

KG
11365
235

K. 25

25

Zones

No 11

/1862 Oct. 22 to

/1863 Feb. 10

Sold by T. Groom & Co., Stationers, India Building, 82 State St., Boston.

KG 11365.235

91.5 5.6
02 2 9.6
65 0 2.11
04 9 10.4



AG 11365.235



21^h 22^m — 22^h 59^m

1862 Oct 22
G.P.B. obs. - J.H. Sec.

Very windy

21	22	50.3	54.3	noy
23	53.0	57.3	2	
24	29.7	33.7	3	
25	8.3	12.3	4	
25	35.3	39.3	5	
25	57.4	61.4	6	
26	35.5	39.5	7	

1862 Oct. 23

T.H.S. obs.

G.P.B. reg.

W. Long also reported

Clear & Calm — Liro pot. 352° 51'

21	22	50.3	54.3
23	53.2	57.0	
24	29.4	33.5	
25	8.0	12.3	
25	35.3	39.3	
25	57.4	61.3	

24	50.5	—	8
28	54.0	57.9	9
29	20.4	24.4	10
29	55.9	60.2	
30	29.1		
30	41.2		
30	46.8	51.0	

28	50.5	—
28	54.0	58.3
29	20.5	24.5
29	54.1	60.1
30	29.1	33.1
30	41.1	45.1
30	47.0	50.9

32	45.7	—	noy	15 minutes
32	59.3	—	17	
33	10.7	14.3		
33	41.7	45.7		
33	44.4	48.4	20	
34	23.7	27.7		
34	46.2	50.4		
34	46.4	50.5		

31	17.9	21.7
32	45.6	
32	59.2	63.2
33	10.3	14.3
33	41.6	45.7
33	44.5	48.5
34	23.8	27.8
34	46.3	50.3

34 20 5.9

35	38.8	—
35	53.9	—
36	1.1	5.0
36	22.7	26.7
21 37	0.0	5.3

35	39.0	43.3
35	54.1	58.2
36	—	5.3
36	22.8	26.8
21 37	1.3	5.2

7° 0' - 1° 10'

470

9 Bright 0 31

11/12 3 43

9.10 4 26

11 9 3

9.10 4 4

10 4 56

9 -0 16

Red (ruby.)

Comp

8.8

9

0 42

11

3 52

9.10

4 36

10-11

9 12

Comp 23" S.p.

9.7

4 17

9-10

5 4

9.10

+ 12 35

B. B.

vacancy

12 5 50

2nd Lost

12 10 28

1st Lost 75

10/11 5 43

11 5 43

9 2 17

2nd Lost

9.10 4 42

2nd Lost

10 8 2

B.

11 8 37

2nd Lost

10 7 58

2nd Lost

9.10 10 11

9 9 10

11 4 23

SH Comp 8" n.f. n.s.

10 2 31

9.10 7 9

11 7 36

n.s.

B. A. B.

11 3 14

2nd Lost

11 9 15

2nd Lost

12 1 57

8 10 40

11/12 0 45

Catalogue

8.8

B.

11

5 59

2nd Lost

12

10 34

10.7

5 52

10.5

5 53

9.3

2 25

9.8

4 52

10

8 12

D. D.

B.

10-11

9 46

cent.

9.3

8 6

9.5

10 20

9.2

9 17

10.0

4 32

n.s.

10

2 39

9.5

9.7

7 16

Comp 10.5 11" n.f. 25"

B.

10-11

3 22

10.3

9 21

12

2 22

1st Lost

8.8

8.9

10 46

10-11

0 53

21	37	19.5	23.6	N ^o 29	21	37	19.5	23.4
						38	13.13	
38	42.4	46.4		30	38	42.5	46.4	
39	1.7				39	1.4	5.7	
39	14.5	18.5			40	40.0	43.8	
40	39.5	43.7			40	58.3	62.5	
40	58.0	62.0			41	19.2	23.2	
41	19.0	23.0			41	56.0	59.9	
41	55.9	59.7			42	40.1	44.4	
[42	5.7	7.0	36 Distinctions here looking	37	42	46.7	50.7	
42	29.8			38	42	2.6	6.5	
42	39.9	44.2		39	43	25.0	28.8	
42	2.4	46.7	40 [There is a Catalogue Star]	40	43			
43	25.0	28.8			44	4.5	8.7	
44	4.6	8.4		41	45	34.3	38.3	
45	34.3	38.3		42	46	29.7	33.7	
46	29.8	34.0		43	46	50.5	54.4	
46	50.4	54.2		44	47	21.9	25.9	
47	21.00	25.9		45				
					46	25.5	29.5	
48	25.5	29.3		46	47	25.7	29.7	
49	28.7				47	40.2	44.2	
49	40.3				50	0.9		
49	50.4	54.4						
50	0.8	5.0		50				
					51	51.0	55.0	
50	35.7	39.7		51	51	41.7	45.6	
50	50.8	54.8			51	43.3	47.1	
51	41.5	45.3			52	3.6	7.5	
51	43.0	47.0			52	5.5	9.5	
52	3.5	7.5			52		27.0	
52	5.5	9.5			52	36.4	40.5	
52	23.0	27.0			52		51.3	
52	36.0	40.2						
52	47.3	51.2	N ^o 59	21	52			

1° 0' - 1° 10'

11	3 17				10.8	3 23			
B.					B.	13. 13. 13.			
9	2 28				8.8	2 36			
12	1 48	2 ^d lost	Catalogue	8.8	12	1 56			
11/12	0 4								
12	2 18				11-12	2 24	n.s.		
10	3 12	n.s.	some doubt	9.5	11-12	3 20			
12	7 18	8		9.5					
10.11	7 14	5			10	7 25		10 th 7 12	also obsd
9/10	9 32				9-10	9 41	n.s.	< 13	
9/10	10 20	2 ^d m. 2.			9.3	10 16	cent.		
2/10	8 9				9	8 16			
9/10	9 28				9.8	9 35			
B.D.B.					D				
10/11	6 21				10.3	6 36			
12	4 16				11	4 22			
9.10	9 20	Rather bright 9/10		9.5	9.7	9 26			
12	4 26				11.7	4 32			
10	8 11	Bl		9.5	10.0	8 18			
B.					D. D. D				
11	1 8				10.5	1 24			
12	3 46	2 ^d lost			11	3 52			
12	9 12	2 ^d lost			11	9 20			
12	1 2				11	1 4			
12	0 59				12	1 4			
D.D.B.					D. B.				
11	8 2				12	8			
12	8 48				11	8 53			
10.11	0 39				11	0 46			
11.12	3 31	n.s.			11-12	3 37	n.s.		
12	5 21				11.7	5 29			
11	7 59	n.s.		(9.5?)	10.7	8 8	n.s.		
12	6 44				11-12	6 53	1 st lost		
12	0 49				12	0 56			
9/10	10 20				9.3	10 27	1 st lost		
D.B.					B				

21 53 44.1 48.2
 53 47.2 51.1
 54 50.5 54.5
 55 6.8 10.8

B.B.
 56 0.2

56 3.9 7.9
 56 32.5 36.5
 56 34.3 38.3
 57 16.7 20.7
 57 28.7 32.8
 57 43.0 48.0
 57 45.4 49.4
 58 14.8 19.0

21 58 37.4 41.3

B.B.B.

22 0 10.7 14.9
 0 [15.4] 19.0
 1 23.4 27.3
 1 36.6 40.6
 1 46.5 50.8
 2 12.2

2 49.8 53.8

3 31.9 35.9

4 18.7 22.5

6 47.7 51.7

4 54.8 58.9

B.B.B.B.

5 55.5 59.5

6 23.1 27.0

7 22.7 26.8

7 28.2 32.1

8 14.9

8 21.6 25.7

22 8 38.7 42.8

B.B.

60/61

70

71

50

51

Line 45. 4.00

90

92

21 53 44.4 48.3
 53 47.2 51.2
 54 50.7 54.7
 55 7.0 11.0

B.B.B.

56 0.1 4.1

56 32.6 36.6

56 34.2 38.3

57 16.9 21.0

57 45.4 49.4

58 — 19.0

21 58 37.3 41.5

21 58 57.8 62.0

22 0 10.9 15.0

0 — 19.1

4

1 36.8 40.8

2 — 16.6

2 49.9 53.9

3 32.4 36.1

4 18.8 22.7

4 47.8 51.7

4 54.9 58.9

B.B.

5 55.9 59.9

6 23.7 27.4

7 22.9 26.8

7 24.0 28.4

8 21.8 25.9

22 8 38.8 42.8

B

$7^{\circ} 0' - 1^{\circ} 10'$

10/11	9 11				10	9 19	
10/11	9 3	ns			9.5	10 2	cert
10/11	9 53				10	10 1	
11/12	2 4				11.2	2 10	
11/12	B.B				D. B. B?		
9/10	8 53	2 ^d lost			9.5	9 0	
10/11	0 16						
9/10	3 13	2			9.8	3 18	
9	8 45	ns.		9.5	9	8 53	ns
11/12	1 41						
12	2 12						
10	0 38						
8/9	6 47	Comp 713	nt	8.7	9	6 54	
11	8 59				10.8	9 6	
8/9	7 15?		15" dist.	8.8	8.5	7 23	Comp 16" nt
11/12	B.B.B.				B.D.		11/12 4 21
10	2 26				11	2 32	
11	3 48	Repeat 1 st time			11	3 56	1 st lost
12/13	0 40						
12	4 34				12	4 42	
12	9 0					9	
11	10 47	2 ^d lost			10	10 54	1 st lost
11/12	10 13				11	10 11	cert.
12	2 42				11	2 49	
11	6 36				11	6 40	
11	4 38				11	4 47	
10	9 18	2 nd Comp. 13 s.p.			10	9 23	Comp s.p. 27" time
11	7 7				D. D.		
11	6 13				10.8	7 13	
10/11	9 16				10.7	6 19	
11	6 20	ns			10.5	9 23	
11	0 6	2 ^d lost			10.8	6 28	
12	6 53				11.2	6 59	
12	4 41				12.13	4 53	
	B.B				B		

22	9	35.4	—	N ^o 93
		—	39.4	94
10		51.0	54.9	95
10		51.7	55.7	
11		38.1	42.1	
11		44.8	48.9	
12		17.3	21.3	
13		1.6	5.6	100
13		8.6	12.6	

13		35.4	39.3
14		15.0	19.0
14		35.5	39.2
14		36.4	40.0
15		7.5	11.5
15		23.4	27.4

16		24.0	28.2
16		—	31.8
16		50.2	54.0

17		59.7	63.8
18		2.5	6.6
18		58.3	62.3
19		39.0	43.3
19		42.0	45.8
20		49.6	49.6
21		8.0	11.9

22		2.8	6.9
22		55.3	59.3
22		56.0	59.9
23		35.7	—
23		40.6	44.7
23		—	48.3

22	9	35.4	—
	9	—	39.7
10		51.2	55.2
10		51.8	56.0
11		38.2	42.1
11		45.0	49.2
12		17.5	21.5
13		1.7	5.8
13		8.8	12.6

13		35.5	39.5
14		15.3	19.3
14		35.6	39.6
15		7.7	11.7
15		23.6	27.4

16		24.2	[28.2]
16		—	32.1
16		50.4	54.4
18		0.0	3.8
18		2.7	6.7

19		39.5	43.3
19		42.0	46.0
20		45.7	49.8
21		8.2	12.2

22		3.3	7.2
22		55.6	—
22		—	59.9
23		35.5	39.5
23		40.9	—
22	23	44.6	48.7

$1^{\circ} 0' - 1^{\circ} 10'$

10/11	6 43	2 nd lost	10.5	6 57	2 nd lost
10/11	6 25	1 st lost	10.7	6 33	1 lost
11/12	5 16		10.3	5 24	
11	4 14	ns.	10.5	4 23	ns
11/12	6 43		12	6 51	
12	4 31		12	4 37	
10	9 13		10.	9 20	
9	2 32	Rotten faint	9.3	9.3	2 38
10	9 27		9.	9 35	
10	1 11	12 13	9.3	9.7	1 17
12	5 29		11.8	5 31	< 13
10	10 14		9.5	10 12	mm
12	9 28	ns.		9 35	1 st lost
10	9 5		10.0	9 12	
10	6 17		10.3	6 24	
	D.D.		D.D.D.		
12	5 20		11.5	5 26	
12/13	4 12	1 st lost ns.	12	4 21	
12	3 46		11.5	3 52	
	B.D.D.		9.	13	
12	3 57		12	4 3	1 st lost
12	6 30	ns	11	6 34	ns
11	0 5	ns.			
10/11	4 50		10	4 56	
10	2 2	ns	10	2 9	
10/11	1 18		10.2	1 24	
11	6 32		11	6 39	
	B.D.D.		B.D.		
12	0 54		11.5	1 0	
10	4 35		10.8	4 42	grad. lost
9/10	8 13		9.8	8 19	1 st lost
9/10	9 22	2 nd lost	9.0	9.5	9 30
9	8 33	+	9.0	9.2	8 48
9/10	1 32	1 st	8.8	9.5	1 27
	B.				

