.3

50 4 2.4 6.3

45 2 26.7 30.6

45 2 15.0 20.2

5 2 27.9 31.9

5 2 20.8 26.1

15 4 7.1 10.8

15 3 58.4 1.3

15 0 43.0 47.9

15 0 48.0 52.7

Date.

1876 Jan. 10

first minute-break.

Jan. 11

Sum

Mean.

N. Coll.

S. Coll.

a.

s.

Mag.

REMARKS.

2 28 46 92 54 39 ~~8.9~~
 28 356 342
 8.8

31 11 88 54 27 8.7
 30 0.6 223
 8.8

32 19 89 54 37 8.7
 31 7.7 327
 8.9

33 56 60 54 34 5.5
 32 450 297
 5.8

35 51 80 54 24 8.8
 34 401 20.5
 8.8

37 2 85 54 53 8.9
 33 510 493
 9.4

38 36 83 54 23 8.2
 37 251 194
 8.8

40 41 71 54 57 8.0
 39 304 530
 8.4

41 40 79 54 8 8.0
 40 276 37
 8.4

44 80 84 53 16 7.7 ~~8.2~~
 43 191 118
 8.2

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

40 4 33.3 36.1

40 4 43.9 47.8

55 1 30.1 34.2

55 1 30.6 33.9

45 2 32.4 36.1

45 2 27.6 32.4

45 4 48.2 51.3

45 4 53.9 57.6

~~55 not seen~~ 3 8.9 12.9

55 3 14.9 18.9

25 4 36.0 39.2

25 4 40.4 45.1

55 3 9.9 13.1

55 3 14.2 18.1

25 0 41.1 46.9

25 0 36.1 40.7

15 0 38.5 43.1

15 0 36.8 40.9

5 1 39.2 43.5

5 1 47.2 50.6

Seeing very good
Variable

Date. 1876, Jan. 12

First minute-break. Jan. 13

c, set at.

N. Coll.	S. Coll.
U. br. M.A.R. M.A.R.	
Rec. f. 7. m. f. 7. m.	

Sum
Mean

Jan 20 in red on this page

a.	δ.	Mag.	REMARKS.
2 43 ^m 41 ^s 42 298	57 53 11 70	9.2 9.1	8.6
45 41 44 295	91 54 29 250	9.2 9.4	9.1
~~46 43 88 53 54~~ 47 27 77 54 59 46 250	~~53 54~~ 54 59 54.9	~~8.7~~ 8.7	8.4
48 13 47 16	83 53 50 457	8.1 8.5	8.4 2 lost 1 st wire lost 1 st wire
49 01 47 48.6	77 53 17 127	8.2 7.8	7.8 2 2 false strokes follow lost 1 st wire
49 53 48 414	85 53 57 473	9.0 8.8	8.5 2 false stroke after 8
50 42 49 301	85 54 8 40	8.6 8.9	8.4 last 2 wires
52 27 51 247	92 53 14 97	8.7 9.1	8.8 betw 2 55 + 3
58 5 56 533	80 53 36 325	8.8 8.5	8.4 lost 1 st wire
0 26 59 140	89 54 48 443	9.0 9.2	false stroke after 8

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

10 1 32.1 38.1 10 1 16.2 23.7

10 1 29.1 35.7

50 3 46.4 51.2 50 3 34.1 41.2

50 3 40.2 46.8

not seen 25 0 4.8 12.9

25 0 13.2 20.9

30 3 2.6 6.4 30 3 26.1 32.1

30 3 34.8 40.1

5 2 1.7 6.7 5 2 10.0 18.7

5 2 14.0 21.3

30 1 18.1 23.9 30 4^p 18.1 25.1

30 1 18.8 25.6

15 0 34.2 40.1 15 1 8.2 14.8

15 0 52.5 58.1

5 4 9.2 14.3 5 3 55.8 2.1

5 4 7.0 13.0

45 1 49.6 53.2 45 2 0.8 7.9

45 1 46.8 53.0

30 4 51.7 56.1 30 4 49.7 56.4

30 4 54.5 59.2 stopped on account
of the bad seeing

1875phae.pro.1.1553R

Date. 1876. Jan. 12

First minute-break.

c, set at.

Jan, 20 in blue
for the rest of this year

N. Coll.

S. Coll.

Sum

Mean.

a.		s.		Mag.	REMARKS.
hms					
3	1 48	84	54 54	9.1	
	0 36.5		52.0	9.2	
3	15	80	54 51	8.1	
2	2.3		47.3	8.2	
4	21	80	54 27	9.0	
3	8.5		23.4	9.0	
6	26	87	54 50	8.8	
5	13.4		40.9	8.3	
8	30	90	54 31	9.0	
7	16.2		24.1	8.8	
9	22	86	54 44	8.7	
8	8.5		39.6	8.8	
10	57	94	53 41	9.3	2
9	44.1(2)		37.1	9.2	
11	49	90	53 36	8.6	
10	35.2		31.6	9.1	
13	14	83	54 03	8.4	
11	0.90		53 54.7	8.1	
14	16	87	53 48	8.8	
13	2.2		43.7	8.9	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

25 4 28.2 32.4

25 4 26.4 34.0

30 2 6.5 13.1

30 2 3.6 10.1

55 1 21.3 27.2

55 1 15.9 24.0

30 3 34.0 38.9

30 3 35.8 43.0

50 1 56.1 0.3

50 2 4.0 11.1

40 0 20.6 25.1

40 0 16.6 24.1

40 2 24.1 28.8

40 2 30.6 37.1

45 2 51.9 56.2

45 2 52.6 58.4

20 1 24.7 29.9

20 1 22.7 30.5

35 1 36.9 42.0

35 1 30.8 38.1

1875phae.pro.1553R

Date. 1876, Jan. 12
First minute-break. Jan. 20

c. set at.

Sum
Mean.

