

KG

11365

529



KG 11365.527







6<sup>m</sup> tel. West Equatorial



KG 11965.529





Friday, Aug. 16, 1895.

4948 R. Can. Var. 13740.  
 13 43 + 40° 3 Waiter obs.  

$$\begin{array}{r} 19 \quad 20 \\ \hline 5 \quad 47 \end{array}$$

9 33 d 3 Var. Var. 1 e. Est. 7.8

5237 R. Bootes. 14527.  
 14 31 + 27° 4 Waiter obs.  

$$\begin{array}{r} 19 \quad 30 \\ \hline 4 \quad 59 \end{array}$$

9 40 h 1 Var. Var. 2 k. Est. 8.5

5501 S. Serpente. 15214.  
 15 15 + 14° 8 Waiter obs.  

$$\begin{array}{r} 19 \quad 35 \\ \hline 4 \quad 20 \end{array}$$

9 45 h 1 Var. Var. 4 m Est. 10.0

5667. R. Coronae. 15728.  
 15 43 + 28° 6 Waiter obs.  

$$\begin{array}{r} 19 \quad 42 \\ \hline 3 \quad 59 \end{array}$$

9 50 Var. = f. Est. 7.5

7 comps.



Friday, Aug. 16, 1895.

5770. ~~R. Corone~~ <sup>Herens</sup> 16018.  
 16 00 +18° 8 Waiter obs.  
 $\begin{array}{r} 19 \ 45 \\ \hline 3 \ 45 \end{array}$

9 54 Var. not seen. Faint. Could easily see a mag. fainter than  $\mu$  which is faintest star on chart.

5826  $\gamma$  Scorpi. 16222 e  
 16 8 -22° 6 Waiter obs.  
 $\begin{array}{r} 19 \ 50 \\ \hline 3 \ 42 \end{array}$

9 57  $\gamma$  4 Var. Var. 1  $\mu$  Est. 8.9

5830 R. Scorpi. 16222 a.  
 16 9 -22° 6 Waiter obs.  
 $\begin{array}{r} 19 \ 55 \\ \hline 3 \ 46 \end{array}$

10 00 Var. not seen. Faint.

Star  $\gamma$  at about L. V.

2 comp.



Friday, Aug. 16, 1895.

5831 *S. Scorpii* 16222 h.  
 16 9 -22°.5 Waite obs.  
 20 00  
 3 51

10 03 Var. not seen. Faint.  
 Star g. at L.V.

6044 *S. Herculis* 16715.  
 16 45 +15°.2 Waite obs.  
 20 05  
 3 20

10 08 f 1 Var. Var. 4 g. Est. 8.0

6132 *R. Ophiuchi* 17015  
 17 00 -15°.9 Waite obs.  
 20 10  
 3 10

10 14 f 1 Var. Var. 2 g. Est. 8.0

6512 *T. Herculis* 18031  
 18 04 +31°.0 Waite obs.  
 20 15  
 2 11

10 20 f n 5 Var. Var. = (X) prev. not. for (X)  
 Est. 12.0

4 is companion of Var. 6 comp.

Friday, Aug. 16, 1895.

6733 R. Scuti. 18705  
 18 40 - 50.9 wait obs  
20 20

10 25 1 40  
 f1 var. var. 4 g. Est. 7.0.

6905 R. Sagittarii 19119  
 19 08 - 19.6 wait obs  
20 27

10 32 1 19  
 k1 var. var. 3 l Est. 10.0

6921 S. Sagittarii 19219  
 19 11 - 19.3 wait obs  
20 32  
 1 21

10 37 0 1 var. var. 3 p. Est. 12.5

8230 S. Aquarii 22820  
 22 49 - 21.1 wait obs  
20 40

10 45 - 2 9  
 var. not seen. Faint, Star s  
 at L. R.

6 comp.



Friday, Aug. 16, 1895.

J. Androm.

$$\begin{array}{r}
 0 \quad 17 \quad + 26^{\circ} 2 \text{ Wante obs.} \\
 \underline{20 \quad 45} \\
 -3 \quad 32
 \end{array}$$

10 52  $d \approx \text{Var. Var.} \approx c$   $d + c$   
 in provisional notation.  
 See Bk. 1, page 204.

2 comp.

Wednesday, Aug. 21, 1895.

114 S. Ceti 00 309  
 0 17 -10.1 Waiter obs  
 $\begin{array}{r} 20 \\ \hline 4 \end{array}$  17

10 04 L 3 Var. Var. 2 m. Est. 10.5-

782 R. Arctus 02 124  
 2 8 +24.4 Waiter obs  
 $\begin{array}{r} 20 \\ \hline 5 \end{array}$  10 5-8

10 10 L 3 Var. Var. 2 (m) m in prov.

N.  
 ho. (ms) .l  
 ☉

S.

8373 S. Pegasi 23 208  
 23 13 +8.1 Waiter obs  
 $\begin{array}{r} 20 \\ \hline 2 \end{array}$  20 53

10 22 Var. = (4.)  $\chi$  = prov. not. Est. 12.0

$\begin{array}{c} \cdot p \\ \cdot m \\ \cdot k \\ \cdot o \\ \odot \\ S. \end{array}$

5 comp.



Wednesday, Aug. 21, 1895.

7120  $\gamma$  Cygni. 19732  
 19 45 +32°6 Waiter obs.  
 20 30

10 30 Var. ft. = star ( $\gamma$ )  $\gamma$  is in prov. not.  
 .x N.  
 " O. - ( $\gamma$ ).  
 S, y.

112 R. Androm. 00338.  
 0 16 +37°8 Waiter obs.  
 20 40  
 3 36

10 45 13 Var., Var. 12. Est. 12.9.

T. Androm.

0 17 +26°2 Waiter obs.  
 20 50

10 55 (d) 1 Var. Var. 4(c) C + d. in  
 -3 27 prov. not.  
 See Bks. 1 Page 204.

5 comp.

Friday, Aug. 23, 1895.

T. Androm.

0 17  
1 50  

---

1 33

+26°.2 Waited obs.

15 30

(f) 3 Var., Var. = (e) e & f in

provisional notation.

See Bk. 1, Page 204.

2 comp.



Sunday, Aug. 25, 1895.

T. Androm.

$$\begin{array}{r} 0 \\ 1 \\ \hline 1 \end{array} \quad \begin{array}{r} 17 \\ 50 \\ \hline 33 \end{array}$$

+ 26°.2 Waiter obs.

15 45 f 37m. Var. 1 e e + f in prev. note.

See Bk. 1 Page 204.

2 compse.

Tuesday, Aug. 27, 1895

S. Virginis.  
Too low. Wait. obs.

R. Hydrae.  
Too low. Wait. obs.

W & V. Virginis.  
Too low. Wait. obs.

U. Virginis.  
Too low. Wait. obs.

I. R. γ + X Virginis.  
Too low. Wait. obs.

R. Comae Ber.  
Too low. Wait. obs.

R. Leo. Min.  
Too low. Wait. obs.

All of above cases not observed  
on account of twilight. Too low  
at dark.



Tuesday, Aug. 27, 1895.

T. Cephri.  
+67°9'

$$\begin{array}{r} 21 \quad 8 \\ 19 \quad 8 \\ \hline -2 \quad 00 \end{array}$$

8 40 d 3 Var., Var. 2 e Est. 70 Wt. obs.

8 45 d 2 Var., Var. 2 e D. obs.

T. Androm.  
+26°2'

$$\begin{array}{r} 0 \quad 17 \\ 19 \quad 20 \\ \hline -4 \quad 57 \end{array}$$

8 50 f 3 Var., Var. 1 e Wt obs.

8 54 f 4 Var., Var. = e D. obs.

e & f in provisional notation.  
See Bk. 1 Page 204.

T. Cass.

$$\begin{array}{r} 0 \quad 15 \\ 19 \quad 45 \\ \hline -4 \quad 30 \end{array}$$

9 05 Sky all cloudy Wt. & D obs.

10 20 Sky all cloudy 8 comp.

Ported to here.

Friday, Aug. 30, 1895.

2478 R. Lynx 06855  
 6 49 +55.5 White obs  
 18 40  
 11 51

8 00 Region too low and hazy. Could not see variable.

5494 S. Librae 15220.  
 15 13 -19°.9 White obs  
 18 53  
 3 40

8 15 d 4 Tan. V 2 e Est. 8.0

R. S. Librae Photographic vars

15 16 -22°.4  
 19 11  
 3 53

8 23 Tan. not seen. Could not identify region on account of low alt. & haze and bright moon.

2 comp.



Friday, Aug. 30, 1895.  
~~on the night of~~

R. S. Virginius

$$\begin{array}{r} 14 \quad 20 \\ 19 \quad 15 \\ \hline 4 \quad 55 \end{array} \quad + 50.3 \text{ wait obs.}$$

8 35 Var. not seen. Faint. L seen.

T. Persei

$$\begin{array}{r} 2 \quad 9 \\ 19 \quad 50 \\ \hline -6 \quad 19 \end{array}$$

02258 b.  
 + 58.3

8 55 c 3 Var. Var 1 d. Wt. obs. Est. 8.5  
 9 10 c 3 Var, Var = d D. obs.

814 S. Persei

$$\begin{array}{r} 2 \quad 12 \\ 20 \quad 10 \\ \hline -6 \quad 2 \end{array} \quad + 57.9$$

02258 a.

9 15 h 2 Var. Var. 3 k. Wait obs. Est 11.0  
 h 2 Var, Var 3 k D obs.

T. Persei

$$\begin{array}{r} 1 \quad 52 \\ 20 \quad 30 \\ \hline -5 \quad 22 \end{array}$$

+ 56.0 Wait obs.

10 05 Could not see var. Moon + haze. c seen. 8 comp.

Friday, Aug. 30, 1895.

U. Persei.

1 50

+54.1 Waiter obs.

21 00

- 4 50

10 50

f 4 Var. Var. 1 d. Est. 12.5

letters used are on photo. chart.

T. Androm.

0 17

+26.2

21 10

- 3 7

10 20

f 3 Var. Var. 2 e

Waiter obs.

10 23

f 3 Var. Var. 2 e

D. obs.

6 comp.



Thursday, Sept. 5, 1895

3825 R. Mr. May. 10669  
 10 34 +69.5 Wait-obs.  
 19 10  
 8 36

8 04 Var. = star p. Est. 11.0

4511 T. Mrs. May. 12560  
 12 30 +60.3 Wait-obs.  
 19 10  
 6 40

8 08 Var. not seen. Faint. Could easily see 5 grades fainter than in Boston very bright.

4557 S. Mrs. May. 12661.  
 12 38 +61.9 Wait-obs.  
 19 20  
 6 42

8 12 -9.1 Var., Var. 4h Est. 9.1

5955 R. Draconis 16566.  
 16 32 +67.1 Wait-obs.  
 19 28  
 2 56

8 20 in 3 Var., Var. 2.11 Est. 12.5  
 Var. 2.11 but fainter.

Thursday, Sept. 5, 1895.

5948 R. Ur. Min. 16572.  
 16 32 +72°6 Wait obs.  
 19 40  
 3 08

8 30 C 1 Var. Var. 2 d. Est. 9.1

5157 S. Bootis. 14354.  
 14 18 +54°5 Wait obs.  
 19 45

8 35 g 1 Var. Var. 4 h Est. 11.0

5190 R. Cam. 14484.  
 14 29 +84°5  
 19 50  
 5 21

8 45 b 4 Var. Var. = C, Est. 8.15 Wt. obs.

8 47 b 4 Var., Var. = C D. obs.

8 comp.



Thursday, Sept. 5, 1895.

T. Cephæi.

21 8 +67°9

20 00

— 1 8

8 57 d 2 Var. Var. 2 e wt. obs. Est. 7.5

9 00 d = Var Var 3 e D. obs.

7779 S. Cephæi. 21678.

21 37

+78°0

20 15

— 1 22

9 10 h 3 Var. Var. 2 h Est. 11.5 wt. obs.

9 13 h 2 Var. Var. 2 h D. obs.

8600 R. Cass. 23950.

23 57

+50°6

20 30

— 3 21

9 20 g 2 Var. Var. 2 h Est. 7.0 wt. obs.

9 24 8 2 Var. Var. 2 h D. obs.

12 comp.

Thursday, Sept. 5, 1895.

107 J. Cass. 00255.  

$$\begin{array}{r} 0 \quad 15 \\ 20 \quad 45 \\ \hline - 3 \quad 30 \end{array} + 55.0$$

9 27 d 3 Var. Var. 2 e Est. 7.8 Wt. obs.

9 31 d 2 Var Var 2 e D. obs.

J. Androm.

$$\begin{array}{r} 0 \quad 17 \\ 20 \quad 55 \\ \hline - 3 \quad 22 \end{array} + 26.4 \quad ?$$

9 38 f 3 Var Var = e D. obs.

For stars f & e see Wh. I, Page 204

9 41 f 2 Var. Var 1 e Wt. obs.

432 S. Cass. 01272  

$$\begin{array}{r} 1 \quad 9 \\ 21 \quad 5 \\ \hline - 4 \quad 4 \end{array} + 71.8$$

9 50 Var. not seen. Paint. Star <sup>man</sup> easily seen. Moon bright. Wt. obs.

9 54 Var not seen. Star l & m easily seen D. Obs.

8 comp.



Thursday, Sept. 5, 1895.

18 55 R. Anniger. 0 5 15-3  

$$\begin{array}{r} 5 \quad 6 \\ 21 \quad 10 \\ \hline 7 \quad 56 \end{array} + 5394$$

10 00 Var. = e, Var 3 f. Wt obs.

Est. 8.5

10 03 Var = e, Var 2 f D. Obs.

8 14 S. Persei. 0 2 2 58 a.  

$$\begin{array}{r} 2 \quad 12 \\ 21 \quad 20 \\ \hline -4 \quad 52 \end{array} + 57.9$$

10 10 f 4 Var., Var 1-g. Est. Wt. obs.

10 13 f 3 Var, Var = 8 D. Obs.

T. Persei. 0 2 2 58 b.

$$\begin{array}{r} 2 \quad 9 \\ 21 \quad 30 \\ \hline -4 \quad 39 \end{array} + 58.3$$

10 18 C1 Var., Var 2 d. Wt obs.  
 Est. 8.8

10 23 C2 Var, Var 1 d D. Obs.

12 comp.

Thursday, Sept. 5, 1895.

7220 S. Cygnus. 20057

$$\begin{array}{r} 20 \quad 2 \\ 21 \quad 45 \\ \hline 1 \quad 43 \end{array}$$

+57.6 Wait ok.

10 35 Var. = k. Est. 10.5

2498 R. Lyneis.

06855.

$$\begin{array}{r} 6 \quad 49 \\ 22 \quad 00 \\ \hline 8 \quad 49 \end{array}$$

+55.5 Wait ok.

10 50 Var. = k Est. 10.0

Region low and rather  
hazy. Var. + star k are at  
about L. V. so that estimate  
is not considered very good.

2 comp.



Tuesday Sept. 10, 1895

5494 *S. Libice*. 15220  
 15 13 -19°9 Wait obs  
 19 50  
 4 37

8 15 Region too low and behind trees.

5826 + c. *T. R. & S. Scorpi*. 16222 + c.  
 16 8 -22°6 Wait obs.  
 19 55

8 25 <sup>3</sup> <sup>47</sup> Region low in haze. Only  
 bright stars visible. Vars. not  
 seen.

4948 *R. Can. Ven.* 13740.  
 13 43 +40°3 Wait obs.  
 20 00  
 6 17

8 30 e 1 Var 17 Var. 2 f Est. 8.0

6132 *R. Ophiuchus*. 17015.  
 16 59 -15°9 Wait obs.  
 20 05  
 3 06

8 35 g 1 Var. Var. 4 h Est. 8.1  
 4 comp.

Tuesday, Sept. 10, 1895.

5770. R. Herculis. 16018.  
 $\begin{array}{r} 16 \quad 00 \\ 20 \quad 10 \\ \hline \end{array}$  +18°.8 Waiter obs.

8 40 Var. not seen. Faint. Could see about 5 grades fainter than ps.

5504 S. Corusae 15231  
 $\begin{array}{r} 15 \quad 15 \\ 20 \quad 15 \\ \hline 5 \quad 00 \end{array}$  +31°.9 Waiter obs.

8 50 Var. not seen. Faint.

5889 W. Herculis. 16319.  
 $\begin{array}{r} 16 \quad 19 \\ 20 \quad 20 \\ \hline 4 \quad 01 \end{array}$  +19°.2 Waiter obs.

8 55 -g 3 Var. var. 1 v. Est. 11.4

5950 W. Herculis. 16537  
 $\begin{array}{r} 16 \quad 30 \\ 20 \quad 25 \\ \hline 3 \quad 55 \end{array}$  +37°.6 Waiter obs.  
 4 comp.

9 00 h 3 Var., var. = l Est. 11.0



Tuesday, Sept. 10, 1895.

6921 S. Sagittarii 19 21 9  
 19 11 -19.3 Waiter obs.  
 $\begin{array}{r} 20 \quad 38 \\ \hline 1 \quad 27 \end{array}$

9 06 ~~Fav~~ ~ 5 ~~Var~~ Var. at about  
 L. V. Est. 13.0.

