

15720568.0001.395P

KG
11365
394

15720568.0001.395P
4
1897

1G 11365.394

Record
of
C. S. Peirce's
Photometric Observations
Duplicate
Vol. X 4

Telescope No 3

NG 11365.394



- 14

+ 14

17 17

1872 May 4th

Groups XXVI and XXVIII

8 Canum Venaticorum

Cap 1

Pinhole 5.

Phot. ReadingMagnitude

+41.3

1.02

~~8.92~~

+36.2

1.30

~~1.17~~

1.16~~1.04~~

0.46

0.76

- 0.01

9 Canum Venaticorum

Cap 0

Pinhole 6

+ 30.3

1.69

~~8.5~~

+ 35.4

1.35

~~1.1~~

1.52~~1.36~~

+ -
29 29
0

23 25
2

10 Cumm Venaticorum

Capo

Pinhole 6

+ 29.9

1.72

~~1.54~~

+ 39.0

1.14

~~1.02~~

+ 34.0

1.43

~~1.29~~1.43~~1.28~~

6 H Cumm Venaticorum

Capo

Pinhole 6

+ 41.3

1.02

~~0.92~~

+ 32.8

1.51

~~1.36~~

+ 36.2

1.30

~~1.17~~1.28~~1.15~~

Pit hole 70.

70
141
172
583
128



1
113
1.5.6

16

~~48~~

15



1.0.1

3

13

17

#12 *Cannm Venaticorum*

Cap 2

Pinhole 6

+88.2†

0.00

~~0.00~~

+34.3

1.41

~~1.41~~

+29.9

1.72

~~1.72~~~~1.51~~~~1.51~~

+12.8

1.30

1.79

- 49-76 =

† 23 *Cannm Venaticorum*

Cap 0

Pinhole 6

+40.4

1.07

~~1.07~~

+42.4

0.97

~~0.97~~

+36.7

1.27

~~1.27~~

1.10

~~1.10~~

41

26

16

28

8.

19

20 Canum Venaticorum

~~Pinhole 6~~
Cap 0

$$\begin{array}{r}
 +46.3 \\
 +71.7 \\
 +65.7 \\
 \hline
 0.80 \\
 0.13 \\
 0.23 \\
 \hline
 0.39
 \end{array}$$

Cap 6
~~Pinhole 6~~

$$\begin{array}{r}
 0.72 \\
 0.12 \\
 0.21 \\
 \hline
 0.32
 \end{array}$$

19 Canum Venaticorum

Cap 0

$$\begin{array}{r}
 +137.3 \\
 +35.8 \\
 +34.0 \\
 \hline
 0.96 \\
 1.32 \\
 1.43 \\
 \hline
 1.24
 \end{array}$$

Pinhole 6

$$\begin{array}{r}
 0.96 \\
 1.19 \\
 1.29 \\
 \hline
 1.11
 \end{array}$$

1

5

4

26

12)

14

11 H Canum Venaticorum

Capo

Pinhole 6

+65.2

0.24

~~0.21~~

+68.2

0.18

~~0.16~~

+63.6

0.27

~~0.24~~

0.23

~~0.20~~

* 15 Canum Venaticorum

+33.4

1.47

~~1.32~~

+28.2

1.85

~~1.66~~

+27.9

1.87

~~1.68~~

1.73

~~1.55~~

22

$$[v^2] = 10498$$

$$\mu = 11 \quad m = 30$$

$$\frac{[v^2]}{m-\mu} = 553 \quad e = .23\frac{1}{2} +$$

$$\begin{array}{r} 27.6 \\ 124 \end{array}$$

$$.17 \text{ Five obs. } e = .17$$

$$.14 \text{ Three obs } e = .14$$

6
17

17 Canum Venaticorum

Capo

Pinhole 6

+ 37.5

1.22

~~1.10~~

+ 33.0

1.50

~~1.34~~

+ 31.4

1.61

~~1.44~~1.44~~1.29~~

Notes.

Focussed photometer before measuring.

* 15 is a little fainter than 17

† 23 ^{is on} at full magnitude ~~is~~ fainter than 20‡ After 1st Obs. on 12 used pinhole 5.

