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Project PHaEDRA - Williamina P. Fleming - Variable Stars #14

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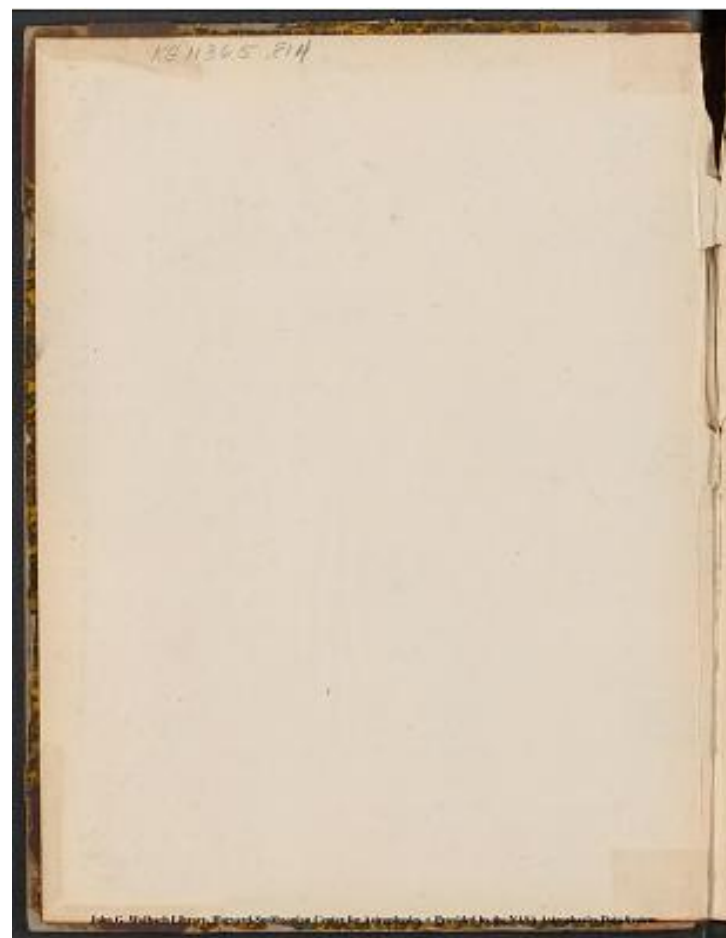
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[[label]]
KG 11365
814
[[/label]]



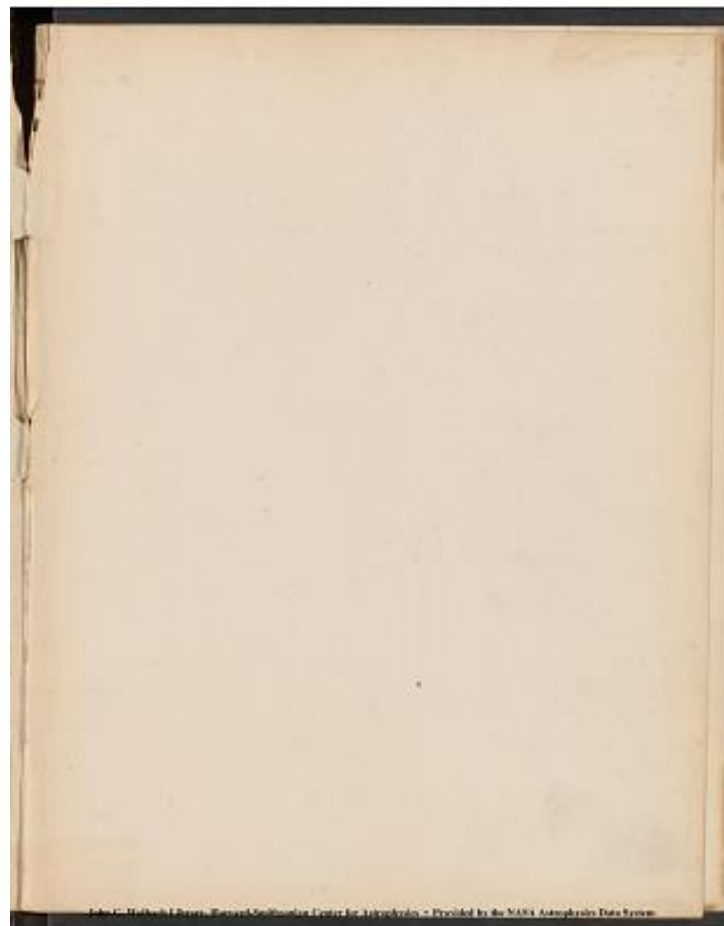
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KG11365,814



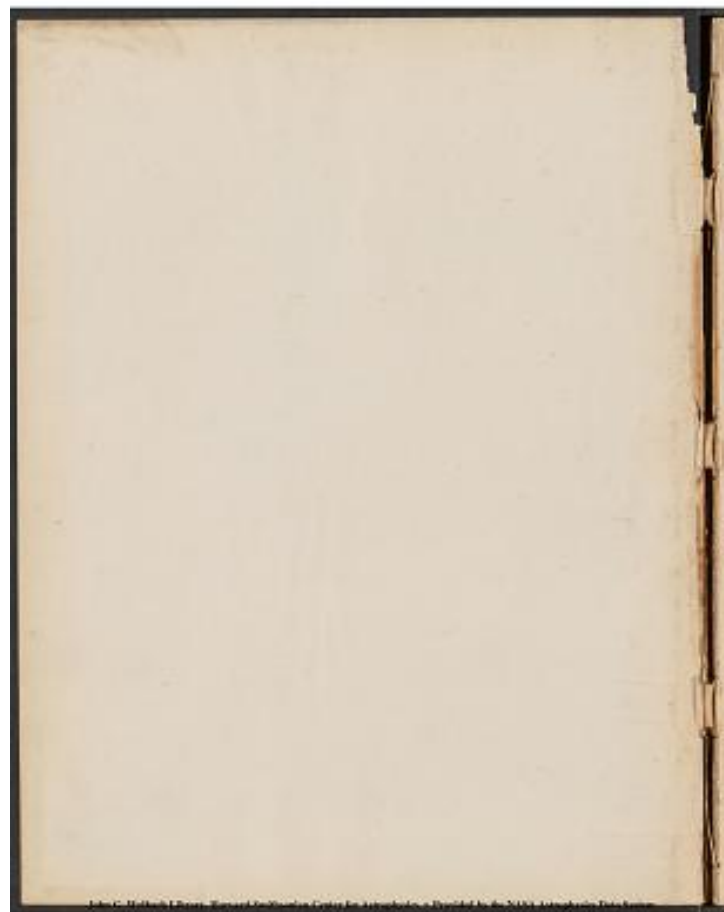
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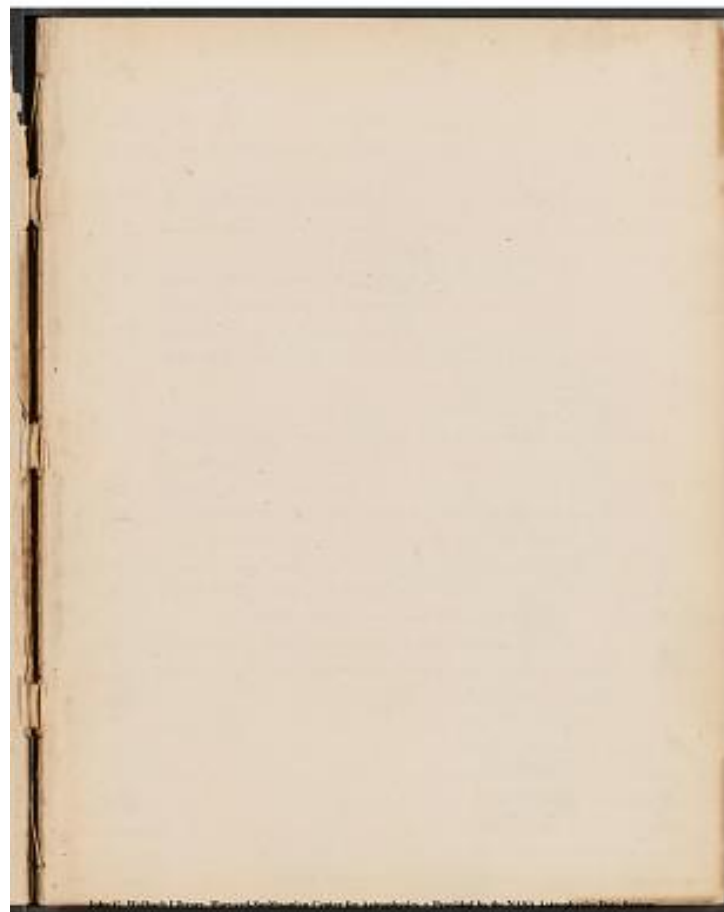
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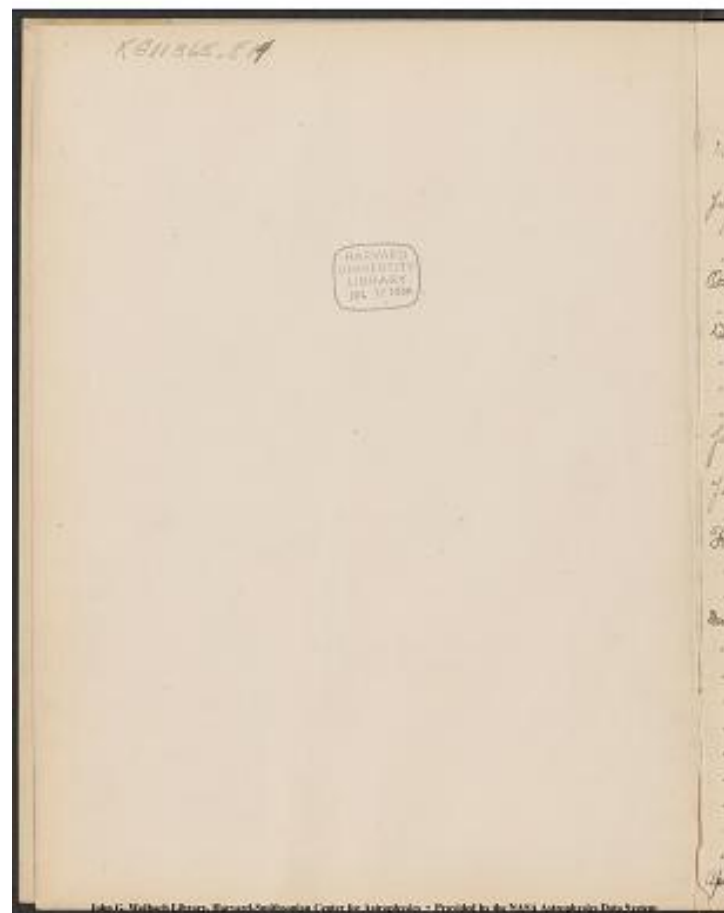


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1 3

Date | Object | Page
 Mar 8, 1899 | Nova Sagittarius Meas. of brightness | 4-23
 Mar 8, 1899 | Nova Sagittarius Meas. of brightness | 24
 July 8, 1899 | Exam. of plates for [[?]] var. ([[G.G.S.?]]) 10 h 44.9 + 14°29(approx. 1855 M.C.S) | 25
 July 26, 1899 | Estimates of separation of components of [[zeta?]] Centauri | 26
 July 26, 1899 | Estimates of separation of components of II [[Scorpi?]] | 27-28
 Oct 9, 1899 | Exam. of plates for nova C.D.M-23° 1266 for 12664 susp. by [[times?]] or [[sill?]](?) | 29
 Oct 9, 1899 | Meas. of nova suspected by [[Junes?]] or [[Sill?]] | 30-49
 Dec 6, 1899 | Asteroid magn 10 found by [[teh?]] ? | 50
 Dec 18, 1899 | Exam of plates for double star } R.A. 14 21 5.27 } Dec +26 5 55.2 } with a large common P.M. of } 14 21 8.46 } +26 6 7.5 }
 Dec 18, 1899 | +0.070 - 1.26 annually | 51
 Dec 18, 1899 | Exam of plates for variation if any in B.D. + 27° 2561? R.A. 15 53 17.5+27 24 59.6 (1875) | 52
 R.A. 15 54 19.6+27 20 37.3 (1900)
 Jan 1, 1900 | Annexed list of variables examined to determine their phot. spectra for Rev. J. [[?]] [[Hagrins?]] 3rd series of charts of variables | 53
 Jan 24, 1900 | Exam. for predicted new planet | 54-56
 Jan 26, 1900 | Exam. of plates to det. variation if any in C.D.M. - 24°10930 R.A. 1321.9 [[?]] -24°2(1875)[[?]] page 119 Bk 55 | 57
 Feb 2, 1900 | Exam. of region of nova normae (plate A2518) & search for variables found one variable E. [[L?]].P. | 58
 Feb 3, 1900 | Exam. of region of [[?]] Magellanic Cloud and eta Carinae for variables E. [[L?]].P. | 59
 Feb 6, 1900 | Exam. of plates for Mme [[Ceraskie's?]] [[?]] variable [[R.A.?]] 194059.7 [[Dec?]] +32 21 6 (1855) | 60-65
 March 5, 1900 | Exam of plates I24688 & I24690 for minor planet Fortuna (no 19) magn. 10.4 | 66
 March 6, 1900 | A further exam of plates I24687 & 24689 shows asteroids Urania & Fides | 67
 March 8, 1900 | Exam. of plates to confirm variation if any of -13°530 2 41.0 -13 4(1855) 6.3 | 68
 March 8, 1900 | Exam. of plates to confirm variation if any of -8°536 2 45.1 -8 52(1855) 7.8 | 69
 March 10, 1900 | Exam. of plates to confirm variation if any of +31 1946 9 4.6 +31 23(1900) | 70
 March 12, 1900 | Exam. of plates to confirm variation if any of [[?]] 28085 (prob -3°4910) R.A.20 21.1 [[Dec?]]-3° 24.9(1855) | 71
 March 12, 1900 | Exam. of plates to confirm variation if any of 24228 R.A. 17 44.9 [[Dec?]]-33°39 | 72
 March 12, 1900 | Exam. of plates to confirm variation if any of -2° 5054 R.A.19 28.3 [[Dec?]]-2° 4.6 7.7(1855) | 73
 March 12, 1900 | Exam. of plates to confirm variation if any of [[?]]25638 R.A. 18 38.6 [[Dec?]] -39°41(1875) | 74
 March 13, 1900 | Exam. of plates to confirm variation if any of [[?]] 30605 New var discovered | 75
 April 28, 1900 | Exam. of plates for evidence of variation in R. [[Puppes?]] [[?]] 9958 R.A. 737.0 [[Dec?]]-31° 35 var(1900) | 76

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Date|Object|Date

April 28, 1900. |Exam. of plates free evidence of variation in A.J.b. |30650
(1900?) R.A. 22^h[[h]] 23.4^m[[w]] [[?]] -37^s[[o]] 28^m[[1]] 7 1?4 [[?]]
|30649 .. 22^h[[h]] 23.4^m[[w]] -37^s[[o]] 29^m[[1]] 8 3/4 |77
July 9. 1900. |Exam of I 25532 for image of [[?]] |78
.. .. |Preliminary exam of plates showing image of Nora Aquilae R.A.
19^h[[h]] 15^m[[w]] 16^s[[s]] Dec.-0^s[[o]] 16^m[[1]] (1900) |79-80
.. 30 .. |Exam of I25595 Ex 153m. for Eros (W.P.Jobs) |81
Aug. 14 .. |.. plates for +34 447 R.A. 2^h[[h]] 22^m[[w]]. 3+ 346^s[[o]]
29^s[[1]] (1855)9. See letter. JV. [[?]] Aug. 6, 1900 |82
March 12 1901. |.. susp. war of Prof.R.W.Willson +8^s[[o]] 4261.
According to his obs. magn. 8 on Sept 22, or 23, 1899. |83
.. 13 .. |Meas. to det. magn. of Eros. [[?]] of comp. stars used for
Oct.28,30,31,1893 [[?]] on [[?]] from enl. of Jelate taken on Oct. 30,
1893 |84