22	24	35.5	39.4	No 124	
24	48.9	52.9		125	
25	9.0	13.0			
25	16.7	50.6			
26	6.0	10.2			
26	—	14.3			
26	45.6	49.4	130		
	P.B.		Carriage wire		
27	26.8		131		
27	34.2	38.3	132		
28	49.4	—	133		
28	56.0	60.3	134		
28	59.4	63.4	No 135		
29	58.3	62.4	136		
29	59.9	64.0			
30	5.0	9.1			
	P.D.				
30	34.0	34.3			
31	10.5	14.6	140		
31	30.9	34.8	141		
31	48.3	52.0			
31	58.0	62.2			
32	57.5	61.4			
33	36.7	40.5	145		
34	18.8	22.7	146		
34	39.4	43.3			
	B.B.D.				
35	38.0	42.2			
35	40.8	44.8			
35	57.4	61.5	150		
36	14.6	18.6	151		
36	36.9	41.0			
36	—	45.9			
36	—	57.0	Probably 2 w. 136		
	B.D.D.		Two stars introduced 155		
37	—	—	156		

22	24	35.7	39.7		
24	49.2	53.2			
25	9.3	13.3			
26	16.9	50.9			
26	6.4	10.4			
26	—	14.7			
26	48.6	49.6			
	B.B.				
27	27.2	31.4			
28	49.6	53.5			
28	—	—			
28	59.8	63.7			
29	58.8	62.8			
29	59.9	63.9			
30	5.2	9.1			
	D.D.				
31	10.8	14.8			
31	31.0	35.2			
31	48.4	52.3			
31	58.5	62.4			
32	57.7	61.7			
33	37.0	40.8			
34	18.8	22.8			
34	39.5	43.7			
	B.B.D.				
35	38.3	42.1			
35	40.9	45.0			
35	57.5	61.5			
36	18.0	18.7			
36	37.3	—			
36	41.6	45.8			
36	57.7	61.6			
36	59.2	62.8			

1° 0' - 1° 10'

12	1 40			11.7	1 46	
10/11	9 26			10.2	9 22	
10	8 4			10	7 9	
10	4 44			9.7	4 48	
12	4 22			11.5	4 28	
12/13	4 9	1 st ant		12	4 18	
8	9 20	Catalogue	8.0	8.5	9 20	
B				B, D		
12	2 22			11.8	2 28	
10	0 11					
10	4 54	2 nd ant		10.2	5 2	
10	0 0			#		
11	2 9	ns		11	2 17	
11/12	4 13	Comp. 1/12		11-12	4 21	
9	4 29	Rather faint ns	[9.1]	9.5	4 28	n.s.
10/11	10 9			10.2	10 17	
B				D, D,		
10	0 1					
1/2	8 18			1.1	8 29	
12	1 19			11.8	1 26	
10	6 32			10.3	6 29	
9/10	2 46			9.7	2 44	B, D,
10	7 59			9.5	8 6	
7/10	4 59		9.5	9.3	5 5	
7/10	4 16			9.5	4 14	cert,
11	6 44			10.7	6 50	
B.B.D.				D, D, D,		
10	8 19			10.2	8 29	
10	0 53	ns		10.2	1 1	n.s.
10	5 42			10.3	5 49	
9/10	8 29			9.7	8 36	
10	8 0			10	8 7	2. L.
9/10	9 6	1 st ant ns.		9.7	9 11	Crink, 15" north
20	0 4		B?			
B.B.B		Too many bright stars		B.D		
					10.3	1 46
					10.5	4 55 n.s.

22 97	48.1	51.9
38	21.8	25.7
38	45.2	49.2
39	33.4	37.4
39	45.3	49.4
40	19.8	23.7
40	20.5	24.7
40	28.4	32.5
40	29.3	33.3
40	57.0	61.0
41	51.0	55.0
42	16.9	20.9
D.D.B		
43	10.3	14.2
43	43.0	47.0
44	40.0	43.8
45	46.0	50.1
45	46.5	50.4
46	49.9	54.0
B.B		
48	36.0	40.1
49	21.6	25.8
50	2.9	7.0
50	18.0	21.7
50	45.2	49.0
51	57.7	61.8
52	49.2	53.2
D.D.B		
53	41.8	45.8
53	48.9	53.0
54	—	31.3
54	34.4	38.3
56	44.7	48.7
22 56	47.0	51.0
D.B		

no 157
AK obs at Harvard.

160
161

161
166

171

176

same star ? 180

184

186
187

22 37

22 38	21.7	25.7
38	45.3	49.3
39	33.6	37.7
39	45.6	49.4
40	20.0	24.1
40	20.5	24.7
40	28.6	32.7
40	29.4	33.2
40	57.0	61.2
41	51.1	55.0
42	17.3	21.3

D.

43	10.5	14.4
43	43.2	47.2
44	39.8	43.8
45	46.1	—
45	—	50.6
46	50.0	54.1

D.D.D

48	36.2	40.2
49	22.0	26.1
50	3.1	7.2
50	17.7	21.8
50	45.5	49.5
51	56.3	62.6
52	?	—

53	42.1	46.7
53	49.1	53.1
54	27.4	31.4
54	34.7	38.7
56	45.0	48.9
22 56	46.8	50.8

$1^{\circ} 0' - 1^{\circ} 10'$

10	-07	Comp. 11 mag. 25" 30" dist.				
8	210	a bright 8th	7.8	8	2	19
12	922		10.7	9	28	
12	618		11.5	6	29	
12	923		11.5	9	30	
10	346		10	3	42	< D, D, D, D,
9	432	Catalogue ns.	9.2	4	40	
10	853			6	3	
10	657			7	5	m. v.
9.10	1026		9.2	9.5	10	21
1/9	1044	Catalogue	8.5	8.8	10	53
11	142		10.3	1	48	
	S.D.13			10		
14	1033		10.8	10	41	
9	922	rather faint	8.8	9.2	9	27
9	317	Catalogue	8.5	9	3	24
12	546		11.5	5	52	2 l
1/12	649	ns	10.8	6	56	1 l ns.
7.8+7.10	71	orange. ~~mag. 7.8~~	8.0	8.3	7	7 red
	D.B.			2, 2, 2,		
12	635		11.5	4	42	
12	833		11.5	8	27	
12	249		11.7	2	44	
10	740		9.8	7	48	
12	731		11.8	7	40	
12	440		12	4	26	
12	045		10	6	40	
	S.D.13					
9.10	043		9.3	10	50	
9	440	Bl	9.1	9.2	4	45
12	646	Dist	11.5	6	52	
9	724	Bl	8.8	9	7	30
12	32		11.5	2	9	
12	44		11.5	4	11	
	D.13					

22	58	24.9	28.9
58		38.6	42.5
59		3.6	7.6
59		22.0	26.1
22	59	46.1	50.2

M₁₅₇

190

191

22	58	25.2	29.2
58		38.7	42.5
59		3.7	7.7
59		22.4	26.4
22	59	46.2	50.2

$1^{\circ} 0' - 1^{\circ} 10'$

8.9	7 41
10/11	1 40
9/10	4 23
12	6 23
10	2 32

Catalpa

8.5

9

1 5.0

11.7

1 48

9.1

9.7

4 30

12

6 30

10

2, 28

22^h 58^m — 0^h 18^m

Catalogue Stars.

No.	Mag.	APR 1862.0			Dec. 1862.0			
		^h	^m	^s	^h	^m	^s	
2	8.5	22	58	24.35	+1	1	23.1	Older Catalogue —
1	8.3	23	2	30.76	1	10	54.2	
5	8.0	20		39.53 ^{HL}	1	7	39.7	PM?
1	9.0	31		22.69	1	10	29.1	
[20 in 41]	4.6	35		0.27	1	1	14.4	Piscium from Master's Catalogue
2	8.7	43		17.81	1	9	7.4	
1	9.0	49		28.84 ^{HL}	1	9	8.6	25.82 according to Mass.
1	9.0	52		46.57	1	6	4.9	
1	8.7	59		47.84	1	5	39.2	HR obs'd at Cambridge.
3	7.5	0		9 35.12	1	4	57.4	
2	9.0	15		36.22	1	3	31.2	44 Piscium from
18	6.2	18		19.79	1	10	30.5	
1	8.2	0		38 0.88	1	3	29.7	Piscium? PM? 44 Piscium Mol.
	9.2	39		[5.7]		[50]		
								observed at Bonn

Continued

All the quantities of this table have been verified —

H. L. L.

22 58 22.9 27.9
 58 37.4 41.3
 59 2.4 6.5
 59 20.9 25.0
 59 44.9 48.9

23 50 17.0 51.4
 50 18.0 52.5
 1 41.9 45.9
 2 0.7 4.7

23 59 59.1 63.1
 4 49.2
 4 51.5
 5 26.8 31.0
 23 5 57.9 61.9

22 58 23.4 27.5
 58 37.1 41.0
 59 2.1 6.2
 59 20.7 24.7
 59 44.7 48.7

0 47.1 51.0
 23 0 18.4 52.0
 1 41.3 45.2
 1 41.5 45.6
 2 0.5 4.5

3 58.8 62.7
 4 48.9 52.9
 4 51.0 55.1
 5 26.8 30.7
 23 5 57.6 61.4

2 30.3 34.2 ?

1^a 0' - 1^a 10'1862 Nov 13 GMB obs.
GMS rec.
(H.C.)1862 Nov 24th
GMS obs.
H.C. rec.

D. D. D

9 1²⁵
11 1²⁴
9 4¹⁶
12 6¹⁰
10 2¹²

This zone seems to be exactly
in the meridian

B.
12 0²³
12 1¹⁰ m.
12 5³²
11 1⁶

B.D. Group of very small stars
1/12 0⁵⁵
12 5²⁸ 2L.
12 2⁵⁶ 2L.
11 3⁵⁰
11 3³⁸

8.5-9 1¹⁹
10-11 1¹⁸
9.1 9.2 4⁴
11 6⁵
10.2 2⁹

Dec

+ to m.s.
1 6 m.s. Credit 2.21.
10.5-5.26
10 1⁶
10.8-0.5-2
10.5-5.25
10.5-2.5-3 m.s.,
9.7 2⁴⁵
10.5-2.94

B.B.

23	7	24.4	28.4
	7	46.6	50.6
	8		29.9
	8	33.6	
	8	54.2	58.3
	9	42.5	46.5

B.B.

10	33.1	37.1
11	41.1	
11	14.9	18.7
11	46.2	50.3
11	57.8	61.8
12	28.8	33.0
13	26.8	30.8
13	50.2	
13		54.8
14	4.7	8.7
14	6.6	10.6

B.B.

16	7.0	11.0
16	10.9	14.1
17	12.3	16.3
17	50.6	54.7
17	53	58.3
18	45.6	49.5

B.B.D.

19	16.9	
19	22.2	26.2
20	3.6	7.5
20	6.4	10.3
20	34.1	43.2
21	39.0	43.0
21	53.3	
22	6.0	9.9

B.

22	38.2	42.2
24	27.2	
23	33.9	37.9

B.D.

23	7	23.9	27.9
	7	46.0	50.0
	8	29.9	
	8		33.3

B.D.

8	53.9	57.8
9	42.1	46.0

10	32.8	36.8
11	10.8	14.8
11	—	18.2

11	45.9	49.8
11	57.7	61.7

13	26.5	30.5
----	------	------

13	49.8	53.8
----	------	------

B.B.D.

16		10.8
----	--	------

16		13.7
----	--	------

17	12.0	16.1
----	------	------

17	50.2	54.2
----	------	------

17	5	58.0	59.0 ?
----	---	------	--------

18	45.2	49.2
----	------	------

B.

19	16.5	20.5
----	------	------

20	3.2	7.3
----	-----	-----

20	58.9	42.9
----	------	------

21	58.9	42.9
----	------	------

21	53.0	57.0
----	------	------

22	5.5	9.6
----	-----	-----

B.

22	37.9	41.9
----	------	------

24	26.4	30.9
----	------	------

23	24	33.7	37.7
----	----	------	------

AR obs'd at Cambridge

P 0-10101

9	6.29		9.3	9	6.29	
10	1.56			9.4	1.41	
11	2.29			10.3	2.25	end. L
11	1.19	1st, wire lost.		10.5	1.12	1st, L
9/10	0.24		9.4	9.5	6.22	
9	6.26			20	2.2	8.21 Dec ^{sun} 11 mag
12	8.46			20	2.2	
2	2			9.9	10.17	
11	10.22			10.2	5.23	
10/11	5.29	2nd, lost 1st,	9.5	10.4	6.22	1st, L
11	5.27	m.s. 2nd.		10	10.5	
11	16.10		9.5	9	10.26	
10	10.40			9.3	8-9	10.5
12	9.44				10.5	2.2
~~10~~	10.11	9-10 th			2.2	2
11/12	2.4	2.2			2.2	2
11/12	4.2	1st, 2			2.2	2
9-10	8.24	2nd, wire lost. } m.s.	9.3			
9-10	5.13					
11-12	0.48					
12	2.19	m.s.				
12	8.26	comh 18" S.A.				
12	8.50					
11-12	6.20	m.s. 1st, wire lost,				
12	6.59					
20	2.2					
10	2.29	2nd, wire lost.				
12	10.2					
10	4.20	2nd wire lost				
9	0.22					
7-8	7.46		8.0	7.5	7.28	
11	0.32			10.5		See L.
11	4.40	2nd L.		10.5	4.26	
11	2.8			10.0	2.6	
11	1.5.2					
12	2.42	2nd L.	9.5	10.2	14.6	
11	3.20			11.5	2.27	
				10.0	3.15	

25	1.1	4.9
25	48.8	52.8
26	52.4	56.5
~~26~~		
28	11.7	15.6
28	58.5	62.5
29	42.7	47.1
30	13.9	18.2
30	40.8	44.9
30	59.2	63.2
31	22.5	26.3
31	28.4	32.4

B.