+

-

8

32

25

13

38

41

Ullman 3

2.14

9

30

1872 May 4th Saturday

Groups XXXII and XXXIV

γ Bootae

Cap 2

Pinhole 5

+34.1	1.43	~~1.26~~
+30.5	1.67	~~1.50~~
-40.4	<u>1.07</u>	~~0.96~~
-37.6	<u>1.22</u>	~~1.09~~
	<u>1.35</u>	<u>1.21</u>

149 B

+21.1	2.52	~~2.29~~
+25.8	2.05	~~1.84~~
-28.3	1.84	~~1.65~~
-19.5	* <u>2.71</u> * = 1.95	~~2.43~~
	~~2.28~~	~~2.04~~
	2.09	

mean 3

237
-1.77 4113
28mean 3
268
1.8919
1474
32

7

18

22
2

F 219

$$\begin{array}{r}
 \cancel{30.9} \quad 30.9 \quad 1.64 \\
 \cancel{26} \quad 24.4 \quad 2.18 \\
 - 33.1 \quad 1.49 \\
 - 16.6 \quad 3.09^* = 2.33 \\
 \hline
 1.91
 \end{array}$$

18

114 B Bootae

$$\begin{array}{r}
 +26.5 \quad 2.08 \quad 2.12 \\
 +26.0 \quad 2.03 \quad 1.82 \\
 -31.9 \quad 1.57 \quad 1.41 \\
 -19.7 \quad \cancel{2.68}^* \quad 1.92 \quad 2.41 \\
 \hline
 3.09 \quad 1.90 \quad 1.94
 \end{array}$$

B Bootae

Cap 2

Pinhole 6

$$\begin{array}{r}
 +45.0 \quad 0.85 \quad 0.71 \\
 +42.7 \quad 0.96 \quad 0.86 \\
 -52.8 \quad 0.56 \quad 0.50 \\
 -47.3 \quad 0.76 \quad 0.68 \\
 \hline
 0.78 \quad 0.70
 \end{array}$$

37

35

49

49

38

10

3

30

408 B Bootae

Capo

Pinhole 6

32.1	1.56	~~1.48~~
32.4	1.54	~~1.38~~
48.9	0.70	~~0.63~~
42.2	0.98	~~0.88~~
	<u>1.79</u>	<u>1.07</u>

|||||

V₁ Bootae

Capo

Pinhole 6

36.6	1.28	~~1.14~~
46.2	0.80	~~0.72~~
-43.3	0.93	~~0.83~~
-51.5	0.60	~~0.54~~
	<u>0.90</u>	<u>0.81</u>

24

19

23

16

173
58

27

00

28

ϕ Bootae

Cap 0

Pinhole 6

42.2	0.98	~~0.88~~
43.2	0.93	~~0.84~~
-54.4	0.51	~~0.46~~
-52.2	0.58	~~0.52~~
	<u>0.74</u>	~~0.67~~

 μ Bootae

Cap 0

Pinhole 6

+47.9	0.74†	~~0.66~~
+45.0	0.85	~~0.77~~
52.2	0.58	~~0.52~~
-62.3	0.30	~~0.22~~
	<u>0.58</u>	~~0.55~~

173
58

33

60

90

69

306

1102

Uran 3

35

32

3

Between γ and 149B Bootes

Cap 0

Pinhole 5-

25.5	2.08	~~1.87~~
22.0	2.42	~~2.17~~
-38.2	1.19	1.95
-18.9	2.78	~~2.49~~
	<u>2.12</u>	<u>1.90</u>
	2.31	

$\frac{1}{2}$ Bootes

Cap 1

Pinhole 6

+35.0	1.37	~~1.23~~
+51.1	0.52	~~0.55~~
-48.8	0.70	~~0.64~~
-42.1	0.99	~~0.88~~
	<u>4.06</u>	<u>0.82</u>
	4.11	
	1.03	
	46	

6

-5

+6

+24

4

-9

Notes

* In fourth observation forgot to change pinhole from 5 to 6 until β .

† 1st time measured μ Borealis instead of μ Bootae.

‡ V_2 forgot to put on cap at 2nd observation.

V Bootae orange colored star.

Same night continued.