6905 R. Sagittarii 19 11 9.  
 19 8 -19.6 Waiter obs.  
 $\begin{array}{r} 20 \quad 43 \\ \hline 1 \quad 35 \end{array}$

9 12 Var. not seen. Faint

6733 R. Scuti. 18 70 5  
 18 40 -50.9 Waiter obs.  
 $\begin{array}{r} 20 \quad 48 \\ \hline 2 \quad 8 \end{array}$

9 17 e 1 Var. Var. 4 ff. Est. 7.0

6512 T. Hirculis 18 03 1  
 18 4 +31.0 Waiter obs.  
 $\begin{array}{r} 20 \quad 55 \\ \hline 2 \quad 51 \end{array}$

9 23 h 2 Var., Var. 2 l. Est. 10.2

5 cm. per.

Tuesday, Sept. 10, 1895.

7261 R. Delphin. 20128.  
 $\begin{array}{r} 20 \quad 8 \\ 21 \quad 00 \\ \hline 0 \quad 52 \end{array}$  +80.7 Waiter obs.

9 30 Var. not seen. Faint. in easily seen.

7259 R. S. Cygnus. 20838.  
 $\begin{array}{r} 20 \quad 8 \\ 21 \quad 05 \\ \hline 0 \quad 57 \end{array}$  +380.3 Waiter obs.

9 35 d 3 Var. Var. 2e Est. 7.5

7045 R. Cygnus. 19549.  
 $\begin{array}{r} 19 \quad 33 \\ 21 \quad 15 \\ \hline 1 \quad 42 \end{array}$  +490.9 Waiter obs.

9 42  $\frac{1}{2}$  4 Var. r. + g. Est. 7.4.

9 43 Sky all cloudy.

4 mps.



Thursday, Sept. 12, 1895

432

*S. Cassiope.*  
+ 72.0

01272

Est. 12.0

8 12 Variables too faint to see; could see if 2 grades fainter than "n" Atwell Obs.

5237

*R. Bootis.*

14527.

14 31

+ 27.4 Waitt obs.

---

 20 10

5 39

8 35

g 2 Var. Var. 3 h Est. 8.2

5501

*S. Serpentis.*

15214.

15 15

+ 14.8 Waitt obs.

---

 20 15

5 00

8 40

l 3 Var. Est. 12.0

5667

*R. Coronae.*

15728.

15 43

+ 28.6 Waitt obs.

---

 20 20

4 37

8 45

d 3 Var. Var. 2 e Est. 7.0

5 comp.

Thursday, Sept. 12, 1895.

6044  $\delta$  Herculis. 16715.  
 $\begin{array}{r} 16 \quad 45 \\ 20 \quad 25 \\ \hline 3 \quad 40 \end{array}$  +15.2 Waite obs.

8 50  $\underline{h}$  3  $\tau$ av.,  $\tau$ av. 1 k. Est. 9.0

7120  $\chi$  Cygnus. 19732.  
 $\begin{array}{r} 19 \quad 45 \\ 20 \quad 35 \\ \hline 0 \quad 50 \end{array}$  +32.6 Waite obs.

9 00  $\tau$ av. = (7)  $\psi$  in prev. notation. Est. 12.0

prev. (7)  $N_1$   
 $\begin{array}{c} \circ \\ \vdots \\ \cdot \end{array}$   $\times p.$

$S_1$   $\times N_1$

8230  $\delta$  Aquarii. 22820  
 $\begin{array}{r} 22 \quad 49 \\ 20 \quad 45 \\ \hline -2 \quad 04 \end{array}$  -21.1 Waite obs.

9 10  $\tau$ av. not seen. Faint.  
 Could see about 3 grades  
 fainter than  $\gamma$ .

3 cm/m.



Thursday, Sept. 12, 1895.

8290 R. Pegasi. 23010  
 22 59 +90.8 Waite obs.  
 20 55  
 — 2 04

9 20 (7) Var. Var. 1 (y) 4 y in prov.  
 notation Est. 11.5

11.

12.0  
 4 L  
 4 prov. — S. k.  
 (y) prov.

8373. S. Pegasi. 23208.

23 13 +80.1 Waite obs.  
 21 00  
 — 2 13

9 25 Var. seen. But very faint. Could  
 see about 1 grade fainter. Too  
 faint for comparison.  
 Est. 13.0

2 cm. +1

Copied to here.

Thursday Sept. 12, 1895.

114 S. Ceti. 00309  
 0 17 -10° 1' Waite obs.  
 21 05

9 30 h 3 Var., Var. 1 h Est. 9.8

T. Androm.

0 17 +26° 4' Waite obs.  
 21 10

9 35 Var. = 27 f 4 Var.  
 e + f in prev. not, to be found in bk. 1, p. 204

112 R. Androm. 00338,  
 0 16 +37° 8' Waite obs.  
 21 15  
 - 3 01

9 40 S 3 Var. Var. 3 (t) t in prev. not,  
 Est. 12.0.

N.

• 0

• 0 • p

prev. (t) ——— •

• 5

S.

5 comp.



Thursday, Sept. 12, 1895.

782 R. Arctus 02124.  
2 8 +24.4 Waiter obs.

21 25  
-4 43

9 45 h 1 Var. Var. 1 h Est 10.0

7468 T. Aquarii 20705.  
20 42 -5.7 Waiter obs.

21 32  
0 50

9 55 m 3 Var. Var. 1 o Est 9.3

7299 U. Cygnus 20247.  
20 15 +47.4 Waiter obs.

21 45

10 15 h 2 Var. Var. 1 h Est 11.0

7428 V. Cygnus 20647  
20 36 +47.6 Waiter obs.

21 55

10 25 1 19\* Var. not seen. Faint. m easily seen.

6 cm/m.

Thursday, Sept. 12, 1895.

7560 R. Tulpecular. 20923.  
21 00 +230.2 Waiter obs.

22 05

1 05

10 45 e 3 Var., Var. 2 f. Est. 8.3

513. R. Piscinus. 01402.  
1 23 +20.1 Waiter obs.

22 23

- 3 00

10 50 Var. not seen. Faint.  
o easily seen.

845 R. Ceti. 02300  
2 19 -00.8 Waiter obs.

22 30

3 49

10 55 Var. suspected at about L. V., but  
not certainly seen.  
m easily seen.

2 comets.



Friday, Sept. 13, 1895.

$\Sigma$  Hercules.

$$\begin{array}{r} 17 \quad 52 \\ 19 \quad 45 \\ \hline 1 \quad 53 \end{array}$$

+15.1 Waiter obs.

8 15

(a) 3 Var. Var. 1 (b.) a + b in prov. not.

a = D.M. + 14° — b = D.M. + 14° —

N.

Sketch from D.M. chart.

S

T. Androm

$$\begin{array}{r} 0 \quad 17 \\ 20 \quad 10 \\ \hline -4 \quad 07 \end{array} \quad +26.4 \text{ Waiter obs.}$$

8 25 (e) 1 Var, Var. 3 (d.) e + d in

provisional notation to be

found in Bk. 1. p. 204. 4 comp.

Friday, Sept. 13, 1895.

R. S. Libras.

Phot. same

15

16

- 220.4

Waiter obs.

20

16

5 00

8 32 Region too low.

R. S. Virginia

14

20

+ 5.3 Waiter obs.

20

20

6

00

8 35 Region too low.

z Ophiuchus

17

12

+ 10.7

Waiter obs.

20

25

3

13

8 45 k 3 Var. Var. 1 l.

k. & l are letters on phot. chart.

T. Persei.

1

52

+ 56.0

Waiter obs.

20

40

- 5

12

8 55 Var. not seen. Point.

> 13.0

< 13.0 ?

2 mps.



Friday, Sept. 13, 1895.

U. Persei.

1 50 +54°1 Wait-obs.

20 45

- 5 05

9 00  $\delta = \underline{\text{Var.}}, \underline{\text{Var.}} 5^{\circ}$

M.P. 441.

3 29

20 50

- 6 39

9 10 (W.M. +61°600) 3  $\underline{\text{Var.}}$   $\underline{\text{Var.}} 2$  (W.M. +62°581)

G. Androm.

0 17

21 00

- 3 17

9 15 (f)  $\underline{\text{Var.}}$ ,  $\underline{\text{Var.}} = (e)$  See page 204 Bk. 1.

806 0 Ceti.

2 12

21 10

- 5 02

9 30  $\checkmark$   $\underline{\text{Var.}} = 2$  (iota) Est. 10.0

02203 Wait-obs.

-3°6

7 com per

Friday, Sept. 13, 1895.

Z Herculis.

$$\begin{array}{r} 17 \quad 52 \\ 21 \quad 15 \\ \hline 3 \quad 23 \end{array} \quad +15^{\circ}.1 \quad \text{Waiter obs.}$$

9 35

(a) 3 var., var. 1(b.)  
a & b in prev. not. See p. 31, this book.

R. T. Ggini.

$$\begin{array}{r} 19 \quad 40 \\ 21 \quad 50 \\ \hline 2 \quad 10 \end{array} \quad +48^{\circ}.4 \quad \text{Waiter obs.}$$

10 10

b 3 var., var. = c b & c are  
letters on phot. chart. Est. 12.0

T. Androm.

$$\begin{array}{r} 0 \quad 17 \\ 22 \quad 20 \\ \hline -1 \quad 57 \end{array} \quad +26^{\circ}.2 \quad \text{Waiter obs.}$$

10 35

(f) 2 var., var. = (e) var. 3(d.)

f, e, & d See Bk. 1, page 204.

G. emps.



Posted to here.

Saturday, Sep. 14, 1895

T Andromedae.

+26.01

$$\begin{array}{r} 0 \quad 14 \\ 22 \quad 03 \\ \hline -2 \quad 11 \end{array}$$

Attwell Obs

10 35-

a 2 var

a is about .7 of a magnitude brighter than b

c 4 b

c b 1 var

c assumed for b

var 3 b

Letters are as before

N

⊙

S

a.

c

b.

$\left. \begin{array}{l} \text{"a" is } 7.5^{\text{mag.}} \\ \text{b is } 8.8 \\ \text{c is } 8.1 \end{array} \right\} \text{D.M.}$

a looks very nearly as red as T. Androm.  
The redness might be called 2 on a scale  
of 5, 5 being blood red.

3 comp.

Friday, September 20, 1895

F Andromedae.

+26.1

0	14
21	10
<hr/>	
2	04

9 14

f 1 var var 4 d var = e Atwell Obs  
 "f d & e are in the notation on page 204  
 of Book 1

R Aquarii.

+16.1

23	36
21	50
<hr/>	
+1	46

Ends 8.0

7 52

var = e

Atwell Obs.

3

4 comp



Sunday, September 22, 1895

T Andromedae.

+ 26.1

$$\begin{array}{r} 0 \quad 14 \\ 21 \quad 12 \\ \hline 21 \quad 02 \\ -2 \quad 02 \\ \hline 3 \end{array}$$

Atthill Obs.

9 10

f 2 var . var 5 d      2 2 var  
f, d, & e are in the notation of page 204, BK I.

1855

R Aurigae.

0.5153

+ 53.4

$$\begin{array}{r} 5 \quad 06 \\ 21 \quad 05 \\ \hline -7 \quad 05 \end{array}$$

Est. 8.7

9 25

e 3 var      var 2 f

Atthill Obs.

432

S Bernini.

0.1272

+ 71.8

$$\begin{array}{r} 1 \quad 09 \\ 21 \quad 42 \\ \hline -3 \quad 27 \end{array}$$

Est. 12.5

Atthill Obs.

9 31

Could not see variable: could see it if 2 grades  
fainter than "X" "m"

5 min/2.

Sunday, September 22, 1910,

2478

R Lyncis.

06855

+55.5

$$\begin{array}{r} 6 \quad 49 \\ 21 \quad 00 \\ -8 \quad 59 \\ \hline \end{array}$$

Est 12.5

Atwell Obs

9 40

Var. too faint: could be seen if 1 grade fainter than K.

814

S Persei.

0225800

+57.9

$$\begin{array}{r} 2 \quad 12 \\ 21 \quad 57 \\ -4 \quad 15 \\ \hline \end{array}$$

Est. 9.5

9 50

Var 2 1 9 2 var

Atwell Obs

107

T Cassiope.

00255

55.0

$$\begin{array}{r} 0 \quad 15 \\ 22 \quad 05 \\ -2 \quad 07 \\ \hline \end{array}$$

Var = 2

Est. 8.0

Atwell Obs

9 56

3825

R Ursae Major.

10669

+69.5

$$\begin{array}{r} 10 \quad 34 \\ 22 \quad 12 \\ -12 \quad 22 \\ \hline \end{array}$$

Est. 12.5

Atwell Obs

Var. too faint: could be seen if about 1 grade fainter than "n"

10 02

3 comp.



Sunday, September 22, 1895,

$$\begin{array}{r} 4557 \\ 22 \ 20 \\ 12 \ 38 \\ \hline +9 \ 42 \end{array}$$

S Thrac May,  
+61.9

12661

Est 8.7

Attnall Obs.

10 11 1 2 var var 3 2

$$\begin{array}{r} 4511 \\ 22 \ 00 \\ 12 \ 30 \\ \hline +9 \ 30 \end{array}$$

T Thrac May,  
+60.3

125615

Est. 11.5

11 (20)? var too faint: could be seen if 1 grade fainter than "m"

7220

S Cygni,  
+57.6

Attnall Obs

20057

$$\begin{array}{r} 22 \ 40 \\ 20 \ 02 \\ \hline +2 \ 38 \end{array}$$

Est. 11.5

2 2 30

Var. too faint: could see if 2 grades fainter than "n".

Attnall Obs

893

U Ceti

$$\begin{array}{r} 2 \ 27 \\ 22 \ 50 \\ \hline -3 \ 37 \end{array}$$

Attnall Obs

10 42

Var. too faint: could be seen if 3 grades fainter than "o".

2 em-pse

Monday, September 23, 1890

T Andromeda.

+26.1

$$\begin{array}{r} 0 \ 14 \\ 0 \ 14 \\ \hline 00 \end{array}$$

Attnill Chs

11 55 ~~var 5 f~~ var 4 d var = e  
~~f 5 var~~  
var 5 f

3 comp.



Friday, September 27 1895

Andromedae  
+2.6.1

11 54 f 4 var, var 3 d, var = e Attnill Obs.

886

0 Beti  
-3.6

0 2203

2 12  
0 53  
— 1 19

Attnill Obs.

12 15 var = 6

4 com. p.

October 1  
Tuesday, September 1895

T. Andromedae.

+26.9

$$\begin{array}{r} 0 \quad 14 \\ 20 \quad 00 \\ -4 \quad 14 \\ \hline \end{array}$$

7 07

f 4 var var 4 d var = e Atwell Obs

The moon is nearly full and is rather near the region.

6.044

S. Herculis.

16715

$$\begin{array}{r} 20 \quad 15 \\ 16 \quad 45 \\ +3 \quad 30 \\ \hline \end{array}$$

+15.2

Est 10.0

7 29

var = m

Atwell Obs

6733

R. Scuti

18705

$$\begin{array}{r} 20 \quad 52 \\ 18 \quad 40 \\ \hline \end{array}$$

-6.0

+2 12

7 53

g 3 var var 2 h

Est. 7.5

Atwell Obs

78.2

R. Arietis

02124

$$\begin{array}{r} 2 \quad 08 \\ 21 \quad 02 \\ -5 \quad 06 \\ \hline \end{array}$$

+24.4

Est. 8.3

7 06

d 4 var var 2 e

Atwell Obs

8 comp.



Tuesday, October 1, 1895.

5504

S<sup>1</sup> Coronae.

15231

21 52

+31.9

Est. 12.0

15 15

+6 37

8 52 var. too faint: could see it if 2 grades fainter than n. Attwell Obs.

T Coronae

15232

Est. 8.0

Attwell Obs.

7 52

var = g

7468

T Aquarii

20705

22 22

-5.7

21 42

+1 40

Est. 8.0  
Attwell Obs.

9 25

var = h

7257

R S Cygni

20838

22 40

+38.1

20 08

+2 22

Est. 7.5

7 42

var = c

Attwell Obs.

3 comp.

Tuesday, October 1, 1895-

112

R Andromedae

00338

+37.8

0 1 6  
23 00

- 1 16

10 03

var. too faint: could be seen if 1 grade fainter than S  
Atwell Obs.

7045

R Cygni

19549

+49.9

23 13

19 23

+3 40

10 15

k 2 var va 2 2

Est. 8.5

Atwell Obs.

806

0 Beta

62203

-3.6

2 12  
23 58

- 2 14

11 00

✓ 2 1 var

Est. 9.5

Atwell Obs.

3 comp.



Sunday, October 6, 1895

4948 R Can. Venet. 13740  
+40.3

20 48  
13 42  
+7 06

7 34

var = k

Est 9.5-

Attnell Ch.

Bright moonlight; 3 days after full moon.

6132

R Ophiuchi. 17015  
-15.9

21 20  
16 59  
+4 31

Est.

Attnell Ch.