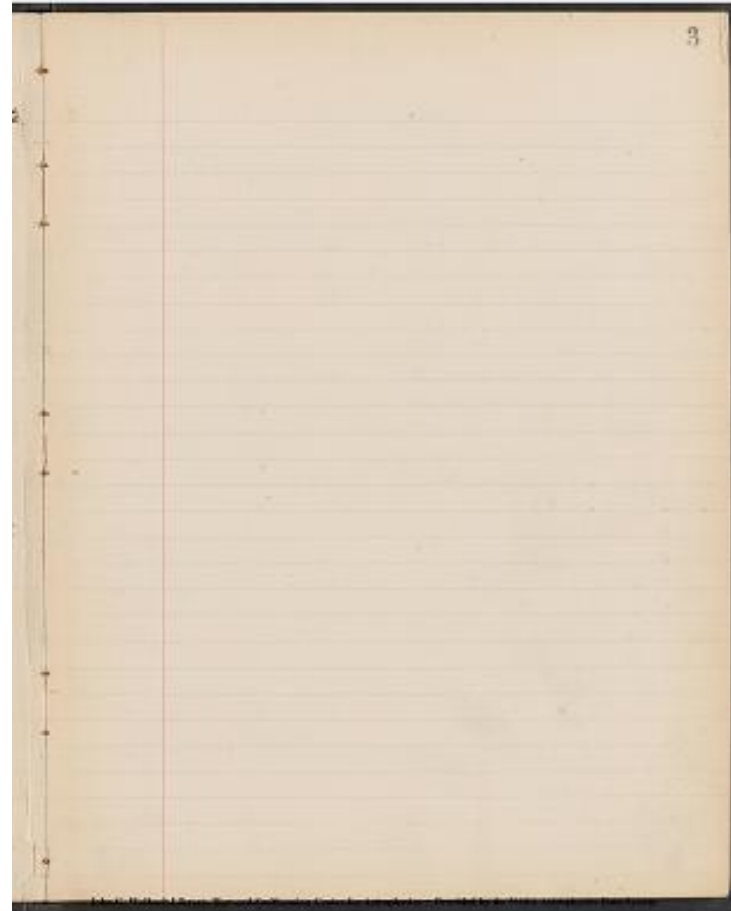
.. .. |.. magn. of Eros in 1896 |85
.. 14 .. |Exam. of photos of Eros |86
.. 25 .. |Est. of br. of Eros on photos |87
June 27 .. |Exam. of photos of A.J.b. 19175 magn. 6.6, b.P.D-50^s[[o]]
6654 of magn. 9.6 b.P.D-50^s[[o]] 6657 follows. 6.5^s[[s]], south 0.8 magn
9.0 ([[?]]) |88
.. .. |.. a few plates for conf. of [[?]] new Algol [[?]] 184 6 19.7^s[[s]]-
12^s[[o]] 46.9^s[[9]] 9.3 (1855) |89
.. .. |.. plates for [[?]] variable 19 7 37.01+33 10 12.6 (1855) |90
July 9 .. |Meas. of intensity of spectra of Nora Persei No.2 |91-114
.. 15 .. |br. .. |115-126
Aug. 3 .. |Exam. of plates for J.E.Jores [[?]] magn. star in vicinity of Nora
Persei No.2 |127
.. 20 .. |Photos of Lightning |128
Oct. 9 1901. |Search for D.Stewart's Asteroid. |129

Date	Object	Date
April 28, 1900	Exam of plates for evidence of variation in A.J.b. 30650	
July 9, 1900	Exam of I 25532 for image of [[?]]	78
Aug. 14, 1900	.. plates for +34 447 R.A. 2 ^h [[h]] 22 ^m [[w]]. 3+ 346 ^s [[o]]	81
March 12, 1901	.. susp. war of Prof.R.W.Willson +8 ^s [[o]] 4261.	83
Oct. 28, 30, 31, 1893	.. Meas. to det. magn. of Eros. [[?]] of comp. stars used for	84
Oct. 30, 1893	.. from enl. of Jelate taken on Oct. 30, 1893	84
.. magn. of Eros in 1896	85
.. 14 Exam. of photos of Eros	86
.. 25 Est. of br. of Eros on photos	87
June 27 Exam. of photos of A.J.b. 19175 magn. 6.6, b.P.D-50 ^s [[o]]	88
.. 6654 of magn. 9.6 b.P.D-50 ^s [[o]] 6657 follows. 6.5 ^s [[s]], south 0.8 magn	88
.. a few plates for conf. of [[?]] new Algol [[?]] 184 6 19.7 ^s [[s]]-	89
.. 12 ^s [[o]] 46.9 ^s [[9]] 9.3 (1855)	89
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.. 15 br. ..	115-126
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.. 20 Photos of Lightning	128
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3

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4

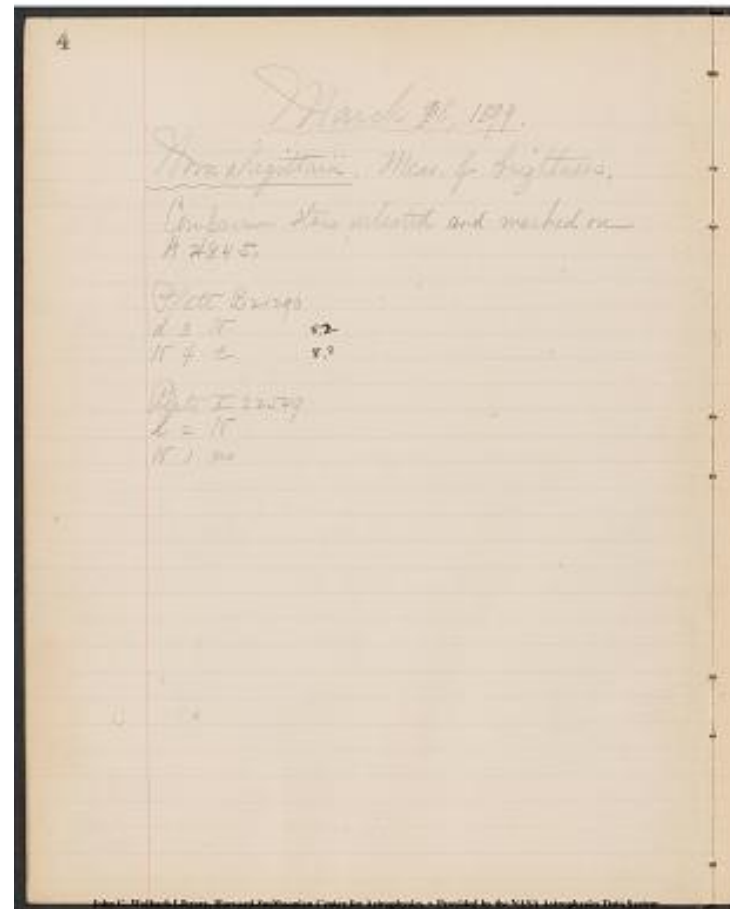
March, ~~1~~~~8~~, 1899.
1

Nova Sagittarii. Meas. of brightness,
Comparison stars selected and marked on
A 2845.

Plate B 21290
d 3 N 8.2
N 4 c 8.2

Plate I 22549
I 2 N
N 1 m

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March 11, 1899

Nora Sagittarii

B21251 sf. Cont. Sfest.

d4 ~~8.3~~ v ~~8.1~~

N 8.3 8.1 d2n

} Estimated total length

Noe 8.6 8.3 N3e

B21258 sf. Cont. Sfest.

e2N 8.8 ~~8.4~~ 8.2 d3n

} Estimated total length

Nlf 9.0 ~~8.8~~ 8.3 N3e

B21319

d3N 8.2

N1e 8.5

I ~~20738~~ B ~~20738~~

d4N 8.3

N0e 8.6

N3f 8.8 a'5.3 3.8

4.0 6.0

I20612 5.9 5.0 a'

d1N 8.0 B'5.1

N3e 8.3

20.1 14.9

5.0 5.0

Capsid Prix Caf Primary lungs

I20500 a'and B' 5.1 N3a' C'8N

n15c C'10N N1.5c

n12 ~~a~~ ~~1.6c~~ ~~n5a'~~

Identify A' n1.6c n5a'

B5h

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5

March 11, 1899

Nora Sagittarii

B21251 sf. Cont. Sfest.

d4 ~~8.3~~ v ~~8.1~~

N 8.3 8.1 d2n

} Estimated total length

Noe 8.6 8.3 N3e

B21258 sf. Cont. Sfest.

e2N 8.8 ~~8.4~~ 8.2 d3n

} Estimated total length

Nlf 9.0 ~~8.8~~ 8.3 N3e

B21319

d3N 8.2

N1e 8.5

I ~~20738~~ B ~~20738~~

d4N 8.3

N0e 8.6

N3f 8.8 a'5.3 3.8

4.0 6.0

I20612 5.9 5.0 a'

d1N 8.0 B'5.1

N3e 8.3

20.1 14.9

5.0 5.0

Capsid Prix Caf Primary lungs

I20500 a'and B' 5.1 N3a' C'8N

n15c C'10N N1.5c

n12 ~~a~~ ~~1.6c~~ ~~n5a'~~

Identify A' n1.6c n5a'

B5h

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6

March 11, 1899.

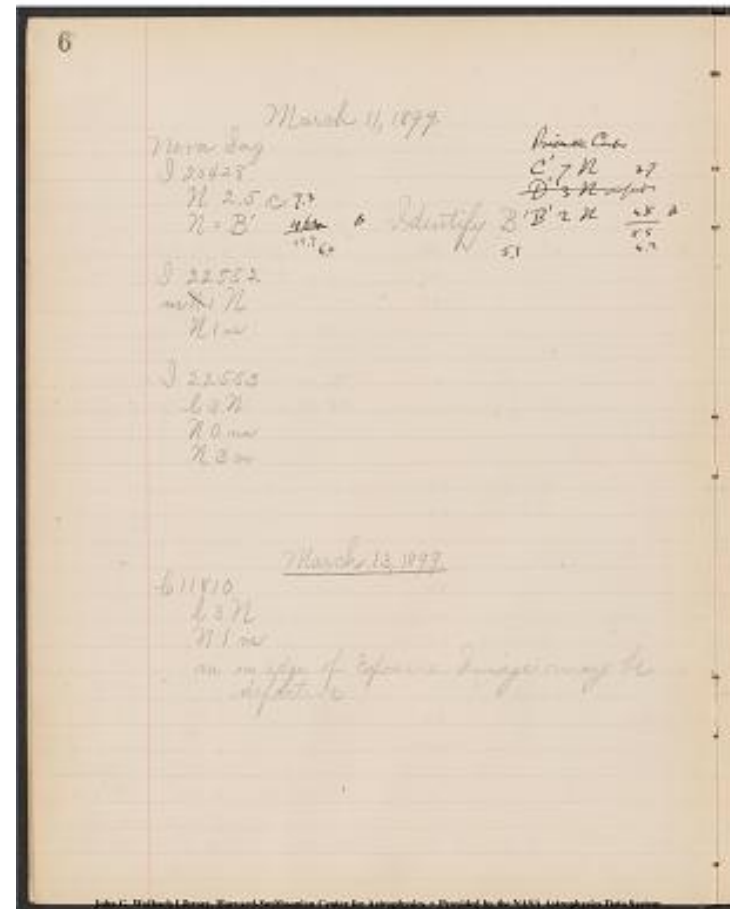
[[5 columned table]]
 Nova Sag | | B[Dintis] C[Cube] | |
 I 20428 | | C'7N|3.7|
 N2.5C|7.3 | [[strikethrough]]D'3N[[/strikethrough]]defect.|
 N=B'|[[underlined]]4.6[[strikethrough]]4[[strikethrough]][[/underlined]]
 B|Identify B'B'2N|[[underlined]]4.8[[/underlined]] B|
 | 11.9| | 8.5|
 | 6.0|5.1| 4.2|
 I 22552 | | |
 m[[strikethrough]]N[[strikethrough]]1N| | | |
 N1n| | | |

 I 22553 | | | |
 I3N | | | |
 N0m | | | |
 N3n | | | |

[[underlined]]March 13, 1899. [[/underlined]]

C11810
 I3N
 NIm
 m on edge of Exposure. Image may be defective

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7

March 13, 1899

Measures of Nova Sagittarii

B 2872. Sp.
e = .2
N N.S.

B 3014
p = .3
N N.S.

B 4024 Sp.
b = .5
c not on plate
N N.S.

I 1545
m = .1
N N.S.

I 1733
m = .1
N N.S.

I 1738
o = .2
N N.S.

7

March 13, 1899
Measures of Nova Sagittarii

B 2872 Sp.
e = .2
N N.S.

B 3014
p = .3
N N.S.

B 4024 Sp.
b = .5
c not on plate
N N.S.

I 1545
m = .1
N N.S.

I 1733
m = .1
N N.S.

I 1738
o = .2
N N.S.

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8

Mar. 13, 1899.

Measures of Nova Sagittarii

B 5996

q = .2

N N.S.

B 5998

o = .1

N N.S.

I 3776 Sp.

q = .2

N N.S.

I 3808 Sp.

q = .1

N N.S.

I 3831 Sp.

e = .2

N N.S.

B 6545 Sp.

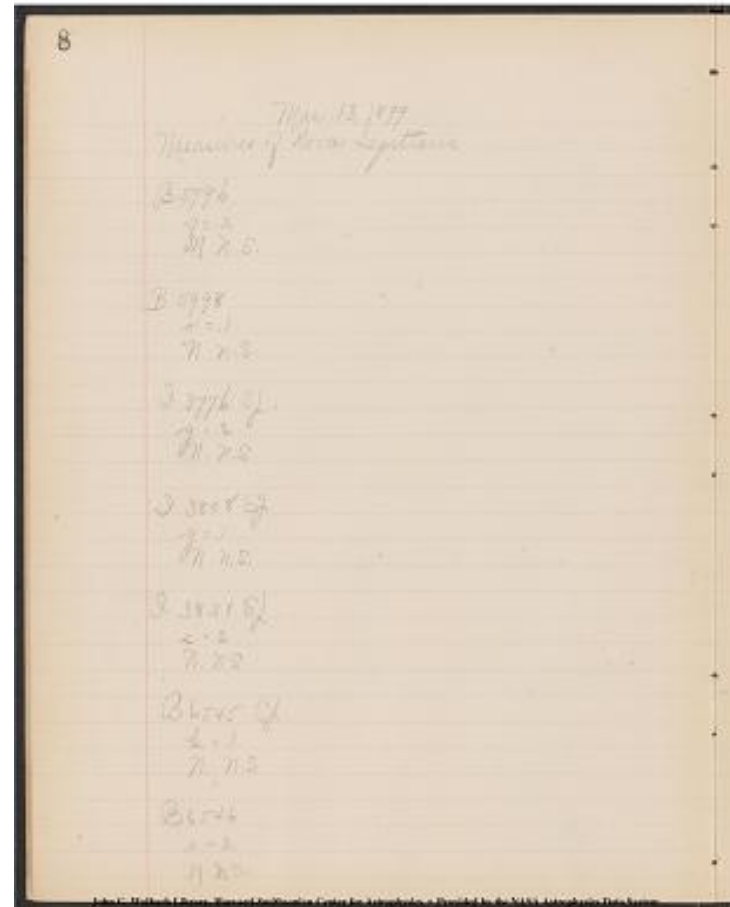
b = .1

N N.S.

B 6546

s = 2

N N.S.



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9

March 13, 1899.

Measures of Nova Sagittarii

I 3911 Sp.
h = .1
N N.S.

I 4092 Sp.
d = .3
N N.S. On edge of plate.

I 4272 Sp.
g = 2
N N.S.

B 7610
d = .6
N N.S. On edge of plate

B 7880
o = .1
N N.S.

B 9238
o = .2
N N.S.

9

March 13, 1899.
Measures of Nova Sagittarii.

I 3911 Sp.
h = .1
N N.S.

I 4092 Sp.
d = .3
N N.S. On edge of plate

I 4272 Sp.
g = 2
N N.S.

B 7610
d = .6
N N.S. On edge of plate

B 7880
o = .1
N N.S.

B 9238
o = .2
N N.S.

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10

March 13, 1899.

Meas. of Nova Sagittarii.

B 9239

m = .1

N N.S.

B 9552 Sp.

k = .1

N N.S.

B 9793 Sp.

c = .2

N N.S.

B ~~9619~~⁹⁹¹⁶

Doesn't cover region

B 9917

r = .1

N N.S.

B 9943

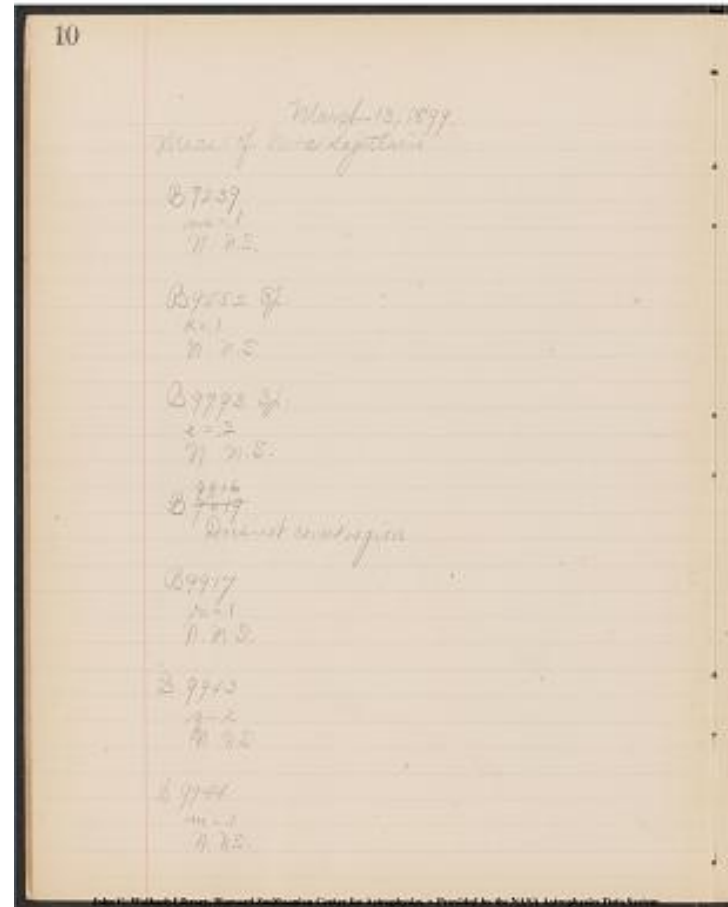
q = .2

N N.S.