~~μ Bootis~~

V_1 Bootae

Cap 0

Pinhole 5

-31.3 1.62

-29.7 1.73

+27.4 1.91

~~-31.3 1.62~~

~~+31.8 1.58~~

+31.8 1.58

~~1.77~~

1.71

~~1.45~~

~~1.55~~

~~1.82~~

~~1.45~~

~~1.42~~

~~1.42~~

~~1.50~~

-02

-02

+24

~~49~~

-07

-23

-18

~~28~~ - 7

+27

~~2~~ ~~X~~ Bortis v, Boolae

Cap 1

Pinhole 5

-25.6

2.07

~~1.88~~

-25.6

2.07

~~1.88~~

+22.9

2.33

~~2.19~~

~~-25.6~~

~~2.07~~

~~1.88~~

+26.2

2.02

~~1.88~~

+26.2

2.02

~~1.88~~

~~2.09~~

~~1.88~~

2.12

~~X~~ Bortis v, Boolae

Cap 1

Pinhole 6

-39.8

1.10

~~0.94~~

-40.8

1.05

~~0.94~~

+36.9

1.26

~~1.13~~

~~-39.8~~

~~1.10~~

~~0.94~~

+31.5

1.50

~~1.44~~

+31.5

1.60

~~1.44~~

~~1.28~~

~~1.15~~

1.23

+ 39
- 24
- 18
290
7213

- 9
214
- 54
+ 9

v_1 Bootae
 ~~x_1 Bootis~~

Cap 2

Pinhole 6

-16.6

3.09

~~2.77~~

-21.6

2.46

~~2.21~~

+21.1

2.52

~~2.26~~~~-16.6~~~~3.09~~~~2.77~~

+18.5

2.83

~~2.34~~

+18.5

2.83

~~2.54~~~~2.80~~~~2.51~~

2.72

~~x_2 Bootis~~ v_2 Bootae

Cap 0

Pinhole 5

-31.6

1.59

~~1.43~~

+30.9

1.64

~~1.47~~

-39.0

1.14

~~1.22~~

+29.2

1.77

~~1.29~~~~1.53~~~~1.28~~

-30 $+28$ 2.2814 2.2814 68 14 -20 $+11$ 138 -321 $+25$

V_2 Bootae
 ~~V_2 Bootis~~

✓ 15

Cap 1

Pinhole 5

-28.8	1.80	~~1.62~~
+22.4	2.38	~~2.13~~
-26.8	1.96	~~1.76~~
+20.9	2.54	~~2.28~~
	<u>2.17</u>	~~1.95~~

V_2 Bootae
 ~~V_2 Bootis~~

Cap 1

Pinhole 6

+35.9	1.32	~~1.18~~
+33.8	1.45	~~1.30~~
-41.5	1.02	~~0.81~~
+31.7	1.59	~~1.42~~
	<u>1.34</u>	~~1.20~~

$$\Sigma v^2 = 15.094$$

$$\begin{array}{r} - 9 \\ + 15 \\ - 6 \\ \hline 2786 \\ 69 \end{array}$$

17

8

24

v_2 Bootae
 ~~v_2 Bootis~~

Cap 2

Pinhole 6

-20.2	2.62	~~2.35~~
+18.3	2.86	~~2.56~~
-20.0	2.65	~~2.37~~
+20.0	2.65	~~2.37~~
	2.69	2.41

1872 May 5th Sunday
 Sky slightly hazy.
 Groups XXXIV and XXXV

β Bootae

Cap 2

Pinhole 5

-22.5	2.37	~~2.12~~
+23.4	2.28	~~2.05~~
-26.8	1.96	~~1.86~~
	2.20	1.78

mean $2 = 1.42$

3

2

2

3

2

408 B Bootae

Cap 0

Pinhole 6

-33.7	1.45	~~1.30~~	
+34.5	1.40	~~1.26~~	
*-23.2	~~2.30~~	*1.54	~~2.16~~
	~~1.75~~	139	~~1.52~~
		1.46	

✓

u Bootae

Cap 2

Pinhole 6

-23.3	2.29	~~2.15~~	
+22.8	~~1.54~~	2.34	~~1.26~~
-23.3	2.29	~~2.15~~	
	~~2.03~~	2.31	~~1.18~~

✓

25 19
6

28 5
23

10.1

Δ , Bootae

Cap 0

Pinhole 6

-50.7	0.63	~~0.57~~
+40.4	1.07	~~0.96~~
-47.2	0.76	~~0.68~~
	<u>0.82</u>	~~0.74~~