N. Coll.	S. Coll.

α .	δ .	Mag.	REMARKS.
B 23 53 22 38.1	60 54 32 27.7	6.8 6.0	
~~27 38~~ 27 33 26 17.8	~~8.5 53 13~~ 9.0 54 07 3.5	<del></del> 9.0	
~~29 49~~ 28 9 26 54.6	~~54 53 13~~ 8.3 54 40 41.2	<del></del> 7.4	
30 55 29 46.4	9.1 57 55 51.6	8.9 9.3	
32 10 31 0.4	8.7 50 57 48.2	8.9 8.8	
~~33 31~~ ^{ob} 33 31	~~8.8 57 10~~	~~8.5~~ 8.5	
~~35 14~~	~~9.0 53 29~~		2
36 05 34 48.9	9.5 54 43 39.8	9.6 9.6	
38 6 36 50.3	8.5 54 38 35.8	8.0 8.3	
~~39 13~~ 39 48 38 32.2	~~8.5 53 39~~ 6.5 52 16 12.2	<del></del> 7.0	faint comp. for 1/2 sec.

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

50 1 12.9 18.2

50 1 4.3 10.9

not seen

15 1 16.1 23.3

not seen

35 4 0.3 6.8

25 3 35.7 41.2

30 1 5.0 12.8

30 1 45.9 53.0

30 1 44.1 53.5

5 3 14.3 20.1

5 3 14.8 23.3

not seen

40 0 37.0 41.9

40 not 43.1 50.2

40 4 15.2 19.2

40 4 27.9 34.1

not seen

5 2 2.2 8.6

Date. 1876, Jan. 12
 First minute-break. Jan. 20

C. set at.

Sum
 Mean.

N. Coll.	S. Coll.

α .	δ .	Mag.	REMARKS.
3 40 54 8.0	54 57	8.0	
39 38.5	57.2	8.2	
41 44 8.6	52 7	8.4	
40 27.2	3.6	8.3	
44 13 8.3	52 10	9.1	
42 56.4	6.7	9.0	
46 44 9.1	54 31	9.1	
45 27.9	28.0	8.7	
~~45 48 9.2~~	~~52 25~~		2
~~46 38 8.7~~	~~52 10~~		
~~47 47 9.4~~	~~53 42~~	~~8.8~~	~~mid. wire & foll.~~
49 47 9.0	52 4	9.4	
48 36.4	51 53.8	8.8	false satellite per.
50 41 8.5	52 35	9.0	
49 24.4	31.4	8.3	per. #
52 5 8.7	53 24	8.2	
51 48.3	20.8	8.6	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

25 1 11.4 16.7

25 1 11.9 18.7

15 2 3.2 9.1

15 1 58.5 5.8

10 3 38.8 43.7

10 3 44.8 51.9

50 2 51.0 54.8

50 2 46.8 53.0

~~40 1 58.3 4.4~~

not seen

15 4 54.9 59.4

15 4 39.7 46.7

45 1 37.9 44.9

sure 45 4 0.1 7.1

0 0 25.8 31.0

0 0 12.4 20.6

seeing quite good
except for very faint stars
seeing pretty fair

Date. 1876, Jan. 26

first minute-break.

31

Sum

Mean.

N. Coll.

S. Coll.

Obs. W. A. R.
Rec. J. F. M.

a.			δ.		Mag.	REMARKS.
3 ^h 59 ^m 15 ^s	60	59	35.9		6.8 6.5	
0 28	90	53	11		9.0	
3 59 11.1			7.6		9.0	
2 56	88	53	22		9.0	lower + pr. #
1 37.9			18.9		8.7	
4 17	70	54	11		7.9	2 false strokes after δ
2 59.5			8.8		7.8	
5 12	88	54	40		8.2	a 9.0 mag. foll's.
3 54.5			36.8		8.2	reg. order
6 44	50	53	17		6.0	
5 25.9			14.0		5.7	
7 54	90	52	3		9.3	22
6 36.6			0.5		9.3	
8 40	80	54	19		9.1	
7 22.2			16.3		9.1	
9 37	87	54	33		9.1	
11 19	80	53	23		8.2	
10 0.6			20.8		8.1	

Runs.	A.		C.		
	Sum	Mean.			
Pointer.	Stroke.	Rev.	A.	C.	REMARKS.
	55	0	0.0	6.0	
	50	4	29.5	34.2	
	10	3	35.1	39.8	
	10	3	16.6	23.8	
	0	2	30.4	36.7	
	0	2	19.6	26.3	
	10	2	6.2	11.9	
	10	2	1.5	7.0	
	45	0	41.9	48.6	
	45	0	42.1	49.0	
	5	1	29.1	33.9	
	5	1	21.5	29.0	
	20	0	33.3	40.3	
	20	0	27.6	35.2	
	0	4	56.0	59.9	
	0	4	53.8	59.1	
	not seen				
	not seen				
	0	0	19.7	26.1	
	0	0	12.8	20.7	

Date. 1876 Jan. 26
First minute-break. Jan. 31

Set at.

Sum
Mean.

N. Coll.	S. Coll.

a.		s.		Mag.	REMARKS.
4	12 19 11 19	8.5	53 01 52 59.0	9.0 8.4	
	15 18 14 6 13 34 12 22.3	9.0 8.8	50 32 26.2	8.9 9.2	quite close comp. Jollis. above
	15 18 14 0.0	9.0	54 32 28.9	8.8 9.0	2
	16 10 14 52.1	8.9	54 26 22.9	8.7 9.1	
	17 50 17 28 16 10.2	8.5 9.4	54 19 53 9 6.4	9.4 9.5	
	18 24 17 0.2	8.5	53 9 6.0	8.4 8.4	
	19 51 18 32.9	9.0	53 36 32.9	9.0 8.9	
	20 58 19 39.0	9.0	54 48 45.1	8.8 8.9	Warm & Jani 4 ^h 28 ^m
	31 29 30 10.0	8.0	54 25 22.0	8.5	
	33 10 31 51.4	9.0	53 49 47.0	9.0	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

20 2 2.9 7.1

20 1 55.8 1.9

50 4 55.1 2.4

50 4 37.7 45.4

50 2 85.9 41.2

50 2 33.9 40.1

55 3 31.7 35.8

55 3 24.1 29.9

10 4 59.1 3.8

10 4 54.3 59.1

15 0 6.0 12.1

10 4 55.7 0.1

45 3 43.9 48.1

45 3 39.7 46.0

35 2 29.4 34.2

35 2 27.2 33.0 ~~stopped on act. of clouds~~

55 3 55.2 59.2

Clouds

30 4 47.7 52.0

Clouds

0.5A

Date.