B 9944

m = .1

N N.S.



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11

March 13, 1899

Measures of Nova Sagittarii

B 10038

$t = .1$

N.N.S.

B 10039

$[[?]] = .1$

N.N.S.

B 10078 SL.

$g = .2$

N.N.S.

B 10162 SL.

$l = .2$

N.N.S.

B 10169 SL.

$l = .2$

N.N.S.

I 11066 SL.

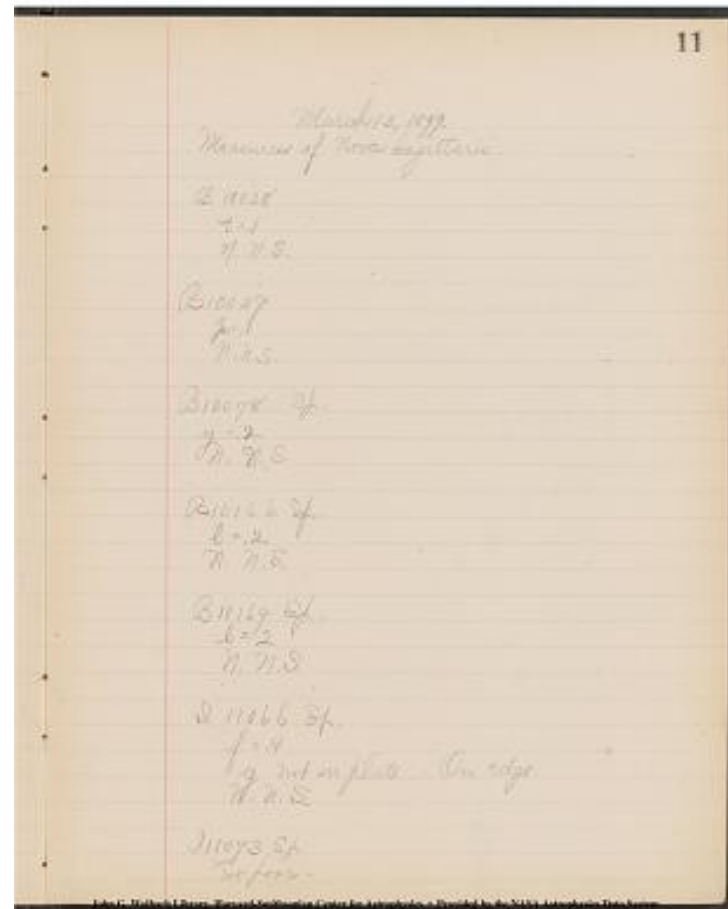
$f = 4$

g not on plate. On edge.

N.N.S.

I 1073 SL.

For floor.



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12

March 13, 1899

Measures of Nova Sagittarii

B 11321 Sp.

$h = .2$

N N.S.

I 11172 Sp.

$h = .2$

N N.S.

~~I 11480 Sp.~~

$l = .2$

N N.S.

B 11487 Sp.

$k = .2$

N N.S.

I 11228 Sp.

$g = .1$

N N.S.

On edge of plate

I 11252 Sp.

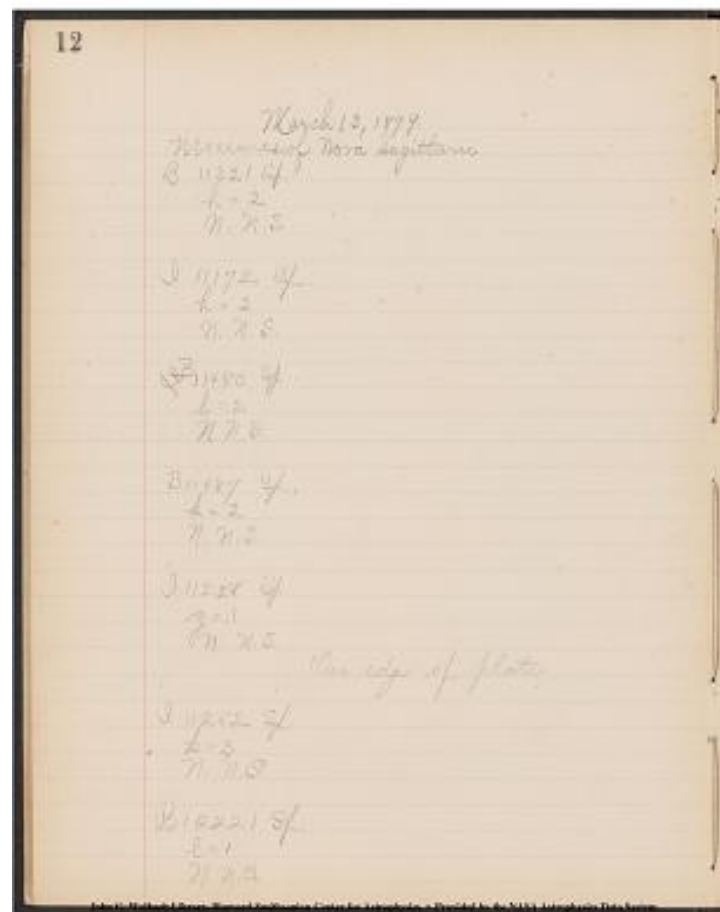
$k = .3$

N N.S.

B 12221 Sp.

$l = .1$

N N.S.



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13

March 12, 1899.

Measures of Nova Sagittarii

B 12546

$\alpha = .1$

N N.S.

B 12550

$\alpha = .1$

N N.S.

I 12921 Sp.

$k = .1$

N N.S.

B 13540

$s = .1$

N N.S.

B 13591

$r = .1$

N N.S.

B 13634

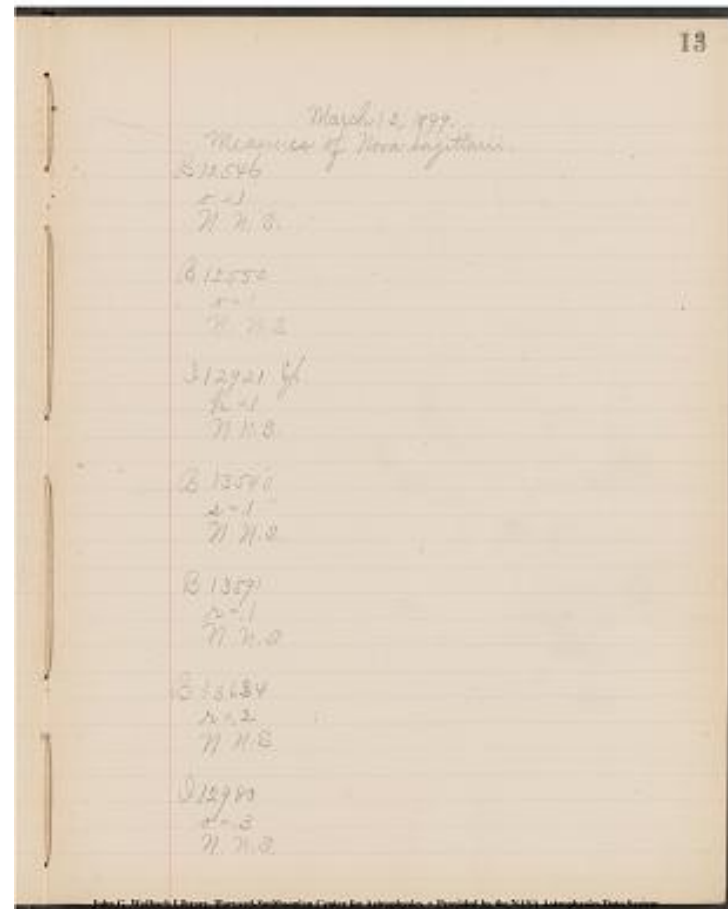
$r = .2$

N N.S.

I 12980

$\alpha = .3$

N N.S.



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15

March 13, 1899.

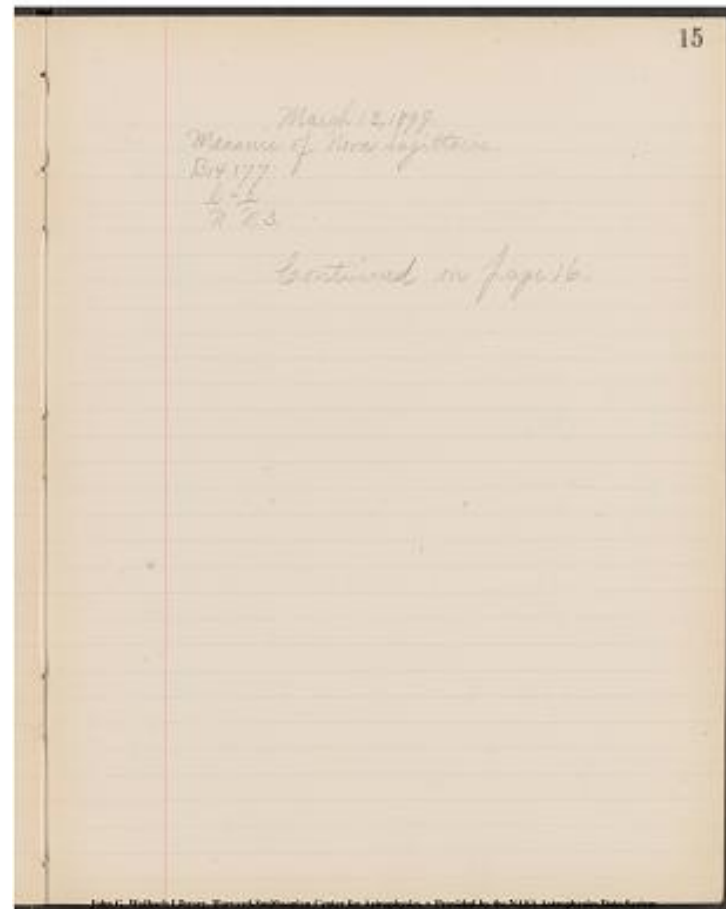
Measures of Nova Sagittarii

B 14177

I = .2

N N.S.

Continued on page 16.



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March 14, 1899.

Measures of Nova Sagittarii (continued from page 15)
B 6871 Sp.

$g = .1$
N N.S.

I 13093
 $n = .2$
N N.S.

B 14~~00~~⁰ Sp.
 $l = .2$
N N.S.

B 14208 Sp.
 $k = .1$
N N.S.

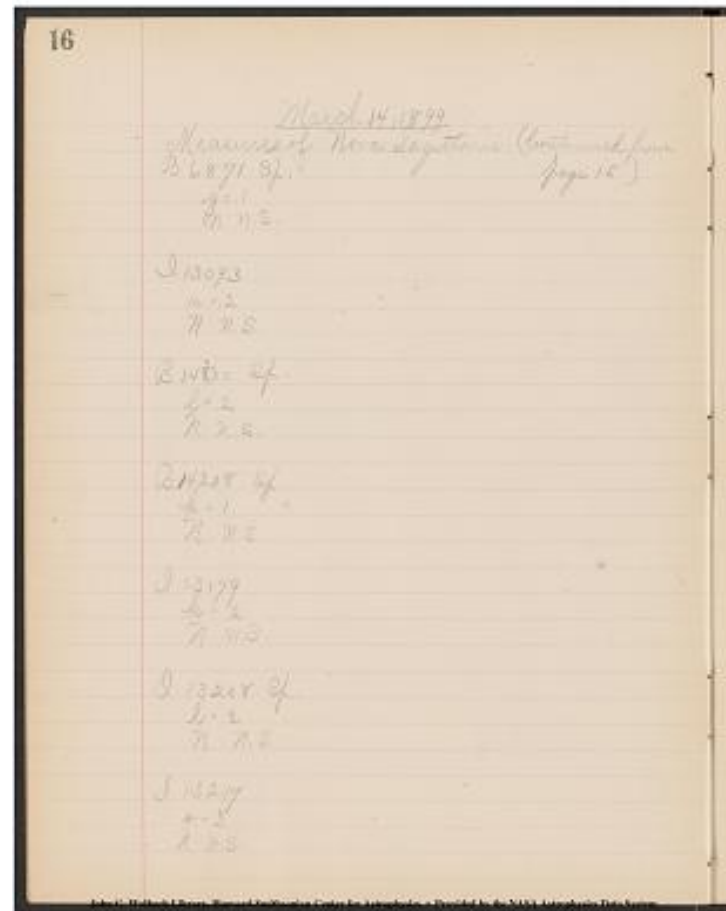
I 13179
 $k = .2$
N N.S.

I 13208 Sp.
 $l = .2$
N N.S.

I 13217
 $o = .3$
N N.S.

[[separate from main text]]

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[[separate from main text]]



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18

March 14, 1899.
Meas. of Nova Sagittarii
B 1703~~3~~³
I = .3
N N.S.

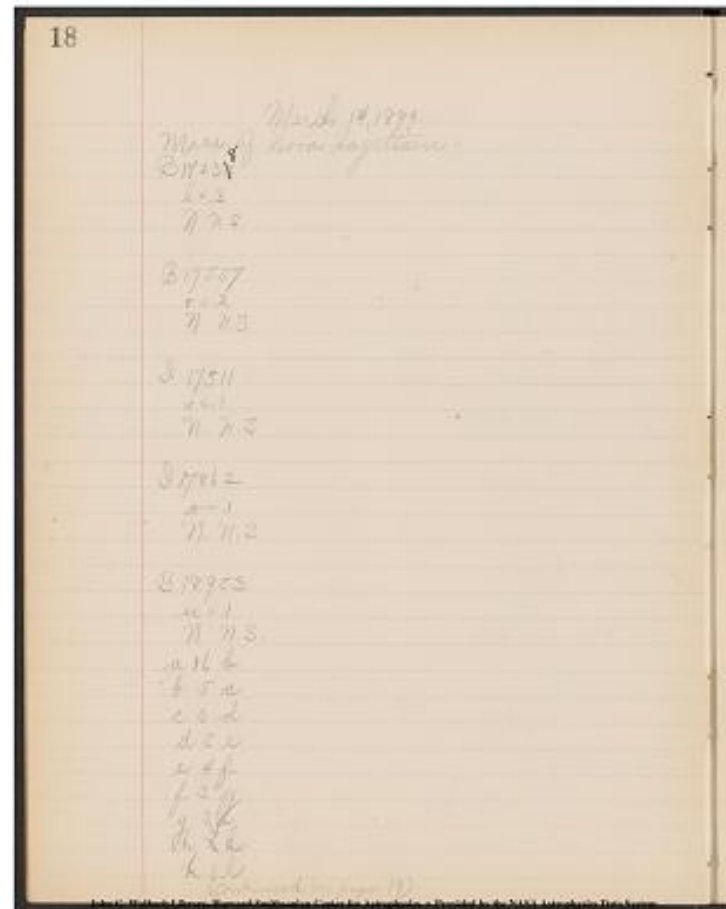
B 17557
o = .2
N N.S.

I 17511
o = .1
N N.S.

I 17862
o = .1
N N.S.

B 18953
u = .1
N N.S.
a 16 b
b 5 c
c 3 d
d 5 e
e 4 f
f 3 g
g 3 h
h ~~3~~³ k
k 3 l
(continued on page 19)

[[separate from main text]]
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[[/separate from main text]]



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March 14, 1899.

Measures of Nova Sagittarii.