Φ Bootae

Cap 0

Pinhole 6

-42.6	0.96	~~0.86~~
+36.3	1.29	~~1.16~~
-46.7	0.78	~~0.80~~
	<u>1.01</u>	~~0.81~~

17

6

15

28

44

8

4

5

τ Herculis

Cap 2

$$\begin{array}{r}
 1.62 \\
 -31.2 \\
 +24.1 \\
 -22.8 \\
 \hline
 2.06
 \end{array}$$

Pinhole 6

$$\begin{array}{r}
 1.46 \\
 1.88 \\
 2.16 \\
 \hline
 1.85
 \end{array}$$

ϕ Herculis

Cap 1

$$\begin{array}{r}
 0.66 \\
 0.75 \\
 2.73^+ \text{ Rej.} \\
 \hline
 2.04
 \end{array}$$

$$\text{mean} = 0.70$$

Pinhole 6

$$\begin{array}{r}
 1.16 \\
 0.67 \\
 2.45 \\
 \hline
 1.24
 \end{array}$$

✓

6

5

10

11

✓ *Herulis*

Cap 1

Pinhole 6

$$\begin{array}{r}
 -36.8 \\
 +38.9 \\
 \hline
 1.26 \\
 1.15 \\
 \hline
 1.20
 \end{array}$$

$$\begin{array}{r}
 1.13 \\
 1.13 \\
 \hline
 1.08
 \end{array}$$

† *F* 270 *Herulis*

Cap 0

Pinhole 6

$$\begin{array}{r}
 31.0 \\
 +28.2 \\
 \hline
 1.54 \\
 1.85 \\
 \hline
 1.74
 \end{array}$$

$$\begin{array}{r}
 1.47 \\
 1.66 \\
 \hline
 1.56
 \end{array}$$

6

4

9

$\frac{1}{2}$ Bootae

Cap 0

Pinhole 6

-45.0	0.85	~~0.77~~
+41.8	1.00	~~0.40~~
-42.2	0.98	~~0.38~~
	0.94	~~0.85~~

Notes

+ Some suspicion of haze in this neighborhood.

* Observed with pinhole 5 - by accident.

At ^{H. m.} 9-12 altitude of F 270
Herculis was $51\frac{1}{2}$. at same time
V Herculis was $47\frac{1}{2}$

+ F 290 Herculis is the preceding of ^{two.} ~~4~~

(Insert here pages 1 to 11 of Vol. 25)

mean 5 $6\frac{1}{8}$
1.14

3

11
28
4

~~48~~

38

1872 May 21st
 Full moon, sky very bright & clear,
 Time 8¹⁵ 3⁴⁴
 Groups ~~XXI~~ and XX
 Color circle set at 221°
 59 Ursae Majoris

Cap 0
 Colors

Pinhole 6
 Set at ~~221°~~

+38.5	1.17		1.09
+41.1	1.03		0.93
-44.8	0.86		0.77
-39.8	1.10		0.99
+26.3	2.01	1.25	1.80
-32.7	1.52		1.36
	~~1.25~~	0.3	1.18
		1.15	

✓

42

38

18

1
5

23

1

28

17

30

21

22

* 58 Ursae Majoris

Cap 0

Pinhole 6
Set at 221

+26.8	1.96	~~1.70~~	
+38.7	1.16	~~1.44~~	
-35.1	1.36	~~1.32~~	33
-32.6	1.53	~~1.37~~	28
+33.2	1.49	~~1.33~~	26
-29.2	1.77	~~1.39~~	17
	<u>1.54</u>	~~1.35~~	14
	*		24

57 Ursae Majoris

Cap 0

Pinhole 6
Set at 221

+43.4	0.92	~~0.83~~
+50.8	0.63	~~0.56~~
-40.2	1.08	~~0.77~~
-51.3	0.61	~~0.55~~
+39.5	1.12	~~1.01~~
-39.3	1.13	~~1.04~~
	<u>0.91</u>	~~0.82~~

* 56 Ursae maj.