First minute-break.

set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

s.

Mag.

REMARKS.

4 35 14 9.0 53 24 8.5
33 55.2 220

36 10 8.5 54 50 9.0 lower + foll. #
34 51.3 480

37 23 8.7 54 54 8.9
36 4.3 51.6
9.0

39 13 8.5 53 39 8.3
37 54.4 36.7
8.3

40 46 8.7 53 31 8.8 2 2 2
39 27.4 28.8
8.8

41 30 8.0 54 42 7.2
40 11.0 39.8
6.7

42 34 8.0 54 49 8.0
41 18.6 46.8
7.8

45 05 8.8 52 15 8.7 warm
43 9.9 12.7
8.6

53 12 8.7 53 19 8.7 reg. order
51 51.6 1.7 9.1 clouds
9.4

55 7 9.3 53 10 9.1 upper + foll. #
53 46.8 7.7

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

55 4 52.6 56.2

Clouds

30 3 39.2 43.7

Clouds

30 0 3.1 8.2

30 0 5.5 13.0

45 0 17.7 22.0

45 0 14.7 21.8

50 2 37.0 41.8

50 2 37.2 (42.3) 46.3

40 3 19.8 24.4

40 3 11.4 17.8

30 4 35.0 39.0

30 4 31.9 37.2

5 3 56.9 0.5

5 3 55.3 1.6

0 4 44.2 48.5

0 4 36.9 42.1

10 2 21.1 25.0

Date.

First minute-break.

Set at.

Sum

Mean.

N. Coll.

S. Coll.

1876, Jan 26

a.

s.

Mag.

REMARKS.

4 56 25 87 53 21 8.5
55 57 186

57 36 80 52 3 8.2
56 16.2 0.7

58 37 85 53 41 7.8
57 17.5 388

59 48 81 53 33
58 28.1 310

1 14 79 53 3 7.7
59 54.5 13

3 5 94 53 29 ~~9.3~~ Blurred

10 57 63 54 7

12 20 90 53 25 9.3 lost 1st 4 3rd
10 59.3 229

13 19 90 53 14 9.3 lost 1st
11 57.8 121

14 31 85 53 49
13 96 471

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

0 4 31.5 34.1

20 2 0.1 4.0

40 4 37.4 40.5

50 1 39.1 43.0

55 0 46.8 51.0

lost

0 0 32.2 35.5

5 4 40.5 44.1

35 0 47.0 40.3 seeing rather bad.

Date.

First minute-break.

set at.

1876, Feb. 20

Feb. 21

Feb. 22

Sum

Mean.

N. Coll.

S. Coll.

Obs. W. A. R.
Recy. F. M.

α.

δ.

Mag.

REMARKS.

4^h 33^m 10^s 9.0 53 49 ~~8.8~~35 14 9.0 53 24 ~~8.6~~
8.536 10 8.5 54 50 ~~8.3~~ for #37 18 8.5 52 22 ~~8.5~~39 21 7.5 53 8 ~~7.8~~ 2240 16 9.0 54 23 ~~8.6~~ 22

9.2 9.2

41 8 9.0 54 47

42 13 8.7 49 56
40 59.4 56.2

9.2 9.2

44 18 8.5 52 18 8.5 22

42 56.4 ~~6.7~~
43 0.5 10.7 8.8 9.2

45 0.5 8.8 52 15 8.2

43 47.4 12.7 8.7 8.8

Runs.

Sum
Mean.

A.		C.	

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

~~30 4 43.2 50.8~~

~~55 2 51.3 59.1~~
~~55 4 51.2 59.1~~

~~30 1 48.2 56.6~~

~~0 1 30.1 38.4~~

~~15 0 48.1 48.8~~

~~0 0 5.8 14.0~~

0 0 18.9 27.4 0 0 16.5 25.2

lost

lost

lost

~~10 0 44.9~~

25 2 23 11.9 25 1 56.1 5.9

10 0 44.9 53.0

10 0 52.7 1.7 10 0 48.8 57.9

5 3 59.1 5.6

5 4 28 10.6 5 4 0.2 8.1

date.

first minute-break.

set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

s.

Mag.

REMARKS.

4 47 0
40 41350 53 32
303

5.0 5.7

49 11
47 51880 52 16
1438.0
8.3 8.4

50 26

89 54 39

52 1

88 54 12

8.3 lost 1st/₁₁ wire 2nd wire?
8.8

53 18

92 54 34

8.5 22
9.1 9.6

54 10

84 54 48

8.3
8.7 8.5

55 50

76 54 57

8.2

9.0 9.2 haze

56 54

85 54 32

8.2

8.5 8.4

58 36

71 51 50

59 48

81 53 38

58 281

310

8.0

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

150 1 18.9 26.5

50 1 11.9 20.4 50 1 13.0 22.2

5 1 19.1 28.0

5 1 5.8 13.1 5 1 12.7 21.9

lost

10 8 33.9 41.5

10 3 16.1 24.6

50 0 7.2 15.9

45 4 49.8 57.6 50 0 16.2 25.5

35 0 55.2 3.0

35 0 51.5 59.9 35 1 17.6 25.9

25 2 25.5 33.3

25 2 34.9 42.9 25 2 24.8 32.2

50 2 12.6 22.9 ~~20.9~~

50 2 15.2 24.8 50 2 17.1 27.5

50 2 0.4 8.1

Date. *Feb. 21*

First minute-break. *21*

c, set at.