B 18953 (continued from page 18)

l 3 m
m 2 n
n 2 o
o 2 p
p 3 q
q 2 r
r 3 s
s 2 t
t 2 u

B 17689

t = .2

N. N.S.

a 18 b

b 3 c

c 4 d

d 5 e

e ~~3~~⁴ f

f 3 g

g 2 h

h 3 k

k 3 l

l 3 m

m 2 n

n 3 o

o 2 p

p 3 q

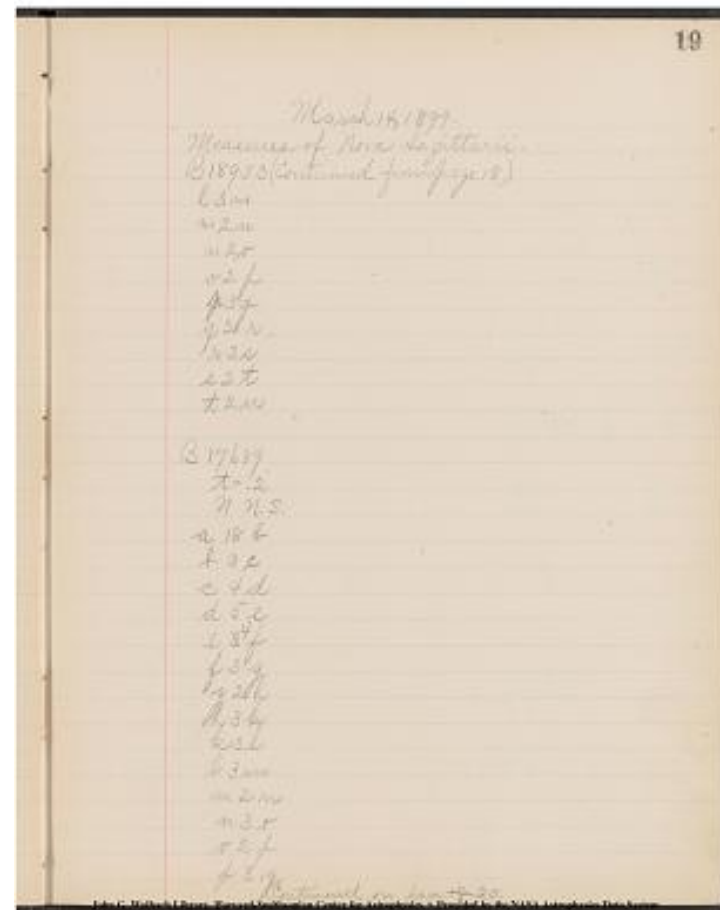
(continued on page ~~18~~¹⁹.)

~~[[separate from main text]]~~

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~~[[separate from main text]]~~



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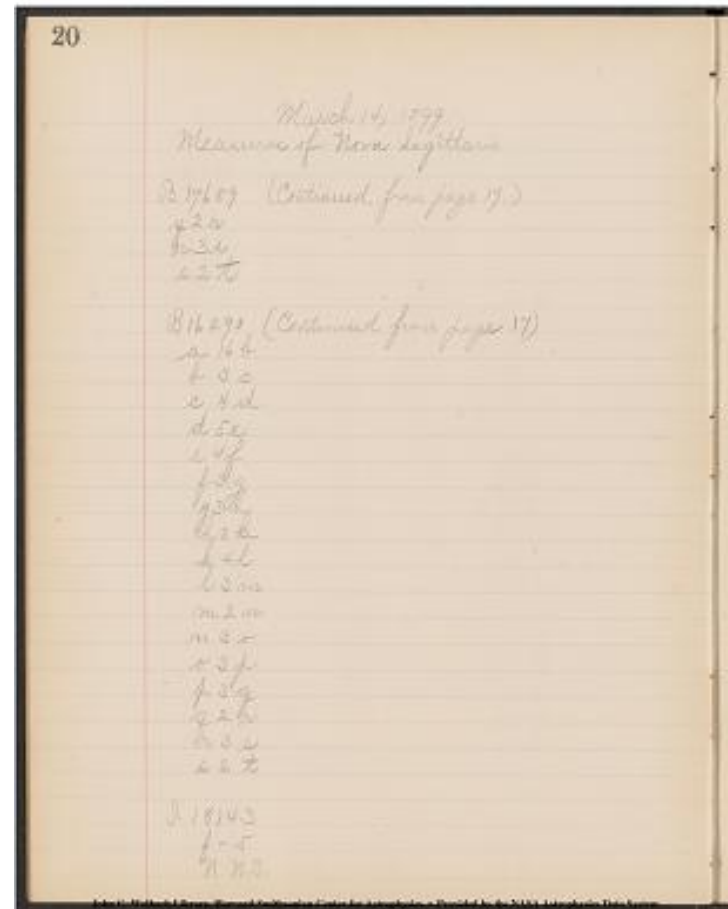
March 14, 1899.
Measures of Nova Sagittarii

B 12689 (Continued from page 19.)
q 2 r
r 3 s
s 2 t

B 16290 (Continued from page 17)
a 16 b
b 3 c
c 4 d
d 5 e
e 4 f
f 3 g
g 3 h
h 3 k
k 4 l
l 3 m
m 2 n
n 3 o
o 3 p
p 3 q
q 2 r
r 3 s
s 2 t

I 18143
f = .5
N N.S.

[[separate from main text]]
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[[/separate from main text]]



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March 14, 1899.
Measures of Nova Sagittarii.

~~1~~ B 19349
f = .1
N N.S.

B 19512
u = .2
N N.S.
continued

I 1827~~6~~ 7
m = .1
N N.S.

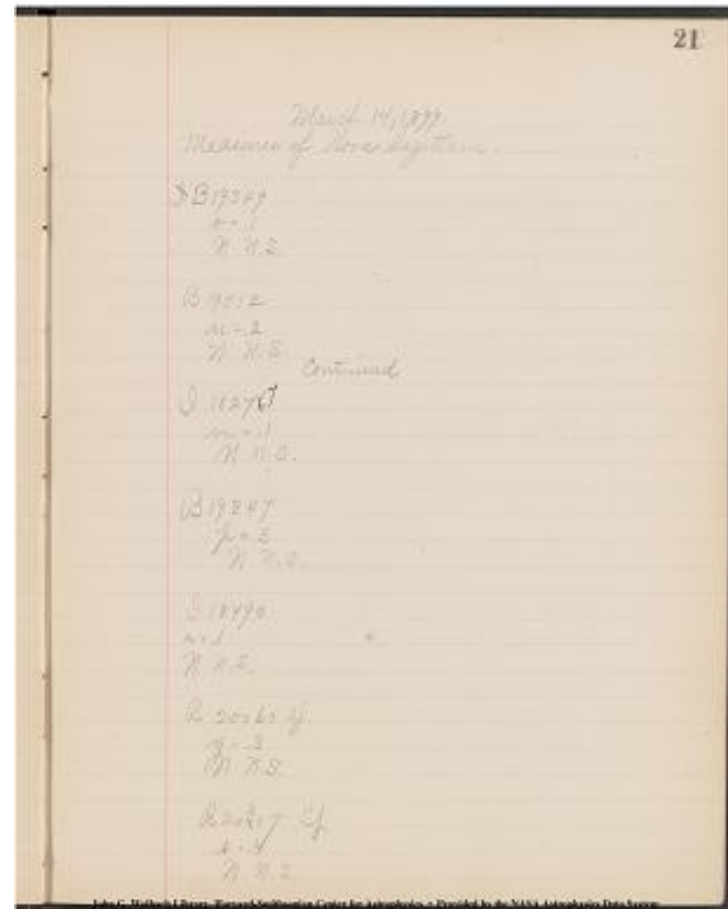
B 19847
p = .3
N N.S.

I 18490
n = .1
N N.S.

B 20060 Sp.
g = .3
N N.S.

B 20~~1~~² 07 Sp.
e = .4
N N.S.

[[separate from main text]]
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[[/separate from main text]]



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22

March 14, 1899
Measures of Nova Sagittarii

I18617 SJ
f=.3
N N.S.

I18618
g=.3
N N.S.

B20614
r=.2
N N.S.

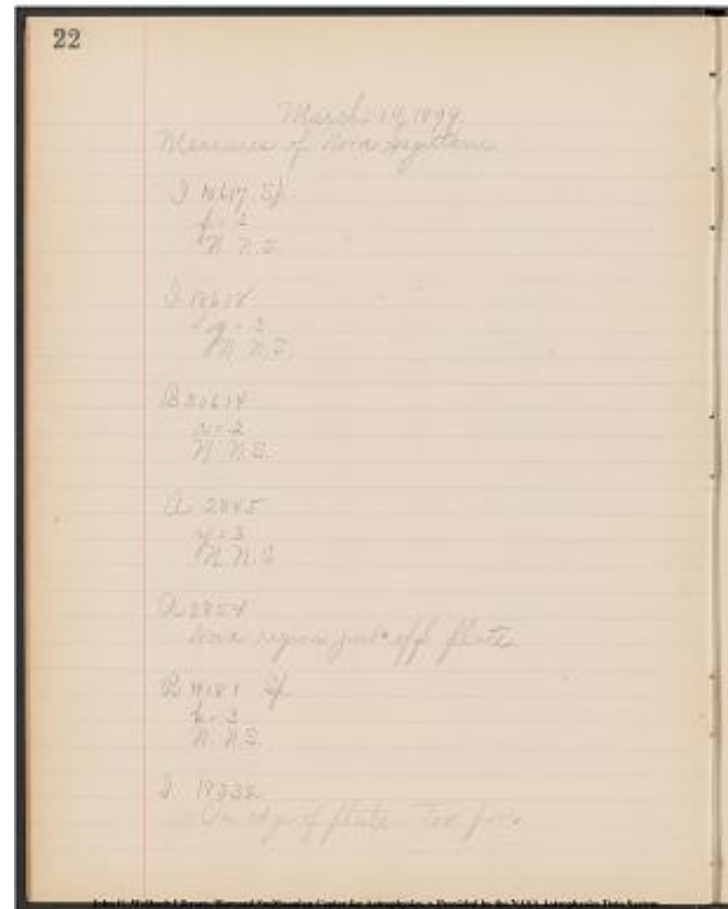
A2845
y=.3
N N.S.

A2854
Nova region just off plate.

B14181 Sp.
k=.3
N. N.S.

I18332
On edge of plate. Too poor.

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March 14, 1899.

M

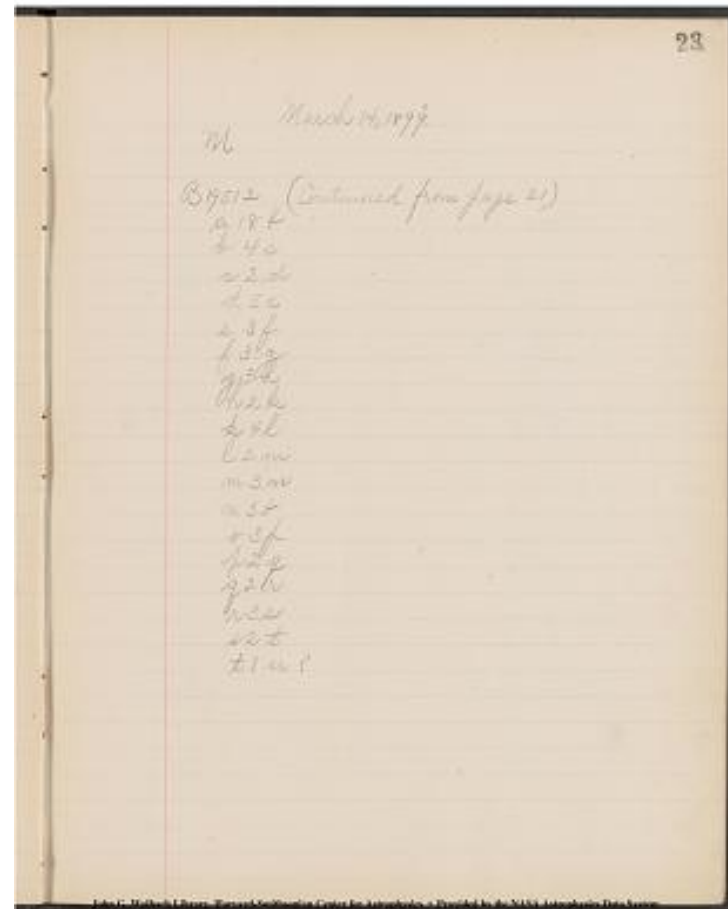
B 19512 (Continued from page 21)

a 18 b
b 4 c
c 2 d
d 6 e
e 3 f
f 3 g
g 3 h
h 2 k
k 4 l
l 2 m
m 3 n
n 3 o
o 3 p
p 2 q
q 2 r
r 3 s
s 2 t
t 1 u?

[[separate from main text]]

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[[/separate from main text]]



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A 2845

a 16 b

b 4 c

c 2 d

d 5 e

e 3 f

f 2 g

g 3 h

h 3 k

k 3 l

l 2 m

m 3 n

n 3 o

o 3 p

p 3 q

q 2 r

r 3 s

s 2 t

t 1 ~~v~~^u~~u~~ 2 w

w 3 x

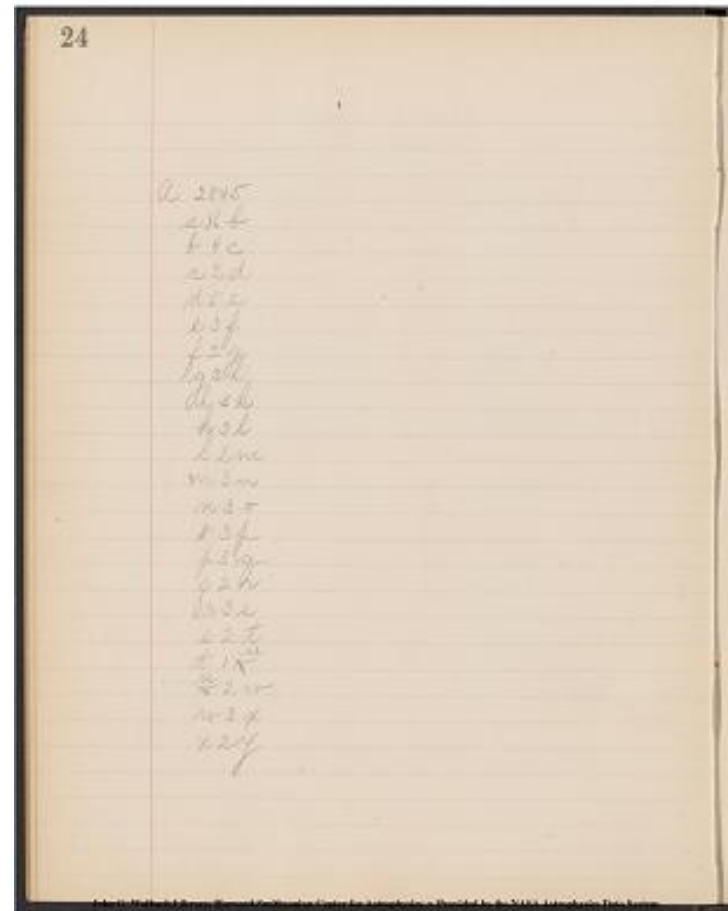
x 2 y

[[separate from main text]]

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[[/separate from main text]]



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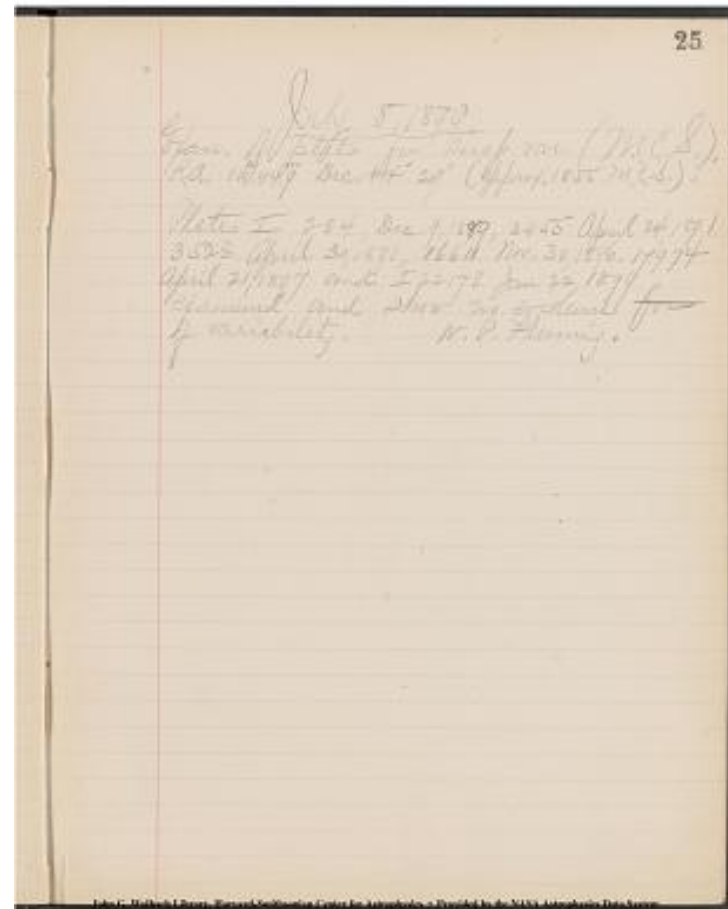
July 8, 1899.

Exam. of plates for disp. var (M.C.S.).
R.A. 10^{h} 44.^m 9^s Dec. $+14^{\circ} 29'$ (approx. 1855 M. C. S.).