Cap 0 Pinhole 6

+47.0	0.77
+69.8	0.16
-68.1	0.18
-63.7	0.27
+51.3	0.61
-49.5	0.68
	<u>0.44</u>

7

36

9

29

27
35

26

15

20

12

25

8

Star south of ψ Ursa majoris

Cap 0

Pinhole 6

~~Set at 221~~

+35.0

1.37

~~1.23~~

+40.1

1.08

~~0.97~~

-32.5

1.53

~~1.37~~

-38.8

1.15

~~1.03~~

+30.0

1.71

~~1.53~~

-28.9

1.79

~~1.61~~

1.44

~~1.29~~

49 Ursa Majoris

Cap 0

Pinhole 6

~~Set at 221~~

+59.8

0.36

~~0.33~~

+55.7

0.47

~~0.42~~

-45.8

0.82

~~0.74~~

-54.6

0.50

~~0.45~~

+45.7

0.87

~~0.78~~

-48.8

0.70

~~0.63~~

0.62

~~0.56~~

24

32

12

26

32

11

14

18

8

14

3

54

47 Ursae Majoris

Pinhole 6

Cap 0

~~Set at 224~~

+65.3	0.24	0.21
+69.5	0.15	0.15
-57.9	0.36	0.37
-47.7	0.74	0.67
+46.4	0.80	0.71
-51.9	0.59	0.53
	0.48	0.44

210 B Northern one

Cap 0

Pinhole 6

~~Set at 221~~

+35.2	1.36	1.22
+35.8	1.32	1.19
-34.2	1.42	1.38
-35.2	1.35	1.22
+32.6	1.53	1.37
-25.9	2.04	1.83
	1.50	1.35

16

29

29

13

46

16

13

35

13

11

31

17

ω Ursae Majoris

Cap 0

Pinhole 6

~~Set at 221~~

+71.0	0.14	0.14
+95.2	0.01	0.01
-85.7	0.01	0.01
-57.3	0.43	0.38
+47.4	0.76	0.68
-56.0	0.46	0.41
	0.30	1.17

λ Ursae Majoris

Cap 2

Pinhole 6

~~Pinhole 6~~~~Cap 2~~~~Set at 221~~

+48.4	0.72	0.64
+54.6	0.50	0.45
-48.2	0.72	0.65
-42.6	0.96	0.86
+38.7	1.16	1.04
-41.5	1.02	0.91
	0.85	0.76

23⁵₃
39

4

16

34

5

37

18

40

11

0

6

48

11

μ Ursae Majoris

Cap 2

Pinhole 6

~~Set at 227~~

+60.2	0.35	~~0.31~~
+65.7	0.23	~~0.21~~
-75.2	0.08	~~0.07~~
-60.8	0.34	~~0.30~~
+47.3	0.76	~~0.68~~
-52.4	0.57	~~0.52~~
	<u>0.39</u>	<u>0.35</u>

Companion of μ

Cap 0

Pinhole 6

~~Set at 227~~

+45.0	0.85	~~0.77~~
+39.0	1.14	~~1.02~~
-37.0	1.25	~~1.12~~
-38.1	1.19	~~1.07~~
+29.7	1.73	~~1.69~~
-35.1	1.36	~~1.22~~
	<u>1.25</u>	<u>1.15</u>

29
37
2
7
37
22

40
14
13
7
31
6

33 H Ursae majoris

Cap 1

Pinhole 6
~~Set at 227~~

+54.3	0.51	0.46
+57.1	0.43	0.34
-45.8	0.82	0.74
-44.7	0.87	0.78
+38.4	1.17	1.05
-41.5	1.02	0.91
	<u>0.80</u>	<u>0.72</u>

32 Ursae Majoris

Cap 0

Pinhole 6
~~Set at 227~~

+42.7	0.96	0.86
+37.5	1.22	1.10
-33.2	1.49	1.33
-34.0	1.43	1.29
+30.5	1.67	1.50
-34.2	1.42	1.28
	<u>1.36</u>	<u>1.23</u>

63

J

26

11

43

35

84

33

30

11

4

11

38

(29

Cap 2

Pinhole 6
~~Set at 224~~

+48.5	0.71	neg.
+35.0	1.37	
-40.2	1.08	
-33.7	1.45	
+29.2	1.77	
-30.3	1.69	
	<u>1.34</u>	
	1.44	

~~1.11~~
~~1.18~~
~~1.17~~
~~1.10~~
~~1.19~~
~~1.11~~
~~1.13~~

3

Cap 1

Pinhole 6
~~Set at 224~~

+36.1	1.30
+71.5	0.13
-69.3	0.16
-60.1	0.35
+54.7	0.50
-60.2	0.35
	<u>0.46</u>

~~1.17~~
~~0.12~~
~~0.16~~
~~0.32~~
~~0.46~~
~~0.31~~
0.42

Notes on groups XXII & XX

† Cap 1 by accident

* Southernmost Star

‡ μ is a very red Star

Following μ is a star of which
this is the reading -34.3 1.41

Strong suspicion of clouds 5th
time going round.