N. Coll.	S. Coll.
Sum	
Mean.	

a.	s.	Mag.	REMARKS.
5 ^h 1 ^m 38 ^s	7.5 53 17		
0 18.6	15.6	7.8.0	
8 5	9.4 53 29		x Augie
1 43.6	27.1		
~~20 24~~	~~7.7 53 3~~		
4 29	6.0 53 4		
3 8.4	1.6	7.0	
11 37	7.8 51 21		
12 33	9.9 53 42		
13 39	9.3 53 57	9.2	
12 18.0	85.3	8.9	
14 31	8.5 53 49	8.4	22
13 9.6	47.1	8.2	
15 20	8.8 53 11	9.1	
13 58.1	8.8	9.0	
~~17 12~~	~~8.7 53 40~~	9.0	upper & foll. #
27 48	9.0 52 13		
20 27.7	11.9	9.2	false break after 8 wire
18 37	9.5 54 42		
22 44	8.2 52 2		

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

Feb. 21 5 2 7.1 15.7

20

20 0 42.0 49.9

Feb. 20 30 2 23.9 30.9

21 30 2 10.0 18.5

20 35 0 14.1 22.5

21 35 0 12.0 20.0 ~~35 0 13.0 21.9~~

20 10 4 9.1 17.7

21 10 4 12.4 21.2

20 10 0 41.8 50.9

21 10 0 ~~33.5 43.3~~

18750hae.prj.1553R

Date. 1876. Feb. 17
First minute-break. Feb. 20

c, set at.

Sum
Mean.

N. Coll.	S. Coll.
Obs. W. A. P.	Rec. J. F. N.

α.		δ.	Mag.	REMARKS.
6	0 41 80	53 39	8.2	22
	59 19.1	584		
1	25 82	53 50	8.2	
	0 23	50.2		
2	22 89	54 00	9.0	
	1 05	0.0	8.5	
3	20 90	54 9	8.6	
	1 58.4	89	8.6	
5	54 93	53 50	9.0	
	4 32.5	50.2	9.0	
7	41 75	53 42	7.8, 6	
	6 19.3	41.8	7.5	
11	23 58	53 31	5.8	
	10 12	30.5	6.4	rej. A+1
13	9 70	53 7	7.8	
	11 46.8	7.1	7.5	
15	26 85	53 8	8.3	
	14 42	7.9	8.2	
17	39 83	53 8	8.4	
	16 17.3	7.9	8.4	

Runs.

Sum
Mean.

A.

C.

Pointer.	Stroke.	Rev.	A.	C.	REMARKS.
	45	1	27.2	35.3	
	30	3	21.4	29.6	
	20	4	35.6	43.0	
Feb. 20	20	4	26.9	33.6	
	15	1	37.1	45.9	
Feb. 20	15	1	39.0	47.4	
	30	4	17.2	25.5	
Feb. 20	30	4	21.2	28.9	
	40	1	35.9	44.4	
Feb. 20	40	1	40.0	47.3	
	50	3	59.8	6.6	
Feb. 20	50	3	55.4	2.0	
	15	1	19.3	28.3	
Feb. 20	15	1	12.9	20.7	
	15	1	23.1	31.5	
Feb. 20	15	1	16.0	23.9	
	15	1	12.0	21.4	
Feb. 20	15	1	6.9	14.8	

Date.

First minute-break.

c, set at.

N. Coll.

S. Coll.

Sum

Mean.

a.	s.	Mag.	REMARKS.
6 18 3.4 8.5 17 12.5	54 3-3 27 28.0	8.2 8.6	
20 01 9.3 50 59 18 45.7	59.5	9.5 9.5 9.0	a 9.5 pr. above
21 37 9.0 53 56			
22 25 9.1 53 27			
24 7 8.5 53 51			9.2 #? faint comp. pr. below
25 8 9.0 51 53 23 52.6	53.5	9.1 9.0	~~9.2 and 4 foll. of 3 stars #?~~
26 26 8.5 51 32 25 10.8	32.4	8.5 8.7	
27 26 8.7 53 38 26 4.5	38.1	8.8 8.5	
29 12 8.9 53 37 30 4.4 29 2.8	31.0	9.0 9.2	#?
32 57 7.5 54 15 31 29.7	14.7	8.2 7.6	

Runs.

Sum
Mean.

A.

C.

Pointer.	Stroke.	Rev.	A.	C.	REMARKS.
	55	1	47.7	55.9	
Feb. 20	0	0	44.9	53.3	
	25	0	18.3	28.3	
Feb. 20	20	4	6.3	13.9	
	25	0	8.0	9.2	
		not seen			
Feb. 20		not seen			
		not seen			
Feb. 20	5	1	22.5	29.9	
		not seen			
Feb. 20	35	1	12.7	19.7	
	30	1	1.1	10.0	
Feb. 20	30	0	58.2	7.0	
	50	4	47.3	55.9	
Feb. 20	50	4	48.5	55.9	
	45	2	28.0	35.5	
Feb. 20	45	2	33.9	41.1	
	45	2	59.9	7.1	
Feb. 20	50	2	53.9	0.5	
	10	0	46.8	55.8	seeing very good.
Feb. 20	10	0	38.4	46.8	seeing moderately good

Date. 1876. March 6
First minute-break. March 7
set at.

Sum
Mean.