32	3.5	7.5
32		11.8
33	12.8	
33	25.8	29.6

B.D.

35	1.2	6.2
35	60.9	64.9
36	39.2	43.4
37	2.3	7.3

B.D.

37	37.0	41.1
37	57.3	61.0
38	3.8	7.8
38	58.9	62.9
38	50.1	54.1
38	52.4	56.4

B.

40	36.8	40.9
40	39.3	43.3
41	48.9	52.8
42	54.0	58.1
43	9.5	13.5
43	17.1	21.1
43	41.3	45.3
43	63.5	67.5
44	14.5	18.5

D.

23	25	0.9	5.0
	25	48.6	52.5

O. B.

28	11.4	15.4
28	58.1	62.1
29	42.6	46.6
30	13.9	17.8
30	40.8	44.7
30	58.8	62.9
31	22.1	25.8
31	—	32.2

B.D.

33	13.5	17.5
33	25.4	29.3

34	59.8	63.8
35	40.7	44.7
36	39.0	42.8
37	3.1	6.8

B.D.

37	57.0	61.0
38	38.8	42.7
38	49.8	53.8

B.D.

40	36.5	40.6
40	38.7	[42.3]
41	43.7	47.7 42 sh. 2 ?
42	53.7	57.6
43	9.3	13.1
43	16.9	20.9
43	41.0	45.0
43	43.4	47.3
44	14.7	18.1
44		23.3

7^h 0' - 1^h 10'

11 257
 11 517
 12/10 8 33
~~5130~~
 12 8 12
 12 1 7
 12 0 44
 11 10 16
 12 0 30
 9 6 16
 8/9 10 30
 10 5 53 ns.

~~B.~~
 12 5 52
 12 1 39 12.
 12 4 52 22.
 12 6 16

~~ABD.~~
 16 1 19 $\frac{1}{2}$ with naked eye.
 11/12 7 44
 11 4 39
 11 1 40

~~ABD.~~
 11 1 9
 11 6 7
 12 8 45 ns.
 10/11 7 24
 10 0 30
 10/11 3 3

~~B.~~
 10/11 4 41
 9/10 1 26 ns.
 11 7 40 Comp 13 s.f.
 10 7 59
 10/11 3 40
 9 9 13
 11/12 9 15
 11 10 22 ns.
 12 7 31
~~D.~~

10.8 23.1
 11 5.11

9.8 8 7
 11 1 0

11 0 40

10.5 10 2

11 1 27

9.5 9.5- 6 11

9.8 8.5- 10 25

9.4 10 5.49 1 L.

10.8 5.46

10.8 4.52

10.8 6 10

4.6 5- 1 15

11 7 26

11.2 4 25

11.2 1 26

9.5 9 1 20

9.3 9 7 5.2

9.4 9.9 2 35

9.8 8.5- 9 8

10 9 38

9.2 10 7 26

2' 4" 14" 22.3

1 L.
 1 L. A. L.
 Probably 2 minutes

En A. Loring -
 Ench. 18" dist o.f. 11-12

Dec L.

45	43.5	17.8
47	8.3	12.3
47	16.0	20.1
47	47.8	57.8
47		58.4
B.D.D		

48	28.2	32.3
48	42.4	46.4
49	24.0	28.0
49	26.6	30.7
50	41.7	45.5
51	17.0	21.2
51	24.0	28.1
51	35.9	39.9

B.D.D		
52	46.4	50.5

53	7.7	11.7
54	0.5	4.4
54	5.8	9.9
54	37.7	
54	38.5	42.3

23 55	2.1	6.1
-------	-----	-----

B.D.B

23 45	7.5	11.5 Dec?
45	12.5	47.5
47	7.9	11.7
47	15.9	19.9
47	47.4	51.3
47		55.9
B.		

48	27.9	31.9
48	41.8	45.7
49	23.7	27.7
49	26.3	30.3
50	41.4	45.4
51		
51	23.6	27.6

D.		
52	46.3	50.3

53	—	11.6
54	0.0	4.0
54	5.5	9.6
54	37.4	41.4
54	38.3	42.3
55	1.8	5.7

B.B

55	46.9	50.9
----	------	------

56	49.6	53.6
----	------	------

57	9.7	13.7
----	-----	------

59	23.4	27.4
----	------	------

23 59	42.4	51.4
-------	------	------

23 59	54.2	58.2
-------	------	------

0 3	37.6	41.7
-----	------	------

3	45.8	49.8
---	------	------

5	30.5	34.5
---	------	------

5	47.4	51.4
---	------	------

6	1.4	5.4
---	-----	-----

7	29.7	33.7
---	------	------

8	46.9	50.9
---	------	------

9	34.8	38.8
---	------	------

9	44.3	48.3
---	------	------

10	2.7	6.7
----	-----	-----

All obs at Cambridge

11-12 206		11 206	~~206~~ 2
12 320		10.5 315	
11-12 5-40		10.0 5.86	
9 5 1		9.2 8.8 4 5-1	
11 0 42	12.	11 0 88	12 m. 0
B, B, D,			
12 6 5-3		10.5 6 48	
11-12 8 5-8		10.0	Sec. L.
11 7 5-0			m. 0. Sec. 2
8-9 9 12	m. 0.	9.0	m. 0. Sec. 2
10 10 28		8.5-10 26	
11 0 24			Ext.
11 0 5-0		0 45	
9-10 0 3		9.5	
B, B, D,		9.0 9 6 5	
9 6 10	32.5	9.1	Sec. 4. A. 4. 1 2
9 0 18			
12 9 30		11 9 24	
11 9 5-2	m. 0.	9.8 9 49	
11-12 2 27		10.8 9 21	
10-11 1 16	m. 0.	10.5 1 18	
12 6 13		11 6 10	
B, B, B,	Spring Geminorum can drive	10.8 6 23	
11 6 29		10.7 6 47	
11 6 5-2		10.8 7 5-2	
1-2 7 5-8		10.0 9 26	Crux 8"
10 9 32	Crux, 10" S. A. (9.2 10-11)	8.8 5-8 4	Extra Atlas (0.85- 11 mag)
9 5-8 8	8.7	10 6 5	
10 6 10	This is 11 magnitude -	10 10 23	
11 10 20		10 2 23	
10-11 2 27		9.5 10 14 8	Ext 1' 2" Hercules Probabz -
B,		9.5 10 9 19	mag. 9 7 11.2
10 15-9		10.7 9 29	
10 9 24			
11 2 39		7.5 7.5 4 5-9	
12 15-8		9.3 9.8 4 5-	
7-8 5-4		9.5 9.5 7 33	
9 4 8			
10 7 87			
10-11 0 0 0	m. 0		

A	11	25.2	49.3
	12	7.1	10.9
	13	11.5	15.5
	14	13.2	17.2
	14	—	20.3
	15	24.3	28.3
A	15	26.0	40.4

	16	12.0	14.7	— der ?
	17	37.3	34.3	
	18	19.8	23.9	

D, D, D,

10-11 2 13

11 9 40

10 6 16

9-10 6 01 n.s.

10 5-11 n.s. 1.2.

10 4 01

9 3 32

11 8 4

10 4 37

D.

12 5-5.7

10 4 19 n.s.

9-10 9.19

7 10 94

10-11 3 21 Telescope perhaps moved a little.

12 0 4

11-12 7 40

9 8 19

11 9 20 nearly $\pm 8^\circ$

12 2 5-0

D, D, D,

12 7 19

11 7 41

10 6 42

12 4 40

12 4 5-8

12 2 22 2.2.

12 1 49 n.s.

12 8 4

10-11 7 17

D.

9-10 2 27

9-10 0 2 n.s.

11 9 5.4 2.2.

11 4 26

10-11 6 18 2.2 n.s.

10-11 3 7

9-10 5-5.2

D.

hs 10.5.2 6

10 9 29

(94) 9.8 36 11

9.9 5.5-5 n.s.

10.8 5.6 n.s. 1.2.

10.8 3 5.6

9.5 3 27

10 9 14 Doubtful -

6.2 7 10.28

Cloudy up.

10-11 9 2 6

10-11 9 2 1

12 1 2 2

11-12 2 4 2

10 2 2 2 2. L.

8 -0 2 7

9 2 2 2

1° 0' - 1° 19'

+ 1° 17' 57"

23	52	46.57	+ 1°	6' 44.9	
	59	47.64		5' 34.2	
0	9	38.12	- 4	57.1	4 Mayri
	15	36.22		3' 31.2	
	18	19.76		10' 3.4	
	38	0.88		3' 29.7	
	46	34.28		9' 37.8	
	49	37.94		7' 46.2	
	50	34.44		2' 19.1	
1	10	12.94		6' 44.9	Pinner
	15	30.82		0' 16.7	
	26	46.?		6' 22.6	
	27	58.	1	2.	

All the quantities of this table have been verified - H. L. L.

all latitudes corrected

all latitudes corrected

Indic. - g. lat. wipe

1862 Dec. 11. G.P.B. H. L. L. H. L. L.

1862 Jan 7 WTS ob.

The zero of position has been changed - probably by W. Choate

at work on the instrument between Dec. 4th and 11th.

New 263° 30' + 1° 10' H. L. L.

9	6 10
9	0 14
12	9 30
11	9 54 ns
11.12	2 26
10.11	1 16 ns
12	1 13

B.

11	6 29
11	6 53
12	2 58

B. D. B.

10	9 34
8.9	5 38
9.10	0 38
10.11	6 12
10.11	10 32

B. 13

9.10	2 29
9.10	1 54

Comp. 10.11

1 17 45. by Choate

9.0	6 7
9.2	
11.0	
10.2	2.2 1
11	6.2 3 m. 0
11.	6.2 3

Dec. lost

11	6.2 6
6.2 6	6 2 6

10.5	6 5 10
10.2	7.5 4
9.5	9 2 8
8.8	5 9 4

Comp. S. of position 15° 10.2

10.5	6 1 7
10.2	6 6
10.0	10.2 4
9.5	2.2 5
9.7	1.5 1

Sund - extra star - 12.

23^h 52^m - 1^h 48^m

23 52	46.0	49.9	Catalogue	9.0	23 52	46.2	50.2
53	7.9	11.6		9.1	53	8.0	11.5
54	0.0	3.7			54	0.0	4.0
54	5.4	9.3			54	5.1	9.6
54	37.6	41.4			54	37.7	41.8
54	38.5	42.5			54	38.7	42.6
55	1.6	5.5					
	DB.					DB.	
55	46.5	50.7			55	47.2	51.1
56	49.2	53.2			56	49.6	53.6
57	9.4	13.3			57	9.8	13.8
	DBDB						
58	23.2	27.2	[with amp]	9.2	59	23.5	27.5
59	17.3	51.2		8.7	59	47.7	51.6
23 59	54.0	58.1			23 59	54.0	58.1
0 3	37.3	41.2			0 3	37.3	41.2
3	45.7	49.6			3	46.1	50.2
	DB					DB	
5	30.4	34.3		9.5	5	31.0	34.8
1 6	1.3	5.2		9.5	0 6	1.7	5.7

9.10	9.27		10.0	9.24	
12	2.14		11.5	2.12	
10	2.39		10.0	2.36	
12	1.59	as.	—	—	
7	5.8	yellow	7.0	5.2	
10	4.8	can be rectified by examining the other zone joining this antea!	9.3	4.6	
10	7.17		9.7	7.85	
B.B.			B.B.		
10-11	9.12		9.5	3.9	
11-12	9.39		10.7	9.86	
11-12	9.24		11.0	9.19	
B.					
10-11	1.12	2nd. Lc	11.5	1.09	
10	6.18	2nd. Lc	10.5	6.12	
9	6.02		9.5	5.5-8	
10	5.13		10.7	5.08	
12	9.48		12.0	9.41	
10	4.22		10.0	3.58	
8-9	3.33		8.8	3.20	
B.	B.		B.	B.	
10-11	8.6		10.0	8.01	
9-10	4.97		9.5	4.35	
11	5.59		11.5	5.53	
9-10	4.20		9.8	4.16	
9	9.20		9.2	9.16	
5-6	10.34		6.0	10.33	
	3.20		10.0	3.17	
B.					
12	0.3		10.8	7.34	
11	7.38	2 Lc.	9.0	8.12	
9	8.17		B.	B.	
B.	B.		11.8	4.05	
12	4.10		11.5	7.10	
12	7.15		11.0	6.51	
11	6.58		9.2	6.34	
9	6.39		9.2	9.26	
10	9.31		11.2	4.50	
12-13	0.19	Comp. of 13 following about 11.2			
11					

Telescope received a very slight shock

This mag. was 10.2

7	29.4	33.4
8	25.4	29.5
8	46.6	50.7
8	52.8	56.8
9	34.4	38.4
9	35.1	39.0
9	43.8	47.7
B.D.		
11	45.0	49.0
12	11.5	10.5
12	20.9	24.9

B.D.		
13	54.0	
14	10.9	
14	13.1	16.9
14	16.2	20.3
14	58.9	62.8
15	24.1	28.1
15	35.8	39.9

B.D.		
16	12.4	16.5
16	55.9	59.9
17	32.7	36.6
17	33.8	37.8
17	50.0	54.0
18	23.3	23.4
18	43.8	47.8

B.		
19	26.7	30.7
20	8.2	+
20	23.4	27.4

B.D.		
21	51.9	60.8
22	25.1	29.1
22	51.6	55.7
23	10.3	14.4
24	54.6	63.5
25	19.8	23.9

9.5

7.5
9.3

9.5

9.4

9.5
9.0

9.5

9.5

6.2

9.5

9.3

9.4

7	29.8	33.8
8	26.2	30.1
8	47.1	50.9
9	35.0	39.0

9	44.2	48.2
10	2.7	7.0
B.D.		