Every star seems to have a faint
companion on the right, supposed
to be due to reflection on the
glass.

* After first obs. of 38 it was
measured with Cap 0.

1872 May 26th

Very fine night; recorder absent

Groups XXXIX and XXXVII

L

Cap 2

-48.9

+44.0

0.70

0.90

0.80~~0.83~~~~0.81~~~~0.82~~

y

Cap 0

-67.2

+69.0

0.20

0.17

0.18~~0.18~~~~0.15~~~~0.16~~

x

Cap 0

-46.2

+55.2

0.80

0.49

0.64

~~0.72~~

~~0.44~~

~~0.58~~

Above x

Cap 0

-35.1

+33.9

1.36

1.44

1.40

~~1.22~~

~~1.24~~

~~1.25~~

PxVII 69

Cap 0

-42.8

* +42.4

0.95

0.97

0.96

~~0.86~~

~~0.87~~

~~0.86~~

122

North preceding last

$$\begin{array}{r} \text{Capo} \\ + 30.8 \\ - 37.0 \end{array}$$

$$\begin{array}{r} 0.65 \\ 1.25 \\ \hline 1.45 \end{array}$$

~~1.2~~

74

Capo

$$\begin{array}{r} -67.0 \\ +54.4 \end{array}$$

$$\begin{array}{r} 0.20 \\ 0.51 \\ \hline 0.35 \end{array}$$

$$\begin{array}{r} 0.48 \\ 0.46 \\ \hline 0.32 \end{array}$$

South of last

Capo

$$\begin{array}{r} -39.4 \\ +34.2 \end{array}$$

$$\begin{array}{r} 1.12 \\ 1.42 \\ \hline 1.27 \end{array}$$

$$\begin{array}{r} 1.01 \\ 1.28 \\ \hline 1.14 \end{array}$$

S. of last

Cap 0

$$\begin{array}{r}
 -32.3 \\
 +29.6 \\
 \hline
 1.55 \\
 1.74 \\
 \hline
 1.64
 \end{array}
 \quad
 \begin{array}{r}
 1.39 \\
 1.36 \\
 \hline
 1.27
 \end{array}$$

Between 74 & 52 but south

Cap 0

$$\begin{array}{r}
 -31.5 \\
 +30.4 \\
 \hline
 1.60 \\
 1.68 \\
 \hline
 1.64
 \end{array}
 \quad
 \begin{array}{r}
 1.44 \\
 1.41 \\
 \hline
 1.27
 \end{array}$$

52

Cap 2

$$\begin{array}{r}
 -32.9 \\
 +25.2 \\
 \hline
 1.51 \\
 2.11 \\
 \hline
 1.81
 \end{array}
 \quad
 \begin{array}{r}
 1.35 \\
 1.34 \\
 \hline
 1.22
 \end{array}$$

52

Cap 1

-55.6	0.47	~~0.48~~
+50.7	0.63	~~0.57~~
	<u>0.55</u>	~~0.58~~

$$\Sigma \quad 206.3$$

Cap 0

-45.5	0.88	~~0.74~~
+46.5	0.79	~~0.71~~
	<u>0.81</u>	~~0.73~~

Anon. L

Cap 0

-64.3	0.26	~~0.28~~
+47.8	0.74	~~0.06~~
+47.2	0.76	~~0.18~~
	<u>0.58</u>	~~0.52~~

42

Cap 2

red h. cap. 0

-37.2	1.24	- .55	1.11	✓
+85.8	0.01	- .45	0.91	
	~~0.62~~	- .50	~~0.56~~	

Near 52

Cap 0

-47.3	0.76	~~0.88~~
-------	------	-----------------

Notes on groups XXXIX XXXXVIII

* taken with Cap 1

* South of two. North +30.8 - ^m1.65
 South preceding; south of two,
 +26.2 ^m2.02, North of two;
 +50.5 ^m0.64

This region is quite incorrect
 in the Uranometrie, many
 small stars omitted.