N. Coll.	S. Coll.
Obs. M. A. R.	M. A. R.
Recd. F. M.	J. F. M.

a.		s.		Mag.	REMARKS.
6	13 14 79 11 59.1	50 50 49.8		8.2	
14	6 89 50 5	8.8		8.4	# # ?
12	50.9 5.0	9.0		8.5	
15	44 84 54 20			8.5	
14	217 25.0			8.7	
17	56 88 54 20	8.7		8.6	
16	39.8 19.6			8.3	
19	12 87 54 52	8.3		8.9	
17	49.9	8.2		8.5	
20	39 90 53 55	8.9		8.9	Z. R. stars
19	19.0 55.0	8.9		9.0	# ?
32	52 90 53 9	9.0		9.0	
31	29.8 10.0			6.0	
33	50 6.5 53 25	6.5		8.8	lost 1 st wire
32	28.4 25.7			9.0	false stroke + rattle after 8
40	36 87 53 7	8.8		9.0	4 strokes " " " "
38	55 8.5 52 37	9.0		8.9	
37	36.5 38.0			9.0	
40	46 50 52 19	8.9			
39	26.8 19.9				

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

35 1 369 50.3

15 3 481 57.9

20 0 18.5 29.4

15 3 586 10.8

20 0 17.6 31.5

55 3 399 51.9

0 4 26.6 34.9

0 4 24.2 35.1

30 4 26.0 34.6

30 2 57.7 7.1

30 4 19.6 31.0

30 3 2.9 12.8

25 4 41.4 49.9

25 4 45.0 55.2

20 3 47.2 55.0

20 4 1.1 11.7

55 4 23.7 32.6

55 4 46.6 57.1

45 2 25.8 34.4

45 2 32.5 43.9

5 0 3.9 13.5

5 0 8.3 20.1

ate. 1876, March 6
first minute-break. March 7

Sum
Mean.

N. Coll.	S. Coll.

a.	δ.	Mag.	REMARKS.
6 42 12 85 40 52.8	52 40 40.5	8.8 8.7	
46 34 8.8 45 13.0	54 47 47.4	9.2 8.9	
52 50 8.6 51 35.9	50 8 49.5	8.7 8.8	
55 26 8.2 54 7.0	52 03 43	9.1 9.1	22
56 16 9.5 55 2.1	50 52 53.0		
58 03 8.7 56 43.2	54 20 20.7	8.5 8.1	
59 07 8.4 57 46.2	54 33 34.9	9.0 8.7	upper + foll. #
60 17 8.5 58 56.6	54 35 35.9	8.7 8.4	false rattle & stroke after 8
1 18 9.0 59 58.4	53 19 54 0.5	9.0 9.2	22
2 6 8.8 0 46.2	54 7 8.0	8.8 8.6	suspected faint closed double foll's.

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

40 4 18.1 26.4

40 4 19.1 30.2

35 2 21.7 30.4

35 2 23.1 33.9

5 4 29.5 38.8

15 1 ~~58.2~~ 10.3

15 3 32.9 40.8

15 3 23.6 34.8

0 4

not seen

0 4 58.5 4.9

5 0 1.1 12.5

50 1 15.0 23.4

50 1 11.5 22.1

50 0 9.7 18.1

50 0 14.7 25.6

25 0 57.2 4.8

25 0 42.1 52.9

15 2 51.1 59.8 seeing very good.

15 2 53.9 4.1 seeing very good

Date. 1876, March 13
first minute-break. March 14
set at.

Sum
Mean.

N. Coll.	S. Coll.
Obs. W.A.R.	W.A.R.
Rec. J.F.M.	J.F.M.

α .	δ .	Mag.	REMARKS.
7 $12^m 32^s$ 80 11 108	53° 5' 72	7.8 7.8	lost 1 st wire
14 16 92 12 554	53 53 551	9.3 9.1	
16 36 89 15 154	53 2 37	8.9 8.6	false stroke + cattle after 8
17 37 87 16 162	53 40 473	9.0 8.8	
18 58 92 17 381	54 21 225	9.4 9.1	lost 1 st wire
21 50 90 20 302	53 58 54 01	8.8 8.9	
22 56 89 21 361	54 23 245	9.0 9.0	
23 56 83 22 358	54 38 398	8.4 8.2	
25 11 77	52 4		
26 53 88	52 38		

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

20 0 42.4 50.1

20 0 8.5 14.9

30 4 14.0 22.5

30 3 56.3 1.2

20 3 11.2 19.7

20 3 9.9 16.4

35 4 23.8 31.7

35 4 29.9 36.6

0 4 11.2 19.8

0 4 23.3 29.9

25 1 32.8 40.0

25 1 37.8 44.2

0 1 48.0 56.4

0 1 44.8 52.2

45 1 58.3 56

45 2 0.1 6.9

not seen (sure)

" " "

not seen sure

" " "

ate. 1876, March 13

first minute-break.

Mon 14

set at.

Sum
Mean.

N. Coll.

S. Coll.

a.

s.

Mag.

REMARKS.

7 27 44 87 53 38 8.6
26 23.5 40.3 8.5

29 12 89 53 34 9.0
27 52.9 36.4 9.0

30 06 88 54 23 8.5
28 46.7 24.6 8.7

2. R. stars

49 2 90 54 25 9.2
47 43.3 26.7 9.1

50 6 94 53 48 9.2
48 46.7 57.3 9.1

52 43 73 54 30 7.7
51 25.4 31.5 7.0

false obs. pr.

53 45 87 53 33 8.3
52 26.9 30.8 8.5

3. F. stars

8 10 22 77 53 35 7.8
9 4.3 38.7 8.0

12 17 91 52 59 9.0
10 59.4 531.6 9.0

13 30 94 53 0 9.1
12 11.9 2.3 9.2
9.5

(sec. below)
a fainter # star folls. about 5
2nd s pr

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45 2 0.8 8.8

45 1 38.9 46.4

50 0 32.8 41.2

50 0 29.9 36.5

0 3 27.4 35.9

0 3 33.7 39.1

0 1 13.1 22.2

0 0 52.5 59.9

85 2 30.9 38.7

35 1 45.3 53.5

35 3 0.0 6.4

55 1 10.0 19.4

55 1 17.9 26.3

50 1 30.1 38.1

50 1 31.4 38.5

45 4 28.7 36.1

45 4 47.6 55.7

25 1 45.0 53.7

25 2 1.4 7.8

25 0 55.8 3.9 seeing very good

25 1 20.4 27.6 " " "

Date. 1876, March 19

First minute-break.