8 07

var. too faint to see; could be seen if 3 grades fainter than h which is the faintest visible comp star.

5950

W Herulis 16537  
+37.5

21 30  
16 30  
+5 00

Attnell Ch.

8 15

var. too faint to see; could be seen if 2 grades fainter than 7 the faintest visible comp star.

5889

W Herulis 16319  
+19.2

21 40  
16 19  
+5 21

Attnell Ch.

8 25

var. too faint to see; could be seen if 4 grades fainter than p. 1 comp

Sunday, October 6, 1895.

8230

S. Ignorini  
-21.1

22820

22 49  
22 03  
-0 46

Est 11.2

Attended Ch

8 38 var. too faint to see; could see if 2 grades fainter than h.

6512

I. Hendrix

18031

22 103  
18 09  
+4

Est. 8.1

Attended Ch

8 57 f 1 var var 3 g.

8512

R. Agnani  
-16.1

22 29  
23 35  
-1 07

Est. 8.0

9 12 var = e

Attended Ch

7428

V. Cygnus  
+47.6

20647

22 36  
20 36  
+2 00

Attended Ch

9 20 var. too faint; could be seen if 3 grades fainter than m.

3 comp.



Sunday, October 6, 1895

2261

R Delphin

20108

+ 8.6

22 48

20 08

+ 2 40

2.

Est 10.0

9 32

var. = k

Atwood Obs.

7566

R Vulpecular

20928<sup>3</sup>

23 02

21 02

+ 2 02

Est. 10.5

9 45

var. 2 m 22 var

Atwood Obs.

I Andromedae

+ 26.1

0 14

23 05

21 09

- 1 09

Est 7.5

9 52

f 5 var var 3.5 d 2 1 var

Atwood Obs.

6 comp.

Thursday, October 10, 1895

5237

R Boötis

14527

+29.4

2 1 4 5  
1 4 3 1  
+ 6 5 4

Est. 7.9

Atwill Obs

7 55 - var 1 g f 3 var

5770

R Hercules.

16018

+18.8

2 1 4  
1 5 5  
+ 5 4 2

8 12 Variable too faint to see; - could see about  
1 grade fainter than 0. Atwill Obs.

5667

R Corone

15728

+28.6

Est. 6.0

8 30 Variable about 1 mag. brighter than "f"  
which is the brightest comp. star on the chart.

Atwill Obs

6905

♂ R Sagittarii

19119

-19.6

2 2 1 8  
1 9 0 8  
+ 3 10

Est. 11.5

8 55 var = g.

Atwill Obs



Thursday, October 10, 1895

6921

S Sagittarii  
- 19.3

19219

8 55 - could not see variable! could see if 1  
grade fainter than q. Attwell Obs.

$$\begin{array}{r} 0 \quad 14 \\ 22 \quad 32 \\ -1 \quad 42 \\ \hline \end{array}$$

T Andromedae  
+26.0

Est 7.0

9 05 - f 4 var var 3 d e 2 var Attwell Obs.

8290

R Pegasi  
+9.8

23 010

$$\begin{array}{r} 22 \quad 56 \\ 22 \quad 59 \\ -0 \quad 3 \\ \hline \end{array}$$

Est 11.5

9 20

q 2 var

Attwell Obs.

8373

S Pegasi  
+8.1

23208

$$\begin{array}{r} 23 \quad 15 \\ 23 \quad 18 \\ 23 \quad 13 \\ +0 \quad 02 \\ \hline \end{array}$$

Attwell Obs.

9 49 - var too faint! could be seen if 3 grades  
fainter than "p".

Thursday, October 10, 1895

114

$\begin{array}{r} 0 \quad 17 \\ 23 \quad 37 \\ -0 \quad 40 \end{array}$

S b ete  
-10.9

00309

10 07

var 4 e d i va

Ent 8.1

Attwell Ch

513

$\begin{array}{r} 1 \quad 2 \quad 3 \\ 23 \quad 50 \\ -21 \quad 33 \end{array}$

R Discium  
+2.1

01402

10 20

var. too faint; could be seen if equal 5  
"0"



Monday, October 14, 1895

T Andromedae

+26.1

$$\begin{array}{r} 0 \quad 14 \\ 22 \quad 08 \\ \hline -2 \quad 14 \end{array}$$

8 25-

f 4 var var 2 d e 3 var

Est. 7.8 Attwill Obs.

840-

R Ceti

023 00

-0.9°

$$\begin{array}{r} 2 \quad 19 \\ 22 \quad 30 \\ \hline -3 \quad 49 \end{array}$$

8 50

var too faint: could be seen if 2 grades Attwill Obs.  
fainter than "m",

873

U Ceti

-13.8

$$\begin{array}{r} 2 \quad 27 \\ 22 \quad 55 \\ \hline -3 \quad 32 \end{array}$$

Est. 10.5

9 12

P 2 var var 2 q

Attwill Obs.

0 Ceti

-3.6

$$\begin{array}{r} 2 \quad 12 \\ 23 \quad 02 \\ \hline -3 \quad 10 \end{array}$$

Est. 9.0

9 19

J 1 var

Attwill Obs.

Monday October 14, 1890.

X Lygria.

7 12 0

+ 32.3-

19732

$$\begin{array}{r} 23 \quad 23 \\ 12 \quad 43 \\ \hline +3 \quad 38 \end{array}$$

var = w

End 10.0

Attnwell Obs.

9 43

5190

R Camelopard.

14484

+ 84.3-

$$\begin{array}{r} 23 \quad 50 \\ 14 \quad 29 \\ \hline +4 \quad 21 \end{array}$$

10 13

var. too faint could be seen if 2 grades fainter than "g".

Attnwell Obs.

7220

S Lygria

20057

+ 57.6

$$\begin{array}{r} 0 \quad 12 \\ 20 \quad 02 \\ \hline +4 \quad 10 \end{array}$$

10 30

var. too faint: could be seen if equal to R. which is seen with difficulty.

Attnwell Obs.



Monday, October 14, 1895

432

$$\begin{array}{r} 1 \quad 0 \quad 9 \\ 0 \quad 2 \quad 9 \\ \hline -0 \quad 4 \quad 0 \end{array}$$

S Cassiope.

+271.9

01272

10 40 - var. too faint; could be seen if 2 grades fainter than "m".  
Athens, Ohio

5905-

R Draconis

+67.9

16566

$$\begin{array}{r} 0 \quad 38 \\ 16 \quad 32 \\ \hline +8 \quad 06 \end{array}$$

10 50 - var. too faint; could be seen if 1 grade fainter than m.  
Athens, Ohio

132a

I Cephei

+67.9

$$\begin{array}{r} 0 \quad 55 \\ 21 \quad 08 \\ \hline +3 \quad 47 \end{array}$$

6.5-

Est. 7.0

10 47 var = d

Athens, Ohio.

5757

S Bortis

+54.5

14354

$$\begin{array}{r} 14 \quad 18 \\ 1 \quad 14 \\ \hline 10 \quad 56 \end{array}$$

Est. 10.0

11 (65)?

d 1 varvar 3 e

Athens, Ohio.

Thursday, October 17, 1875.

T. Andromedae,

+26,1

$\left\{ \begin{array}{l} f \ 5 \ \underline{var} \\ d = \underline{var} \\ e \ 3 \ \underline{var} \end{array} \right.$   
 At 8:38  
 W.H.A. Obs.

Read book was not accessible at time of observation as observation was made at an interval of clearing of previous cloudiness.



Friday, October 18, 1895

$$\begin{array}{r} 4557 \\ 21 \quad 52 \\ \hline 12 \quad 38 \\ + 9 \quad 14 \end{array}$$

S Ursae Majoris

12661

+61.9

Est. 8.7

Atwell Obs.

8 00 var 4 f e 2 var

3825

R Ursae May.

10669

+69.5

$$\begin{array}{r} 22 \quad 08 \\ 10 \quad 34 \\ \hline + 11 \quad 34 \end{array}$$

8 12 var too faint: could see if 2 grades fainter than pi. Atwell Obs.

107

T Cassiope

00250

+55.0

$$\begin{array}{r} 0 \quad 15 \\ 22 \quad 25 \\ \hline - 1 \quad 50 \end{array}$$

Est. 8.4

8 30 f 3 var var 1 g

Atwell Obs.

7779

S Cephei

21678

+77.9

$$\begin{array}{r} 22 \quad 38 \\ 21 \quad 37 \\ \hline + 1 \quad 11 \end{array}$$

Est. 10.0

Atwell Obs.

var = m

Friday, October 18, 1890

T Andromeda

+26.1

$$\begin{array}{r} 0 \quad 14 \\ 22 \quad 55 \\ - 1 \quad 19 \\ \hline \end{array}$$

9 00

var = c

Atwood Obs.

"c" is as below.

①

f. d.

• 2

4511

T three Mag.

12560

+60.3

$$\begin{array}{r} 23 \quad 13 \\ 12 \quad 30 \\ + 10 \quad 43 \\ \hline \end{array}$$

9

15 var. too faint to see; could see if equal to m which is seen with difficulty.

Atwood Obs.

1855

R Aurigae

05-153

+55.4

$$\begin{array}{r} 5 \quad 06 \\ 23 \quad 22 \\ - 5 \quad 44 \\ \hline \end{array}$$

Est. 10.0

9 26

var = 2

Atwood Obs.



Friday, October 18 1875

2478

R Lyneir  
+55.5-

06855

6 49  
23 41  
7 08

9 43

var. suspected; if seen it was 3 grades fainter than K  
Atterwell Obs.

5157

S Bootis  
+54.5

14354

0 30  
14 18  
+10 12

Est. 11.0

10 28

d 1 var

var 3 e

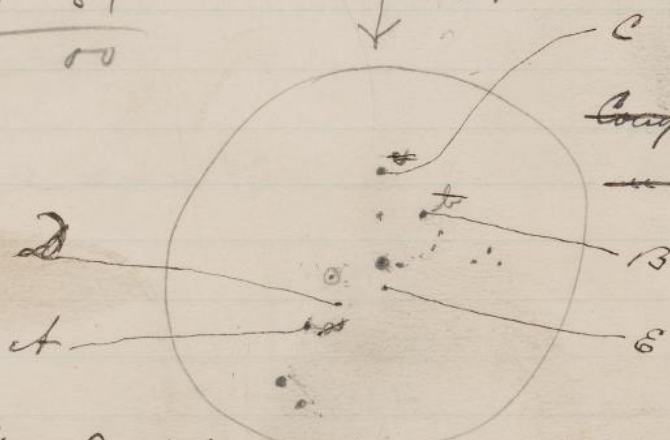
Atterwell Obs.

Monday, October 21, 1895

Wells' Variable

 $\mp +17.7$ 

$$\begin{array}{r} 22 \quad 31 \\ 20 \quad 31 \\ \hline +2 \quad 00 \end{array}$$

~~Comp. Star  $a = +11^{\circ} 00' 06''$  (6.5)~~~~" "  $b = +11^{\circ} 04' 27''$  (7.5)~~The Variable is Star.  $+17^{\circ} 43' 6''$ 8 42 c a 1 var var 3 b Atwell Obs.  
(a + b are in provisional notation)~~Above estimates were made with opera glass.~~

5948

R Ursa Min.  
 $+72^{\circ} 6'$ 

16572

$$\begin{array}{r} 23 \quad 33 \\ 16 \quad 32 \\ \hline +7 \quad 01 \end{array}$$

Est. 10.5

7 18 d 2 var var 3 e

Atwell Obs.

814

S V T Perseus.  
 $+57^{\circ} 9'$ 

02258a

$$\begin{array}{r} 2 \quad 12 \\ 23 \quad 55 \\ \hline -2 \quad 17 \end{array}$$

Est. (S Per) 10.5

Atwell Obs.

9 40 S Perseus is about 3 grades fainter than he which  
is the faintest comparison I can see

7 42 T = c Est. 8.5



Monday, October 21, 1895

1577

R V S Tauri

04309

4 20  
0 12  
-4 08

+ 9.9

9 08 Variables too faint; could see either one if  
3 grades fainter than "u" Attwell Obs.

2100

U Orionis

05820

5 50  
0 23  
-5 27

+ 20.2

10 08 Variable suspected; if seen it is 3 grades fainter than "o." Attwell Obs. Ent 11.5

2528 (1)

R Geminae

07022

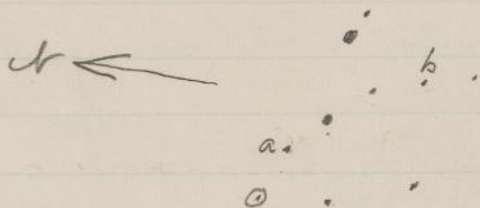
+ 22.9

6 58  
0 30  
-6 28

10 16 Variable seen with difficulty; it is about 3 grades fainter than "u" Attwell Obs. Ent 11.5

Monday, October 21, 1895.

H.P. 299.  
 $4^{\text{h}} 59.2 + 1.0$



11 30 a 1 v or v or 3 h. Sturtevant Obs.

~~the~~  
 Above comparisons were made with a field glass.



Thursday, October 24, 1895

H. P. 899

+1.0

3 39

x3 03

var = a

Atwell Obs.

Comparison made with a field glass

Tuesday, November 5, 1895

4557

N. Ursae May.  
+61.9

12661

$$\begin{array}{r} 12 \quad 38 \\ 23 \quad 32 \\ \hline 73 \quad 70 \end{array} \quad \begin{array}{r} 23 \quad 39 \\ 12 \quad 38 \\ \hline 111 \quad 01 \end{array}$$

8 34

c 4 van van 1 d

Est 7.9

Attwell Obs

The moonlight is very bright, it being about 3 days after full moon.

3825

R. Ursae May.  
+69.5

10669

$$\begin{array}{r} 23 \quad 55 \\ 10 \quad 34 \\ \hline 13 \quad 21 \end{array}$$

8 48

van too faint: could be seen if 3 grades fainter than "n".

Attwell Obs



Wednesday, November 6 1875

7779

S Cephei.  
+77.9

21678

$$\begin{array}{r} 21 \quad 37 \\ + 3 \quad 00 \\ \hline \end{array}$$

Est. 10.0

7

16

Var = g

Atwell Obs.

Moonlight is rather bright.

4511

I Ursa Majoris.  
+60.3

12560

$$\begin{array}{r} 0 \quad 40 \\ 12 \quad 30 \\ \hline 12 \quad 10 \end{array}$$

9

16

Var. too faint: could see if 3 grades fainter than  
"k" Atwell Obs.

1855

R Aurigae  
+53.4

05153

$$\begin{array}{r} 0 \quad 48 \\ 5 \quad 06 \\ \hline 19 \quad 42 \end{array}$$

Est. 10.0

7

30

Var = g

Atwell Obs.

S Bootis  
+54.5

$$\begin{array}{r} 0 \quad 59 \\ 14 \quad 18 \\ \hline + 10 \quad 41 \end{array}$$

Est. 8.5

7

38

Var = c

Atwell Obs.

Wednesday, November 6, 1895,

5948

R Ursae Min.  
+ 73.6

16572

$$\begin{array}{r} 1 \quad 30 \\ 16 \quad 32 \\ \hline 8 \quad 58 \end{array}$$

10 08

d 3 var var 1 e

Est 9.9  
Atwell Obs

2478

R Lynce  
+ 55.5

06855

$$\begin{array}{r} 6 \quad 49 \\ 1 \quad 38 \\ \hline 5 \quad 11 \end{array}$$

10 16

var. too faint! could be seen if equal to R  
which is seen with diff. by. Atwell Obs.

432

S Cassio.  
+ 71.7

01272

$$\begin{array}{r} 1 \quad 54 \\ 1 \quad 09 \\ \hline 40 \quad 45 \end{array}$$

10 32

var. not seen! could be seen if 3 grades fainter  
than "b". Atwell Obs.

$$\begin{array}{r} 2 \quad 22 \\ 20 \quad 31 \\ \hline 45 \quad 51 \end{array}$$

Wells' Var.  
17.7

11 02

a 2 var var 2 ~~var 1~~ Atwell Obs.

11 25

c 3 var var 2 a  
Increasing haze prevented observation with "b"  
Region rather low; moon rather bright



Tuesday. Nov. 6. 1895.

Mr. Atwell and Mr. Wendell looked up  
a new variable, found on photographic plate,  
with 6 inch the first of this evening.

Region identified. The variable is not  
visible to night in 6 inch. to Mr. A. or  
Mr. W. whereas it is 9.1 by S.W.

The variable is Dec.  $+5^{\circ} 49' 2''$  (9.1)  
and its D.M. position is

21<sup>h</sup> 53 46.9  $+5^{\circ} 28' 6''$

Tuesday, November 2, 1895.

Wells' Sup. variable.  
+17.7

2	3	31
2	0	31
+ 3		00

7 46 Flick and drifting haze prevented comparison  
but the variable when seen appeared of its usual bright-  
ness. Attwill, Obs.



Wednesday, November 13 1895

+17.7

Wells' Suspected variable,

23	42
20	31
<u>73</u>	<u>11</u>

7 35 a 3 van b 1 van

Atwill Obs.

Friday November 15, 1895

Kell's Suspected Var.