11	45.4	49.3
12	7.3	11.2
12	21.7	25.5

13	56.7	58.4
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14	—	15.8
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14	13.8	17.6
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14	—	20.7
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14	59.0	62.9
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15	24.8	28.0
15	36.3	40.2

B.D.		
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16	13.0	16.8
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16	56.4	60.4
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17	33.3	37.3
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17	34.4	38.5
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17	50.7	54.6
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18	20.0	23.8
18	44.2	48.3

20	8.8	12.8
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20	24.0	27.9
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B.D.		
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21	57.0	61.0
----	------	------

22	25.6	29.7
----	------	------

22	52.2	56.3
----	------	------

23	11.0	15.0
----	------	------

25	0.0	4.1
----	-----	-----

25	58.9	62.3
----	------	------

26	15.6	19.7
26	~~15.6~~	23.8
B.13		
27	3.1	7.0
27	27.5	
27	40.5	44.7
27	50.4	54.5
27	~~45~~	56.5

D.		
28	21.5	25.7
28	48.1	52.2
28	49.6	53.6
29	1.1	5.1
29	43.0	47.0
30	21.1	25.1
L. D.		

32	23.9	27.9
33	17.8	21.8
34	17.7	—
34	29.7	33.7
34	49.1	53.1

B		
35	43.9	47.8
35	51.0	54.8
35	~~—~~	57.7

D.13		
37	11.4	15.3

37	17.1	21.2
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38	0.3	4.4
----	-----	-----

39	7.6	11.6
----	-----	------

42	3.0	6.9
----	-----	-----

43	24.3	28.5
----	------	------

43	52.5	56.5
----	------	------

B.D.		
44	22.2	26.2

45	0.7	4.8
----	-----	-----

45	17.9	21.9
----	------	------

45	24.9	29.0
----	------	------

0.26	16.3	20.2
------	------	------

26		
----	--	--

D.13		
27	3.7	7.8

27	27.8	31.9
----	------	------

27		44.7
----	--	------

27	50.9	54.9
----	------	------

D.		
----	--	--

28	22.3	26.2
----	------	------

28	48.6	52.8
----	------	------

28	50.1	54.1
----	------	------

29	1.7	5.7
----	-----	-----

29	43.6	47.5
----	------	------

30	21.6	25.7
----	------	------

D		
32	24.4	28.4

33	16.3	22.2
----	------	------

34	18.1	22.1
----	------	------

34	49.4	53.5
----	------	------

B		
35	54.3	58.2

D.13		
37	12.3	16.0

38	0.6	4.7
----	-----	-----

39	8.3	12.3
----	-----	------

42	3.5	7.5
----	-----	-----

43	25.1	29.1
----	------	------

43	53.0	57.1
----	------	------

D.		
44	23.0	27.1

45	1.4	5.4
----	-----	-----

45	18.5	22.4
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11 2 2 0
 11 1 4 5 1 L.
 12 8 3
 9-10 7 14 2 L.
 12 6 9 2 L.
 9 3 2 3
 10 0 0 0 1 L. m. d.

11 9 5 2
 11 4 3 3 *Brown Catalogue*
 10-11 6 14 m. d.
 10-11 3 5
 9 5 5 0
 11-12 9 3 5
 2 L. D.
 12 —

10 9 2 9
 12 3 4 9
 9-10 3 7 5 2 L.
 7-8 -0 2 4
 8-9 2 2 7
 9 —

9 -0 1 4
 9-10 +0 2 2
 9-10 4 2 0
 D. B.

12 8 5 1
 12 1 4 0
 8 3 1 7
 10 7 7
 9 10 4
 11 7 1 6
 12 —

11 8 9
 8-9 9 2 4
 11 5 3 2 L.
 10 6 2 3
 11 1 4 0

11.0 2 1 6
 11.3 7 5 9
 10.5 7 1 1
 11.7 6 0 4 1 L.
 9.3 9.5 3 1 9

10.2 9 4 6
 9.5 10.2 4 2 9
 9.5 9.8 6 1 0 m. d.
 9.5 10.2 2 0
 9.0 9.2 5 4 5
 10.3 9 2 7
 2.

lots for one minute -

10.0 9 1 4 *sure -*
 11.2 3 3 8
 9.5 9.5 2 5 5
 7.9 — —
 2.8 8.5 2 2 6

9.3 — —
 9.2
 9.4 9.7 4 1 0
 D. B.
 12

Dec. Lost -

yellowish golden - 8.2 8 3 0 5
 9.2 8.8 6 5 7
 9.1 9.2 9 5 4
 11.2 7 0 2

11.5 7 5 8
 9.0 9.0 9 1 2
 11.2 4 5 0
 10.3 5 1 2 *sure*

B.B.		
46	8.8	12.8
46	24.5	28.7
46	33.6	37.5
49	23.9	27.9
49	37.7	41.6
50	22.4	26.6
50	34.4	38.4
50	36.9	41.0
50	42.3	46.2
D.D.		
54	1.2	—
54	12.3	16.3
54	17.1	21.1
D.		
55	43.3	47.2
55	50.0	54.0
56	12.2	17.2
56	36.0	40.0
57	17.9	21.9
57	28.8	32.8
58	12.6	17.7
B.B.		
0	31.5	35.5
1	3.0	7.1
1	7.4	11.5
1	12.3	16.5
1	52.5	56.7
1	57.5	61.5
3	9.8	13.9
3	14.8	18.8
D.		
5	12.1	16.2
5	49.3	53.2
5	59.7	63.4
6	24.4	28.5
6	34.0	38.0
8	29.8	33.7
9	35.1	—
1	41.7	45.7

46	25.2	29.4
46	34.2	38.3
49	24.5	28.3
49	38.1	42.2
50	23.1	27.1
50	34.9	38.9

54	1.8	6.0
54	13.0	17.1

B.		
55	44.0	48.0

56	13.7	17.5
56	36.8	40.7
57	18.2	22.2

57		33.5
0.58	14.4	18.2

0	59	32.0	36.0
1	0	3.5	7.7
1		8.1	12.1
1		13.0	17.0

1		58.0	62.0
3		10.4	14.6
3		18.4	19.3

D.		
5	12.8	16.9
5	50.0	54.0
6	0.1	4.2

6		38.8
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9	35.8	39.7
---	------	------

9	42.5	46.4
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~~8-9~~ ~~10~~ ~~11~~ ~~12~~ ~~13~~ ~~14~~ ~~15~~ ~~16~~ ~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~ ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~ ~~32~~ ~~33~~ ~~34~~ ~~35~~ ~~36~~ ~~37~~ ~~38~~ ~~39~~ ~~40~~ ~~41~~ ~~42~~ ~~43~~ ~~44~~ ~~45~~ ~~46~~ ~~47~~ ~~48~~ ~~49~~ ~~50~~ ~~51~~ ~~52~~ ~~53~~ ~~54~~ ~~55~~ ~~56~~ ~~57~~ ~~58~~ ~~59~~ ~~60~~ ~~61~~ ~~62~~ ~~63~~ ~~64~~ ~~65~~ ~~66~~ ~~67~~ ~~68~~ ~~69~~ ~~70~~ ~~71~~ ~~72~~ ~~73~~ ~~74~~ ~~75~~ ~~76~~ ~~77~~ ~~78~~ ~~79~~ ~~80~~ ~~81~~ ~~82~~ ~~83~~ ~~84~~ ~~85~~ ~~86~~ ~~87~~ ~~88~~ ~~89~~ ~~90~~ ~~91~~ ~~92~~ ~~93~~ ~~94~~ ~~95~~ ~~96~~ ~~97~~ ~~98~~ ~~99~~ ~~100~~ ~~101~~ ~~102~~ ~~103~~ ~~104~~ ~~105~~ ~~106~~ ~~107~~ ~~108~~ ~~109~~ ~~110~~ ~~111~~ ~~112~~ ~~113~~ ~~114~~ ~~115~~ ~~116~~ ~~117~~ ~~118~~ ~~119~~ ~~120~~ ~~121~~ ~~122~~ ~~123~~ ~~124~~ ~~125~~ ~~126~~ ~~127~~ ~~128~~ ~~129~~ ~~130~~ ~~131~~ ~~132~~ ~~133~~ ~~134~~ ~~135~~ ~~136~~ ~~137~~ ~~138~~ ~~139~~ ~~140~~ ~~141~~ ~~142~~ ~~143~~ ~~144~~ ~~145~~ ~~146~~ ~~147~~ ~~148~~ ~~149~~ ~~150~~ ~~151~~ ~~152~~ ~~153~~ ~~154~~ ~~155~~ ~~156~~ ~~157~~ ~~158~~ ~~159~~ ~~160~~ ~~161~~ ~~162~~ ~~163~~ ~~164~~ ~~165~~ ~~166~~ ~~167~~ ~~168~~ ~~169~~ ~~170~~ ~~171~~ ~~172~~ ~~173~~ ~~174~~ ~~175~~ ~~176~~ ~~177~~ ~~178~~ ~~179~~ ~~180~~ ~~181~~ ~~182~~ ~~183~~ ~~184~~ ~~185~~ ~~186~~ ~~187~~ ~~188~~ ~~189~~ ~~190~~ ~~191~~ ~~192~~ ~~193~~ ~~194~~ ~~195~~ ~~196~~ ~~197~~ ~~198~~ ~~199~~ ~~200~~ ~~201~~ ~~202~~ ~~203~~ ~~204~~ ~~205~~ ~~206~~ ~~207~~ ~~208~~ ~~209~~ ~~210~~ ~~211~~ ~~212~~ ~~213~~ ~~214~~ ~~215~~ ~~216~~ ~~217~~ ~~218~~ ~~219~~ ~~220~~ ~~221~~ ~~222~~ ~~223~~ ~~224~~ ~~225~~ ~~226~~ ~~227~~ ~~228~~ ~~229~~ ~~230~~ ~~231~~ ~~232~~ ~~233~~ ~~234~~ ~~235~~ ~~236~~ ~~237~~ ~~238~~ ~~239~~ ~~240~~ ~~241~~ ~~242~~ ~~243~~ ~~244~~ ~~245~~ ~~246~~ ~~247~~ ~~248~~ ~~249~~ ~~250~~ ~~251~~ ~~252~~ ~~253~~ ~~254~~ ~~255~~ ~~256~~ ~~257~~ ~~258~~ ~~259~~ ~~260~~ ~~261~~ ~~262~~ ~~263~~ ~~264~~ ~~265~~ ~~266~~ ~~267~~ ~~268~~ ~~269~~ 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~~1017~~ ~~1018~~ ~~1019~~ ~~1020~~ ~~1021~~ ~~1022~~ ~~1023~~ ~~1024~~ ~~1025~~ ~~1026~~ ~~1027~~ ~~1028~~ ~~1029~~ ~~1030~~ ~~1031~~ ~~1032~~ ~~1033~~ ~~1034~~ ~~1035~~ ~~1036~~ ~~1037~~ ~~1038~~ ~~1039~~ ~~1040~~ ~~1041~~ ~~1042~~ ~~1043~~ ~~1044~~ ~~1045~~ ~~1046~~ ~~1047~~ ~~1048~~ ~~1049~~ ~~1050~~ ~~1051~~ ~~1052~~ ~~1053~~ ~~1054~~ ~~1055~~ ~~1056~~ ~~1057~~ ~~1058~~ ~~1059~~ ~~1060~~ ~~1061~~ ~~1062~~ ~~1063~~ ~~1064~~ ~~1065~~ ~~1066~~ ~~1067~~ ~~1068~~ ~~1069~~ ~~1070~~ ~~1071~~ ~~1072~~ ~~1073~~ ~~1074~~ ~~1075~~ ~~1076~~ ~~1077~~ ~~1078~~ ~~1079~~ ~~1080~~ ~~1081~~ ~~1082~~ ~~1083~~ ~~1084~~ ~~1085~~ ~~1086~~ ~~1087~~ ~~1088~~ ~~1089~~ ~~1090~~ ~~1091~~ ~~1092~~ ~~1093~~ ~~1094~~ ~~1095~~ ~~1096~~ ~~1097~~ ~~1098~~ ~~1099~~ ~~1100~~ ~~1101~~ ~~1102~~ ~~1103~~ ~~1104~~ ~~1105~~ ~~1106~~ ~~1107~~ ~~1108~~ ~~1109~~ ~~1110~~ ~~1111~~ ~~1112~~ ~~1113~~ ~~1114~~ ~~1115~~ ~~1116~~ ~~1117~~ ~~1118~~ ~~1119~~ ~~1120~~ ~~1121~~ ~~1122~~ ~~1123~~ ~~1124~~ ~~1125~~ ~~1126~~ ~~1127~~ ~~1128~~ ~~1129~~ ~~1130~~ ~~1131~~ ~~1132~~ ~~1133~~ ~~1134~~ ~~1135~~ ~~1136~~ ~~1137~~ ~~1138~~ ~~1139~~ ~~1140~~ ~~1141~~ ~~1142~~ ~~1143~~ ~~1144~~ ~~1145~~ ~~1146~~ ~~1147~~ ~~1148~~ ~~1149~~ ~~1150~~ ~~1151~~ ~~1152~~ ~~1153~~ ~~1154~~ ~~1155~~ ~~1156~~ ~~1157~~ ~~1158~~ ~~1159~~ ~~1160~~ ~~1161~~ ~~1162~~ ~~1163~~ ~~1164~~ ~~1165~~ ~~1166~~ ~~1167~~ ~~1168~~ ~~1169~~ ~~1170~~ ~~1171~~ ~~1172~~ ~~1173~~ ~~1174~~ ~~1175~~ ~~1176~~ ~~1177~~ ~~1178~~ ~~1179~~ ~~1180~~ ~~1181~~ ~~1182~~ ~~1183~~ ~~1184~~ ~~1185~~ ~~1186~~ ~~1187~~ ~~1188~~ ~~1189~~ ~~1190~~ ~~1191~~ ~~1192~~ ~~1193~~ ~~1194~~ ~~1195~~ ~~1196~~ ~~1197~~ ~~1198~~ ~~1199~~ ~~1200~~ ~~1201~~ ~~1202~~ ~~1203~~ ~~1204~~ ~~1205~~ ~~1206~~ ~~1207~~ ~~1208~~ ~~1209~~ ~~1210~~ ~~1211~~ ~~1212~~ ~~1213~~ ~~1214~~ ~~1215~~ ~~1216~~ ~~1217~~ ~~1218~~ ~~1219~~ ~~1220~~ ~~1221~~ ~~1222~~ ~~1223~~ ~~1224~~ ~~1225~~ ~~1226~~ ~~1227~~ ~~1228~~ ~~1229~~ ~~1230~~ ~~1231~~ ~~1232~~ ~~1233~~ ~~1234~~ ~~1235~~ ~~1236~~ ~~1237~~ ~~1238~~ ~~1239~~ ~~1240~~ ~~1241~~ ~~1242~~ ~~1243~~ ~~1244~~ ~~1245~~ ~~1246~~ ~~1247~~ ~~1248~~ ~~1249~~ ~~1250~~ ~~1251~~ ~~1252~~ ~~1253~~ ~~1254~~ ~~1255~~ ~~1256~~ ~~1257~~ ~~1258~~ ~~1259~~ ~~1260~~ ~~1261~~ ~~1262~~ ~~1263~~ ~~1264~~ ~~1265~~ ~~1266~~ ~~1267~~ ~~1268~~ ~~1269~~ ~~1270~~ ~~1271~~ ~~1272~~ ~~1273~~ ~~1274~~ ~~1275~~ ~~1276~~ ~~1277~~ ~~1278~~ ~~1279~~ ~~1280~~ ~~1281~~ ~~1282~~ ~~1283~~ ~~1284~~ ~~1285~~ ~~1286~~ ~~1287~~ ~~1288~~ ~~1289~~ ~~1290~~ ~~1291~~ ~~1292~~ ~~1293~~ ~~1294~~ ~~1295~~ ~~1296~~ ~~1297~~ ~~1298~~ ~~1299~~ ~~1300~~ ~~1301~~ ~~1302~~ ~~1303~~ ~~1304~~ ~~1305~~ ~~1306~~ ~~1307~~ ~~1308~~ ~~1309~~ ~~1310~~ ~~1311~~ ~~1312~~ ~~1313~~ ~~1314~~ ~~1315~~ ~~1316~~ ~~1317~~ ~~1318~~ ~~1319~~ ~~1320~~ ~~1321~~ ~~1322~~ ~~1323~~ ~~1324~~ ~~1325~~ ~~1326~~ ~~1327~~ ~~1328~~ ~~1329~~ ~~1330~~ ~~1331~~ ~~1332~~ ~~1333~~ ~~1334~~ ~~1335~~ ~~1336~~ ~~1337~~ ~~1338~~ ~~1339~~ ~~1340~~ ~~1341~~ ~~1342~~ ~~1343~~ ~~1344~~ ~~1345~~ ~~1346~~ ~~1347~~ ~~1348</~~