Apr 2

Set at.

Sum
Mean.

N. Coll.	S. Coll.
Obs. W.A.R.	
Rec. J.F.M.	

a.	δ.	Mag.	REMARKS.
γ 3 ^m 51 ^s 2 32.1	9.5 52 15 16.7	9.3	222 upper & foll. #
4 27 3 59	93 52 49 50.9	9.1	3 F lost 2 nd wire
12 3 10 46.3	9.2 52 31 82.8	9.0	
~~14 27~~ 13 22 12 24	~~89 52 57~~ 80 54 20 21.6	8.0	
14 27 13 10.3	89 52 57 58.8	8.2	falsenattle & stroke after 8
17 4 15 42.8	9.2 53 2 3.8	9.0	
19 18 18 40	9.0 49 55 49 56.6	9.0	
21 5 19 51.3	9.4 50 56 58.1	9.4	
22 25 21 42	9.1 53 24 26.0	9.0	lower & pr. #
23 56 22 35.8	8.3 54 38 39.8	8.4	8.8 twilight

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

5 4 30.3 39.4

35 0 45.0 52.1

50 3 23.7 32.0

0 4 54.0 0.6

25 2 51.0 57.0

20 1 57.8 4.1

30 0 7.5 18.0

25 3 24.7 33.1

0 0 55.6 3.4

45 1 52.7 0.2

45 1 47.5 59.9

Date.

1876, March 19

first minute-break.

Apr. 2

set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

s.

Mag.

REMARKS.

7 25 17 90 54 37 9.0
23 567 388

26 50 79 54 41 7.7
25 296 420 8.5

28 30 77 52 8 8.0 222
27 138 102 8.0

29 2 70 54 11 6.7
27 420 128 6.0

~~31 34 83 51 45~~ 8.3 22 #?
48 27 95 51 32
47 150 342 8.5

49 34 80 54 47 9.0
48 148 428 8.8

51 2 91 53 20 9.0
49 427 229 9.0

53 28 93 53 57 9.1 H
52 93 537 9.2

810 22 80 57 40 8.4
9 107 422 8.6

13 13 92 49 50 9.1
12 25 49 527 9.3

false stroke + cattle
after 8

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45 3 20.5 27.0

40 4 57.7 4.3

45 0 6.7 20.2

15 0 25.9 34.1

15 0 23.8 36.8

10 3 58.0 4.9

lost circle readings

40 3 53.5 0.9

40 3 51.6 4.6

40 4 20.4 27.7

40 4 28.2 39.7

0 3 32.1 38.7

0 3 25.9 48.7

30 3 52.9 58.1

30 3 45.9 57.7

50 3 3.1 12.3

50 3 5.0 18.8

35 0 26.1 34.9 seeing very good.

35 0 23.5 38.1

Date.

first minute-break.

set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

δ.

Mag.

REMARKS.

8 19 1 8.7 53 38 8.5
17 437 406
8.8

20 6 8.0 52 37
18 51.2 31.6

843 31 9.7 50 26 8.0 false stroke foll' wires
42 215 290

9 0 3 7.5 49 50 7.6
58 548 49.036
8.6 2nd 8 pr.
7.5

9 13 28 9.0 54 7 8.3
12 129 110
8.0

17 4 9.3 0 4 21 9.5 #?
15 488 213
9.6

20 12 7.7 50 35 7.5
12 52 425
7.0

26 45 9.4 54 23 9.3 222
25 311 256
9.4

27 15 8.3 58 53 8.7 a 9.2 mag, pr. 3^s below
26 19 572
8.5 comp. pr below.

32 20 8.0 53 12 8.2
31 67 144
7.9
8.0

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

45 3 38.0 49.4

45 3 20.4 32.2

*not seen**not seen (aure)*

0 0 8.1 23.5

55 4 59.4 13.2

35 1 40.7 53.8

35 1 46.8 59.9

5 2 47.2 59.7

5 2 53.8 5.9

55 3 39.6 51.5

55 3 20.5 32.1

50 0 32.0 46.5

50 0 15.4 29.1

0 4 41.2 53.8

0 4 31.0 41.9

30 4 5.7 17.3

30 4 0.9 11.8

10 3 34.0 45.8 *seeing very good*10 3 34.7 11.8 *seeing good*

N. Coll.	S. Coll.
Obs. W.A.R. W.A.R.	
Rec. J.7.m. J.7.m.	
Sum	
Mean.	

Date. 1876, Apr. 10
 First minute-break. Apr. 11

c, set at.

a.	δ.	Mag.	REMARKS.
8 8 14 8 6.0 ~~12 49.7~~	53 37 40.5	6.5	7
19 06 8.7 17 43.7	53 38 40.6	8.8 9.0	
8 20 6 8.5 18 57.2	52 28 31.6	8.5 8.9	
9 30 7 9.4 28 49.6	53 11 13.9	6.0 9.5	R 2 nd J m. probably bright # ok'd
9 43 31 7.7 42 21.8	50 26 29.5	6.5 7.8	last 3 wires rej. A-2
9 9 49 9.0 8 87.7	52 31 34.7	9.0 8.5	and note after δ a 9.5 mag. pr. 3 ^{sec.} below. false stroke
13 5 12.6 5.1 11 58.2	31 35.7	9.5 9.34	#? perhaps a little nebulous.
20 12 7.7 19 57	50 35 42.5	— 7.5	α Hydrae 9 21
6 33 2 9.0	50 46	9.2 9.5	#?
3 34 32 8.3 33 19.1	53 42 46.5	8.3 8.5	

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

~~45 2 21.9 31.2~~

45 3 53.1 2.9

45 3 17.5 28.2

55 1 59.0 9.3

55 1 55.8 8.1

15 0 8.8 ~~19.0~~~~15 1 46.1 56.6~~

15 1 4.2 16.6

0 0 32.5 46.4

55 4 48.1 1.4

50 4 35.4 46.4

50 4 35.0 46.6

50 2 57.4 9.5

50 2 17.1 29.1

~~0 30.0 42.7~~

50 0 30.0 42.6

30 3 34.9 45.9

30 3 13.5 24.9

50 1 20.9 30.9

50 1 1.8 11.5

Date.