+17.7

$$\begin{array}{r} 20 \quad 49 \\ 20 \quad 31 \\ \hline +3 \quad 18 \end{array}$$

8 01

a 2 var var 1 b

Est 10.0

Atwell Obs.

1320

T Cephei.

+67.9

$$\begin{array}{r} 0 \quad 12 \\ 21 \quad 08 \\ \hline +3 \quad 04 \end{array}$$

8 16

d 2 var var 3 e

Est. 7.2

Atwell Obs.

814

S + T Persei

022582

+57.9

$$\begin{array}{r} 0 \quad 16 \\ 2 \quad 29 \\ \hline -2 \quad 13 \end{array}$$

Est.  $S = 10.0$  mag,  
 $T = 8.7$

8 53

var = b

for S Per.

d 2 var

var 3 e

for T Per.

} Atwell Obs.

7220

S Cygni.

20007

+57.6

$$\begin{array}{r} 1 \quad 03 \\ 20 \quad 02 \\ \hline +5 \quad 01 \end{array}$$

9 07

Var. not seen: faint; could be seen if 4 grades fainter than "g"

Atwell Obs.



Thursday, November 21, 1895

Wells's Suspected variables.

+17.7

$$\begin{array}{r} 24 \quad 50 \\ 20 \quad 31 \\ \hline +3 \quad 29 \end{array}$$

7 54

a 2 var var 1 b

Est 10.0

Atwell Obs.

7045

R Cygni  
+ 49.0

19549

$$\begin{array}{r} 0 \quad 10 \\ 19 \quad 32 \\ \hline +4 \quad 43 \end{array}$$

X is as below

Est 10.5

8 12

var = X

\*  
\*  
X → .°

Atwell Obs.

i (p & q are not on this chart)

7261

R Delphini:

20108

$$\begin{array}{r} 0 \quad 50 \\ 20 \quad 08 \\ \hline +4 \quad 42 \end{array}$$

+8.0

8 36

Var. too faint; could be seen if 3 grades fainter than in Atwell Obs.

7259

RS Cygni.  
+ 38.1

20838

$$\begin{array}{r} 0 \quad 57 \\ 20 \quad 08 \\ \hline +4 \quad 49 \end{array}$$

Est. 7.5

8 45

var = c

Atwell Obs.

Thursday, November 21, 1895.

7428

V leysni  
+47.8

20647

1 05  
20 36  
+4 29

8 55 Var. too faint: could be seen if 4 grades fainter than "m" Atterville Obs.

7468

T Aquarii.  
-5.7

20705

1 15  
20 42  
+4 33

Est. 8.5

9 07

g 3 var var 3 h

Atterville Obs.

7560

R Van der Waerden  
+23.2

20723

1 27  
20 59  
+4 28

9 15 Var. too faint: could be seen if 1 grade fainter than "m" Atterville Obs.

8250

S Aquarii.  
-21.1

22820

1 34  
22 49  
+2 55

Est. 11.2

9 35

g 2 var var 4 g

Atterville Obs.



Thursday, November 21, 1895.

8290

R. Pegasi.

23010

+9<sup>o</sup>.7

1 56  
22 59  
+2 57

9 54

Var. not seen: faint: could be seen if 2 grades fainter than "p". Attwill Obs.

8373

S. Pegasi.

23208

+8<sup>o</sup>.1

2 14  
23 13  
+3 01

10 05

Var. too faint: could be seen if 3 grades fainter than "p". Attwill Obs.

8512

R. Aquarii.

-16<sup>o</sup>.9

2 24  
23 36  
+2 48

10 16

Var = "l"

Est 7.5

Attwill Obs.

R. Andromedae,

+37<sup>o</sup>.8

2 36  
0 16  
+2 20

10 20

Var too faint: could be seen if 2 grades fainter than "s". Attwill Obs.

Thursday, November 21, 1895

114

$S_{\text{best}}$   
-10.1

00309

$\begin{array}{r} 2 \quad 47 \\ 0 \quad 17 \\ \hline 2 \quad 30 \end{array}$

10 39

van 2 e d 3 van

Ent- 8.3

Atterill Ch

782

$R_{\text{fretts}}$   
+24.4

02124

$\begin{array}{r} 3 \quad 04 \\ 2 \quad 08 \\ \hline \end{array}$

+0 56

Ent. 11.0

10 50

van = "C"

Atterill Ch

Seland's Sae, Vænbles  
+ 1.0

$\begin{array}{r} 3 \quad 24 \\ 4 \quad 59 \\ \hline -1 \quad 35 \end{array}$

11 07

a 2 van van 3 to

Atterill Ch

Above comp, made with field glass.



Copied to hereWednesday, Nov. 27, 1895.

R. Cam.

5190	14	29	+84°5	14484
	1	10		Wait obs.
	10	41		

8 38 Var. not seen. Faint. Could see about 3 grades fainter than k of this region. Moon bright.

5955	R. Draconis.	16566.
	16	32
	1	20
	8	50
		+67°1
		Wait obs.

8 45 m 1 Var. Var. 3 m. Est. 11.0

8600	R. Cass.	23950.
	23	51
	1	25
	1	34
		+50°6
		Wait obs.

8 50 g 2 Var. Var. 1 h Est. 7.5

107	T. Cass.	00255.
	0	15
	1	30
	1	15
		+55°0
		Wait obs.

8 55 m 1 Var. Var. 2 m Est. 10.2

Wednesday, Nov. 27, 1895.

845 R. Ceti.

02300

2 19

-0°.8

~~02300~~ Wait obs.

1 40

- 0 39

9 05

m 3 Var. Var 2 N. Est. 11.3

513

R. Pricum

01402

1 23

+2°.1

Wait obs.

1. 48

0 25

9 13

Var. not seen. Faint. 0 easily seen.

806

o Ceti

02203

2 12

-3°.6 Wait obs.

1 55

- 0 17

9 20

5 3 Var. Var. 2 0 Est. 8.3

2100

U. Orionis

05820

5 47

+20°.1

Wait obs.

2 10

- 3 37

9 35

m 4 Var. Var. 1 0 Est. 11.0



Wednesday, Nov. 27, 1895.

1577 R. Tauri. 04309.  
 4 20 +9.8 Wait obs.  
2 15

9 40 Var. not seen. Faint. Could easily  
 see 1 mag. fainter than n.

1582 S. Tauri. 04309.  
 4 21 +9.6 Wait obs.  
2 20

9 45 Var. not seen. Faint.

2528 R. Gem. 07022  
 6 59 +22.9 Wait obs.  
2 25  
 - 4 34

9 50 Var. seen at about L. V. Too  
 faint for a good comparison and  
 no fainter stars than o are lettered  
 on chart. Var. much fainter  
 than o Est. 12.0

Wednesday, Nov. 27, 1895.

2684 S. Can. Min. 07408.  

$$\begin{array}{r} 7 \quad 25 \\ 2 \quad 30 \\ \hline - \quad 4 \quad 55 \end{array}$$
 $+80.6$  Waiter obs.

9 53 d. 1 Var. Var. 1 e Est. 8.2

T. Androm.

$$\begin{array}{r} 0 \quad 14 \\ 2 \quad 40 \\ \hline 2 \quad 26 \end{array}$$
 $+260.1$  Waiter obs.

10 5 Var. = ~~A~~ G Est. 10.0

Sky rapidly growing cloudy.

T. Pseui.

(phot. var.)  

$$\begin{array}{r} 1 \quad 53 \\ 2 \quad 55 \\ \hline 1 \quad 00 \end{array}$$
 $+560.2$  Waiter obs.

10 20 Var. not seen. Sky hazy in this region.



Wednesday, Nov. 27, 1895.

U. Persei. (phot. var.)  
+54° 13'      Waite obs.

1	53
3	00
<hr/>	
1	07

10 25 a 1 Var, Var 3 hr.

8 Posted to here.

Saturday, December 14, 1895

$$\begin{array}{r} 23 \quad 32 \\ 20 \quad 31 \\ \hline +3 \quad 02 \end{array}$$

Wells' variable

+17.7

Est 10.5

Attnwill Obs

5 41 a 3 var var 1 6

$$\begin{array}{r} 107. \\ 2 \quad 41 \\ 0 \quad 15 \\ \hline +2 \quad 26 \end{array}$$

T 6 annip.

+54.9

00255

Est 12.0  
11.5

9 12 m 3 var: "m" is the faintest component I  
can see; Attnwill Obs

432

S 6 annip.  
+71.9

01272

$$\begin{array}{r} 3 \quad 02 \\ 1 \quad 09 \\ \hline +1 \quad 53 \end{array}$$

9 18 var. too faint: could see if 3 grades  
fainter than "m" Attnwill Obs

1855

R Annip.  
+53.4

05153

$$\begin{array}{r} 3 \quad 07 \\ 5 \quad 06 \\ \hline -22 \quad 01 \\ 1 \quad 59 \end{array}$$

Attnwill Obs

9 37 var: too faint: could be seen if 3 grades fainter  
than "h"



Saturday, December 14, 1895

3825

R Ursae Majoris.

10669

$$\begin{array}{r} 3 \quad 55 \\ 10 \quad 34 \\ \hline -6 \quad 39 \end{array}$$

+69° 5'

10 12 Var. too faint: could see if 2 grades fainter than "p" Attwell Obs.

4511

I Ursae Mag.

12560

$$\begin{array}{r} 4 \quad 00 \\ 12 \quad 30 \\ \hline -8 \quad 30 \end{array}$$

+60° 3'

10 21

Var 2 e

+d 2 var

Est. 7.8

Attwell Obs.

4557

S<sup>1</sup> Ursae Mag.

12661

$$\begin{array}{r} 4 \quad 10 \\ 12 \quad 38 \\ \hline -8 \quad 28 \end{array}$$

+61° 9'

9 28

var 1 2p 3 var

Est. 8.8

Attwell Obs.

5955

R Draconis,

16566

$$\begin{array}{r} 16 \quad 32 \\ 4 \quad 18 \\ \hline 12 \quad 14 \\ 11 \quad 46 \end{array}$$

+67° 1'

Est. 11.5

10 39

var 2 RIn 3 var

Attwell Obs.

Monday, December 16, 1895.

2478

R Lyncis.

06855

2 02

+55.5

6 49

-4 47

8 12

Var. too faint: could be none of 3 grades fainter than "L".  
Attnall Obs.

5157

S Bootis

14354

2 10

+54.5

14 18

+11 52

Well's Var.

20 31

+17.7

Waiter Obs.

2 31

6 00

8 40

a 3 Var., Var. 1 b.

Not quite same of region as have only sketch.

5157

S. Bootis.

14354

14

18

+54.5

Waiter Obs.

2

40

-11

38

8 55

d 1 Var., Var. 3 e. Best 9.0



Monday, Dec. 16, 1895.

5190 R. Can.

14 29

+84° 5

14484.  
Wait obs.

2 50

- 11 39

9 00 Var. not seen. Faint. m at L. V.

7220 S. Cygni

20

20057.  
+57° 6 Wait obs.

3 00

6 58

9 15 Var. not seen. Faint

T. Cephei

21 8

+67° 9 Wait obs.

3 15

6 7

9 24 f 1 Var., var 3 g Est. 7.5

7779 S. Cephei

21 37

+78° 0

21678.  
Wait obs.

3 25

5 48

9 29 c 1 Var., var 2 f. Est. 9.0

Monday, Dec. 16, 1895.

8600 R. Cass. 23950  
23 51 +50.6 Waiter obs.

3 25

3 34

9 35 g 1 Var, Var. 3 h Est. 7.0

R. T. Cygni. (phot. var.)

19 41 +48.5 Waiter obs.  
3 35  
7 54

9 45 a = Var. Var. 3 h. (litter on phot. chart.)

S. Lacertae (phot. var.)

22 25 +39.8 Waiter obs.  
3 40  
5 15

9 51 a = Var. Var. 3 h. (litter on phot. chart.)

R. Trianguli. (phot. var.)

2 31 +33.8 Waiter obs.  
3 50  
1 19

9 58 E = Var., -a 5 Var. (a is littered on phot. chart.)

N.

C. E.

S.



Monday, Dec. 16, 1895.

K. Caeli. (phot. var.)

$$\begin{array}{r} 4 \quad 37 \\ 4 \quad 05 \\ \hline -0 \quad 32 \end{array}$$

-38.4 Waiter obs.

10 20 Var. not seen. Faint. star h at L. V.

K. Columbae. (phot. var.)

$$\begin{array}{r} 5 \quad 47 \\ 4 \quad 15 \\ \hline -1 \quad 32 \end{array}$$

-29.2 Waiter obs.

10 27 Var. not seen. Faint. g seen.

V. Persi. (phot. var.)

$$\begin{array}{r} 1 \quad 55 \\ 4 \quad 23 \\ \hline 2 \quad 28 \end{array}$$

+56.2 Waiter obs.

10 35 Var. not seen. Faint. All lettered stars on chart seen and identified.

U. Persi. (phot. var.)

$$\begin{array}{r} 1 \quad 53 \\ 4 \quad 30 \\ \hline 2 \quad 37 \end{array}$$

+54.3 Waiter obs.

10 45 Var. = a Var 5 h (letter on phot. chart)

Monday, Dec. 16, 1895.

814 J. Persei.

02258.0

2 12

+57.9

Waite obs.

4 40

2 28

10 50

f 3 Var. Var. 1 g.

Est. 10.3

814 J. Persei.

02258 f.

2

9

+58.3

Waite obs.

4

50

2

41

10 58

c

3

Var., Var. 1 d.

Est. 8.5

~~10 58~~



Thursday, December 19, 1895

114

$\beta$  Beti

00309

2 00  
0 17  
+ 2 17

-10.1

Lat 9.5

7 08 var 32 K 3 var

Attwell Obs.

893

$\eta$  Beti.

-13.8

2 13  
2 27

-0 14

Could not identify region.

112

$\beta$  Andromedae,

00338

+37.8

3 22  
0 16

3 06

9 45 var. too faint! could be seen if 3 grades fainter than "S"  
Attwell Obs.

9 50

Clouds

10 15

S 5 Var.

Warte Obs.

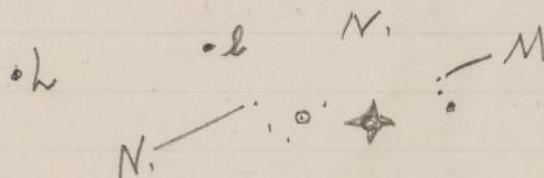
Thursday, Dec. 19, 1895.

845 R. Cete. 02300  
 2 19 -0°8 Wait-obs  
 4 25  
 2 06

10 27 e 2 Var. Var. 2 f Est. 8.7

782 R. Arctis 02124.  
 2 8 +24°4 Wait-obs  
 4 35  
 2 27

10 35 M 3 Var. Var. 3 N. M. & N. are  
 prov. and are so lettered on chart  
 as also below.



S.

893 W. Cete. -13°8 Wait-obs  
 2 27  
 4 45  
 2 18

11 00 Could not identify region from chart  
 which must be wrong in some way, as  
 have had no trouble with the others to night.



Friday, Dec. 20, 1895.

Well's Var

 $+ 17.8$ 

D. obs.

$$\begin{array}{r} 20 \quad 31 \\ 2 \quad 20 \\ \hline + 5 \quad 57 \end{array}$$

2 22

Var 2 a

R. *Riscium*

$$\begin{array}{r} 1 \quad 23 \quad + 21 \\ 3 \quad 50 \\ \hline 1 \quad 37 \end{array}$$

9 08 P 2 Var. Var. 1 Q

Wanted for  
Est. 11,5

9 13. P  $\geq$  Var. Var. = Q

Davidson bk.

$P_1$  &  $Q$  as follows on chart.

N.

P. — . l . . . . . Q

Friday, Dec. 20, 1895.

21 00 U. Crinis.

05820.

5 47  
3 45

+20°.2 Waiter obs.

9 35 0 3 Var. Var. 1 P.<sup>9</sup>

Waiter obs.

Est. 11.0

9 55 0 3 Var., Var 3 P.<sup>9</sup>

Davidson obs

14.  
P.  
1.0  
in • m

15.

3493 R. Leonis.

09711

9 40  
4 30  
- 5 10

10 20

Var. = h

Est. 7.0 Waiter obs

10 33

~~5~~ 5 Var., Var. = h.

10. obs

2976 R. Cancri.

08217.

8 13  
4 45  
- 3 28

+17°.7 Waiter obs

10 45

2 1 Var. Var. 3 f

Est. 8.6



Friday, Dec. 20, 1895.

J. Androm.

0 14

+26°.1 Wait- of

5 00

4 46

10 55

Var. = X

Lat. 12.5

N.

..

⊙ . d  
X . f

S.

Sunday, January 5, 1896

Wills's Var.

+17.7°

0	20
20	31
<hr/>	
+3	49

Cent. 12.5

Attwell's

6 30 Var = K.

Region somewhat hazy.



Posted to here.