Plates I 284, Dec. 9, 1889, 3455 April 24, 1891.
3528 April 30, 1891, 16611 Nov. 30, 1896. 17974
April 21, 1897 and I 22178 Jan 22, 1899
examined and show no evidence ~~for~~ of
variability. W.P. Fleming.

~~[[separate from main text]]~~

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~~[[/separate from main text]]~~



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July 26, 1899.

Estimates of separation of components of Z Centauri

Plate x 5628
Lines single

Plate x 9228
Lines hazy.

Plate x 9273
Lines double = .006 in. strong lines to red.

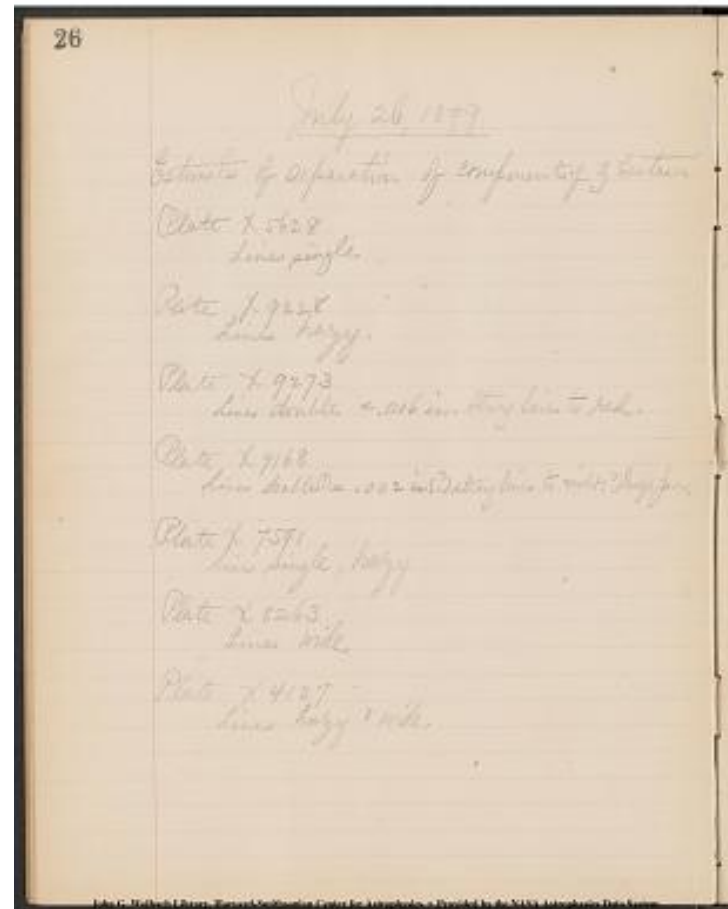
Plate x 9168
Lines double(?)] .002 in (?) strong lines to violet (?) Image poor.

Plate x 7591
Lines single, hazy

Plate x 8263
Lines wide

Plate x 4127
Lines hazy & wide.

[[separate from main text]]
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[[separate from main text]]



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27

July 26, 1899.

Estimates of separation of components of π Scorpii

C 6782
Single, hazy

C 6818
Wide (double?)

C 1960
Wide, hazy

C 451
Not on plate

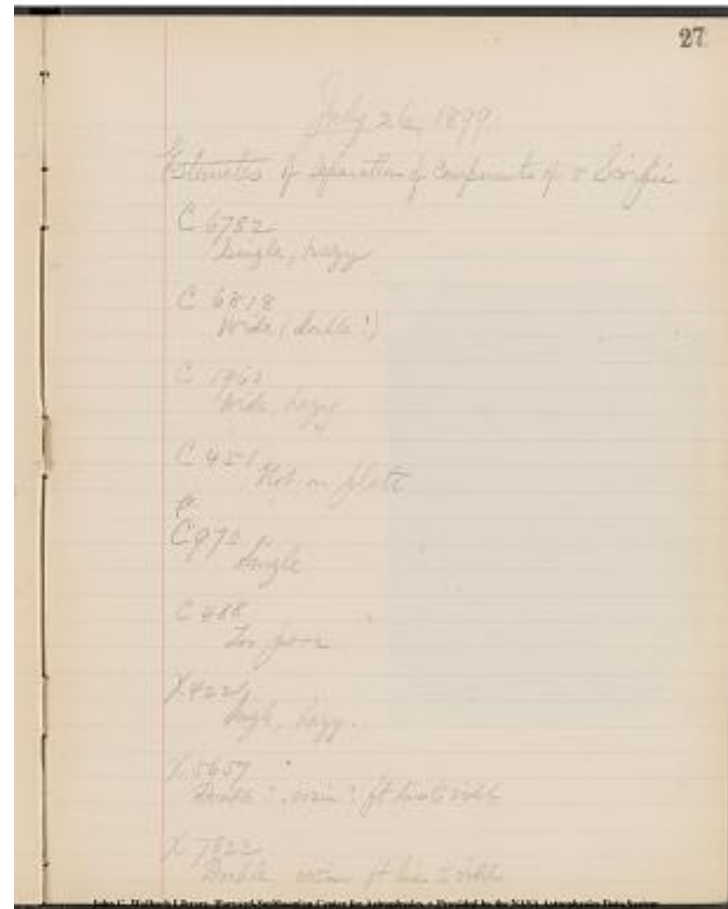
~~C 970~~
Single

C 488
Too poor

X 5657
Double? .002 in? ft lines to violet.

X 7822
Double 005 in. ft lines to violet.

~~[[separate from main text]]~~
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~~[[/separate from main text]]~~



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28

July 26, 1899.

Estimates of PI Scorpii (Cont.)

X 8481
Wide, hazy

X 8621
Hazy.

X 9143
Wide, hazy

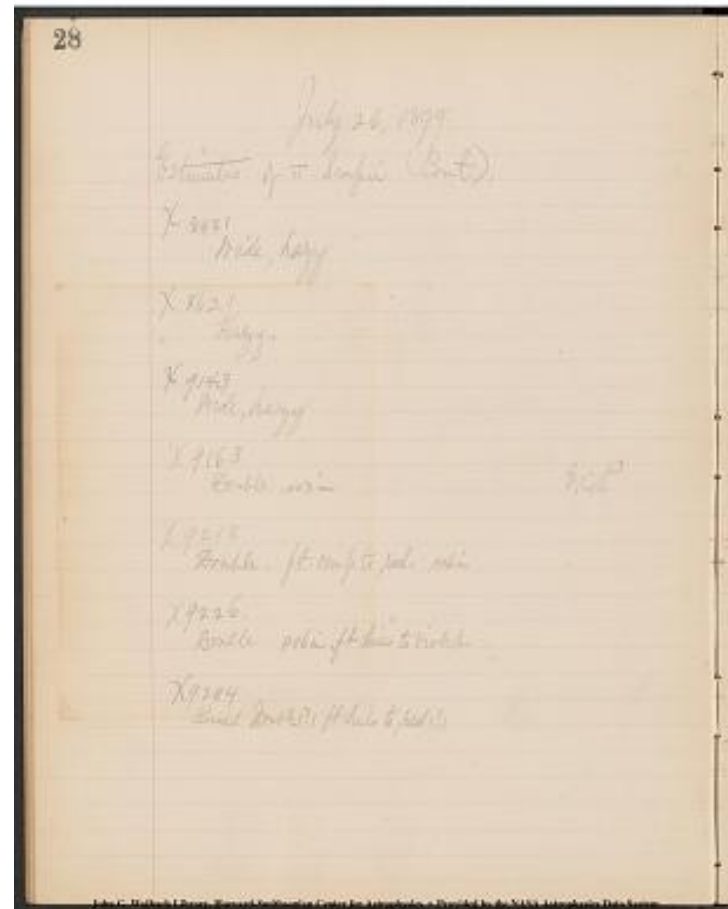
X 9163
Double .003 in

X 9218
Double. ft. comp to red. .006 in

X 9226
Double .006 in. ft lines to violet

X 9284
Broad Double (?) ft lines to red (?)

[[separate from main text]
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[[/separate from main text]]



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29

October 9, 1899

Exam. of plates for Nova [^]_{[[c.D.m-23^[[o]] or 12664]]} suspected by _{[[?]]} or Gill(?)
(See letter of Dr Gill, Sept 4., 1899) [^]_{[[23^[[o]]12667=15^[[h]]5644.8-2348.7 10]]}
[^]_{[[23 12664=155640.5-2348.9 10]]}

Print from A2763
[[image]]

B ~~38~~ 19145
a4, 4
4 1b

c3 3
3 1,d

1 [[?]] 2 not seen

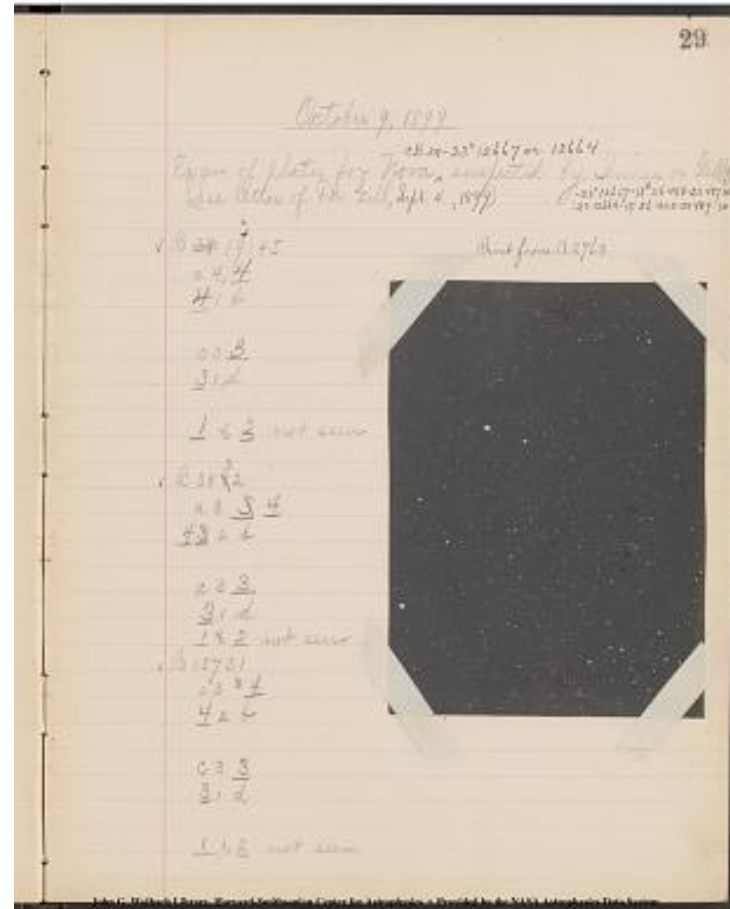
B28 ~~8~~ [^]_{[[3]]} 2
a3
~~3~~ 4
4 ~~3~~
~~3~~ 2b

c3 3
3 1d
1 2 not seen

B15731
a3 [^]_{[[?]]} 4
4 2b

c3 3
3 1d

1 2 not seen



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October 9, 1899

Meas. of Nova suspected by Luns or Gill (?)

[[check mark]] B 15983

a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 not seen

[[check mark]] B 14034

a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 not seen

[[check mark]] B 16068

a 4 4
4 1 b

c 3 3
3 1 ~~through~~ d

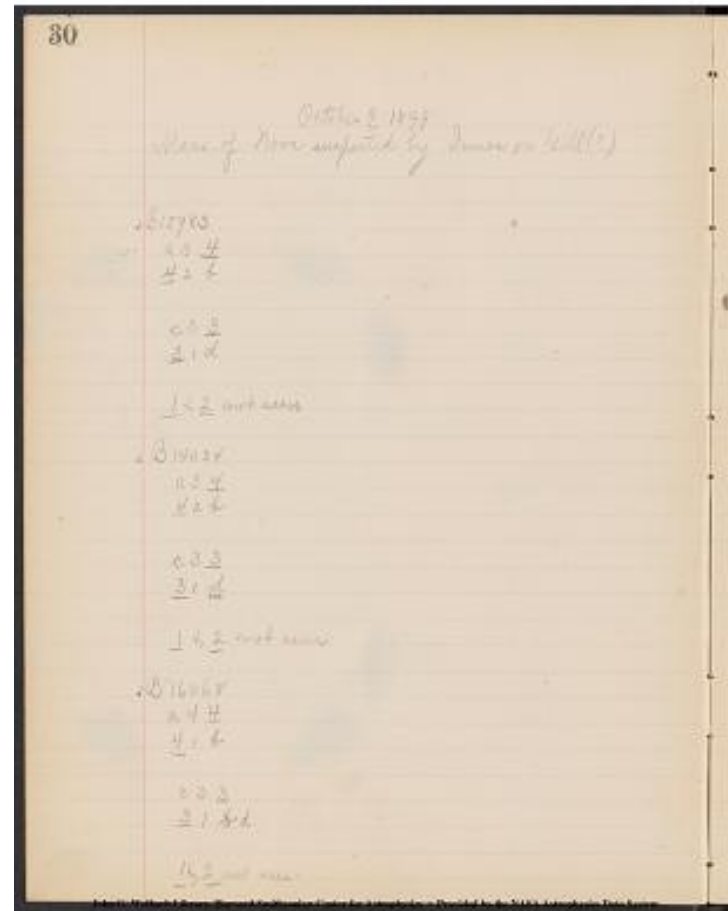
1 & 2 not seen.

[[separate from main text]]

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[[/separate from main text]]



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October 9, 1899.
Meas. of suspected star by Lunes or Gill (?)

☒ B 16145

a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 not seen

☒ B 10214

a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 not seen

☒ B 15648

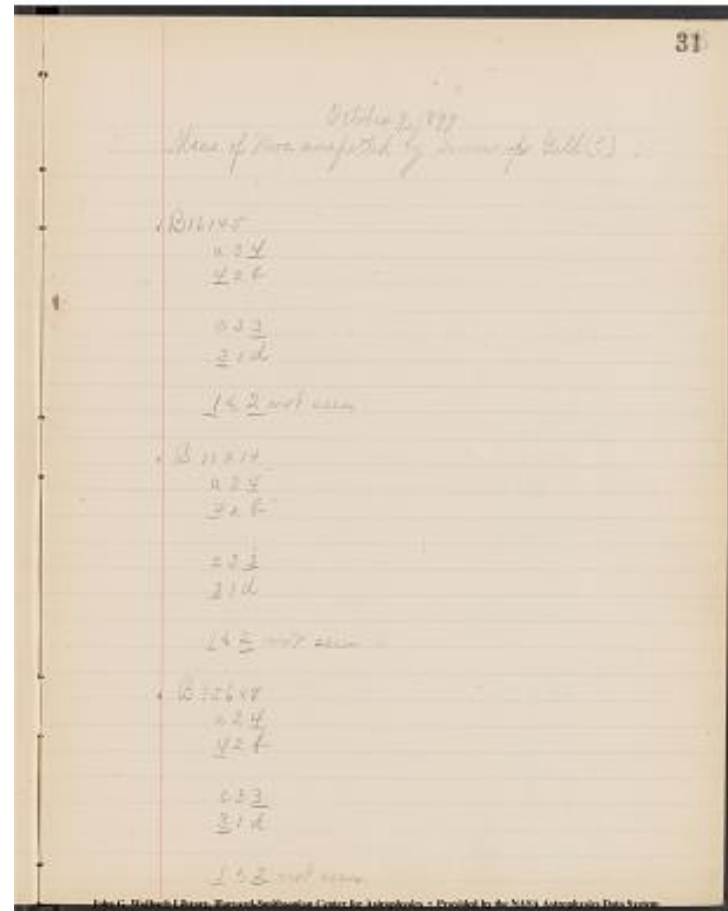
a 2 4
4 2 b

c 3 3
3 1 d

1 & 2 not seen.

☐ [separate from main text]

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☐ [separate from main text]



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32

Oct. 9, 1899.

Meas of Nova

B11896

a34
42b

c33
31d

1 alpha 2 N.S.

B15862

~~a3~~4
42b

c33
31d

1 gamma 2 N.S.