1876, Apr. 10

First minute-break.

Apr. 11

Sum

Mean.

N. Coll.

S. Coll.

a.

s.

Mag.

REMARKS.

9 25 56 8.3 53 23 8.2
 34 46.5 2.76 8.2

41 07 7.2 53 29 7.7.0
 39 56.6 3.38 7.4

42 3 9.0 53 44 8.8 wj. A₊₁
 40 52.6 4.81 9.0

43 28 8.7 53 45 8.8
 42 10.2 4.93 8.7

49 49 9.4 52 2 9.5 2 ~~#2~~
 48 39.9 6.3 9.5

50 38 8.8 52 39 8.4
 49 30.9 3.39

52 10 8.7 53 42 8.8
 51 1.6 4.62 8.2

53 41 9.3 53 35 9.3 suspected very close double
 52 31.8 4.09 9.1 probably not double

54 58 8.2 53 59 7.8
 53 50.6 5.4 4.0 7.8

56 53 7.0 51 10 8.2
 55 50.5 1.46

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

0 3 16.6 26.8

0 2 55.5 4.8

55 1 23.6 33.3

55 1 42.8 53.1

35 3 45.9 54.8

35 4 4.2 13.4

40 1 0.9 10.8

40 1 12.2 22.9

20 4 4.7 15.5

20 4 14.0 24.5

45 0 14.3 24.9

lost

40 4 47.3 56.5

40 4 44.5 55.0

45 4 50.9 59.5

45 4 43.4 53.1

25 3 38.6 47.6

25 3 19.3 30.0

15 0 21.3 32.7

seeing pretty good
seeing tolerably good

1875phae.pro.1553R

Date.

1876, May 1

First minute-break.

Set at.

Sum
Mean.

N. Coll.

S. Coll.

Obs. W.A.R.
Rec. J.L.Mc

α .

δ .

Mag.

REMARKS.

10 58 22 71 54 33 7.2 22
57 21.1 38.0

59 19 80 54 28 8.0 22
58 18.0 27.7

59 52 92 57 29 9.2 22? # Get next
59 52.2 35.0

0 35 7.2 53 31 lost

1 38 80 54 22 8.4
0 38.3 27.2

4 6 7.0 54 50 6.8
3 6.7 56.0

12 5 88 54 22 9.0
11 5.4 27.6

22 17 80 49 56 8.9 #?
21 22.0 50.16

~~25 50 81 50 12~~
~~24 55.5 18.0~~

32 37 9.0 54 29 lost
31 41.5 24.7

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

50 3 48.0 58.3

0 3 50.3 2.4

55 1 48.3 0.7

lost

0 3 42.1 54.4

35 3 28.6 41.0
35 0 32.8 45.5

0 4 17.4 28.8

25 4 29.1 41.9

not seen

1875phae.pro.1553R

Date.

First minute-break.

C. set at.

N. Coll.

S. Coll.

Sum

Mean.

α .

δ .

Mag.

REMARKS.

11 34 40
33 44.3

85 54 52
57.4

9.6 2

35 30
34 34.6

90 54 20
25.9

8.7

38 11
37 16.0

92 54 40
57.0

9.0 #?

40 10
Get β Leonis

83 54 00
11 42

9.3
8.6

1 stroke for each S

41 50
40 54.7

95 53 56
1.6

9.7

43 58
43 3.1

88 54 12
18.0

8.7

45 39
44 40.5

87 54 30
35.3

8.3

47 31
46 37.5

92 54 5
91.0

9.4

50 50
49 56.9

89 54 15
21.9

8.3

53 16
52 22.7

88 53 55
54 0.5

9.0

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

30 4 25.2 37.2

5 1 13.0 25.5

40 2 4.1 15.9

25 1 8.6 20.4

0 3 4.9 16.6

15 0 3.8 16.0

55 1 13.5 26.0

20 1 18.7 31.1

5 4 59.3 11.7

30 1 35.9 46.9 seeing pretty fair

Date. 1876 May 23
First minute-break. May 24
C₁ set at.

N. Coll.	S. Coll.
Obs. W.A.R.	W.A.R.
Rec. J.F.M. ^c	J.F.M. ^c
Sum	
Mean.	

a.	s.	Mag.	REMARKS.
12 12 51 11 59.9	82 53 9 149	8.3 8.3	
14 04 13 13.1	9.3 54 2 5.2	9.3 9.4	
17 4 16 13.4	8.8 53 54 59.9	8.9 8.7	— — —
31 59 31 10.8	9.0 49 56 1.2	9.0 9.2	2 2 2
3 2 32	8.2 50 33		
35 41 34 54.0	9.4 50 23 28.5	9.2 9.4	
38 05 37 17.3	8.2 54 30 36.7	8.9 8.8	— — —
44 04 43 16.3 ~~45 0~~	9.0 54 45 41.1	8.8 8.7	false stroke among the S's #?
45 02 44 15.3	9.0 51 11 16.6	9.1 9.2	— — —
50 07 49 21.4	9.4 53 29 39.8	9.4 8.2	wrong #

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

15 2 10.5 25.6

15 2 9.6 25.9

25 1 54.8 8.6

25 1 42.0 58.5

30 2 14.1 27.9

30 2 11.1 26.7

30 0 59.2 15.8

30 1 2.7 21.1

not seen

not seen sure

0 0 36.4 52.7

0 0 35.0 53.9

55 0 38.2 53.6

55 0 42.5 59.8

45 1 33.8 50.0

45 1 24.6 42.1

10 4 20.4 36.1

10 4 19.1 36.4

55 2 4.6 19.5

55 4 53.4 8.7

Date.