January 22, 1896.

of Cephei.

$$\begin{array}{r} 21 \quad 7.6 \\ 7 \quad 52.5 \\ \hline 10 \quad 50 \end{array}$$

$$+ 67.54$$

11 26 K4 Var, Var 4 m D.Chs.  
11 42 Var is 'about  $\frac{1}{2}$  way between K + m St. obs

R Lyncis.

$$\begin{array}{r} 6 \quad 49 \\ 8 \quad 10 \\ \hline +1 \quad 21 \end{array}$$

$$+ 55.5$$

Thin dots over region  
None clear.  
Cannot identify region.

S. H. Bootes

$$\begin{array}{r} 14 \quad 18 \\ 9 \quad 11 \\ \hline -5 \quad 7 \end{array}$$

$$+ 54.5$$

h is faintest star on list so only one  
comp. was made

1 28 h 2 var.  
1 20 h 3 var

D. obs  
St obs.

92 Copied to here

Thursday, Jan. 30, 1896.

T. Persei

02258 h.

2 09

+58°3

Waiter ok.

5 55

3 46

9 00

c 3 Var. Var 2 d.

Est. 8.5

Moon full.

S. Persei

02258 a

2 12

+57°9

Waiter ok.

6 00

3 48

9 05

f 1 Var., Var 4 g.

Est. 10.2

T. Cephei

2 1 8

+67°9

Waiter ok.

6 05

8 57

9 12

k 3 Var., Var 1 l

Est. 9.5

R. Mus. Min.

16572

16 32

+72°6

Waiter ok.

6 10

- 10 22

9 16

d 2 Var., Var 2 e

Est. 10.0



Thursday, Jan. 30, 1896.

Index on N. side is out.  
Readjusted.

R. Draconis 16566  
+67.1 Warte obs.

$$\begin{array}{r} 16 \quad 32 \\ 6 \quad 20 \\ \hline 10 \quad 12 \end{array}$$

9 23 Var. = a Est. 7.0

S. Cephei 21678  
+78.0 Warte obs.

$$\begin{array}{r} 21 \quad 37 \\ 6 \quad 25 \\ \hline 9 \quad 12 \end{array}$$

9 30 c 4 Var, Var 2 d Est. 8.0

S. Cygni 20057  
+57.6 Warte obs.

$$\begin{array}{r} 20 \quad 2 \\ 6 \quad 30 \\ \hline 10 \quad 28 \end{array}$$

9 38 Var. not seen. Faint. (known.) K at L. V.

R. Canis 14484

$$\begin{array}{r} 14 \quad 29 \\ 6 \quad 35 \\ \hline -7 \quad 54 \end{array}$$

+84.5 Warte obs.

9 43 Var. not seen. Faint. (known.) Could easily see 5 grades fainter than 9

Thursday, Jan. 30, 1896.

S. Booth.

14354.

14 18 +54.5 Waiter obs.

$\begin{array}{r} 6 \quad 40 \\ -7 \quad 38 \\ \hline \end{array}$

9 52 Var. not seen. Faint. (Moon)  
Could easily see 5 grades fainter  
than h.

R. Mrs. Maj.

10669

10 34

+69.5 Waiter obs.

$\begin{array}{r} 6 \quad 50 \\ -3 \quad 44 \\ \hline \end{array}$

9 58 0 3 Var. Var. 2 p. Est. 11.5

S. Mrs. Maj.

12661

12 38

+61.9 Waiter obs.

$\begin{array}{r} 7 \quad 00 \\ -5 \quad 38 \\ \hline \end{array}$

10 05 m 2 Var. Var. 2 m Est. 12.0

T. Mrs. Maj.

12560.

12 30

+60.3 Waiter obs.

$\begin{array}{r} 7 \quad 05 \\ -15 \quad 25 \\ \hline \end{array}$

10 10 d 4 Var. Var. 1 c Est. 8.8



Thursday, Jan. 30, 1896.

R. Cass. 239 50.

23 51

+ 50° 6' Waiter obs.

7 08

7 17

10 15

Var. l

Est. 8.0

There seems to be a diff.  
of several mag. between R & l  
of this region.

10 17

-g 2 k, k 2 l. Waiter obs.

T. Cass.

0 15

002 53-  
+ 55° 0' Waiter obs.

7 13

7 00

10 25

Var. not seen. Faint. (Moon.)

10 27

Var. seen at L. V. but too ft. to  
estimate rel. Est. 12.5

S. Cass.

0 12 72

1 9

+ 71° 8' Waiter obs.

7 23

7 16

10 30

Var not seen Faint. (Moon)

Thursday, Jan 30, 1896.

R. Anigae.

05133

5

6

+53°4

Waiter obs.

$\begin{array}{r} 7 \\ 2 \end{array}$   $\begin{array}{r} 30 \\ 24 \end{array}$

10 373 Van not seen. Faint. (Moon)

R. Lyneis.

06855

6

49

+55°5

Waiter obs.

$\begin{array}{r} 7 \\ 0 \end{array}$   $\begin{array}{r} 43 \\ 56 \end{array}$

10 55 Van not seen. Faint. Thought to be glimpsed at times. It could easily see a mag. fainter than L. Est. < 12.0

Much bothered by full moon to-night.



Posted to here.

Wednesday, Feb. 12, 1896

T. Androm. (phot.)  
Waiter obs.

0 16 +26.2

6 16

6 00

8 40 Var. snap. but not <sup>surely</sup> seen. Region  
rather hazy and low. Could  
see about 3 grades fainter than h  
lettered on phot. chart. Est. 13.0

S. Lacertae, (phot.)

22

25

+39.8 Waiter obs.

6

25

8 00

Est. 9.5

8 50 a 1 Var, Var 3 5 (phot. letters)

R. T. Cygni (phot.)

19 41

+48.5 Waiter obs.

6 33

10 53

8 55 Region so low and hazy (almost  
at lower culmination) that  
none of the lettered stars on  
chart nor the variable could  
be identified.

Wednesday, Feb. 12, 1896.

R. Caeli. (phot.)

-38°.5 Wait obs.

$$\begin{array}{r} 4 \quad 37 \\ 6 \quad 50 \\ \hline 2 \quad 13 \end{array}$$

9

15

Region too low and hazy.

R. Columbae. (phot.)

-29°.2 Wait obs.

$$\begin{array}{r} 5 \quad 47 \\ 7 \quad 10 \\ \hline 1 \quad 23 \end{array}$$

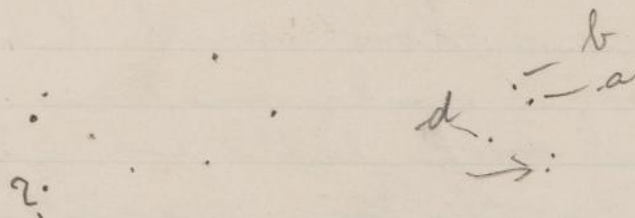
9

25

Var. not seen. Faint. Star h on phot. chart. at L. V.

Star in region of R. Columbae marked below with a ? not seen.

N.



S.



Wednesday, Feb. 12, 1896.

R. Persei. (phot.)

1 55

+56°.2 Waite obs.

7 15  
5 20

9 35 Var. not seen. Faint. Star g on  
phot. chart at L. V.

Q. Persei. (phot.)

1 53

+54°.3 Waite obs.

7 20  
5 17

9 40 Var. = a (a is lettered on phot chart) Est. 8.0

R. Trianguli. (phot.)

2 31

+33°.8 Waite obs.

7 30  
4 59

9 45 c 3 Var., d 1 Var.

8600 R. Cass.

23 51

+50°.6

23950 Waite obs.

7 35

7 44

9 50 m 2 Var., Var. 2 m Est. 9.0

Est. of k. of this region.

9 55 k1 k, k2 k.

Wednesday Feb. 12, 1896.

782 R. Arctis. 02124.  
2 8 +24.4 Waiter's bar

7 50  
5 42

10 10

M 2 Var. Var. = N. Est. 13.0  
Var. at front L. V.  
M + N as follows.

l N.

N · · · · M

S.

1577 R. Tauri. 04309. av.  
4 20 +9.8 Waiter's bar

8 00  
3 40

10 20

l 2 Var. Var. 2 m Est. 11.0

10 22

Clouds.

1582 S. Tauri. 04309 S.  
4 21 +9.6 Waiter's bar

8 08  
3 47

10 25

l 3 Var. Var. 1 m. Est. 11.1

Clouds bothered on above est.



Wednesday, Feb. 12, 1896.

21 00 *U. Orionis* 05820  
 5 47 +20.1 Waiter obs.  
 8 13

10 35 h 2<sup>28</sup> *Var.*, *Var.* 3 h Est. 8.0

3184 *T. Hydrae* 08808  
 8 49 -80.6 Waiter obs.  
 8 40

10 55 f 2<sup>09</sup> *Var.*, *Var.* 2 g. Est. 8.5 Clouds

11 00 sky all cloudy.

Posted to here.

Friday, Feb. 14, 1896.

2528 R. Gem.

6 59  
6 33

+22.9

07022 Wait obs.

-0 24

P = Var., Var 2 Q

Est. 12.0

8 47

2684 S. Can. Min.

7 25  
6 40

+8.6

07408 Wait obs.

-0 45

f 3 Var., Var 1 g.

Est. 9.2

8 50

2946 R. Caneri.

8 9  
6 45

+12.2

08112 Wait obs.

-1 24

l 5 Var., Var 3 m

Est. 9.0

8 57

2976 T. Caneri.

8 13  
6 50

+17.7

08217 Wait obs.

-1 23

l 1 Var., Var 2 m.

Est. 10.0

9 03



Friday, Feb. 14, 1896.

3170 - ~~S. Hydrae~~ - 08803  
~~R. Leonis~~  
 8 46 + 3.6 Wait-obs.

7 00  
 1 46

9 12 M 2 Var., Var. 1 IV Est. 12.0

N.  
 M  
 N  
 S.  
 9

Well's Var.

9 35 - 7.0 Wait-obs.  
 10  
 2 25

9 23 L 1 Var., Var. 4 c Est. 9.5

3493 R. Leonis. 09711  
 9 40 + 12.1 Wait-obs.  
 7 18  
 12 22

9 30 L 4 Var., Var. 2 m Est. 8.0

Friday, Feb. 14, 1896.

3477 R. Leo. Min. 09634  

$$\begin{array}{r} 9 \quad 37 \\ - 7 \quad 25 \\ \hline 2 \quad 12 \end{array}$$
 +35°.2 Wait obs

9 35 Var. = R. Var. almost at L. V. so that estimate (rel.) is not particularly accurate. Est. 12.8  
 N.

o.  $\star K$   
 $\star$   
 $\star g$   
 $\star$   
 R' . .  
 N.

4315 R. Comae Ber. 11919  

$$\begin{array}{r} 11 \quad 57 \\ - 7 \quad 30 \\ \hline 4 \quad 27 \end{array}$$
 +19°.6 Wait obs

9 45 Var. not seen. Faint. < 13.0 Could easily see 3 grades fainter than star 0  
 N.

o.  $\star b$

b N.



Friday, Feb. 14, 1896.

4948. R. Carr. Ten. 13740.  
 13 43 +40°3 Wait-obs.  

$$\begin{array}{r} 7 \quad 35 \\ - 6 \quad 08 \\ \hline \end{array}$$

9 50 Var. at L.V. Surely seen, but too faint to estimate. Est. 13.0  
 Much fainter than star  $\alpha$  which is faintest on chart.

107 J. Cass. 00255.  
 0 15 +55°0 Wait-obs.  

$$\begin{array}{r} 7 \quad 50 \\ - 7 \quad 35 \\ \hline \end{array}$$

10 05 Var. =  $\gamma^{\text{gr}}$  Est. 12.8

432 S. Cass. 01272  
 1 9 +71°8 Wait-obs.  

$$\begin{array}{r} 8 \quad 00 \\ - 7 \quad 51 \\ \hline \end{array}$$

10 10 Var. not seen. Faint. < 13.0  
 Star  $\alpha$  easily seen. Could see about 2 grades fainter.

Friday, Feb. 14, 1896.

1855 R. Amigae 05153  
 5 06 +53.4 Waiter obs  
 8 05  
 2 59

10 18 Var. not seen. Faint. < 13.0  
 Star - 9 seen. Could see about  
 1 grade fainter.

(3825) R. Mus. Maj. 10669  
 10 34 +69.5 Waiter obs  
 8 15

10 25 - 2 19 h 2 Var., Var. 3k Est 8.5

(4557) S. Mus. Maj. 12661  
 12 38 +61.9 Waiter obs  
 8 25  
 - 4 13 Est 10.5

10 35 m 2 Var., Var. 2 m. ~~Est 12.0~~  
~~Est 12.0~~  
~~12.0~~



Friday, Feb. 14, 1896.

4511 T. Me. May. 12560  
 12 30 +60.3 Waiter obs.  
 8 30  
 4 00

10 40 e 3 var. var. 1 f Est 8.4

5948 R. Me. Min. 16572  
 16 32 +72.6 Waiter obs.  
 8 40

10 55 -d 1 var. var. 3 e Est. 7.5

Ported to here.

Thursday, Mar. 12, 1886.

107 J. Cass. 00255.  
 0 15 +55° 0 Waiter obs.  

$$\begin{array}{r} 9 \\ 8 \end{array} \quad \begin{array}{r} 00 \\ 45 \end{array}$$

9 30 (γ) 1 Var., Var. 1 (β) Est. 12.6

Star γ of region of J. Cass.

9 38 (α) 3 ~~γ~~, γ 1 (β) Waiter obs.

N. ↑  
 2. -- (α)  
 . -- (β)  
 +0  
 . -- γ  
 S.

α, β, γ are on chart.

432 J. Cass. 01272.  
 1 09 +71° 8 Waiter obs.  

$$\begin{array}{r} 9 \\ 8 \end{array} \quad \begin{array}{r} 25 \\ 16 \end{array}$$

9 45 Var. not seen. Faint. Star γ seen  
 at limit of vis.



Thursday, Mar. 12, 1896.

4511, J. Mus. Maj. 12 560  

$$\begin{array}{r} 12 \quad 30 \\ 9 \quad 40 \\ \hline 2 \quad 50 \end{array}$$

9 55 h 3 Var., Var 3 k. Est. 9.5 Wait obs.

10 02 h 3 Var., Var 1 k. ~~10 obs.~~  
 Var.  $\frac{1}{3}$  of ~~the~~ way between kth in mag  
 chart from k to h.

4557 S. Mus. Maj. 12 661.  

$$\begin{array}{r} 12 \quad 38 \\ 10 \quad 00 \\ \hline 2 \quad 38 \end{array}$$

10 14 m 1 Var., Var 3 m Est. 11.5 Wait obs

10 27 m 3 Var., Var. 2 m  $\searrow$  10 obs.  
 Var. half way between m & n

7779 S. Cephei. 21 678.  

$$\begin{array}{r} 21 \quad 37 \\ 10 \quad 10 \\ \hline 11 \quad 22 \end{array}$$
 + 78.0

10 37 g 1 Var., Var. 2 h Est. 10.1 Wait obs  
 10 45 g 1 Var., Var. 3 h. 10 obs  
 Var. about  $\frac{1}{3}$  way from h to g in mag

Posted to here.

Friday April 3, 1896.

$$\begin{array}{r}
 \text{S Ursae Maj.} \\
 12 \quad 38 \\
 \underline{9 \quad 05} \\
 -3 \quad 33
 \end{array}
 \quad +61.9 \quad \text{D Obs}$$

8 05 2 1 8, 9 3 h

$$\begin{array}{r}
 \text{R Aurigae} \\
 5 \quad 06 \\
 \underline{9 \quad 11} \\
 +4 \quad 5-
 \end{array}
 \quad +53.4 \quad \text{D. obs.}$$

Clouds.

Clouds over this region again at 9:20

R Draconis

$$\begin{array}{r}
 16 \quad 32 \\
 \underline{10 \quad 42} \\
 -5 \quad 50
 \end{array}
 \quad +67.1 \quad \text{D obs}$$

9 42 k 2 8, 9 3 l

Troubled occasionally by clouds



April 3, 1896,

B. Mer Min.

\* 16 32

10 56

5 36

+72.6

D obs

Clouds

9 55- No stars visible in N. and  
chance for anything farther.

Saturday, Apr. 4<sup>th</sup>, 1896.

B.D. +17°4367 (Well's Var.)

20 33 +17°9 want obs

$\frac{15}{-5} \frac{00}{33}$

13 57 a 2 Var., Var. 1 b.

Above comp. stars are lettered in green ink in photo. chart, which has comp. stars in red ink also. Green lettered stars are for visual comp.



Sunday, Apr. 5, 1896.

B.D. +17°. 4367 (Well's Var.)  
 20 33 +17°9 Wait= obs.  
 14 40  
 5 53

13 30 Region all cloudy, no stars visible

14 10 No stars visible.

14 35 e 3 Var., Var. = f.

14 46 f 3 Var., Var. 1-g.

14 51 Var. = g.

15 00 No stars visible.

15 47 h 1 Var., Var. 3 k.

15 58 Var = h

16 12 h 1 Var. Var. 3 k.

above times from  
 Bond 394.

Above comp. stars are in green ink on photo. chart.  
 Above observations were made under disadvantages.  
 Clouds continually broken, also moon.  
 Observer was obliged to run down every few  
 minutes to attend to photographic insts.  
 Observations were carefully made however and are  
 considered good.