B.

10 14.0 18.0

11 0.7 4.7

12 32.0

12 62.3 46.2

13 1.0 5.0

13 14.5 18.5

13 51.8 55.8

14 8.1 12.2

~~14~~ B.B

15 31.0 35.0

15 51.3 55.3

16 [15.2] 19.8

16 21.0 25.8

17 29.3 32.5

18 26.0 30.4

20 29.3 24.3

22 2.3 6.5

B.D.B

23 56.1 62.1

24 14.1 18.1

24 — 21.3

B.

24 48.0 52.1

26 4.1 8.2

26 11.1 15.1

27 3.3 7.2

27 8.7 12.7

27 27.2 31.2

28 1.4 5.5

B.B.D

29 23.5 27.4

30 36.4 —

30 49.5 53.6

31 49.5 53.5

B.B

33 11.0 14.7

35 31.0 35.1

35 40.6 —

7 10 14.5 18.5

7-8	6 5-8	yellow -	8.2	644
12	10 20			
10	8 4 5	Crust. 12 s. for 12" - 2 L.		finish here by mistake
11	8 4 2			
9-10	2 2 7		9.3	
12	5 4-8			
12	1 2 6			
12	8 5-0			
7	0 2 6	reddish 6.5		
9	1 1 3	8.8		
11	-0 2 2	reject 1st run - [9.0]		
10	1 5-1			
	~~0 4 0~~	Nebula 0 5-0		h 115
		Nebula 2 4 0 brighter		h 121
12	2 1 5	than preceding diameter 1'		
12	1 5-9	Faint nebulae there are.		
12	6 5-2			
9-10	7 6	m. s.		
10	0 3 8	1 L.		
12	10 7			
9	1 2 7	(Brown) 9.2		
9-10	1 3 0	m. s. [Brown] 9.4		
11-12	8 5-			
10-11	6 2 0	m. s.		
11	2 5-			
9	3 7	Catalogue 8.9		
11	8 1 0			
10	9 5-2	2 L.		
10	1 4 7			
12				
9-10	1 1 0		9.5	
9	9 3 0		9.5	
9-10	1 2 7		[9.5]	
10	2 4 6	m. s. 2 L.		

35 51.6 58.7

36 49.7 53.8

36 54.9 58.8

37 18.2 22.2

B. B. B.

38 13.4 17.4

40 26.6 30.5

41 7.7 11.6

41 55.8 59.9

42 20.6 24.6

S. B. B.

43 14.7 18.6

44 1.9 —

44 — 6.2

45 8.0 12.0

45 13.4 17.6

45 41.8 45.9

45 42.8 46.8

B. B.

48 28.3 32.3

48 46.3 50.3

10	4	3	1	
11	4	3	4	
11	9	2		m. s.
11	5	2		
	3	3	3	
11-12	8	3	6	
10	10	0		
10	6	2	4	
12	1	6		
11	1	9	0	
2	2	3		
9	6	1	4	9.8
11	1	4	0	2 d.
10-11	6	5	0	1 d.
10-11	6	4	9	
10-11	1	2	1	m. s.
9-10	2	2	9	9.3
9-10	4	2	7	9.3
	3	3		
19	5	2	4	9.0
6	10	0		

23^h 25^m - 1^h 12^m

Mag

$1^{\circ} 10' - 1^{\circ} 20'$

+ 0.58^{h m}

8.5	23 27 20.24	+ 1. 14' 28.0
9.0	28 42.87	18 43.8
6.8	29 20.95	20 10.8
9.0	31 22.69	10 29.1
8.5	38 0.17	19 30.7
8.8	43 5.34	12 14.7
7.2	48 0.64	19 24.8
9.5	53 38.43	77 2.0
7.8	0 3 36.65	17 11.4
6.2	18 19.76	10 31.7
8.3	18 52.43	11 8.3
7.8	36 11.73	17 53.2
7.1	1 0 52.75	16 14.2
7.8	1 10 4.31	+ 1 17 10.5

Polar Motion? Kappari

26 Picus

Lalande 147
29 Ceti

2^d 8th by Chr. All the quantities of the table have been verified -

4 25 12 44.2 H.L.L.
8 44 14 68

1862 Dec 12th
SPB obs
H.C. rec.

23	25	55.0	59.1
26	1.6	5.6	
27	0.7	4.8	
27	19.3	23.3	
27	28.7	32.8	
28	42.2	46.3	
29	20.2	24.2	
29	48.9	52.9	
30	13.7	17.7	
31	18.4	22.4	
31	—	25.8	

23	25	55.8	59.5
26	2.4	6.4	
27	1.3	5.5	
27	19.7	23.6	
27	—	33.4	
28	42.7	46.7	
29	20.6	24.5	
29	—	53.0	
31	18.8	22.2	
31	22.2	26.1	

$1^{\circ} 10' - 1^{\circ} 20'$

This zone was also observed Jan 31st 1862.

1863 Jan 17 Repeated. (last column)
 F.H.S. Obs.
 G.P.B. rec

Clear & Cold

Reg 236 1st star = 1 " 44 25

~~Commenced at 24th of Dec.~~

Definition Reg Time -

12 9 8
 12 3 5.9 m.s.
 12 9 12
 8-9 4 29
 12 7 32
 8-9 8 47
 3
 7 10 16
 12-13 8 18
 11-12 0 2
 9-10 6 16
 9 0 27 1.4

11.2	8.5.9	11	9	3
11.0	9.4.6	11	3	56
11.0	9.1	11	9	9
8.5-8.4	4.17	9	4	25
10.8	7.21	11	7	29
9.0	9.0	8.37	9.2	8 44
	D			13
7.0	10.5	7.5	10	14
11.5	8.9	11.5	8	10 1 st lat no
9.4	9.3	6	6	
9.0		9.5	6	13
		8.8	0	25

2325-112

32	19.3	23.4
33	7.7	11.5
33	16.4	20.5
33	17.6	21.6
33	41.7	15.6
33	~~50~~	50.0
203		
34	50.8	54.7
35	21.4	25.4
35	35.7	39.6
36	30.7	34.7
36	34.0	37.9
37	7.2	11.2
37	13.1	16.9
37	57.9	63.8
38	11	18.9
38	22.9	26.6
B.B.D		
39	9.9	13.8
40	39.3	43.3
40	44.3	48.3
41	26.9	31.1
41	35.7	39.7
42	7.4	11.4
42	40.5	44.4
42	47.2	51.2
43	3.7	7.7
B		
43	40.8	44.9
43	43.1	47.2
46	0.2	4.2
46	34.1	38.1
46	42.4	46.3
46	50.9	54.9
49	19.9	23.9
49	46.6	50.6
Long D.		
50	41.4	45.4
50	56.3	60.3
23 57	4.9	8.7

23 32	20.1	24.0
33	8.1	12.0
33	16.7	20.8
33	17.8	21.2
33	42.2	46.0
D.		
34	51.7	55.4
35	24.8	28.8
35	36.0	40.0
36	31.2	35.2
36		
37	7.7	11.7
37	13.4	17.3
38	0.5	4.4
38	19.1	(23.9)
38	(23.2)	27.0
B.B.		
39	10.5	14.6
40	40.0	44.0
40	45.0	48.8
41	28.2	31.6
41	36.6	40.3
42	8.0	12.0
42	41.0	44.9
42	47.3	51.5
43	4.1	8.0
B.B.		
46	0.8	4.7
46	34.8	38.6
46	42.8	46.9
46	51.5	55.5
49	20.3	24.4
49	47.2	51.2
B.B.D		
50	44.8	48.1
50	56.8	60.8
23 57	5.3	9.4

70° 10' - 120°

12 2 42
 10 1 11
 11 5.6 m.s.
 11 5.40
 11-11 5.46
 12 2 0 0 1. L.
 D D

12 #10 5-
 11 4 5.6
 10-11 2 4 9
 11 4 2 3
 12 2 3 0 m.s.
 11 2 3 9
 12 2 4 0 m.s.
 8 9 3 6
 11 4 2 8 1 L.