First minute-break.

c, set at.

1876, May 23
May 24

Sum
Mean.

N. Coll.

S. Coll.

a.

δ.

Mag.

REMARKS.

12 52 31
51 45.6

8.3 53 15
20.1

8.0
8.0

55 00

9.0 52 17

57 33
56 47.7

8.3 52 24
29.3

8.3
8.7

58 39
57 54.2

7.8 50 45
51.0

7.8 222
8.0 rej. A₊₁

59 7
58 22.7

8.0 50 21
26.3

8.7
8.4

0 53

8.8 51 41

2 14
1 29.2

7.0 52 29
34.1

7.8.2

3 51
3 6.8

7.0 51 49
54.9

7.5
7.9

4 55
4 10.1

7.1 52 19
24.3

8.9
9.3

Runs.

Sum
Mean.

A:

C:

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

10 1 28.7 44.2

10 1 33.5 50.8

not seen
not seen sure

0 2 23.7 38.3

0 2 21.1 38.1

40 0 36.6 53.4

40 0 30.7 49.8

5 0 44.2 0.0

5 0 57.4 15.5

not seen
not seen sure
not seen

55 2 33.8 50.0

35 0 48.6 4.3

35 0 59.4 17.2

5 2 37.9 52.6

5 2 44.6 0.7

seeing, bad.
seeing, moderately good.

ate.
first minute-break.
set at.

1876, May 25
May 30

Sum
Mean.

N. Coll.	S. Coll.
Obs. W.A.R.	W.A.R.
Recy. F.M. ^c	F.M. ^c

a.	b.	Mag.	REMARKS.
12 50 25 52 46 49 16.3	75 53 26 318	8.2 8.6	
52 50 52 46	74 50 32 37.3	9.4 9.4	---
57 14 56 30.8	74 51 43 48.3	7.8 8.2	
59 14 58 27.9	75 54 32 37.9	7.3 7.3	
6 53 54 8.3	88 51 41 46.8		2 2 2
1 27 0 41.8	80 51 35 40.9	9.2 9.2	
4 4 3 18.8	81 52 50 56.0	8.3 8.4	
9 1 8 16.9	88 52 17 22.7	9.2 9.0	
11 28 10 42.8	82 50 22 27.1	8.6 8.5	
12 50 12 52	50 50 22 26.8	7.0 6.0	false stroke after wires rej. A ₊

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

~~11~~
0 13.9 26.2

50 3 45.8 57.4

50 3 49.5 1.6

40 2 43.3 55.4

40 2 34.4 47.9

50 3 39.4 49.6

50 3 44.0 55.8

not seen
not seen

30 0 33.0 46.0

30 0 38.7 51.7

35 0 35.1 46.6

35 0 21.1 33.9

5 4 15.2 26.2

5 4 11.6 24.2

0 4 20.6 33.4

0 4 17.4 30.2

0 4 48.9 1.5

0 4 51.4 3.4

date.

first minute-break.

set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

s.

Mag.

REMARKS.

~~13 17 82~~ 87 52 33 8.6
 13 23 15 38.0
 22 32.2 8.3

24 22 80 50 51 8.2
 23 39.9 56.4
 8.2

26 57 93 54 22 9.2 lower + pr. #
 26 15.0 27.3
 8.8 9.3 mag. same A.R. above

29 04 81 54 23 7.9
 28 22.1 28.6
 7.7

31 50 87 53 16 8.7
 31 11.4 21.0
 8.7

32 57 80 51 37
 32 15.5 42.0
 7.8

35 53 93 54 23 9.2
 35 11.5 28.3
 9.1

36 43 80 53 59 9.2
 8.9

38 57 62 52 41 6.0 22
 38 16.2 46.3
 6.5

39 42 90 54 55

Runs.

Sum
Mean.

A.

C.

Pointer.

Stroke.

Rev.

A.

C.

REMARKS.

50 3 55.4 5.8

50 4 6.4 18.5

35 0 11.5 25.7

35 0 33.5 47.8

0 4 19.4 30.6

0 4 18.4 30.2

0 2 56.6 6.7

0 2 58.9 12.2

5 4 22.1 33.6

5 4 28.9 41.1

not seen sure

45 4 27.4 40.5

0 3 3.5 15.3

0 3 10.9 23.2

25 2 16.6 27.4

25 2 26.6 38.5

40 3 38.9 50.2

40 3 40.6 52.5

not seen

not seen

Seeing, very good.
Seeing, very bad

Date.

1876

First minute-break.

set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

s.

Mag.

REMARKS.

13 1 19 90 51 42

2 14 75 51 29

4 9 90 52 31

Palais.

~~23 16 93 50 40~~
22 58 75 51 19

25 07 90 52 13

26 21 93 54 36

27 30 83 52 41

29 01 90 50 51

43 20 92 54 42

44 14 81 53 9

[illegible]

Date.

First minute-break.

t, set at.

N. Coll.

S. Coll.

Sum

Mean.

a.

δ.

Mag.

REMARKS.

13 46 06 8.5 54 12

47 19 9.0 53 46

50 08 8.9 53 54

52 15 7.3 54 31

53 40 9.1 54 6

54 43 9.0 54 45

56 23 8.8 53 33

57 17 9.5 52 32

59 52 8.9 51 57

2 18 8.7 54 27

[illegible]

Date.

First minute-break.

c, set at.

Sum
Mean.

N. Coll.	S. Coll.

807 obs.