Wednesday, Apr. 15, 1896.

4511 T. Urs. Maj. 12560.  
 12 30 + 60° 3 Wait obs.  
 11 15

9 20 m 3 var., var. 2 m. Est. 10.3

9 23 l 2 m, m 5 m. (comp. stars of T. Urs. Maj.)

4557 S. Urs. Maj. 12661.  
 12 38 + 61° 9 Wait obs.  
 11 22

9 30 g 1 var., var. 1 l. Est. 9.0

5948 R. Urs. Min. 16572.  
 16 32 + 72° 6 Wait obs.  
 11 27

9 35 f 2 var., var. 3 g. Est. 10.2

T. Ceph. 11  
 21 8 + 67° 9 Wait obs.  
 11 30

9 50 0 3 var., var. 2 p. Est. 11.3



Wednesday, Apr. 15, 1896.

5190. R. Can. 14484.  
 14 29 +84.5 Wait obs.  
 11 45

9 53  $\frac{2}{4}$  Var., Var. = c Est. 8.4

5157 S. Bootis. 14354.  
 14 18 +54.5 Wait obs.  
 11 55  
 -2 23

10 10 2 Var., Var. 1 m Est. 12.7

7779 S. Cephei. 21678.  
 21 37 +78.0 Wait obs.  
 12 05  
 9 32

10 18  $\frac{2}{3}$  Var., Var. 3 h. Est. 9.2

1855 R. Aurigae. 05153.  
 5 6 +53.4 Wait obs.  
 12 10  
 7 04

10 25 Var. not seen Faint,  
 Could see about 2 grades  
 fainter than star sp.

Wednesday, Apr. 15, 1896

2478 R. Lynceis 06855.  
 6 49 +55°.5 Wait-obs.  

$$\begin{array}{r} 12 \quad 20 \\ \hline 5 \quad 31 \end{array}$$

10 30 g 3 Var. Var. 1 h. Est. 9.8

3825 R. Mrs. May. 10669.  
 10 34 +69°.5 Wait-obs.  

$$\begin{array}{r} 12 \quad 28 \\ \hline 1 \quad 54 \end{array}$$

10 36 h = Var, Var 3 g Est. 7.2

5955 R. Ureonis. 16566.  
 16 32 +67°.1 Wait-obs.  

$$\begin{array}{r} 12 \quad 32 \\ \hline -4 \quad 00 \end{array}$$

10 42 m 2 Var., Var. 2 m. Est 10.5

7220 S. Cygni. 20057  
 20 2 +57°.6 Wait-obs.  

$$\begin{array}{r} 12 \quad 40 \\ \hline -7 \quad 22 \end{array}$$

10 50 Var. not seen. Faint.  
 Star 0 at L.V. for this region.



Wednesday, Apr 15, 1896.

432 S. Cass. 01272:  
 $\begin{array}{r} 1 \quad 9 \\ 12 \quad 50 \\ \hline 12 \quad 19 \end{array}$  +71°.8 Wait-obs.

10 58 Var. not seen. Region low,  
 Star easily seen.

Thursday, Apr. 16, 1886.

8600 R. Cass. 239.50.  
23 51 +50.6 Wait-obs.

10 50  
11 59

8 50 Region not identified. Too hazy & low.

107 T. Cass. 002.55,  
0 15 +55.0. Wait-obs.

10 53  
10 40

8 55 Region too low & hazy. Could not identify.

814 S. Persei. 022.58 a.  
2 12 +57.9 Wait-obs.

11 00  
8 48

9 00 c 1 Var., Var. 3 f. Est. 9.1

T. Persei. +58.3 Wait-obs.

2 09  
11 10

9 10 c 4 Var., Var. 1 d. Est. 8.8



Thursday, Apr. 16, 1896.

3477 R. Leonis Min. 09634.  
 9 37 + 35.2 Waiter obs.  

$$\begin{array}{r} 11 \quad 15 \\ \hline 1 \quad 38 \end{array}$$

9 27 g 5 Var., Var. 3 R. Est. 11.0

3493 R. Leonis 09711.  
 9 40 + 12.1 Waiter obs.  

$$\begin{array}{r} 11 \quad 25 \\ \hline 1 \quad 45 \end{array}$$

9 34 ± 5 Var., Var. 1 w. Est. 10.0

Well's Var.  
 9 35 - 7.0 Waiter obs.  

$$\begin{array}{r} 11 \quad 35 \\ \hline \end{array}$$

9 40 a 2 Var., Var. 1 b. 10.3

3170 S. Hydrae 08803.  
 8 46 + 3.6 Waiter obs.  

$$\begin{array}{r} 11 \quad 45 \\ \hline 2 \quad 59 \end{array}$$

9 50 M 3 Var., Var. = N. Est. 12.5.

Clouds

Thursday, Apr. 16, 1896.

2976.  $\gamma$  Cancri. 08 217.  
 $\begin{array}{r} 8 \quad 13 \\ 12 \quad 20 \\ \hline 4 \quad 07 \end{array}$  +17.7 Wait-obs

10 25

Var. is rather faint and there  
 is considerable haze in region  
 making a comparison difficult  
Q 3 Var. Est. 12.8

4300  $\chi$  Virginis 11509.  
 $\begin{array}{r} 11 \quad 54 \\ 12 \quad 40 \\ \hline 0 \quad 46 \end{array}$  +9.9 Wait-obs.

10 52 L 1 Var., Var. 3 M. Est. 10.5



Wednesday, Apr. 29, 1896.

MO. +17:4367

$$\begin{array}{r} 20 \quad 33 \\ 17 \quad 35 \\ \hline -2 \quad 58 \end{array}$$

+17.9 Wile = 0.2.

14 50 -d 1 Var., Var. 2 e.

15 11 e 2 Var., Var. 1 f.

15 25 f 1 Var., Var. 3 g.

15 35 f 2 Var., Var. 2 g. (Bothered by twilight)

Brt. moon during above observations.

Above comp. stars are lettered  
in green ink on photographic chart.

Posted to here.

Thursday, Nov 12, 1896.

Observations of Meteors (Leonids)  
made from roof of Laboratory,  
Walter obs.

- 12 40 During the minute 12:40-1 no meteors.  
13 33 During the minute 13:33-4 no meteors.  
14 17 During the minute 14:17-8 no meteors.  
14 46 During the minute 14:46-7 one meteor.  
17 29 During the minute 17:29-30 one meteor.

Above times are from B 394.

Sky cloudy from 15:00 until 17:10

From 12:30 until daylight, except during the cloudy spell, observer was outside most of the time, and saw only about twelve meteors during that time.  
Walter.



Friday, May 7, 1897.

Well's Var.

$$\begin{array}{r} 21 \\ 18 \\ \hline -3 \end{array} \quad \begin{array}{r} 37 \\ 16 \\ \hline 27 \end{array}$$

+42°.9 Waite obs.

14 59  $\alpha$  2 Var. Var. =  $\beta$  c test. 10, 8

Tuesday, May 18, 1897.

Well's Van

21 37

+ 42.9

Went to Sta

18 40

- 2 57

14 45

Van. not seen. green faintly.  
Sky very hazy and seeing poor.



Wednesday, May 19, 1897.

Well's Var.

+42.9 Wilt. sh.

$$\begin{array}{r} 21 \\ 16 \\ \hline -4 \end{array} \quad \begin{array}{r} 37 \\ 40 \\ \hline 57 \end{array}$$

12 40 ✓  $\alpha$  1 Var., Var. 1  $\beta$  Est. 10.7

Tuesday, May 25, 1897.

Will's Var

21 37  
18 20

+42° 9

Waiter obs

— 3 17

13 50

$\alpha$  1 Fav., Var. 1  $\beta$ . ✓ Est. 10.7



Tuesday, June 1, 1897.

Well's Var.

$$\begin{array}{r} 21 \quad 37 \\ 17 \quad 00 \\ \hline - \quad 4 \quad 37 \end{array}$$

+42.9 Wail = obs.

12 05  $\alpha$  1 Var. Var.  $1\beta$  c Est. 10.7

Thursday, June 10, 1897.

Well's Var.

+42°.9

Wait obs

21 37

19 20

-2 17

13 55

✓ h 3 Var., Var. 1 h.

Est. 7.8

21 37

20 10

-1 27

+42°.9

14 45

✓ h 2 Var. Var. 2 h

Est. 7.8



Thursday, July 1, 1897,

Well's Var.

$$\begin{array}{r} 21 \quad 37 \\ 20 \quad 00 \\ \hline - \quad 1 \quad 37 \end{array} \quad + 42.9 \quad \text{Went obs.}$$

Bothered considerably by clouds.

13 15  $\alpha \approx \text{Var.}, \text{Var.} = \beta$  Est. 10.8 C

Above est. considered good, although taken through cloud.

Sunday, Aug. 1, 1897.

S. S. Cygni.

21 37  
22 02  
0 25

+42.9

Walter obs.

13 04

$\alpha$  2 Var, Var =  $\beta$  Est 10.8

Troubled by clouds



Monday, Aug 2, 1897.

S.V. Cygni.

21 37  
22 30

+42°.9 Waiter obs.

0 33

13 40  $\alpha$  2 Var., Var. =  $\beta$  Est 10.80

Tuesday, Aug 3, 1897.

S. D. Cygni.

21	37
0	38
<hr/>	
3	01

+420.9 Wait obs.

015 40  $\propto 2 \text{ Var.}, \text{Var} = \beta$  Est. 10.8



Thursday, Aug. 5, 1897.

S. S. Cygni.

+42°.9 Waite obs.

$$\begin{array}{r} 21 \quad 37 \\ 0 \quad 40 \\ \hline 3 \quad 03 \end{array}$$

15- 35  $\beta$  1 Var., Var. 1  $\gamma$  Est. 11.0

Friday, Aug. 6, 1897.

*β 2 Cygni.*

21	37
0	50
<hr/>	
3	13

+42°.9 Waiter obs.

15 40

$\beta 2$  Var., Var. =  $\gamma$  Est. 11.0 ✓



Wednesday, Aug. 11, 1897.

S.S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 1 \quad 20 \\ \hline 3 \quad 43 \end{array} \quad +42.9 \quad \text{Waiter obs.}$$

15 50 k 24 Var., Var 4 m c Est. 8.4

Note: No "l" on only chart of this region that could be found. Difference in mag. between "k" and "m" is large for making an estimate.

Thursday, Aug. 12, 1897.

S. I. Cygni.

$$\begin{array}{r} 21^{\circ} 37'' \\ 0 \quad 30 \\ \hline 3 \quad 53 \end{array}$$

+42.9 Waiter obs.

15 55

\* 64 Var. Var. Var. Est. 8.8 ✓



Friday, Aug. 13, 1897.

S. S. Cygnus.

+42.9 Wail-obs.

$$\begin{array}{r} 21 \quad 37 \\ 1 \quad 25 \\ \hline 3 \quad 48 \end{array}$$

15 45 Var. Var. 2 Est. 9.0

Tuesday, Aug. 17, 1897.

S. S. Cygni.

21	37
1	20
<hr/>	
3	43

+42°.9 Waiter obs.

15 15 ✓ 0 3 Vari, Vari 4 p. Est. 9.6



Friday, Aug. 20, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 2 \quad 00 \\ \hline 4 \quad 23 \end{array}$$

442°.9 Waiter obs.

6 15 55  $\alpha$  3 Var., Var. =  $\beta$  Est 10.8°

Saturday, Oct. 2, 1897.

S. S. Cygnus

$$\begin{array}{r} 21 \quad 37 \\ 5 \quad 30 \\ \hline 7 \quad 53 \end{array}$$

+42.9 Warts obs.

16 40<sup>c</sup> h 4 Var., Var. 4 h Est. 7.8



Sunday, Oct. 3, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 5 \quad 20 \\ \hline 7 \quad 43 \end{array}$$

+42.9 Waiter obs.

16 20

h 5 Var., Var. 3 k Est. 4.8

Monday, Oct. 4, 1897.

S. S. Cygnus.

+42.9

Wanted obs.

21	37
4	55
<hr/>	
7	18

15 50 h 6 Var., Var. 1 k, <sup>wrong star.</sup> ~~Var. 4 b.~~ Est. 8.1



Tuesday Oct. 5, 1897.

S. C. Cygnus.

+42° 9 Wait-obs.

$$\begin{array}{r} 21 \quad 37 \\ 2 \quad 50 \\ \hline \end{array}$$

5 13

13 40

h 6 Var, Var 1 k, ~~Var. 5~~ <sup>wrong star.</sup> Est. 8, 1

Sky rapidly clouding over at time of above observation, but do not think observation was affected.

S. Cephæi

+78° 0 Wait obs.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 00 \\ \hline 5 \quad 23 \end{array}$$

14 00

S. Cephæi seen at intervals through breaks in clouds, but not long enough to make a comparison. No further chance for observation as sky is now entirely cloudy with no prospect of clearing.

Wednesday, Oct. 6, 1894.

S. S. Cygnus.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 40 \\ \hline 7 \quad 03 \end{array}$$

+42° 9 Wait obs.

15 35-0 h 1 Var., Var 3 m. Est. 8.4

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 53 \\ \hline 7 \quad 16 \end{array}$$

+78° 0 Wait obs.

15 43 -g 1 Var., Var. 4 h. Est. 9.5 c



Saturday, Oct. 9, 1897.

*S. S. Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 20 \\ \hline 5 \quad 40 \end{array}$$

+42°.9 Waiter obs.

13 55 m 2 Var., Var 3 m Est. 8.9 c

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 30 \\ \hline 6 \quad 53 \end{array}$$

+78°.0 Waiter obs.

15 05 g 2 Var., Var. 3 h Est. 9.6 c

Sunday Oct. 10, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 1 \quad 00 \\ \hline 3 \quad 23 \end{array}$$

+42°.9 Wait obs.

11 25 Jan 4 Var. Var. = n, Var 2 0 Est. 9.1

S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 1 \quad 10 \\ \hline 3 \quad 33 \end{array}$$

+78°.0 Wait obs.

11 40 -g 4 Var. Var 1 h Est. 9.8 c

Bothered considerably by clouds during both of above observations, but observations are considered good.



Tuesday, Oct. 12, 1897.

*δδ Cygni.*

21 37

3 00

5 23

+42.9

Wait obs.

13 25

0 3 Var., var 3 p.

Est 9.6 ✓

*δ Cephei.*

21 37

3 20

5 43

+78.0

Wait obs.

13 45

g 4 Var., var. 1 h

Est. 9.8 c

Wednesday, Oct. 13, 1897.

S. P. Cygni.

21 37  
1 50  
4 13

+42°.9 Waiter obs.

12 05 v p 1 Var. Var 3 g. Est. 10.0

S. Cephei.

21 37  
2 00  
4 23

+78°.0 Waiter obs.

12 12 h 2 Var., Var. 2 k c

Bothered somewhat by clouds,  
but observations considered good.



Friday, Oct. 15, 1897.

S. S. Cygnus

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 08 \\ \hline 5 \quad 31 \end{array} \quad + 420.9 \quad \text{Wait hr.}$$

13 20  $\alpha$  3 var., var. =  $\beta$  Est 10.8 c

S. Cephei

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 35 \\ \hline 5 \quad 58 \end{array} \quad + 78.0 \quad \text{Wait obs}$$

13 45  $\gamma$  4 var. var 1 h Est. 9.8 c

Sunday, Oct. 17, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ \underline{5} \quad \underline{40} \\ 8 \quad 03 \end{array}$$

+42.9 Wait-obs.

15 35

$\beta$  1 Var., Var. 2  $\gamma$  Est. 11.0

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ \underline{5} \quad \underline{45} \\ 8 \quad 08 \end{array}$$

+78.0 Wait-obs.

15 45

$\gamma$  4 Var., Var. 1 h. Est. 9.8



Monday, Oct. 18, 1897.

S. S. Cygnus

$$\begin{array}{r} 21 \quad 37 \\ 2 \quad 20 \\ \hline \end{array}$$

$$4 \quad 43$$

12 22  $\beta$  2 Var., Var 1  $\gamma$  Est. 11.0 c

+42.9 Waiter obs.

S. Cephei

$$\begin{array}{r} 21 \quad 37 \\ 2 \quad 30 \\ \hline \end{array}$$

$$4 \quad 53$$

12 27  $\alpha$  h 3 Var., Var. 1 k Est. 10.0 c

+78.0 Waiter obs.

Tuesday, Oct. 19, 1897.

*S. Cygni.*

21 37  
3 00  
5 23

+42.9 Waiter obs.

12 55 ✓  $\beta$  2 Var., Var. 1  $\gamma$  Est. 11.0

*S. Cephei.*

21 37  
3 05  
5 28

+78.0 Waiter obs.

13 00 ✓  $\delta$  3 Var., Var. 2  $\kappa$  Est. 10.0

Sky very hazy during above  
observations. *S. S. Cygni*  
Region star  $\gamma$  at L. V.



Friday, Oct. 22, 1897.

O. S. Cygni.

$$\begin{array}{r} 21 \quad 3.7 \\ 3 \quad 0.0 \\ \hline 5 \quad 2.3 \end{array}$$

+42.9 Wait obs.