11-12 4 4 4
 D D D

9-10 9 4 0
 10 4.5.2

11-12 6 3 1 m.s.
 11 0 4 2

11 5.5.6
 11 6 1 8
 11 7 6

10 6 3 m.s.
 9 2 17

D.
 11 -0 1 9

11 +0 1 9 m.s.
 6-7 9 2 4

12 4 1 1
 12 6 3 3 m.s.

12 8 1 3
 12 1 5.5
 12 2 3.9

D.
 11 0 2 8

11-12 2 5.7
 12 1 3 6

11.5 2 32
 9.5 9.8 1 2
 10.5 4 5.8
 10.8 5 2 9
 9.5 9.8 5.24
 2.9

10 4 47
 10.2 2 4 0
 (9.5) 10.0 4 1 5

10.0 3 2 8
 11.0 2 3 1 1 L.
 8.5 8.3 9 2 6
 10.0 4 1 9
 11.0 4 3 3 m.s.

9.3 9.4 9 3 0
 } 9.5

9.5
 29.3
 8.3
 8.8

(9.5)
 7.2 7.5 9.25

11 9.25 4 9
 11 6 32
 11 8 12
 11.5 1 49
 11 2 35

B.B.D.
 11.5 0 24
 10.7 2 53
 11.5 1 34

11 2 37
 (Dec = 10th) 11 4 7
 11-12 5 2
 11 5 37
 10-11 5 40
 D

11 10 1
 10.3 4 54
 10.5 3 46
 10 4 20
 9 25

10.3 3 35
 11.5 3 37
 8.0 9 34
 10.2 4 28
 11 4 41

B.D
 9 9 36
 9.5 5 51
 10.7 6 28
 10.5 0 39
 10.3 5 54
 9.4 6 13
 10 7 1
 9.5 6 1
 9.0 2 13

D D
 (11) (10 50)

23 25-112

23	51	31.3	40.3
	53	27.8	31.8
	53	41.7	45.5
	53	59.9	63.9
	54	5.4	9.4
	54	15.3	19.3
	54	26.1	30.2
	54	42.3	46.4
	55	0.6	1.3
	55	12.6	16.6
	55	28.5	
	55	36.4	40.4
	56	11.7	15.7
	56	34.8	38.8
	57	2.2	6.1
	57	55.5	59.5
	58	0.8	4.9
	58	9.3	13.3
	59	12.7	16.8
	59	23.3	27.3
23	59	35.6	39.7
	1	25.8	39.9
	1	45.4	49.4
	2	47.1	51.1
	2	57.2	61.3
	3	9.0	13.1
	3	36.2	40.1
	3	43.9	47.9
	3	45.9	49.8
	5	35.6	
	5	54.0	54.0
	5	0.0	55.2
	5	5	59.9
	6	0.0	4.6
	6	47.7	51.8
0	7	4.8	13.8

23	53	28.2	32.3
	53	42.0	46.0
	54	16.0	20.0
	54	26.6	30.4
	54	43.0	46.9
	55	1.2	5.2
	55	37.0	41.0
	56	12.4	16.3
	56	35.1	39.3
	57	3.0	6.5
	57	56.0	59.8
	58	1.5	5.7
	58	9.8	13.6
	59	13.4	17.2
23	59	36.3	40.2
	1	36.6	40.8
	1	45.9	49.9
	2	47.4	51.6
	2	57.6	61.7
	3	9.3	13.3
	3	36.7	40.7
	3	44.5	48.4
	5	36.2	39.9
	5		54.5
	5		56.5
	6	0.8	4.8
	7	10.3	14.7

$3^{h} 25^{-1} 12^m$

10	29.7	33.6
10	41.5	45.7
11	1.6	5.6
13	3.4	7.5
13	6.0	10.0
13	24.4	28.3
13	42.8	46.6

B.D.D

14	35.6	39.6
14	40.9	44.8
14	50.5	60.4
15	9.6	13.7
15	27.8	31.7
18	19.6	23.6

23	34.3	38.4
----	------	------

23	49.7	53.7
----	------	------

B.D.D

24	59.8	63.8
----	------	------

26	18.2	22.3
----	------	------

26	52.8	56.9
----	------	------

27	40.5	44.6
----	------	------

28	22.1	25.9
----	------	------

29	35.3	39.3
----	------	------

30	20.0	24.2
----	------	------

30	23.7	27.6
----	------	------

30	33.5	37.5
----	------	------

B.D.D

31	14.5	18.4
----	------	------

31	20.6	24.6
----	------	------

33	16.3	20.2
----	------	------

36	12.3	16.3
----	------	------

36	25.5	29.5
----	------	------

36	35.9	39.8
----	------	------

36	46.9	51.1
----	------	------

36	58.0	62.1
----	------	------

36	59.2	63.2
----	------	------

B.D.D

37	13.3	
----	------	--

38	9.6	13.7
----	-----	------

10	30.1	34.1
10	42.1	46.1
11	2.1	6.0
13	4.1	8.1
13		
13	24.2	28.5

B.D

14	35.9	40.3
----	------	------

14	41.4	45.5
----	------	------

14		61.0
----	--	------

15	10.3	14.0
----	------	------

15	27.7	31.8
----	------	------

18	20.0	24.0
----	------	------

18	52.7	56.5
----	------	------

20	34.7	38.5
----	------	------

20	22.9	26.7
----	------	------

23	34.9	38.5
----	------	------

23	50.1	54.1
----	------	------

B.D

26	18.7	22.6
----	------	------

26	53.2	57.1
----	------	------

27	41.0	45.0
----	------	------

28		
----	--	--

29	36.0	39.9
----	------	------

30	20.5	24.2
----	------	------

30		27.8
----	--	------

30	34.1	38.0
----	------	------

B.D

31	14.6	18.8
----	------	------

31	21.0	25.0
----	------	------

33	16.7	20.6
----	------	------

36	12.5	16.5
----	------	------

36	25.9	29.7
----	------	------

36	35.9	40.1
----	------	------

36		
----	--	--

36	58.6	62.4
----	------	------

B.D

38	9.9	13.9
----	-----	------

h. 26

28 49.7 52.0

$7^{\circ} 10' - 1^{\circ} 20'$

23^h15^m - 1^h12^m

39	7.8	11.7
39	15.7	19.6
39	37.8	41.8
39	41.3	45.2
40	37.1	41.0
40	59.0	63.0
41	23.7	27.9
41	[24.2]	27.9
42	3.1	7.2
42	23.8	27.8
43	28.1	32.0
D.B.		
45	21.0	25.1
45	34.0	38.0
46	54.4	58.4
48	17.5	21.4
48	31.5	35.5
48	52.6	56.6
49	17.6	21.6
49	41.2	45.2
49	57.5	55.5
50	18.7	
50	22.8	26.6
51	3.6	7.6
51	9.8	13.8
51	16.3	20.2
D.B.		
52	16.6	20.6
52	40.5	44.4
52	48.7	49.6
52	58.1	
53	7.6	11.3
D.B.		
54	23.7	27.6
54	44.6	48.6
54	52.0	56.0
55	15.0	19.1
55	31.5	35.6
55	43.6	47.6
56	13.7	17.6

39	7.9	11.9
39	15.8	19.7
39	38.1	42.2
39	41.4	45.3
40	37.4	41.1
40	59.5	63.3
41		
42	23.9	27.7
43	28.5	32.5
D.B.		
45		
46	54.9	58.8
48	17.6	21.6
48	31.7	35.7
49	41.4	45.6
49	57.8	55.5
50	19.1	23.1
50	37.0	40.8
51	4.0	8.1
51	16.7	20.5
52	17.1	21.0
52	41.1	—
52	46.1	49.9
52	58.5	62.6
53	7.8	11.8
D.B.		
54	24.3	28.6
54	48.7	49.1
54	52.6	56.2
55	15.6	19.5
55	32.0	36.0
55	45.8	49.6
56	13.7	17.8

1° 10' - 1° 20'

10	4	38		10.3	437	
9	10	2		88	9.5-	10.01
10	1	6		10.7	102	
8-9	2	5.0	n.s.	88	9.0	246
12	136	40		11.4-	658	2?
11-9	4	1		10.0	400	
12-13	2	34	2 L.			
12	8	10	reflect 1			
9	-0	07		9.1		
9-10	6	13	Born Catalogue	9.4	10.0	601
9-10	6	10		9.5-	9.5-	608
8.3, 10,						
10	4	10	Born Catalogue	9.3	9.3	409
8-9-0	28			8.5-	-	-
9	6	5.9		9.0	8.8	65.9
11	7	3			10.0	701
11	5	12			10.5-	509
11	1	31				
12	2	12				
9-10	2	28		9.0	9.5-	227
9	9	81		9.8-	9.5-	937
11	15	6	2 L., near 10	9.4	10.0	15.4 1046 7th. mag.
10	-0	30	n.s.	9.5		
12	5	35			11.0	533
12	2	1				
10	10	0		9.3	8.5-	9.5.9
12	5	28			10.5-	528
12	7	5.0		9.5-	11.0	748 2 L.
11	6	4	n.s.		10.5-	603
12	4	29	2 L.		10.8	437
9	8	16	Born Catalogue	9.1	9.0	814
12	9	28			2 B.	
11	5	21			11.3	928
10-11	8	9		9.5-	10.5-	519
12	4	46			10.2	808
11	2	5.0			11.0	444
10-11	-	11			10.8	246 < 10.04 10th mag.
12	6	5.8			10.7	655

$25^m - 1^h 12^m$

56	21.8	25.8
58	10.7	14.7
58	~~14.0~~	18.0
B.D.		
58	53.3	57.4
59	6.5	10.6
0 59	49.8	53.9
1 0	16.8	20.7
0	31.1	35.1
0	53.1	57.1
2	0.9	4.9
2	9.7	13.8
2	42.4	46.3
2	57.3	63.2
3	6.6	10.6
D		
4	15.9	19.9
5	2.7	6.6
5	16.3	20.4
5	59.7	63.6
6	1.9	5.8
6	10.9	15.0
6	22.9	27.1
6	25.8	29.8
B.		
6	50.7	57.8
7	43.8	47.7
7	54.8	58.9
8	39.6	43.6
B.D. 13		
9	40.8	44.7
9	42.1	46.1
10	4.4	8.3
10	16.8	10.9
B.D. 13		
11	23.4	27.4
11	30.3	—
11	39.8	43.8
11	49.1	53.1
11	52.8	57.8

0 56	22.3	26.2
58	11.2	15.2
58		
58	53.6	57.5
59	7.1	10.6
0 59	50.7	54.5
1 0	17.3	21.4
0	31.7	35.7
0	53.4	57.3
2	1.3	5.4
2	10.2	14.2
2	42.9	46.8
2	59.7	63.7
3	7.1	11.1
D		
4	16.4	20.4
5	16.8	20.8
6	2.5	
6	11.4	15.3
6	23.2	27.4
6	26.2	30.3
B.D. 13		
6	51.3	55.4
7	44.7	—
7	55.4	59.3
8	40.2	44.1
D.D.		
9	41.4	45.8
9	42.8	46.5
10	4.8	8.7
10		
11	24.1	28.1
11	30.9	34.3
11	40.3	44.6
11	49.3	53.6
11	52.2	56.5

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$g_{25}^{m} - 1, 12^m$

12	32.2	36.2
1		

12	32.2	36.2
12	44.5	45.7

$10^{\circ} 10' - 10^{\circ} 20'$

12	149
12	5.99

10.0	147
10.0	5.80

1°10' - 1°20'

1^h 10' - 2^h 15^m

h m s
 1 10 4.31 + 1°17'10"5
 33 32.62 12 56.2
 34 29.58 16 49.2
 2 1 30.29 16 21.7
 10 6.77 13 7.2

go on about 5^m after this star.

8.8 1 11 48 + 1°17'3
 9.0 11 49 1 15.3
 9.1 20 11 1 19.7
 9.0 21 52 1 16.4
 8.8 34 38 1 12.9
 9.0 34 48 1 12.9
 8.8 40 21 1 19.1
 8.3 41 5 1 12.3
 8.3 55 39 1 16.4
 8.5 55 57 1 11.4

All the quantities in ink have been
 verified - H. C. Corey

10 3.5 7.5
 10 5.9 10.1
 11 22.4 26.8
 11 29.3 33.3
 11 39.0
 11 46.0 52.1
 12 40.3 44.3
 D.
 14 18.8 22.7
 15 10.8 14.9
 15 31.9 35.9
 15 53.5 57.5
 D.
 16 30.7 34.7
 16 51.2 55.2
 18 34.1 38.4
 18 52.1 55.9
 19 33.3 37.2
 B.D.
 1 21 2.6 12.3

1 10 4.2 8.3 75
 10 6.8 10.8 80
 11 23.3 27.4 85
 11 30.1 34.1 90
 11 39.7 43.8 95
 11 48.7 52.9 95
 B.D.
 12 41.0 45.0 90
 14 19.6 23.5 80
 15 11.9 15.9 101
 15 32.9 36.9 100
 15 54.5 58.2 85
 16 31.4 35.4
 18 35.2 39.1 90
 18 53.0 57.0
 19 33.7 37.8
 1 21 9.5 13.6

1863 Jan 7 M5 obs. H.C. rec.

Zero Set at $173^{\circ} 45'$

8	705
10.5	700
10.3	746
10.0	1017
9.5	715
9.5	514
10.0	626

10.9	217
11.2	439
10.7	552
10.5	955

9.5	044
-----	-----

11.2	507	12.
------	-----	-----

9.5	634
-----	-----

10.2	332
------	-----

10.5	159
------	-----

B. D.	
-------	--

10.0	710
------	-----

nebulous looking object follows
 the ^{thin} about 5" and reads ± 8
 minutes

1863 Jan 23^d G.P.B. obs. H.C. rec.

Finished about half-past 7.