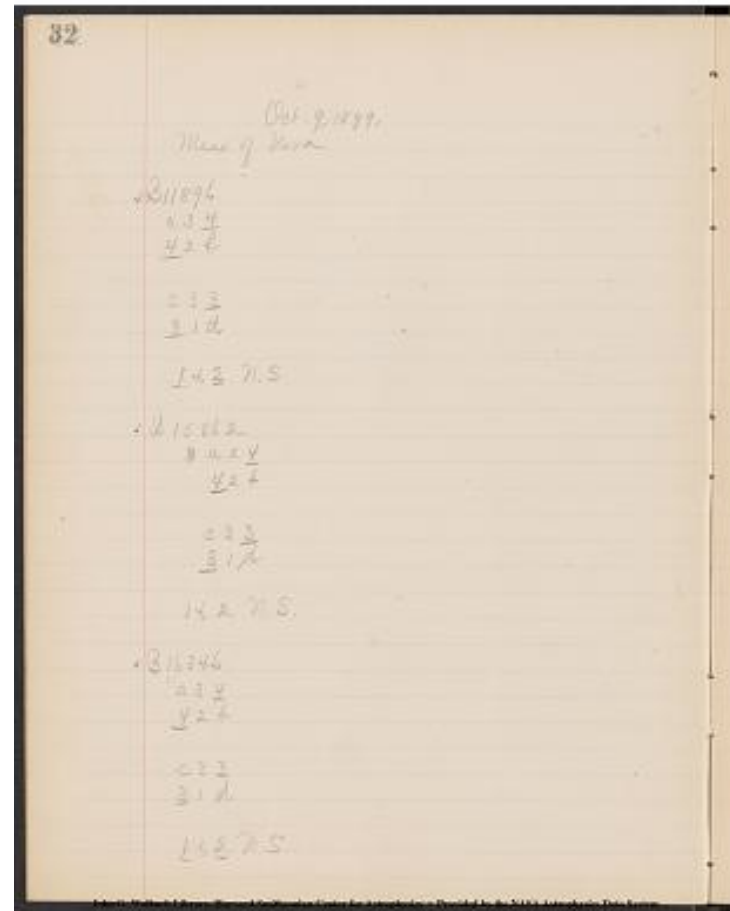
B16346

a34
42b

c33
31d

1 gamma 2 N.S.

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Oct. 9, 1
Meas. of Nova.

☒ B 16493

a 2 16493
16493 2 b

c 3 16493
16493 1 d

16493 1 & 16493 2 n.s.

☒ B 5333

a 3 5333
5333 2 b

c 3 5333
5333 1 d

5333 1 & 5333 2 N.S.

☒ B 3526

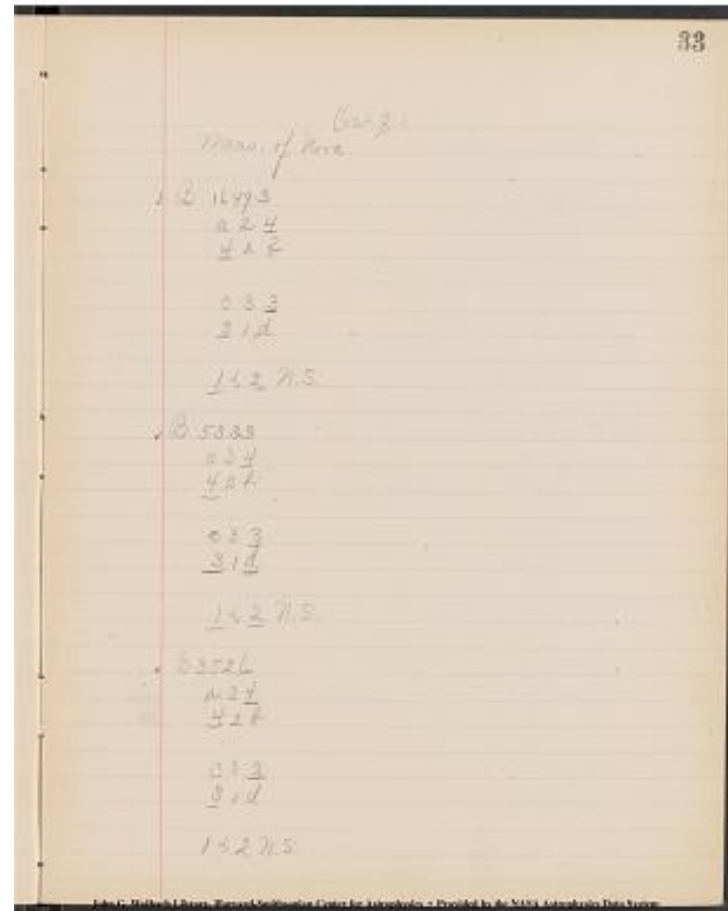
a 3 3526
3526 2 b

c 3 3526
3526 1 d

1 & 2 N.S.

☐ [separate from main text]

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☐ [separate from main text]



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Oct 9, 1899.
Meas. of Nova

☒ B 6087

a 2 4
4 2 b

c 3 3
3 1 d

1 & 2 N.S.

☒ B 16775

a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 N.S.

☒ B 18886

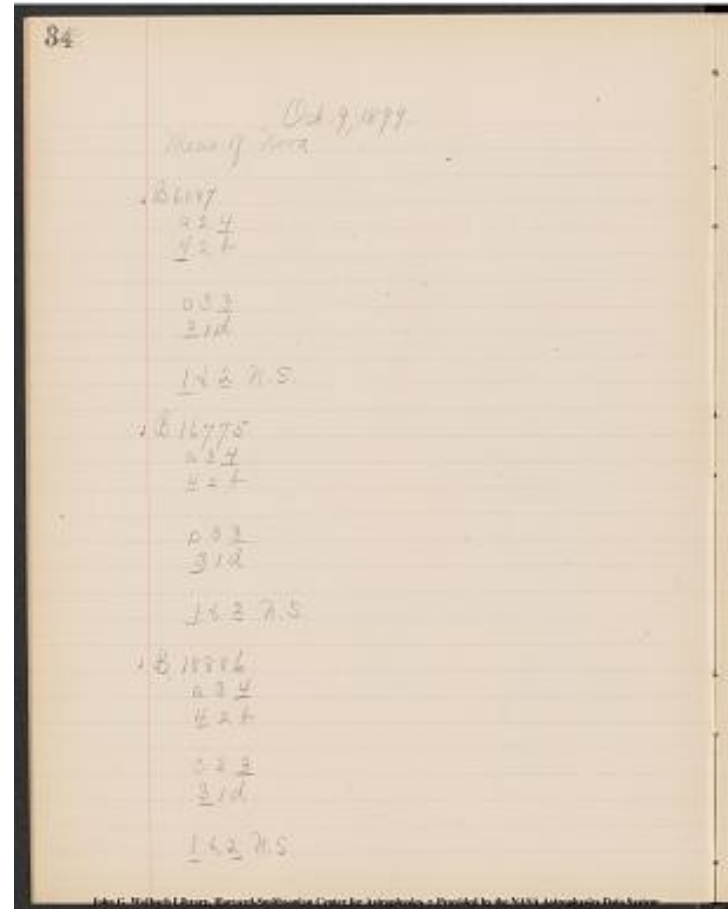
a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 N.S.

☐ [separate from main text]

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☐ [separate from main text]



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35

Oct. 9, 1899
Meas. of Nova

☒ B 21194
a 3 4 4
4 2 f

c 3 3 3
3 1 d

1 & 2 N.S.

☒ B 16976
a 3 4 4
4 2 b

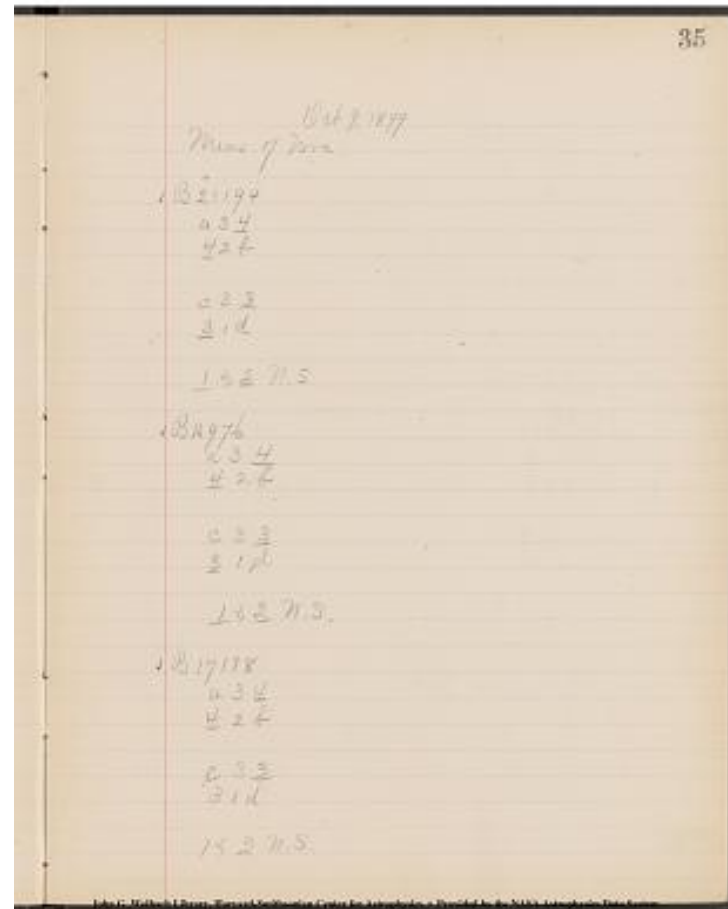
c 3 3 3
3 1 d

1 & 2 N.S.

☒ B 17118
a 3 4 4
4 2 b

c 3 3 3
3 1 d

1 + 2 N.S.



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36

Oct. 9, 1899
Meas. of Nova.

☒ B17140

a 2 4 4
4 4 2 b

c 3 3 3
3 3 1 d

1 2 N.S.

☒ B17501

a 3 4 4
4 4 2 b

c 3 3 3
3 3 1 d

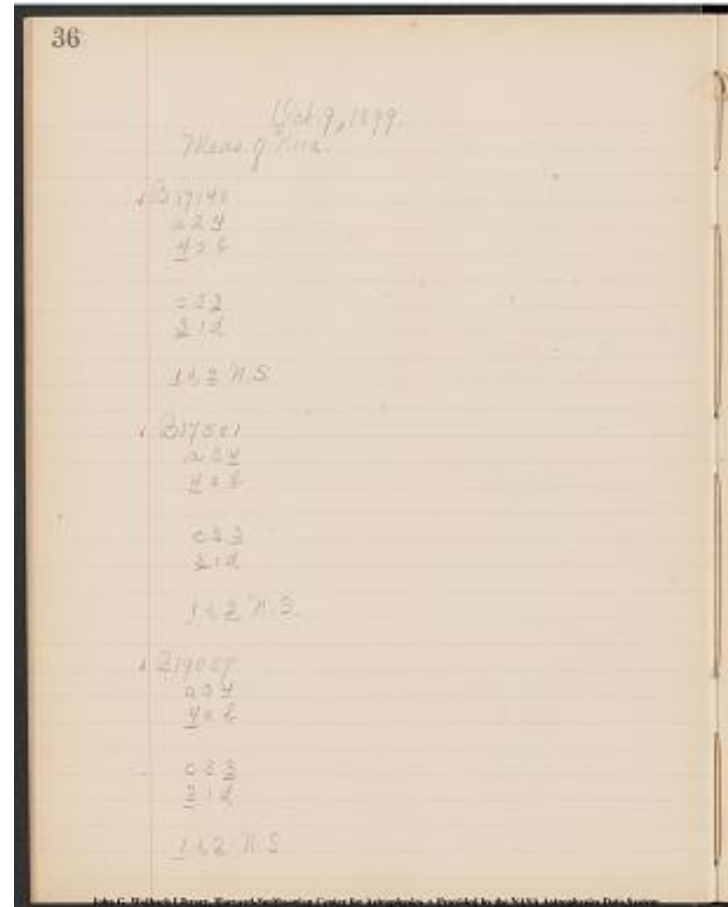
1 2 N.S.

☒ B19057

a 3 4 4
4 4 2 b

c 3 3 3
3 3 1 d

1 2 N.S.



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37

Oct. 9, 1899.

Meas. of Nova.

☒ B 19435

a 3 4

4 2 b

c 3 3

3 1 d

1 & 2 N.S.

☒ B 19681

a 3 4

4 2 b

c 1 3

~~3~~ b ~~n.S.~~

1 & 2 N.S.

☒ B 20006

a 3 4

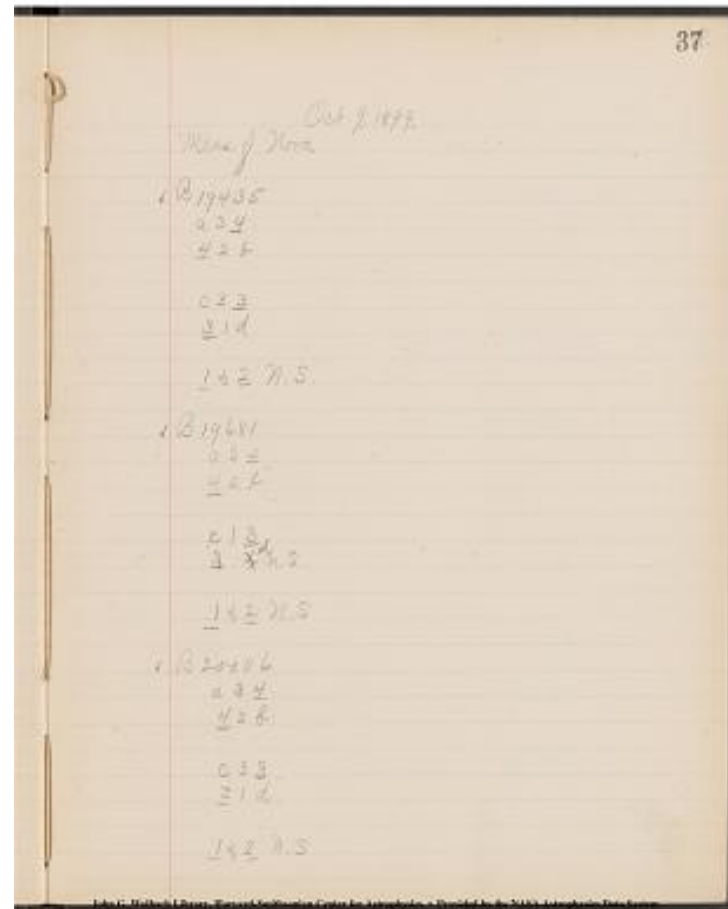
4 2 b

c 3 3

3 1 d

1 & 2 N.S.

[[Separate from main text]] John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics . Provided by the NASA Astrophysics Data System



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38

Oct. 9, 1899.
Meas. of Nova.
[[checkmark]] B20318
a 3 4
4 2 b

c 3 3
3 1 d

1 2 N.S.

[[checkmark]] ~~B~~ ~~I~~ 22551
a 3 4
4 2 b

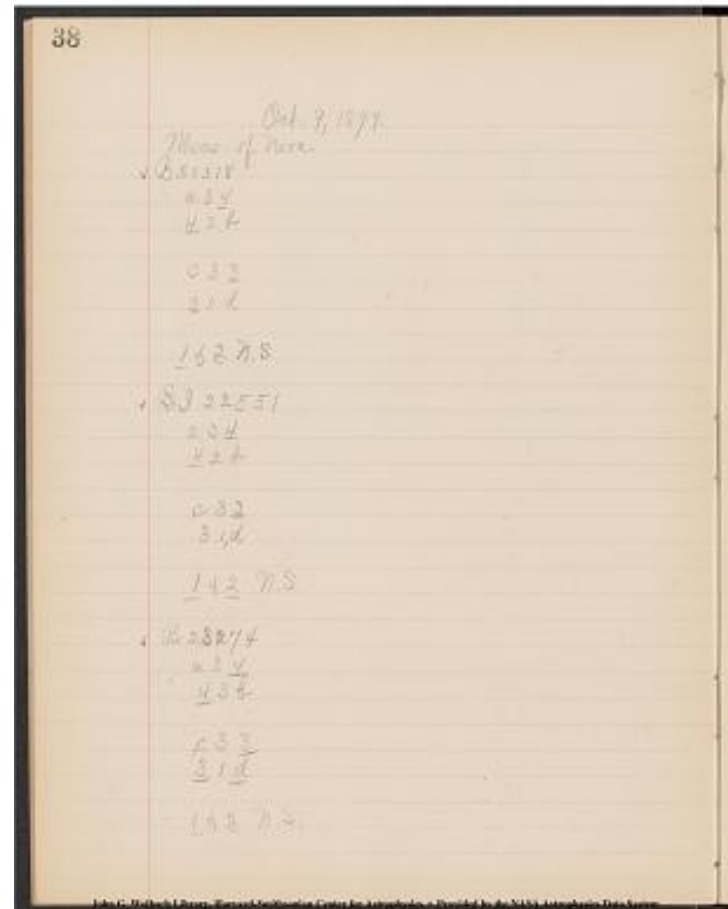
c 3 3
3 1, d

1 2 N.S.

[[checkmark]] B 23274
a 3 4
4 3 b

c 3 3
3 1 d

1 2 N.S.



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39

Oct. 9, 1899
Meas. of Nova

☒ B 23653
a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 N.S.

☒ ~~B~~ ~~I~~ 23397
Too poor.