12 35 c  $\beta$  3 Var., Var. =  $\gamma$ , Est. 11.1

S. Cephei

$$\begin{array}{r} 21 \quad 3.7 \\ 3 \quad 0.5 \\ \hline 5 \quad 2.8 \end{array}$$

+78.0 Wait obs.

12 40 Vh 3 Var., Var. 1k. Est. 10.0

Saturday, Oct. 23, 1897.

*S. S. Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 20 \\ \hline 6 \quad 43 \end{array}$$

+42.9 Waiter obs.

13 55 J  $\beta$  3 var., var =  $\gamma$  Est. 11.0

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 30 \\ \hline 6 \quad 53 \end{array}$$

+78.0 Waiter obs.

17 05 C  $\alpha$  3 var., var 1k. Est. 10.0

Both of above observations  
difficult owing to very  
heavy mist.



Monday, Oct. 2<sup>5</sup>, 1897.

S. S. Cygnus.

+42<sup>0</sup>.9

Waite obs.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 00 \\ \hline 6 \quad 23 \end{array}$$

13 30 ✓  $\beta$  2 Var, Var 1 f. Est. 11.0

S. Cypher.

+78<sup>0</sup>.0

Waite obs.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 10 \\ \hline 6 \quad 33 \end{array}$$

13 40 ✓ h 4 Var, Var = k. Est. 10.1

Friday, Oct. 29, 1897.

S. S. Cygni.

+42.9

Wait obs.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 50 \\ \hline 6 \quad 13 \end{array}$$

13 00  $\checkmark \beta$  3 Var., Var. =  $\gamma$  Est. 11.0.

S. Lepher.

+78.0

Wait obs.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 00 \\ \hline 6 \quad 23 \end{array}$$

13 10  $\checkmark k$  3 Var., Var. =  $l$  Est. 11.0



Saturday, Oct. 30, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 2 \quad 50 \\ \hline 5 \quad 13 \end{array}$$

+42.9 Waiter obs.

12 00  $\beta$  3 Var., Var. =  $\gamma$ . Est. 11.0

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 00 \\ \hline 5 \quad 23 \end{array}$$

+78.0 Waiter obs.

12 10  $\alpha$  2 Var., Var. 4 m. Est. 11.2

Wednesday, Nov. 3, 1897.

S. S. Cygni,

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 30 \\ \hline 5 \quad 53 \end{array}$$

+42.9 Waite obs.

12 25 J  $\beta$  3 Var., Var. =  $\gamma$  Est. 11.0

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 35 \\ \hline 5 \quad 58 \end{array}$$

+78.0 Waite obs.

12 30 C h 2 Var., Var. 3 m Est. 11.2



Thursday, Nov. 4, 1897.

S. S. Cygnus.

+42.9

Waiter obs

21 37  
5 20

7 43

14 05 ✓  $\beta 3$  Var., Var. =  $\gamma$  Est. 11.0

S. Cygnus.

+78.0

Waiter obs

21 37  
5 25

7 48

14 10 ✓  $\beta 2$  Var., Var 3m Est. 11.2

Saturday, Nov. 6, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 37 \\ \hline 6 \quad 00 \end{array}$$

+42.9 Wente obs.

12 15 0  $\beta$  3 Var., Var. =  $\gamma$  Est. 11.0

S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 42 \\ \hline 6 \quad 5 \end{array}$$

+78.0 Wente obs.

12 20  $\delta$   $\delta$  2 Var., Var. 3 Var. Est. 11.2



Sunday, Nov. 7, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 20 \\ \hline 6 \quad 43 \end{array} \quad + 42.9 \quad \text{Waite obs.}$$

12 50  $\alpha$  3 Var., Var. =  $\gamma$ . Est. 11.0

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 25 \\ \hline 6 \quad 48 \end{array} \quad + 78.0 \quad \text{Waite obs.}$$

12 55  $\delta$  2 Var., Var. =  $\eta$ . Est. 11.2

On both of above observations  
considerably bothered by clouds  
and bright moonlight.

Tuesday, Nov. 9, 1897.

S. S. Cygni.

+42.9

Walter obs.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 43 \\ \hline 6 \quad 08 \end{array}$$

12 20  $\epsilon\beta 3$  Var., Var. = f Est. 11.0

S. Cephei.

+78.0

Walter obs.

$$\begin{array}{r} 21 \quad 37 \\ 3 \quad 50 \\ \hline 6 \quad 13 \end{array}$$

12 25  $\delta\epsilon 2$  Var., Var. 3m Est. 11.2



Wednesday, Nov. 10, 1897.

*S. S. Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 40 \\ \hline 7 \quad 03 \end{array}$$

+420.9 Wait-obs.

13 20  $\sqrt{3}$  3 Var., Var. = 8 Est. 11.0

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 57 \\ \hline 7 \quad 13 \end{array}$$

+78.0 Wait-obs

13 40  $\sqrt{3}$  3 Var., Var. 3 m Est. 11.3

Sunday, Nov. 14, 1897.

S. Cygni

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 00 \\ \hline 6 \quad 23 \end{array}$$

+42.9 Wait obs.

12 15 ✓ 3 Var., Var. = 7, Est. 11.00 W. obs.  
12 20 Seen by glimpses. 19. obs.

S. Cephei

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 16 \\ \hline 6 \quad 33 \end{array}$$

+78.0  
~~+42.9~~ Wait obs.

12 25 ✓ 3 Var., Var. 3 Est. 11.2 W. obs.

12 33 ✓ 1 Var., Var. 6 19. obs.



Wednesday, Nov. 17, 1897.

S. D. Cygni

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 30 \\ \hline 6 \quad 53 \end{array}$$

+42.9 Wait obs

12 30 ✓  $\beta 4$  Var., Var. 2 Var Est. 11.2

S. Cephei

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 37 \\ \hline 7 \quad 00 \end{array}$$

+78.0 Wait obs

12 40 ✓  $\beta 4$  Var. Var. 2 Var Est. 11.2

Thursday, Nov. 18, 1897.

S. P. Cygnus.

21. 37  
4 50

+42.9 Waiter obs.

7 13

13 20 ✓  $\beta$  3 Var., Var. =  $\gamma$  Est. 11.2

Above observation made through haze and passing clouds. After long watching, variable and  $\gamma$  only seen <sup>only</sup> by glimpses. Observation not thought to be remarkably good. Star  $\beta$  seen pretty steadily, and do not think it possible that variable could be brighter than  $\beta$  3.

S. Cephei.

21 37  
5 30  
7 53

+78.0 Waiter obs.

13 30 ✓  $\gamma$  4 Var., Var. 2 m. Est. 11.2



Sunday, Nov. 21, 1897.

S. S. Cygni.

21 37

+42.9 W. alt obs

3 20

5 43

- 11 05 Sky all cloudy, but some breaks  
and may be a chance for an  
observation.
- 11 15 Sky all cloudy again.

Tuesday, Nov. 23, 1897.

*β Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 20 \\ \hline 6 \quad 43 \end{array}$$

+ 429.9 Wauter's

11 50  $\beta$  4 var., ~~var.~~  $\gamma$  2 var. Est. 11.2

*δ Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 4 \quad 25 \\ \hline 6 \quad 48 \end{array}$$

+ 780.0 Wauter's

11 55  $\delta$  6 var., var. = --- Est. 11.3



Wednesday, Nov. 24, 1897.

S. Cygni.

21 37.7 + 42.9 Wait obs

5 20

7 43

12 50  $\alpha$  4 Var, ~~Var 2~~ <sup>82 Var</sup> Est. 11.2

Region low. Could not see  
star S. Var. at about L. V.

S. Cephei.

21 37 + 70.0 Wait obs

5 35

7 58

13 00  $\alpha$  Var = Var, Var 3 m. Est. 11.3

Saturday, Nov. 27, 1897.

S. S. Cygni.

21	37
4	30
<hr/>	
6	53

+42.9 Wait obs.

11 40 cy 2 Var., Var. 1 S. Est. 11.2

S. Cephei.

21	37
4	35
<hr/>	
6	58

+78.0 Wait obs.

11 45 C — = Var., Var 3 m Est. 11.3



Monday, Nov. 29, 1897.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ \hline 5 \quad 20 \\ 7 \quad 43 \end{array}$$

+42.9 Wait-obs.

12 30 c  $\beta$  2 Var., Var. 1 y Est. 11.0

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ \hline 5 \quad 25 \\ 7 \quad 48 \end{array}$$

+78.0 Wait-obs.

12 35 c Var. = Var., Var. 3 m Est. 11.3

Tuesday, Nov. 30, 1897.

S. D. Cygni.

21 37  
5 10  
7 33

+42.9 Waiter obs.

12 15

Region all covered with heavy haze. No stars visible in tel.

S. Cephei.

21 37  
5 20  
7 43

+78.0 Waiter obs.

12 25

No stars visible in tel. in this region.



Wednesday, Dec. 1, 1897.

*S. Cygni.*

21 37  
5 10

+42.9

Waiter obs.

~~+2~~

12

10

7 33  
ck = var, var 3 l

Est. 8.0

*S. Cephei.*

21 37  
5 15

+78.0

Waiter obs.

12

15

7 38  
um = var., var. 3m

Est. 11.3

Sunday, Dec. 5, 1897.

S. D. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ \underline{5} \quad 00 \end{array}$$

+42.9 Wait obs

11 50 c  $m = 3 \text{ Var}, \text{Var} = m$  Est. 9.1

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ \underline{5} \quad 05 \end{array}$$

+78.0 Wait obs

11 55 c  $m = \text{Var}, \text{Var} = 3m$  Est. 11.3



Thursday  
~~Wednesday~~, Dec. 16, 1897.

S. Cephei.

21 37 + 78.0 Waited  
 9 00  
 - 12 373

15 10

Region very low and hazy.  
 Could not see var.  
 Star R seen.

Saturday, Dec. 18, 1897.

U. Orionis.

5 50 +20.2 Wait obs.

7 05  
1 15

13 10 21 Var, Var 30, Est. 10.5

S. Cephei.

21 37 +78.0 Wait obs.

7 15  
9 33

13 15 1 Var, Var 20 Est. 11.4



Sunday, Dec. 19, 1897.

*S. S. Cygni*

21 37  
5 20

442.9 Waiter obs.

11 10 C  $\gamma$  1 Var., Var., 2 S Est. 11.2

*S. Cephei*

21 37  
5 25  
7 48

+78.0 Waiter obs.

11 15 C  $\alpha$  2 Var., Var. 1 m Est. 11.5

*In Orionis*

5 50  
9 20  
3 30

+20.2 Waiter obs.

15 15  $\alpha$  2 Var., Var. 3 m Est. 10.5

Saturday, Dec. 25, 1897.

*U. Orionis.*

$$\begin{array}{r} 5 \quad 50 \\ 6 \quad 20 \\ \hline 0 \quad 30 \end{array}$$

+20.2 Waiter sh

12 50 g 1 var., var. 3 n. Est. 10.0

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 6 \quad 25 \\ \hline 8 \quad 48 \end{array}$$

+78.0 Waiter sh.

12 55 m 3 var., var. = n. Est. 11.5

*S. S. Cygni.*

Too low. No stars visible  
near region.



Monday, Dec. 27, 1897.

*U. Orionis.*

5 50 + 20° 2 Wait obs  
 9 20

14 45 3 30  
 p 4 Var., Var. = g. Est. 9.8

*S. Cephei.*

21 37 + 78° 0 Wait obs.  
 9 25

14 55 11 48  
 Region at lower cul. and very  
 hazy. Var. not seen. g seen,  
 and h suspected.

Tuesday, Dec. 28, 1897.

*W. Orionis.*

5 50 +20.2 Waiter obs.

$\begin{array}{r} 7 \\ \hline 1 \end{array}$   $\begin{array}{r} 45 \\ \hline 55 \end{array}$

13 02 p 3 Var., Var. 2 g. Est. 9.8.

*S. Cephei.*

21 37 +78.0 Waiter obs.

$\begin{array}{r} 7 \\ \hline 10 \end{array}$   $\begin{array}{r} 55 \\ \hline 18 \end{array}$

13 15 Var. 2 Var. 2 0 Est. 11.5



Thursday, Dec. 30, 1897.

*U. Orionis*

$$\begin{array}{r} 5 \quad 50 \\ 8 \quad 15 \\ \hline 2 \quad 25 \end{array} \quad + 20.2 \quad \text{Waite obs.}$$

13 15  $\mu$  2 Var., Var. 3 g. Est. 9.7

*S. Cephei*

$$\begin{array}{r} 21 \quad 37 \\ 8 \quad 20 \\ \hline 10 \quad 43 \end{array} \quad + 78.0 \quad \text{Waite obs.}$$

13 20 cm 3 Var., Var. 20 Est. 11.5

Saturday, Jan. 1, 1898.

*U. Orionis.*

5 50 + 20.2 Wait obs.  
8 00

2 10

13 08 p 1 Var. Var. 4 g Est. 9.6

*S. Cephei.*

21 37

8 10

10 33

+ 78.0 Wait obs.

13 20

Var. not seen. Too much haze  
moon too bright, and too low alt.



Monday, Jan. 3, 1898.

U. Orionis.

$$\begin{array}{r} 5 \quad 50 \\ 8 \quad 10 \\ \hline 2 \quad 20 \end{array}$$

+20.2 Wait-obs

13 10  $p = \text{Var.}, \text{Var. } 5-g. \text{ Est. } 9.5$

Did not have chart for above observation, but do not think stars  $p$  and  $g$  and the var. could be other than those on chart.

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 8 \quad 20 \\ \hline 10 \quad 43 \end{array}$$

+78.0 Wait-obs.

13 20

Var. not seen in moonlight. Two fl in Also low alt.

Wednesday, Jan. 5, 1898

U. Orionis.

$$\begin{array}{r} 5 \quad 50 \\ 7 \quad 30 \\ \hline 1 \quad 40 \end{array}$$

+20°.2 Waiter obs

12 15

0 4 Var., Var. 1  $\frac{1}{2}$ . Est. 9.5  
Moon very near region,  
and bright.

S. Cephæi.

$$\begin{array}{r} 21 \quad 37 \\ 7 \quad 35 \\ \hline \end{array}$$

+78°.0 Waiter obs

12 30

9 58  
Var. about = 0 (star) seen  
very faintly in moonlight.

Clouds during both of  
above observations.



Saturday, Jan. 8, 1898.

U. Orionis

$$\begin{array}{r} 5 \quad 50 \\ 8 \quad 50 \\ \hline 3 \quad 00 \end{array} \quad + 20^{\circ}.2 \text{ Waiter obs.}$$

13 20 0 4 Var., Var. 1/2. Est. 9.5

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 9 \quad 15 \\ \hline 11 \quad 38 \end{array} \quad + 7^{\circ}.0 \text{ Waiter obs.}$$

13 53 m 2 Var., Var. 2 0 Est. 11.5

Sunday, Jan. 16, 1898.

*W. Baronia.*

$$\begin{array}{r} .5 \quad 50 \\ 10 \quad 50 \\ \hline 5 \quad 00 \end{array} \quad +20.2 \quad \text{Waiter obs.}$$

14 55  $\mu$  1 Var., Var. 4  $\gamma$ , Est. 9.6

*S. Cephia.*

$$\begin{array}{r} 21 \quad 38 \\ 11 \quad 00 \\ \hline 10 \quad 38 \end{array} \quad +7.0 \quad \text{Waiter obs.}$$

15 05  $\mu$  3 Var., Var. 10 Est. 11.5

*S. S. Cygnus.*

$$\begin{array}{r} 21 \quad 38 \\ 13 \quad 00 \\ \hline 8 \quad 38 \end{array} \quad +42.9 \quad \text{Waiter obs.}$$

17 10  $\mu$  3 Var., Var. 3  $\alpha$  Est. 10.2



Monday, Jan. 17, 1898.

H. Orionis.

$$\begin{array}{r} 5 \quad 50 \\ 11 \quad 00 \\ \hline 5 \quad 10 \end{array} \quad + 20^{\circ} \sim \text{Waiter-oh}$$

15 00  $\mu$  2 Var., Var 4 g. Est. 9.6

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 11 \quad 10 \\ \hline -10 \quad 28 \end{array} \quad + 78^{\circ} \sim \text{Waiter-oh}$$

15 10  $\sim$  3 Var., Var. = 0 Est. 11.5

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 10 \\ \hline 8 \quad 27 \end{array} \quad + 42^{\circ} \sim \text{Waiter-oh}$$

17 20  $\bar{c}$  h 2 Var., Var. 3 k. Est. 7.7

Tuesday, Jan. 18, 1898

*U. Orionis*

$$\begin{array}{r} 5 \quad 50 \\ 11 \quad 00 \\ \hline 5 \quad 10 \end{array} \quad +20.2 \text{ Waiter obs.}$$

15 15  $\mu = \underline{\text{Var.}}, \underline{\text{Var.}} 5.9. \text{ Est. } 9.5$

*S. Cephei*

$$\begin{array}{r} 21 \quad 37 \\ 11 \quad 10 \\ \hline 10 \quad 27 \end{array} \quad +78.0 \text{ Waiter obs.}$$

15 25  $\mu 4 \underline{\text{Var.}}, \underline{\text{Var.}} = 0 \text{ Est. } 11.5$

*S. S. Cygni*

$$\begin{array}{r} 21 \quad 37 \\ 12 \quad 50 \\ \hline 8 \quad 47 \end{array} \quad +42.9 \text{ Waiter obs.}$$

17 00 c h 2  $\underline{\text{Var.}}, \underline{\text{Var.}} 3 \text{ h. Est. } 7.7$

17 05 c h 2  $\underline{\text{Var.}}, \underline{\text{Var.}} 5 \text{ h.}$



Monday, Jan. 24, 1898,

*U. Orionis*

$$\begin{array}{r} 5 \quad 50 \\ 10 \quad 10 \\ \hline 4 \quad 20 \end{array}$$

+20.2

Wait-obs.