7.8	8	707
-----	---	-----

11	701	n.s.
----	-----	------

11	948
----	-----

9.5	10	1019
-----	----	------

9-10	717
------	-----

8.8	9-10	513
-----	------	-----

B. D.	
-------	--

11	524
----	-----

11-12	216
-------	-----

12	440
----	-----

12	554
----	-----

11-12	956
-------	-----

D	
---	--

9.5	042
-----	-----

10-11	634	double?
-------	-----	---------

10-11	331
-------	-----

12	159
----	-----

11	711
----	-----

Nebula h. 122

21	15.6	49.6
22	58.0	62.7
24	31.9	35.7
24	46.2	50.8
25	11.6	15.4

26	10.7	14.7
26	39.6	43.5
26	51.3	60.2
27	18.9	52.8
28	52.1	56.1
29	19.7	—
29	30.6	—
30	3.3	7.2

30	41.7	45.6
32	52.9	56.8
33	31.8	35.7
33	46.2	50.2
34	10.4	14.4
34	17.5	21.6

34	32.7	—
34	32.7	41.3
34	50.9	56.9
35	22.0	26.9
35	50.8	54.7
36	13.4	17.4
36	48.9	52.9

37	24.5	—
37	29.0	33.0
39	55.0	59.0
40	26.9	30.8
40	53.6	57.4
41	7.1	11.0
41	38.0	42.0
41	40.6	44.6

43	30.6	—
----	------	---

ex minute

ex minute

Examine this
region

—

21	46.4	50.5
22	59.7	63.7
24	32.4	36.4
24	47.7	51.6
25	12.6	16.6

26	11.6	15.7
26	40.5	44.5
26	57.2	61.2
27	49.8	53.8
28	53.0	57.0
29	20.4	24.4
29	31.5	35.4
30	4.1	8.1

30	42.9	46.8
32	53.7	57.7
33	32.7	36.6
33	47.2	51.2
34	11.4	15.4
34	18.5	22.5

34	32.8	—
34	38.2	42.1
34	57.8	61.8
35	27.8	31.8
35	57.6	61.6
36	14.3	18.3
36	49.8	53.6

37	25.3	29.4
37	30.1	34.1
39	55.7	59.7
40	27.8	31.8
40	—	—
41	7.7	11.7
41	—	—
41	42.8	46.8
41	41.5	45.5

43	29.2	33.2
----	------	------

10.2 609
 9.5- 547
 10.5- 743
 10.0 852
 10.7 410

B
 8.8 928
 10.0 232
 9.0 609
 9.0 925

10.5- 10.06
 10.2 455 2 L.

10.0 746 2 L.

9.3 906

D, D, D

11.0 629

11.3 652

8.5- 847 247

10.3 206

9.2 925- 925-

10.3 847

B
 10.3 626 2 L.

9.0 231) singular coincidence 8.8

9.0 231) 9.0

9.8 810

10.0 255

9.8 1018

9.7 034

B, D, D, D
 10.0 635 2 L.

9.0 640

10.5- 250

9.2 818

10.5- 348

10.0 204

9.8 411

9.2 326

L, D
 10.8 315

11-12 613

10 548

11-12 745

12 856

12-13 410 clouds.

D, D, D

9.1 9 929

10-11 229

9 610

9.5 9-10 938

11 1007

10-11 457 2 L.

10-11 748

9-10 907

B, D

12 629

11 654

8 248

10 307

9-10 925-

10 849 n.s.

D

10-11 628 2 L.

8.9 230 2 L. n.s.

8.9 230

10-11 810

11-12 254

10 1020

9-10 032

B

10 636

8 640

10 859 sun-

8 821

11 350

9 201

10-11 410 1 L. n.s.

10 328

D, D, D, D

11 316

8.8

8.8

9.3

Exam. mag.

44 4.6 8.6
 44 28.4 32.4
 44 51.1 55.1

B.

46 27.5 31.3
 46 ~~46.8~~ 46.8 *Curve*
 47 14.5 18.5
 49 27.0 31.0
 50 33.8 37.9
 52 39.1 43.1
 53 6.5 10.7

B.D.

53 48.3 52.2
 54 36.7 40.5
 55 11.7 15.8
 55 15.7 19.7
 55 39.7 43.4
 55 [57.6] 61.1
 56 12.9
 56 47.0 51.0 *Curve*

57 17.7 21.5 ?

2 57 32.5 36.5 ? * Int AR 56-55

2 0 — 6.7

1 — 33.5

1 — 35.4

2 43.8 47.9

3 15.6 19.2

4 11.4 15.2

B

5 8.9 12.8

5 49.5 53.5

6 0.0 4.1

6 28.6 32.6

6 55.4 59.3

7 26.4 30.4

8 41.1 45.1

8 21.8 24.8

B

9 20.4 24.4

2 10 6.4 10.4

1 44 5.5 9.5
 44 29.0 33.0
 44 52.0 56.0

B.D.

46 28.3 32.3
 46 43.8 47.8
 47 15.3 19.2
 48 40.5 44.5
 49 27.7 31.7
 50 34.8 38.7
 52 22.2 26.2
 52 39.8 43.8
 53 7.5 11.3

B.

53 48.9 52.9
 54 37.4 41.4
 54 42.6 46.8
 55 16.6 20.6
 55 40.4 44.5
 55 58.1 62.2
 56 9.5 13.6
 56

57 21.3 25.7

1 57 36.3 40.2 ?

B.D.B.D.

2 3 16.2 20.2

4 12.2 16.1

5 — 12.7

6 55.9 60.0

7 27.2 30.9

8 — 16.0

B.D.

2 10 7.4 11.5

10.2 9 04
 11.0 ~~041~~ 041
 10.2 3 28

10.5 5.5.6
 10.5 1 48
 10.0 6 38
 9.2 4 5.6
 10.8 4 28
 10.7 9 5.0
 9.3 6 14
 2, 2.

9.7 8 5.5
 9.3 5.12
 9.8 1 32
 10.8 5.5.9
 10.0 6 10

9.0 —
 9.8 6 5.9
 10.0 8 5.7
 9.2 4 43
 8.8 3 33

10.8 10.02 1 L
 9.0 6.15 1 L
 9.5 8 5.2 1 L

10.5 10 21
 10.0 8 43
 10.3 7 45

10.3 4 21
 10.5 9 01
 10.7 9 25

10.5 5 41
 10.3 8 09
 10.0 7 15

9.3 3 07
 8.8 1 15

11.5 4 38
 8.3 3 03

9.5 9-10 9 02 Comh 11-12 30" n.p.

11 0 38
 10-11 3 27
 8.2

11-12 5.5.9
 11 1 49

9.5 9-10 4 5.8 6-7-014 is a star
 between 628 and 45.8

11 4 27 - 0 08 10th. mag. is
 a star between 427 and

9.3 9 6 12 9 5.2 -

10-11 8 5.6

9-10 5.11

10 1 30 n.s.

12 5.5.9

8.3 7-8 6 11

8.5 8-9 0 41

11 6 5.8

9-10 4 40

9.3 9 3 29

9.0 3.0.0.0,

8.8

9.3

9.

10 8 43

11 7 46 clouds

4 22 1 L

8 03

7 17 n.s.

9.3 1 L Sec. L.

2, 2,

8 3 01

10	—	55.8
11	30.3	—
41	41.3	45.2
13	9.4	13.4
13	54.7	58.7
14	9.1	13.1
14	53.0	57.0
15	16.9	20.8

Examin work

2	11	42.0	46.0
	13	10.1	14.2
	14	9.9	14.3
	14	53.8	57.8
2	15	17.9	—

11.3	354	12.
------	-----	-----

11.3	401	
------	-----	--

9.2	936	
-----	-----	--

9.8	435	
-----	-----	--

10.0	532	
------	-----	--

9.5	046	
-----	-----	--

9.8	147	
-----	-----	--

9.2	155	
-----	-----	--

9.3	9	
-----	---	--

938		
-----	--	--

434	n.s.	clouds
-----	------	--------

043		
-----	--	--

9.5		
-----	--	--

158	well observed -	
-----	-----------------	--

9.4		
-----	--	--

2	2.	
---	----	--

1^h 43^m - 3^h 10^m

Catalogue - Stars

1	43	45.61	+ 1	9	47.4
2	2	34.70	1	3	11.3
	4	17.05	1	1	53.1
	4	21.60	1	3	38.8
	7	71.08	1	1	52.2
	10	57.47	1	6	3.3
	40	37.71	1	9	55.1
	44	20.14	1	10	12.2
3	7	48.87	1	5	43.0
	8	4.90	1	2	43.3
	10	4.20	1	2	57.8

Ru?

Pi. This position is affected by Ru
and must be corrected.All the quantities of this table have been verified except
those marked with a star. H. L. L.

1	43	13.5	17.5
	44	11.1	11.1
	45	12.4	16.4
	45	40.7	44.8
	45	41.8	45.8

B. 10.

48	27.1	31.0
48	45.2	49.3
50	0.7	4.7
50	24.8	28.8
50	36.0	40.1
51	24.3	6.2
52	21.2	25.2

52	44.6	48.6
----	------	------

B. 12.13

54	54.9	58.8
55	5.6	9.6
55	57.0	61.1
56	6.1	8.2
56	43.7	47.7
57	13.2	17.3

L.

58	31.6	35.6
----	------	------

1	43	13.6	17.7
	44	11.6	11.3
	45	7.2	11.2
2	45	34.2	37.2?
	45	40.8	44.8
	45		45.6

48	27.0	31.0
48	45.2	49.2

50	36.1	40.2
51	2.3	6.4
52	21.3	25.3

52

54	54.9	58.8
----	------	------

55	5.7	9.6
55	56.9	60.9
56	4.2	8.2
56	43.7	47.8
57	13.4	17.3

B. 13

58	31.7	35.6
----	------	------

1° 0' - 1° 10'

1863 Jan 19thG.I.P.B. obs.
H.L.C. rec.

Position set at 358° 42'

9 6.01
 9-11 6.86 12
 10-11 1.09 n.s.
 9-10 2.14
 10 5.12 n.s.

8 8.5
 9 5.11
 8-7 9.48
 9-10 0.02
 10-11 0.13
 10-11 0.24
 12 4.20
 10 9.5.9
 11 0

11 0.41
 8.2.0.
 9-10 9.05
 9-10 9.07
 8-9 10.46
 10 4.24
 9-10 4.27
 12 5.10
 12 6.09

1863 Feb. 7th
J.H.P. obs.
H.L.C. rec.

1863 Feb. 10

J.H.P. obs.
H.L.C. rec.

9.5 0.6 9.5 6.05
 10.5 6.44 10.5 6.45/6.40 Ames Holman
 10.8 0.58 6.44 and 0.59 - 10.5 6.91
 10.0 2.22
 10.0 5.20

10.0 5.18
 7.0 9.54

10.4-0.82
 10.4 5.27
 9.8 10.04

11.8 0.47

10.0 9.19 n.s.

10.0 9.19

8.0 10.51

9.2 4.29

9.8 5.83

10.5 5.14

11.0 6.12

58	57.8	61.7
59	48.5	49.3
2 0	5.3	—
0	16.4	20.4
0	19.7	23.4
	B.	
1	46.7	50.8
2	36.2	38.1
	B.	
3	8.7	12.8
4	4.0	—
4	16.0	19.9
4	20.7	24.6
4	43.7	47.6
4	48.4	49.5
	B.	
5	41.1	45.1
7	30.3	34.1
7	42.4	46.4
8	38.7	42.6
8	40.3	44.3
9	39.2	43.1
10	7.3	11.3
	B.	
10	29.0	33.1
10	51.0	55.0
12	9.0	13.0
12	10.6	14.6
12	37.3	43.4
14	12.8	16.7
14	32.7	36.8
14	50.4	54.4
15	29.3	33.4
	B. D.	
16	8.6	12.6
16	20.6	25.1
17	4.3	8.3
18	17.8	21.8
2 18	32.9	37.0

1 58	57.7	61.7
59	48.7	49.6
2 0	5.5	—
0	16.7	[20.3]
0	19.6	23.6
	B.	
1	47.2	51.2
2	—	38.2
3	8.9	12.9
4	4.1	—
4	16.1	20.0
4	20.8	
4	26.3	30.2 ?
4	43.8	47.9
6	41.5	45.5
7	30.3	34.2
7	42.6	46.5
8	38.8	42.8
8	40.5	44.5
9	39.4	43.3
10	7.5	11.4
10	29.3	33.8
10	51.0	55.0
12	9.1	13.2
12	11.0	14.9
12	39.7	43.6
14	13.1	17.1
14	32.7	36.8
14	50.7	54.5
15	29.6	33.5
	B. D.	
16	8.5	12.7
16	20.9	25.0
17	4.6	8.4
18		
2 18	33.0	37.1

12 4.29
 9- 1 0 16
 10 2 3 7 2 L
 9-10 3 3 0
 10 8 0 4 n.s.