C

Insert here front 11 p. of Vol. 25

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1872 May 28th

Clear still night - no moon.

Groups XXXVIII & XXXIX

Color circle 51°

1 Herculis

Cap 2

Pinhole 6

+21.0

2.53

~~2.7~~

x

Cap 0

Pinhole 6

+27.3

1.92

~~1.2~~

x

Cap 0

Pinhole 6

+22.9

2.33

~~2.9~~

Star above x

Capo

Pinhole 6

+15.6

3.24

~~2.91~~

74

Capo

Pinhole 6

+30.2

1.59

~~1.52~~

Star South of 74

Capo

pinhole 6

+16.6

3.09

~~2.97~~

P. 1769 S. of 2

+20.4

2.60

~~2.33~~

Obs. interrupted by clouds

W

1872 May 30 Thursday

Night clear: no moon, stars twinkling somewhat windy, no clouds.

Groups XXXIX and XLI

Color Circle 50°

1 Herculis

Cap 2

Pinhole 6

Colors 46

+28.0	1.86	~~1.67~~
-30.7	1.66	~~1.49~~
+29.1	1.78	~~1.67~~
-23.8	2.24	~~2.01~~
+30.7	1.66	~~1.48~~
-29.2	1.77	~~1.59~~
	<u>1.83</u>	<u>~~1.64~~</u>

Color 58 γ Herculis

Cap 0

Pinhole 6

+30.9	1.64	~~1.47~~
-28.6	1.82	~~1.63~~
+34.0	1.43	~~1.29~~
-34.5	1.40	~~1.26~~
+32.5	1.53	~~1.37~~
-34.8	1.34	~~1.24~~
	<u>1.53</u>	<u>~~1.38~~</u>

x Herculis

Cap 0

Pinhole 5 6

Color 47

+31.3	1.62	~~1.45~~
-24.4	2.18	~~1.86~~
+27.5	1.91	~~1.71~~
-30.9	1.64	~~1.47~~
+25.0	2.12	~~1.91~~
-32.0	1.57	~~1.41~~
	<u>1.84</u>	~~1.65~~

Star above x

Cap 0

Pinhole 6

Color 45

+22.9	2.33	~~2.09~~
-20.7	2.56	~~2.30~~
+22.0	2.42	~~2.17~~
-18.7	2.81	~~2.52~~
+21.2	2.51	~~2.25~~
-21.2	2.51	~~2.25~~
	<u>2.52</u>	~~2.26~~

(41)

* 74 Herculis

Capo		Pinhole 6
Color 62		
+28.1	1.86	~~1.67~~
-36.0	1.31	~~1.48~~
+30.8	1.65	~~1.41~~
-28.0	1.86	~~1.67~~
+34.0	1.43	~~1.29~~
-29.8	1.72	~~1.55~~
	<u>1.64</u>	~~1.47~~

+ I XVII North 69

Capo		Pinhole 6
Color 34		
+19.6	2.69	~~2.42~~
-22.6	2.36	~~2.12~~
+17.2	3.00	~~2.71~~
-15.5	3.25	~~2.92~~
+17.1	3.02	~~2.71~~
-17.4	2.98	~~2.67~~
	<u>2.88</u>	~~2.59~~

P XVII 69 south

Cap 0		Pinhole 6
color 52		
+19.5	2.71	~~2.43~~
-23.9	2.23	~~2.70~~
+18.8	2.79	~~2.51~~
-18.6	2.69	~~2.42~~
+20.3	2.61	~~2.34~~
-23.3	2.29	~~2.15~~
	<u>2.55</u>	<u>1.29</u>

Between last & 52 North

Cap 0		Pinhole 6
color 49		
+21.3	2.50	~~2.27~~
-26.0	2.03	~~1.82~~
+20.3	2.61	~~3.24~~
-22.8	2.34	~~2.11~~
+21.1	2.52	~~2.26~~
-23.4	2.28	~~2.05~~
	<u>2.38</u>	<u>2.30</u>