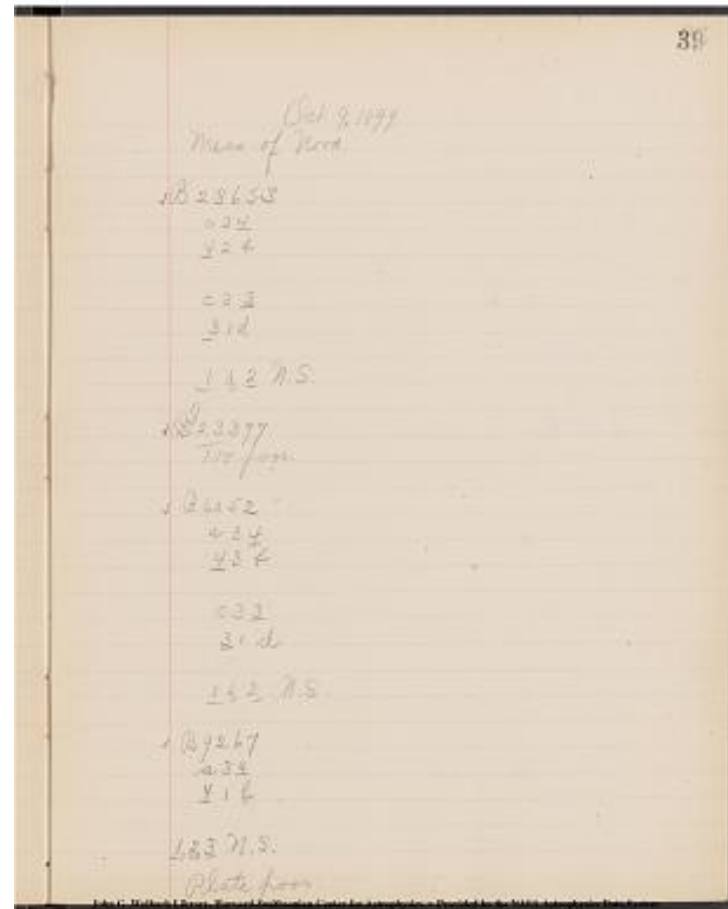
☒ B 6052
a 3 4
4 3 b

c 3 3
3 1 d

1 & 2 N.S.

☒ B 9267
a 3 4
4 1 b

1,2,3 N.S.
Plate poor.



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Oct. 9, 1899.
Meas. of Nova

☒ B20256
a 3 4
4 2 b

c 3 3
3 1 d

1 & 2 N.S.

☒ B21892
a 3 4
4 2 b

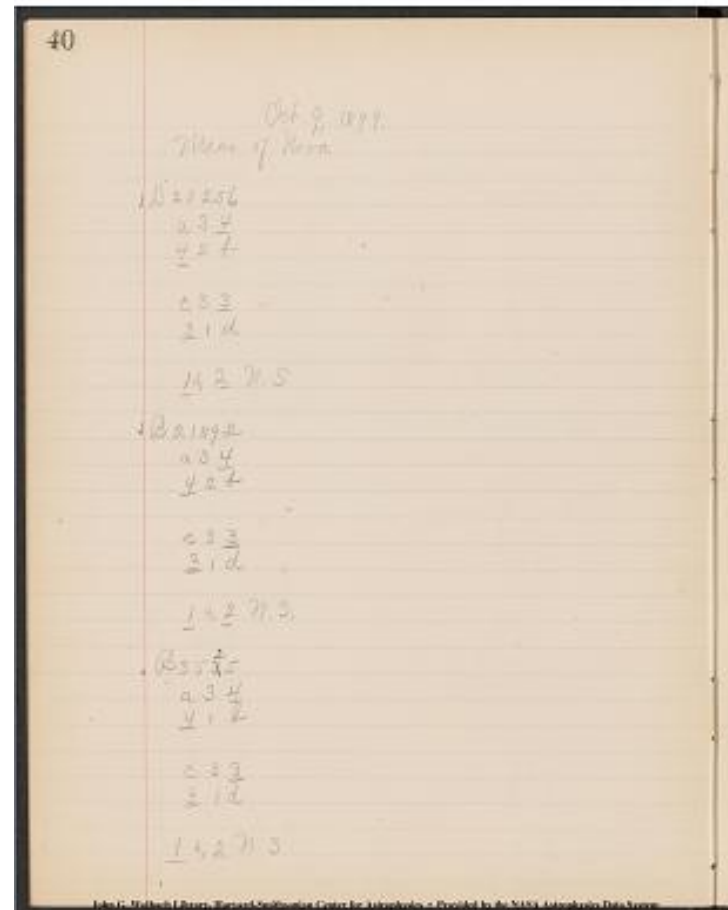
c 3 3
3 1 d

1 & 2 N.S.

☒ B 3 5 ~~3~~ ~~2~~ 5
a 3 4
4 1 b

c 3 3
3 1 d

1 & 2 N.S.



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41

Oct. 9, 1899
Meas. of Nova

I17992
a34
42f

c33
31d

1[[?]]2 N.S.

I23033
a44
41f

e33
3d N.S.
Plate floor
1[[?]]2 not sum

I22614
a24
42f

c33
31d

1[[?]]2 N.S.

41

Oct. 9, 1899
Meas. of Nova

I17992
a34
42f
c33
31d
182 N.S.

I23033
a44
41f
e33
3d N.S.
Plate floor
182 not sum

I22614
a24
42f
c33
31d
182 N.S.

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42

Oct. 9, 1899
Meas. of Nova

I 15545
a 3 4
4 2 b

c 3 3
3 1 d

1 + 2 N.S.

I 18598
a 4 4
4 1 b

c 3 3
d N.S.
1 + 2 N.S.
Plate 1

I 18048
a 3 4
4 2 b

c 3 3
3 1 d

1 + 2 N.S.

42

Oct. 9, 1899
Meas. of Nova

I 15545
a 3 4
4 2 b

c 3 3
3 1 d

1 + 2 N.S.

I 18598
a 4 4
4 1 b

c 3 3
d N.S.
1 + 2 N.S.
Plate 1

I 18048
a 3 4
4 2 b

c 3 3
3 1 d

1 + 2 N.S.

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

Oct 9, 1899.
Meas. of Nova

118160
a34
42f

c33
30d

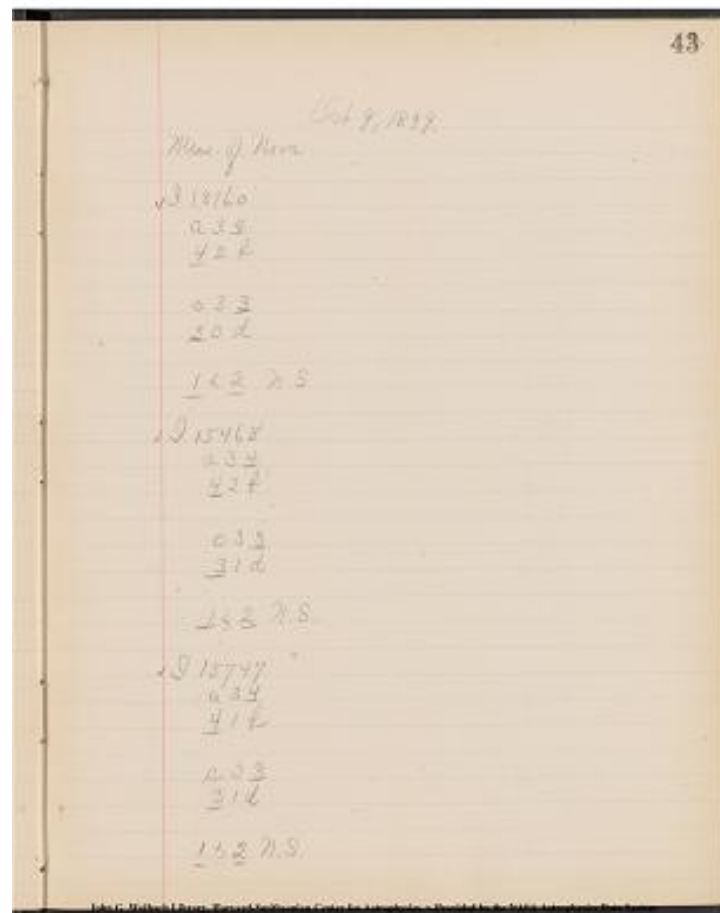
162 n.s.
115468
a34
42f

c33
31d

1&2 n.s.
15747
a34
41f

c33
31d

132n.s.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

Oct. 9, 1899.
Meas of Nova.
l22753
a34
41f

c33
1,2,d n.s.
Plate foot

l 20788
Too foot

l23119
a34
41f

c33
1,2,d n.s.
Plate foot

l23203
a34
42f

c33
1,2,d n.s.

Plate foot

44

Oct. 9, 1899.
Meas of Nova.
l 22753
a 34
41f

c 33
1, 2, d n.s.
Plate foot

l 20788
Too foot

l 23119
a 34
41f

c 33
1, 2, d n.s.
Plate foot

l 23203
a 34
42f

c 33
1, 2, d n.s.

Plate foot

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

45

Oct 9, 1899
Meas. Of Nova

I 23204
a 3 4
4 2 b

c 3 3
3 1 d

1 + 2 N.S.

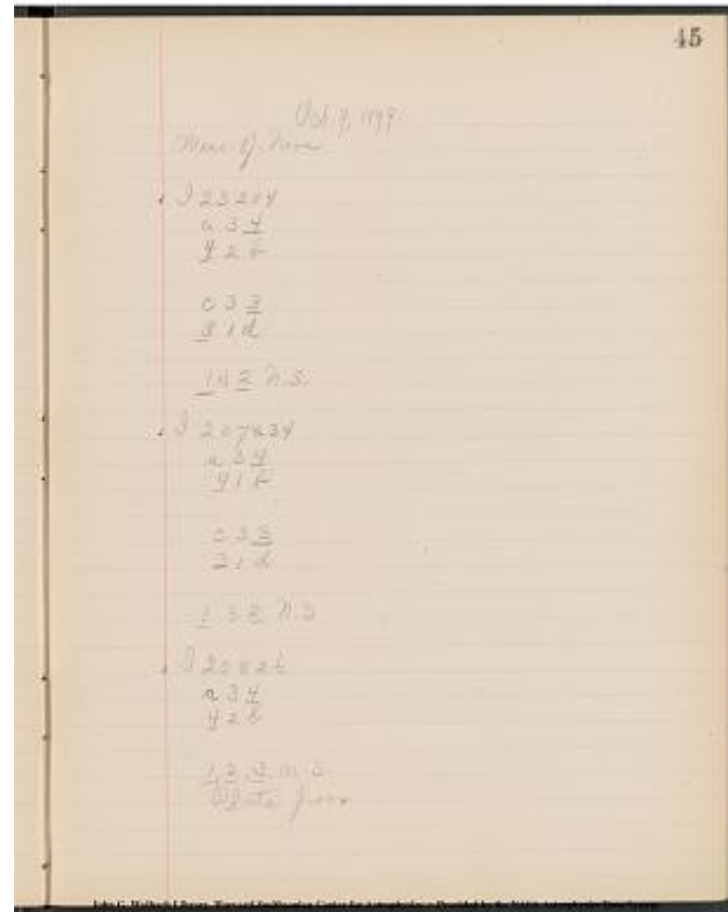
I 207034
a 3 4
4 1b

c 3 3
3 1d

1 + 2 N.S.

I 20826
a 3 4
4 2 b

1, 2, 3
3 N.S.
Plate four



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

46

Oct 9, 1899
Meas. of Nova

I 17169
Too poor.

I 17254
a3 4
41b

c = 2
3 N.S.
1 + 2 N.S.
Plate poor

I 18588
a 4 4
31~~b~~
1 + 2 N.S.

I 20497
a 3 4
42b

c 3 3
31~~b~~
1 + 2 N.S.

46

Oct 9, 1899
Meas. of Nova

I 17169
Too poor

I 17254
a3 4
41b

c = 2
3 N.S.
1 + 2 N.S.
Plate poor

I 18588
a 4 4
31~~b~~
1 + 2 N.S.

I 20497
a 3 4
42b

c 3 3
31~~b~~
1 + 2 N.S.

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

47

Oct. 9, 1899
Meas. of Nova

I 20716

a 4 4
4 1b

c ~~3~~ 3
3 1 ~~b~~ d

1 b
2 N.S.

I 20787

a 4 4
4 1b

1,2,3,N.S.
Plate poor

I 22837

a 3 4
4 2 [L?]

c3 3
3 1d

1 + 2 N.S.

47

Oct. 9, 1899
Meas. of Nova

I 20716
a 4
4 1b

c 3
3 1 b d

1 2
N.S.

I 20787
a 4
4 1b

1,2,3,N.S.
Plate poor

I 22837
a 3
4 2

c 3
3 1d

1 2
N.S.

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

48

Oct 9, 1899
Meas of Nova.

A 2763

a 4 4
4 1 b

c 3 3
3 1 d

1 + 2 N.S.

A3690

a 4 4
4 1 b

c3 3
3 1 d

1 + 2 N.S.

48

Oct 9, 1899
Meas of Nova.

a 4 4
4 1 b

c 3 3
3 1 d

1 + 2 N.S.

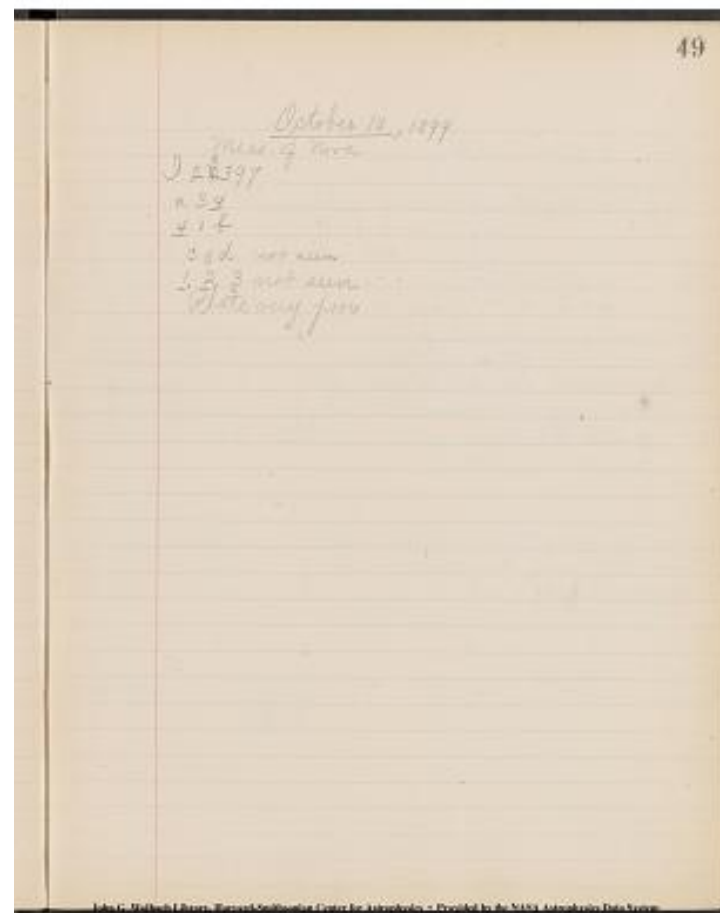
a 4 4
4 1 b

c3 3
3 1 d

1 + 2 N.S.