11-12 9 4 0
 9 8 0 0

12 6 4 7
 10-11 0 4 0 Crisp. 15" 2 L 2 L
 8 1 4 3

9 3 2 7 n.s.
 10 4 3 2
 12 4 4 6

10-11 6 0 3
 6-7 1 4 8
 9-10 1 2 3 not much above 10
 10 6 1 1 n.s.

9 0 3 6
 11 4 2 1
 11 7 4 3

10-11 1 2 8
 6 6 0 7
 12 0 4 2
 12 3 2 6 n.s.

11 5 2 0
 11 0 5 9
 11 6 0 6
 12 3 1 1

11 10 0 7
 11 2 0 1

9-10 10 4 8
 10-11 5 4 5

11 9 4 2 avoid small components
 11-12 0 0 4
 11-12 3 5 4

11.0 4 8 4
 9.0 1 1 1
 10.3 2 4 5 2 L
 9.7 3 3 8 2 doubtful
 9.7 8 1 0

10.8 5 4 5
 5.5- 3 0 5

10.5- 2 1 2
 10.5 0 4 5 double comb 25" dist s.f.
 9.0 1 5 2 up 13 m. away
 9.0 2 2 4 2 L. do 2 L of 0 4 5
 9.0 8 4 3

10.0 6 0 8
 7.0 1 5 5
 10.2 1 2 8
 10.2 2 2 2

9.7 6 1 6
 9.0 0 4 4
 10.0 5 2 7
 10.0 7 5 0

9.8 1 8 8
 6.5- 6 1 4
 11.5- 0 5 0
 11.2 3 3 3

10.0 5 2 6
 11.0 10 3 Dec. 7 11.0
 10.5- 6 1 0
 11.2 3 1 7

9.8 10 1 1
 11.2 10 1 1

8.0 10 5 2
 10.2 5 5 0

10.0 9 4 7
 10.7 4 0 1

18	49.1	53.2
19	38.4	42.5
20	32.9	~~36.7~~
20	33.3	37.0
20	58.4	62.4
21	5.1	9.1
B. D.		
23	14.4	18.4
24	11.2	—
24	—	17.6
24	56.0	—
25	6.7	10.8
25	9.1	13.0
25	36.3	40.3
25	51.9	55.9
26	3.2	7.3
B. D.		
26	38.2	42.4
26	58.2	62.2
27	5.4	9.4
27	44.9	48.9
27	53.2	57.3
B.		
28	29.2	—
28	30.0	—
28	42.3	46.3
29	20.1	24.3
D.		
30	17.5	21.5
30	50.5	—
31	7.2	11.1
31	7.8	11.8
33	17.4	—
33	29.6	33.8
33	38.6	42.5
33	39.9	43.5
34	3.8	8.0
34	6.0	10.0
B		
2 34	44.6	—

2 18	49.4	53.5
19	38.6	42.6
20	33.0	~~36.8~~
20	33.7	37.8
.		
21	8.4	9.3
D.		
23	14.3	18.3
24	11.4	15.3
24	13.8	17.8
24	56.2	60.2
25	—	11.3?
25	8.	13.2
25	36.6	40.4
25	52.2	56.2
26	3.4	7.5
.		
26	38.5	42.4
26	58.3	62.4
27	—	[9.1]
27	45.1	—
27	53.3	57.1
.		
28	29.5	33.3
.		
28	42.6	46.4
29	20.2	24.2
B. D.		
30	17.5	21.5
.		
31	7.5	—
31	—	11.9
33	—	[20.3]
33	29.6	33.6
33	38.5	42.6
.		
34	6.0	8.0
34	—	—

Accidental to note below

94?

11-12	413				
11	928				
9	828				
9-10	620	comp 20" pr. 13-14 mag.			
11	-010	n.s. to 620 -			
10	112				
	B. D.				
12	659				
10	1041	2 L.			
11-12	743	1 L.			
12	802	2 L.			
11-12	030				
12	111				
10	850				
8-9	307				
10	441				
	B. D.				
10-11	1020				
9-10	722				
12	430				
12	601				
12	921				
	B.				
11	430	2 L.			
11-12	830	n.s. 2 L.			
9-10	326	326 10 mag. is correct.			
12	032				
	B. D.				
9-10	057				
10	009	2 L.			
9	554				
10	910	n.s.			
9-10	240	2 L.			
10	858				
10	433				
9-10	1021				
10-11	918				
10-11	503	n.s.			
	B.				
12	009	2 L.			
10.5	420				
9.7	933				
9.5	883				
9.5	626	South just pr. dist 20"			
10.0	118	2 of 626 doubtful -			
	B.	The mag. of pr. com.			
		was 18th.			
11.0	703				
9.0	1046				
10.2	746				
11.0	807				
10.5	1	AR doubtful, Dec. 6,			
11.5	118				
9.0	856				
8.5	819				
9.7	447				
	B.				
9.3	1025				
9.1	727				
11.5	436	AR 7 Dec? 1 L.			
11.0	607	2 L.			
10.8	928				
10.0	437				
10.7	333				
10.5	139	Doubtful			
	B. D.				
9.5	103				
9.3	601	2 L.			
9.5	915	1 L.			
	915				
	439				
	921	One star one mile away -			

2 34	50.5	54.5
36	11.1	15.1
36	36.1	40.2
37	40.3	44.4
38	23.7	27.7
39	21.1	25.0
40	24.4	28.5
40	32.6	36.5
41	15.9	19.9
41	55.1	59.1
B.13		
42	53.4	57.5
43	1.3	—
43	11.1	15.3
D.18		
44	4.0	8.1
44	10.0	14.2
44	28.3	32.3
44	36.5	40.4
45	31.6	35.5
45	10.6	14.5
45	15.6	19.6
45	39.5	43.5
46	11.8	15.8
46	21.3	25.3
46	29.4	33.3
B.13		
46	56.2	60.3
47	43.9	48.1
47	49.5	53.6
48	43.0	47.1
48	45.1	49.1
48	54.4	58.4
B.		
49	27.5	31.6
49	39.6	43.5
50	17.3	21.2
50	22.2	26.0
2 50	—	33.8
B.13		

2 34	50.6	54.8
36	11.1	15.1
36	36.3	40.3
37	40.4	44.5
38	23.8	27.8
39	21.0	25.0
40	24.6	28.6
40	32.7	36.7
41	55.7	59.2
D.		
42	53.5	57.5
43	—	1.0
43	11.4	15.4
44	4.3	8.2
44	10.2	14.2
44	28.4	32.5
45	1.8	5.7
45	34.7	38.3
45	39.7	43.3
46	12.0	16.0
46	21.5	25.5
46	29.5	33.5
B.		
46	56.4	60.5
47	44.4	48.3
47	49.9	53.7
48	43.4	47.5
48	45.6	49.5
49		31.5
49	39.6	43.6
50		21.2
2 50	22.5	26.3
50		
B.13		

11-12 630

8 820 p. seems to have a disc -

11 631 orange red in the color

10 457 of 820 -

11 159 Double?

10 1012

10 230

8 726

11 1038

11-12 529

D. D.

9-10 340 comh. 12 10" p -

9 732 2 $\frac{1}{2}$ l.

11 300

D. D.

9 623

8 743

12 533

~~830~~

10-11 517

10-11 107

10-11 356 m.s.

9 939

11 1009

10-11 307

12 346

D. D.

10 214

9 741

10 504 m.s.

11 944 2 $\frac{1}{2}$ l.

10-11 442

11-12 344 m.s. 1 $\frac{1}{2}$ l.

D.

12 838

12 600

11 502

11 730

11 024 1 $\frac{1}{2}$ l.

D. D. D.

637

7-8 8215

10.0 636

9.5 509

10.8 203

9.0 1017

8.0 734

10.0 236

) H₂ interchanged -

10.5-531

D

10.0 549 double comh 12" p.

9.5-739 mag 12-13 - 1 $\frac{1}{2}$ l.

11.5 305 of 739

10.0 628 2 $\frac{1}{2}$ l 2 arc of h -

9.0 748 signal for next

11.0 540 star -

10.3

10.2 523

8.0 945-

10.0 1014

10.5-912

10.5-952

D

10.0 223

8.0 748

10.0 508

10.0 9418 2 doubtful.

10.0 447 Dec. doubtful -

8 0 D

11.0 604

509

739

D D.

51	55.8	59.8
52	8.8	—
52	18.7	22.7
52	—	27.3
52	51.3	55.3
52	57.4	61.4
54	23.3	27.2
54	31.2	35.2
B.D.B		
55	57.8	54.9
56	38.4	42.6
56	40.9	44.9
57	9.8	13.8
2 57	10.9	14.9
3 57	8.9	12.9
0	44.2	48.2
1	49.7	53.7
B.		
2	23.0	27.3
2	26.7	30.7
2	36.9	40.9
3	5.0	8.9
3	26.5	30.8
B.		
4	10.3	14.3
4	27.9	31.8
4	34.6	38.7
4	48.8	52.9
B.R.D		
7	48.7	52.7
8	13.1	17.3
8	18.2	22.2
9	7.1	11.0
B.		
9	36.4	40.4
10	4.4	8.3
10	50.3	54.2
3 10	52.7	56.7

2 51	55.8	59.8
52	9.3 ⁹	12.8
52	18.8	22.9
52	51.5	55.4
53	57.5	61.5
54	23.6	27.4
54	31.5	35.3
B.		
55	50.8	54.9
56	38.6	42.5
56	40.8	44.9
57	10.2	14.0
2 57	11.0	14.9
3 57	9.3	13.2
1	44.4	48.3
.		
2	23.2	27.3
2	26.7	30.7
2	37.0	41.0
3	5.2	9.3
3	27.0	30.9
B.B.		
4	10.6	14.4
4	28.0	32.0
5	3.2	7.2
6	49.0	53.0
7	48.5	52.6
8	13.2	17.3
8	18.2	22.3
9	7.1	11.0
9		40.4
10	4.1	8.1
10	50.4	54.3
3 10	52.6	56.5

11 10 33
~~11~~ 11 441 2 L.
 8 547
 11 949 1 L.
 10-11 246
 10 040
 12 929
 12 624

B. 5 33

12 445
 10-11 119
 10 548 m.s.
 9-10 047
 11-12 446
 12 325
 9 850
 12 1019 m.s.

B.

9-10 122
 10 418
 9-10 821
 11 803
 11 309
 2.

12 145
 10 200
 11-12 018
 12 817

B. 0. 2

8-9 530
 9 230
 9-10 742

9 959 m.s.

8 1050 some B. A. at 95-9-

10 142

11 322 Comp. the color of 322 is

8 240 An white -

9-10 132

9-10 512

9.5- 10.38
 11.0
 80 8.0 5-5-3 see L.

10.0 25.3
 9.2 046
 11.0 992
 10.7 1629
 10.5 75.0

9.8 174
 9.2 554 m.s.
 9.5- 053
 10.5- 452
 10.8 330
 8.8 856

10.0 130 2 L.

9.7 426
 9.3 828
 9.5- 809
 10.0 314
 10.5 149

11.2 149
 9.3 206

10.0 820

9.0 536
 9.2 236
 10.5- 748 ?

10.5- 1004 10 5.0 ju. 95-9.

9.8 148

11.0 326 1 L.

8.3 246

9.5- 139

9.5- 418

N.B. Stars 210. 211. 212 are in Book 12
 213. 214. 216 " " " 11 a

Series $1^{\circ}0' - 1^{\circ}20'$ in this book.

1862 Oct. 22 - 23	N ^o 216 217	^h 21 ^m 22 - 23 0" $1^{\circ}0' - 1^{\circ}10'$ " " " "	B. S.		
Nov 13 " 24	N ^o 218 - 219	22 58 - 0 05 $1^{\circ}0' - 1^{\circ}10'$	B. S.	X	
Dec 11 1863 Jan 7	N ^o 220 - 222	^h 23 ^m 52 - 1 48 $1^{\circ}0' - 1^{\circ}10'$ 23 52 - 1 9	B. S.	X	
1862 Dec 12 1863 Jan 17	N ^o 224 - 224	23 57 - 1 12 $1^{\circ}10' - 1^{\circ}20'$ " "	B. S.	X	
1863 Jan 9 - 23	N ^o 223 - 226	$1^{\circ}10' - 2^{\circ}15'$ $1^{\circ}10' - 1^{\circ}20'$	S. B.	X	See book 12 for the stars immediately following.
1863 Jan 19 Feb. 10	N ^o 226 - 227	$1^{\circ}43' - 3^{\circ}10'$ $1^{\circ}0' - 1^{\circ}10'$	B. S.	X	See book 12 -

9.3	5 44
10	6 20
	6 15
	5 14
	2 8
7	9 21
11.5	6 23