13 45 0 = var., var. 3 p. Est. 9.2

*S. Cygni*

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 37 \\ \hline 8 \quad 00 \end{array}$$

+42.9 Wait-obs.

17 12 <sup>ca</sup> 3 var., var 1 ~~h~~ Est. 7.9

*S. Cygni*

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 42 \\ \hline 7 \quad 55 \end{array}$$

+78.0 Wait-obs.

17 17 var 4 var., var. 1 0 Est. 11.5

Wednesday, Jan. 26, 1898.

*S. Cephei.*

21 37  
13 30

+7890

Waite obs

16 55 - 8 07 Var., Var. = 0 Est. 11.5.

*S. S. Cygni.*

21 37  
21 34

+4429

Waite obs

17 05 - 8 03 ~~h~~<sup>a</sup> = Var., Var 5 ~~h~~<sup>c</sup> Est. 7.5

17 10 - 8 03 ~~h~~<sup>a</sup> = Var., Var 7 ~~h~~<sup>d</sup> Est. 7.5



Thursday, Jan. 27, 1898

U. Circinus.

$$\begin{array}{r} 5 \quad 52 \\ 10 \quad 30 \\ \hline 4 \quad 38 \\ 0 = \text{Var.}, \text{Var. } 4 \text{ p. Est. } 9.2 \end{array} \quad +20^{\circ} 2 \quad \text{Wait obs.}$$

14 00

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 37 \\ \hline 8 \quad 00 \end{array} \quad +42^{\circ} 9 \quad \text{Wait obs.}$$

16 50 C ~~h~~<sup>a</sup> 1 Var., Var. 4 ~~h~~<sup>c</sup> Est. 7.6.

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 42 \\ \hline 7 \quad 55 \end{array} \quad +78^{\circ} 0 \quad \text{Wait obs.}$$

16 55 h 3 Var., Var. 1 0 Est. 11.5

Saturday, Jan. 29, 1898.

W. Bionia.

$$\begin{array}{r} 5 \quad 50 \\ 12 \quad 05 \\ \hline 6 \quad 15 \end{array}$$

+20°.2 Wait obs.

15 15 m 1 Var., Var. 2 0. Est. 9.1

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 55 \\ \hline -7 \quad 42 \end{array}$$

+78°.0 Wait obs.

17 05 m 3 Var., Var. 2 0 Est. 11.5

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 14 \quad 05 \\ \hline 7 \quad 32 \end{array}$$

+42°.9 Wait obs.

17 20 0 ~~inf~~ = Var., Var. 2 0.9 Est. 9.0

Est. of diff. in magn. between comp stars  
for S. S. Cygni.

17 22

h 5 k.

k 2 l.

l 4 m

m 4 n

17 32

n 2 0



Tuesday, Feb. 1, 1898.

S. Cephei

21 37  
13 30

+ 78°.0 Wait-obs.

8 07

16 25 4 Var., Var. 4 0 Est. 11.5

S. Cygni

21 37  
13 37

+ 42°.9 Wait-obs.

8 06

16 38 ~~c~~<sup>k</sup> 3 Var., Var. 3 ~~x~~<sup>l</sup> Est. 10.2

Thursday, Feb. 3, 1898.

S. S. Cygni,

21 37

14 37

7 00

17 29 ✓ ~~7~~<sup>l</sup> = Var., Var. 3<sup>n</sup> Est. 10.8

+ 42.9 Wait ob.

S. Cephei.

21 37

14 47

6 50

17 39 4 Var., Var. 30 Est. 11.5

+ 78.0 Wait ob.

Sky gradually cleared. Hazy light  
and haze bothered considerably  
but observations thought  
to be good.



Sunday, Feb. 6, 1898.

U. Orionis

5<sup>-</sup> 50 +20.2 Wait-obs.

11 20

5 30

14 00 h 5<sup>-</sup> Var., Var. = m. Est. 9.1

S. Cygni

+42.9 Wait-obs.

21 37

13 37

- 8 00

16 15 Var. not seen. Ft.

✓ Giving to low alt., haze, and bright moonlight, & is about L.V.

S. Cephei

+78.0 Wait-obs.

21 37

13 45

- 7 53

16 25 Var. not seen. Ft.

Star m at L.V. Haze and moonlight.

1967

Sunday, Feb. 13, 1898.

S. S. Cygni.

21	37
14	30
<hr/>	
7	07

442.9 Wait obs

16 35 - Var. not seen, Faint.  
 Star at L. V.

S. Cypher.

21	37
14	37
<hr/>	
7	00

+78.0 Wait obs

16 45 - In 3 Var., Var. 30, Est. 11.5

Troubled by clouds and  
 moonlight during  
 both of above observations.



Monday, Feb. 14, 1898.

S. S. Cygini.

21 37 + 42.9 Wait-obs  
14 27

16 45 c ~~7~~<sup>10</sup> 1 Var., Var. 2 ~~5~~<sup>10</sup> Est. 11.5

S. Cephei.

21 37 + 78.0 Wait-obs.  
14 47  
- 6 50

16 56 m 2 Var., Var. 3 0 Est. 11.5

Troubled by clouds & moon.

Wednesday, Feb. 16, 1898

S. S. Cygnus  

$$\begin{array}{r} 21 \\ 15 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 37 \\ 07 \\ \hline 20 \end{array}$$

16 55 0 ~~8~~<sup>0</sup> 1 Var., Var. 2 ~~8~~<sup>0</sup> Est. 11.5

S. Cygnus  

$$\begin{array}{r} 21 \\ 15 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 37 \\ 12 \\ \hline 25 \end{array}$$

17 05 ~ 3 Var., Var. 2 0 Est. 11.5



Thursday, Feb. 17, 1898.

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 20 \\ \hline \end{array}$$

+78°.0 Wait obs.

$$\begin{array}{r} 15 \quad 20 \\ -6 \quad 17 \\ \hline \end{array}$$

17 15 m 3 Var., Var. 3 0 Est. 11.5

*S. S. Ggim.*

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 30 \\ \hline \end{array}$$

+42°.9 Wait obs.

$$\begin{array}{r} -6 \quad 07 \\ \hline \end{array}$$

17 25 Var. not seen, Faint.

Star  $\alpha$  at L.V. on acct. of rapidly increasing cloudiness and haziness.

Bothered considerably on both of above obs. by clouds.

Thursday, Feb. 24, 1898.

At various times between  
15:30 and daylight, attempted  
to get obs. of  $\beta$  Lyræ &  
 $\delta$  Cephei, but owing to  
heavy fog and clouds, was  
unable to see a star of  
either region.      Waukegan



Friday, Feb. 25, 1898.

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 37 \\ \hline 6 \quad 00 \end{array}$$

+ 43° 0 wait = obs

17 05 <sup>c</sup> ~~f~~ 2 Var., Var. + ~~8~~ Est. 11.5

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 47 \\ \hline 5 \quad 50 \end{array}$$

+ 78° 0 wait = obs

17 10 m 4 Var., Var. 1 0 Est. 11.5

Saturday, Feb. 26, 1898,

S. S. Cygni

21 37

15 50

5 47

17 15 ✓ ~~2~~ <sup>2</sup> Var., Var. 1 ~~8~~ <sup>7</sup> Est. 11.5 16

S. Cephei

21 37

15 55

5 42

17 20 ~ 4 Var., Var. 1 0 Est. 11.5 16



Sunday, Feb. 27, 1898.

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 00 \\ \hline \end{array}$$

+78.0 Wait-obs

$$\begin{array}{r} -6 \quad 37 \\ \hline \end{array}$$

16 20  $n 5$  Var., Var. = 0 Est. 11.5

*S. S. Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 05 \\ \hline \end{array}$$

+42.9 Wait-obs

$$\begin{array}{r} -6 \quad 32 \\ \hline \end{array}$$

16 27  $\checkmark$  ~~8~~<sup>2</sup> Var., Var. 1 ~~8~~<sup>2</sup> Est. 11.5

Monday, Feb. 28, 1898.

S. Cephei.

$$\begin{array}{r} 21 \\ 15 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 37 \\ 37 \\ \hline 00 \end{array}$$

+78.0 Wate obs

16 45 in 4 var., var. 1 0 Est. 11.5

S. S. Cygni.

21

15

5

37

42

55

+42.9 Wate obs

16 52 c ~~1~~ <sup>2</sup> var., var. 2 ~~8~~ <sup>9</sup> Est. 11.5

Troubled by passing clouds  
during above observations.



Tuesday, March 1, 1898.

*S. Cephei.*

$$\begin{array}{r} 21 \quad 39 \\ 16 \quad 03 \\ \hline 5 \quad 32 \end{array}$$

+78° 0 W. alt. obs.

17 08 m 2 Var., Var. 3 0. Est. 11.5

*S. S. Cygni*

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 10 \\ \hline 5 \quad 27 \end{array}$$

+42° 9 W. alt. obs.

17 13 C ~~8~~<sup>0</sup> 2 Var., Var. 1 ~~8~~<sup>h</sup>. Est. 11.5

Thursday, Mar. 3, 1898.

S. S. Cygnus

21 37  
15 30

+ 42.9 Wait-obs

16 25 <sup>0</sup> - 6 <sup>0</sup> 2 Var., Var. 1 <sup>h</sup> ~~8~~ Est. 11.5

S. Cepheus

21 37  
15 35

+ 78.0 Wait-obs

16 37 - 6 <sup>0</sup> 1 Var., Var. 4 0 Est. 11.3 16



Saturday, Mar. 5, 1898.

S. Ggini.

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 57 \\ \hline -5 \quad 40 \end{array}$$

+ 42° 9 Waiter obs.

16 40 c ~~x~~ 1 Var., Var. 2 ~~8~~ <sup>h</sup> Est. 11.5

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 05 \\ \hline -5 \quad 35 \end{array}$$

+ 78° 0 Waiter obs.

16 48 m 3 Var., Var. 1 m Est. 11.1

Sunday, Mar. 6, 1898.

S. S. Cygni.

21	37
14	47
<hr/>	
-6	50

+42.9 White obs.

15 40 Var. not seen; faint.

Owing to haziness and clouds, star & at L. V.



Tuesday, Mar. 8, 1898.

*S. Cephei.*

21 37  
15 50

+78°0 Wait obs.

16 30

- 5 47

2 Var., Var., 2 in Est. 11.0

*S. Cygni.*

21 37  
15 57

+42°9 Wait obs.

16 37

- 5 40

c ~~f~~<sup>a</sup> 1 Var., Var., 2 ~~S~~<sup>h</sup> Est. 11.5

Bright moon so that  
observers somewhat on edge.

Wednesday, Mar. 9, 1898.

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 27 \\ \hline -6 \quad 10 \end{array}$$

+75.0 Wait obs.

16 07 in 2 Var., Var. 2 in Est 11.0

S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 37 \\ \hline -6 \quad 00 \end{array}$$

+42.9 Wait obs.

16 14 Var. not seen. Star  $\alpha$  at  
S. V. Var. < 11.0

Bright moonlight and light  
cloudiness caused trouble  
in making above observations.



Thursday, Mar. 10, 1898

S. S. Cygni.

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 37 \\ \hline -8 \quad 00 \end{array}$$

At 42.9 Wait-obs

14 17

Var. not seen. Star  $\alpha$  at  
C L. V. owing to clouds, low alt.,  
and moonlight. Var.  $< 11.0$

S. Cephei.

$$\begin{array}{r} 21 \quad 37 \\ 13 \quad 44 \\ \hline -7 \quad 53 \end{array}$$

+78.0 Wait-obs.

14 26

Var. 2 Var. 1 in Est. 11.0  
Var. is at about L. V.

Sunday, Mar. 13, 1898.

*S. Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 30 \\ \hline -5 \quad 07 \end{array}$$

+42.9 Waiter obs.

16 44 C ~~3~~<sup>w</sup> 3 Var., Var = ~~f~~<sup>o</sup> Est. 11.0

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 37 \\ \hline -5 \quad 00 \end{array}$$

+78.0 Waiter obs.

16 52 C 4 Var., Var = m Est. 10.8



Monday, Mar 14, 1898.

*S. Cephei*

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 47 \\ \hline -5 \quad 50 \end{array}$$

+78.0 Warts obs

16 01

14 Var., Var. 1 m. 1 Est. 10.8

*S. Cygni*

$$\begin{array}{r} 21 \quad 37 \\ 15 \quad 53 \\ \hline -5 \quad 44 \end{array}$$

+42.9 Warts obs

16 09

c ~~1~~ Var., Var. 2 ~~8~~ Est 11.8

Tuesday, Mar. 15, 1898.

*S. Cephei*

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 27 \\ \hline -5 \quad 10 \end{array}$$

+78<sup>00</sup> Wait obs.

16 34

$\Delta 5$  Var., Var. = m. Est. 10.8

*S. Cygni*

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 33 \\ \hline -5 \quad 04 \end{array}$$

+42<sup>09</sup> Wait obs.

16 41

$\Delta 1$  Var., Var. = S<sup>h</sup> Est. 11.3.

During both of above observations both were considerably bothered by passing clouds, but both observations thought to be good.



~~Wednesday~~ Thursday Mar. 17, 1898.

*S. Cephei.*

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 25 \\ \hline -5 \quad 12 \end{array}$$

+78°.0 Wait-obs.

16 30

l 3 Var., Var. 2 m Est. 10.6

*S. Cygni.*

$$\begin{array}{r} 21 \quad 37 \\ 21 \quad 37 \\ \hline -5 \quad 00 \end{array}$$

+42°.9 Wait-obs.

16 42

Cy<sup>o</sup> 1 Var., Var. 2 ~~Sp~~ Est. 11.3

Monday, Mar. 21, 1898.

S. S. Cygni.

21 37 +43.0  
~~14 37~~

14 33 ~~h~~ 3 Var., Var., 2 ~~k~~ Est. 8.0

Recently Discovered Comet.

R. A. 21 19 Dec. +16° 43' on Mar. 20.

Daily motion In R. A. +3<sup>m</sup> 44<sup>s</sup> in dec. +1° 11'

21 23 +17.7 Wait ok  
 15 35  
 - 5 48 Obs. dec. +18.° 4.

15 40

Comet seen. About 6.5 to 7 mag.  
 Tail about 1/6 diam. of field,  
 equals about 1/6 degree long.  
 Tail not particularly bright,  
 nor well defined.  
 Strong central condensation  
 to comet.  
 Seeing good.

S. Cygni

21 37  
 16 25  
 - 5 12

+78.0 Wait ok

16 10

l = Var., Var. 5m Est. 10.0

Thursday, Mar. 24, 1898.

S. S. Cygni.

21  
16

37  
17

44300 Wait obs

5

20

16 00 Cal ~~2~~<sup>a</sup> Var, Var, 4 ~~4~~<sup>c</sup> Est. 7.7



Friday, Mar. 25, 1898

J. S. Cygni.

21 37  
15 50

+42° 9 W. = ok

- 5 47

15 24 © h<sup>a</sup> 6 var, var = k<sup>c</sup> Est. 8.0

Thursday, Mar. 31, 1898.

S. P. Cygni,

21 37  
17 07

+ 42.9 Wail = obs

16 20  $c^{\ell} = \underline{\text{var.}}$ , var.  $3\beta^{\text{u}}$  Est. 10.8

Friday, April. 1, 1898.

S. L. Cygnus.

$$\begin{array}{r} 21 \\ 16 \\ \hline -5 \end{array}$$

$$\begin{array}{r} 37 \\ 37 \\ \hline 00 \end{array}$$

+42.9 Waited obs

15 55 C <sup>n</sup> ~~3~~ 1 Var., Var. 2 ~~8~~ Est. 11.0



Sunday, April 3, 1898.

S. S. Gemin.  
+42°.9 Wait-obs.

$$\begin{array}{r} 21 \quad 37 \\ 16 \quad 57 \\ \hline -4 \quad 40 \end{array}$$

15:45 ~~c~~<sup>a</sup> 1 Var., Var. 2 ~~8~~<sup>n</sup> Est 11.3

S. Cygni.  
+78°.0 Wait-obs.

$$\begin{array}{r} 21 \quad 37 \\ 17 \quad 05 \\ \hline -4 \quad 32 \end{array}$$

15:53 k 2 Var. Var. 2 l Est. 19.8



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LC









1895phase.pdf, 532A