Same - south

Cape 0

Color 46

+17.6	2.95
-19.6	2.69
+19.2	2.74
-19.1	2.76
+17.5	2.96
-18.9	2.78
	2.81

Pinhole 6

~~2.65~~
~~2.42~~
~~2.46~~
~~2.47~~
~~2.66~~
~~2.48~~
~~2.52~~

F 328 1st

Cape 0

Color 55

+20.7	2.56
-18.3	2.86
+16.9	3.05
-22.9	2.33
+16.2	3.15
-20.6	2.58
	2.75

Pinhole 6

~~2.38~~
~~2.56~~
~~2.73~~
~~2.49~~
~~2.83~~
~~2.31~~
~~2.47~~

F 328 Second

Cap 0

Pinhole 6

Color 85

$$+17.5 \quad 2.96$$

$$-15.0 \quad 3.33$$

$$+15.4 \quad 3.27$$

$$-15.8 \quad 3.21$$

$$+19.0 \quad 2.77$$

$$-14.3 \quad 3.45$$

$$\hline 3.16$$

~~$$2.66$$~~

~~$$2.99$$~~

~~$$2.93$$~~

~~$$2.88$$~~

~~$$2.48$$~~

~~$$3.18$$~~

~~$$2.84$$~~

Z.

Cap 0

Pinhole 6

Color 35

$$+15.3 \quad 3.29$$

$$-14.3 \quad 3.45$$

$$+22.6 \quad 2.36$$

$$-14.5 \quad 3.42$$

$$+15.7 \quad 3.22$$

$$-12.4 \quad 3.43$$

$$\hline 3.19$$

~~$$2.95$$~~

~~$$3.10$$~~

~~$$2.12$$~~

~~$$3.27$$~~

~~$$2.89$$~~

~~$$3.08$$~~

~~$$2.87$$~~

360 B

Capo
color 62

Pinhole 6

+18.4	2.84	~~2.85~~
-23.5	2.27	~~2.24~~
+19.1	2.76	~~2.47~~
-19.7	2.68	~~2.41~~
+21.3	2.50	~~2.24~~
-21.6	2.46	~~2.21~~
	<u>2.58</u>	<u>2.32</u>

386 H⁺Capo
color 55

Pinhole 6

+17.1	3.02	~~2.71~~
-19.3	2.73	~~2.45~~
+17.3	2.99	~~2.68~~
-18.3	2.86	~~2.66~~
+17.6	2.95	~~2.65~~
-20.0	2.65	~~2.37~~
	<u>2.87</u>	<u>2.38</u>

P xvii 358

(46

Cap 0

Pinhole 6

Color 89

+26.6	1.98	~~1.78~~
-28.3	1.84	~~1.65~~
+29.9	1.72	~~1.54~~
-29.0	1.79	~~1.60~~
+31.8	1.58	~~1.42~~
-28.0	1.86	~~1.67~~
	<u>1.79</u>	<u>~~1.61~~</u>

Southernmost of 3 stars above

Cap 0

Pinhole 6

Color 27

+19.0	2.77	~~2.48~~
-15.9	3.19	~~2.87~~
+14.9	3.35	~~3.01~~
-15.3	3.29	~~2.95~~
+15.1	3.32	~~2.98~~
-15.0	3.33	~~2.99~~
	<u>3.21</u>	<u>~~2.88~~</u>

Middle one

Cap 0

color 82°

+26.2

-22.9

+21.9*

-23.7

+23.0

-30.7

2.02

2.33

2.43

2.25

2.32

1.66

2.17

Pinhole 5

~~1.81~~~~2.19~~~~2.18~~~~2.01~~~~2.08~~~~1.49~~~~1.94~~

Northernmost

Cap 0

color 45°

+20.3

-20.4

+15.9

-17.6

+16.9

-14.6

2.61

2.60

3.19

2.95

3.05

3.40

2.97

Pinhole 6

~~2.34~~~~2.33~~~~2.87~~~~2.65~~~~2.73~~~~3.05~~~~2.66~~

Notes on groups XXXIX & XLI
 reddish

* 74 is ~~the redder~~

+ This northern one is no brighter than 4 or 5 stars a little further north.

All the last observations seem very good and have been quite free from influence of clouds

+ Clouds which occasionally obscured the small stars and rendered the obs. doubtful.

* Long interruption in account of clouds.