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

October 10, 1899.
Meas of Nrra
l23397
a34
411
c&d not seen
1,2,3 not seen
Plate very poor



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

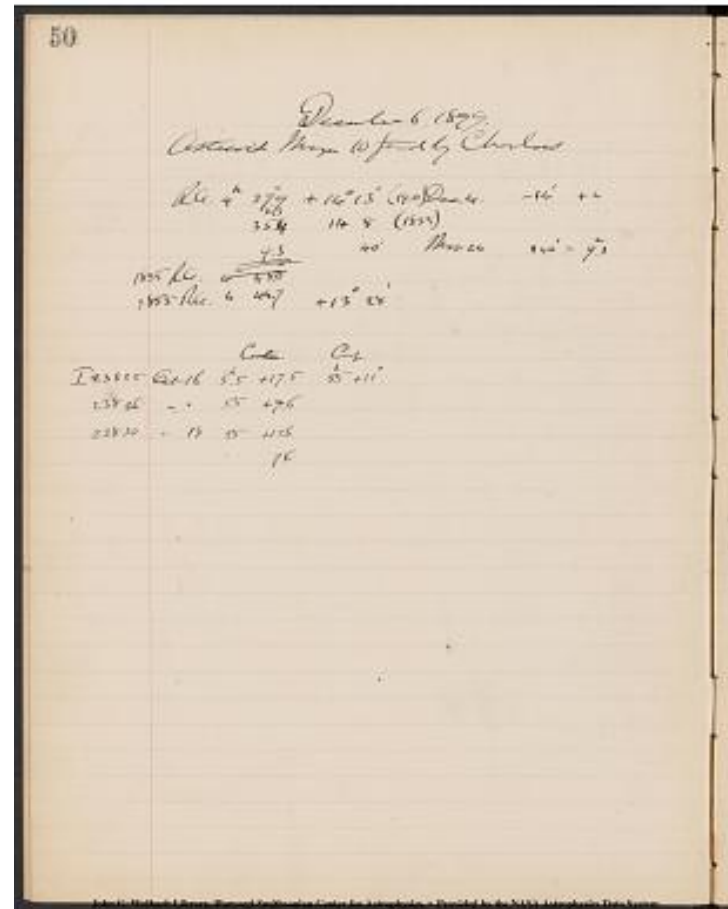
50

December 6 1899
Asteroid Maya 10 ??? Charles

R.a. 4^h 379 + 16 degrees 13 degrees (1900 Dec 6 -16 + 6
23
35.4 11 + 8 (1855)

9.3 40 degrees Nov 26 smudge 40 degrees = 9.3
1855RC. text scribbled out[uⁿ 45.0]
1855RC. u uu.7 +13 degrees 28'

[unknown text]
123825 6ee16 5^h 5 +17.5 5^h 5.5 +11degrees
23826 smudge 5.5 +7.6
23830 smudge 18 5.5 +12.6
7.6



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

December 18, 1899

Examination of plates for double star at RA = 14 21 5.27
14 21 8.46

Dec = +26° 5' 55", 2

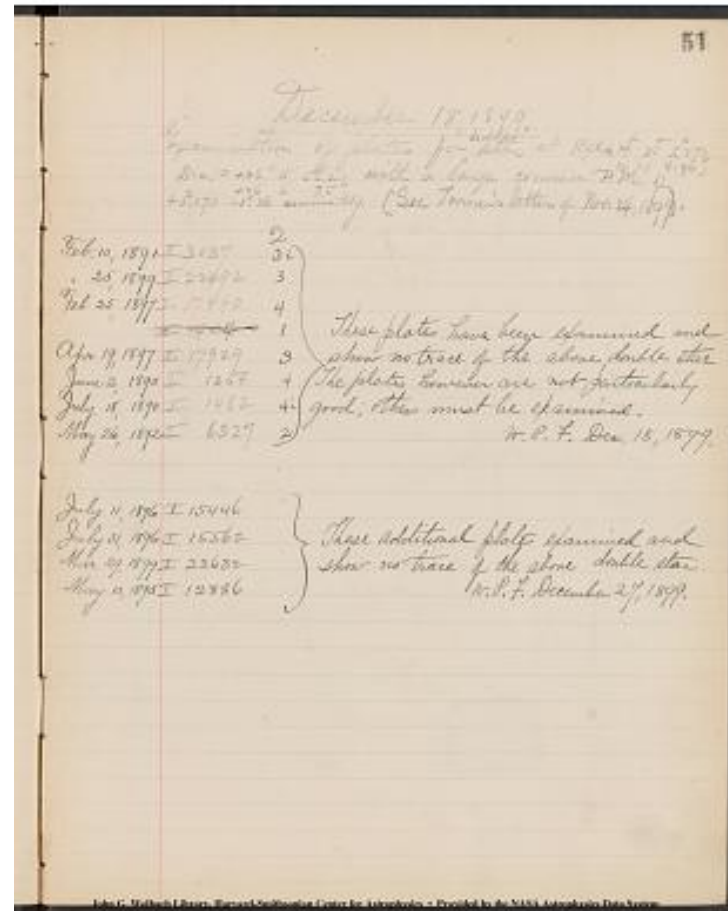
+26 6 7.5

with a large common P.M. of +0° 08' 00" - 1" .26 annually. (See letter of Nov. 24, 1899).

Feb 10, 1891 I 3037 3i	}	These plates have been
Feb 25 1899 I 22492 3		
Feb 25 1897 I 17440 4		
examined and show	}	no trace of the above double
[[no trace of the above double]] 1		
star.	}	The plates however are not
Apr 19, 1897 I 17929 3		
particularly good;	}	others must be examined.
June 2, 1890 I 1258 4		
July 18, 1890 I 1482 4i	}	W.P.F. Dec 18, 1899.
May 26, 1892 I 6327 1		

July 11, 1896 I 15446}	These additional plates examined and show no
July 31, 1896 I 15562}	
Mar. 29, 1899 I 22632}	
May 10, 1895 I 12886}	

W.P.F. December 27, 1899



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

December 18, 1899

Examination of plates for variation of any in BD+27^{[[degrees]]}2561? Ra.
 15 53 17.5 + 27 24 59.6 1875.0
 Ra. 15 54 19.6 +27 20 37.3 1900.0

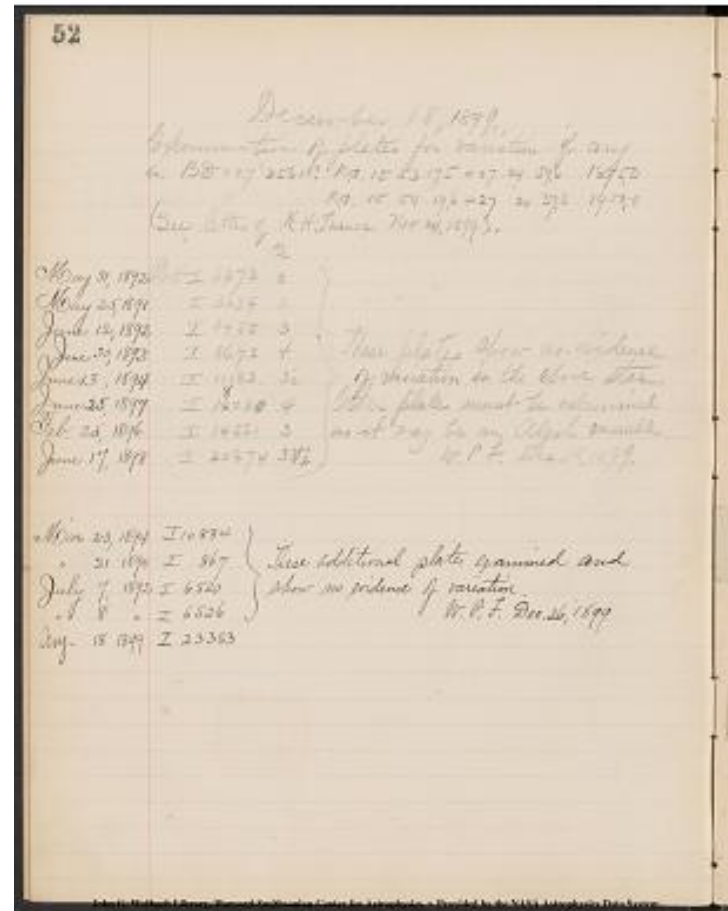
(See letter of H.H. Turner Nov 24, 1899).

	2	
May 31, 1892	Plate I 6373	3
May 25, 1891	I 3634	3
June 12, 1892	I 6455	3
June 30, 1893	I 8673	4
June 13, 1894	I 11183	3i
June 25, 1897	I 1 [[/strikethrough]]2[[/strikethrough]] 8280	4
Feb. 25, 1896	I 14561	3
June 17, 1898	I 20874	3 [[/strikethrough]]t[[/strikethrough]]

^[[These plates show no evidence of variation in the above star. Other plate must be examined as if may be an Algol variable
 W.P.F. Dec. 18, 1899.]]

Mar 23, 1894 I 10884
 " 21 1890 I 867
 July 7, 1892 I 6520
 " 8 " I 6526
 Aug. 18 1899 I 23383

^[[These additional plates examined and show no evidence of variation]]
 W.P.F. Dec.26, 1899

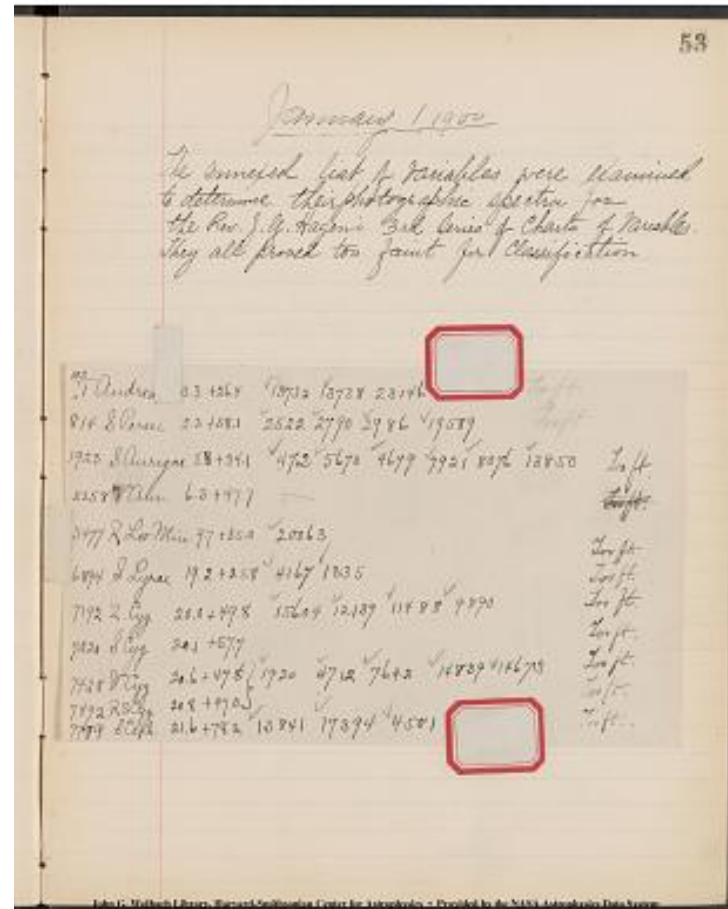


Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

January 1, 1900

The annexed list of villages were examined to determine their photographic spectra for the Rev. J.G. Hagen's 3rd series of Charts of Variables. They all proved too faint for Classification.

103 T Androu $0.3+26.4$ ☒ 13732 ☒ 13738
23146 Too ft.
814 S Persei $2.3+58.1$ ☒ 2522 ☒ 2790
☒ 2986 ☒ 19589 Too ft.
1923 S Aurigae $5.3+34.1$ ☒ 472 ☒ 5670
☒ 4679 ☒ 7921 8076 ☒ 13850 Too
ft.
2258 V Aur. $6.3+47.7$ ~~Too ft.~~
3477 R Leo Min. $9.7 + 35.0$ ☒ 20063 Too ft.
6894 S Lyrae $19.2 + 25.8$ ☒ 4167 ☒ 1335 Too
ft.
7192 Z. Cyg $20.0+49.8$ ☒ 15604 ☒ 12139
☒ 11488 ☒ 9890 Too ft.
7220 S Cyg $20.1 + 57.7$ Too ft.
7428 V Cyg $20.6+47.8$ ☒ 1920 ☒ 4712
☒ 7642 ☒ 14839 ☒ 14673 Too ft.
7492 RS Cyg $20.8+47.0$ Too ft.
7799 S Cep. $21.6 + 78.2$ ☒ 13841 ☒ 17394
☒ 4501 Too ft.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

54

January 24, 1900.

Exam for predicted new planet, See letter of H. E. Lane Jan. 12, 1899.

[[5 columned table]]

|Plate~~[[strickethrough]]s[[/strickethrough]]~~ B 19575|RA 18^h11^m|Dec. -22.7°|June 19, 1897|Ex 10^m|

|Plate~~[[strickethrough]]s[[/strickethrough]]~~ B 23695|18 10|-23°|July 27, 1899|Ex. 10^m|

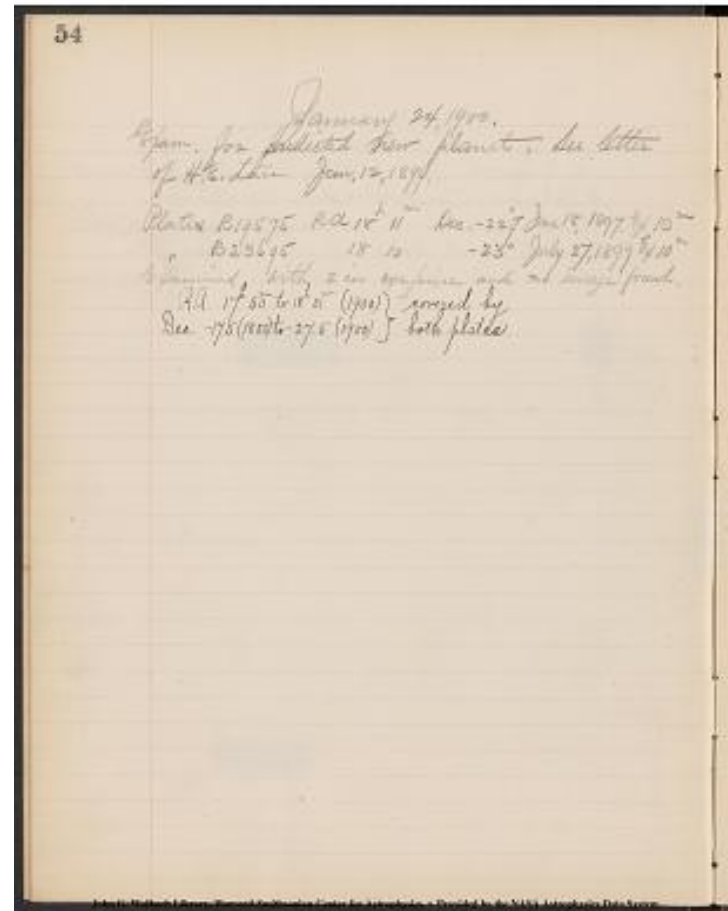
Examined with 2 in eyepiece and no image found

[[2 columned table]]

|RA 17^h50^m to 18^h31^m (1900)|covered by|

|Dec -17.5(1855) to -27.5 (1900)|both plates|

John C. Wolbach Library, Harvard-Smithsonian Center for Astrophysics.
Provided by the NASA Astrophysics Data Systems



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

January 26 1900

Exam for predicted new planet (Cont)

[[5 columned table]]

Plate I 10549 | RA $6^{\text{h}}15^{\text{m}}24^{\text{s}}$ | Dec. $+23.5^{\circ}$ | Jan. 23, 1894 | Ex. 5m |
 Plate I 24041 | RA $6^{\text{h}}31^{\text{m}}$ | Dec. $+22.6^{\circ}$ | Nov. 13, 1899 | Ex. 13m |

Faint image on I 24041 RA $6^{\text{h}}15^{\text{m}}5.2^{\text{s}}$ Dec. $+25^{\circ} 5.0'$ ^{star} prec. & south? BD $+25^{\circ} 1250$ 9.5 or ft.
 not seen on I 10549. May be a variable star.

[[2 columned table]]

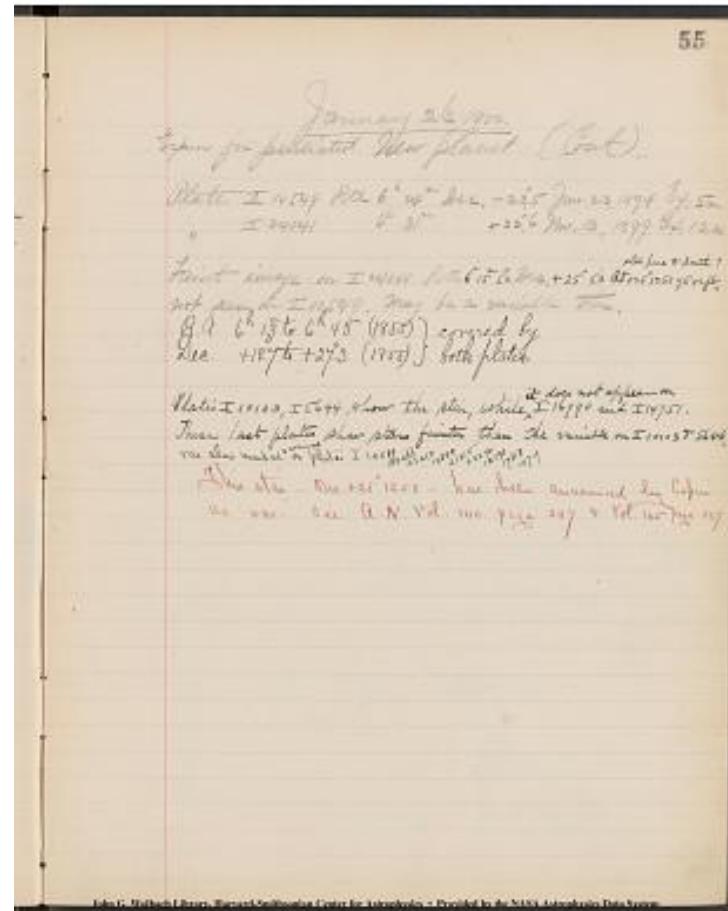
RA $6^{\text{h}}13^{\text{m}}$ to $6^{\text{h}}43^{\text{m}}$ (1855) | covered by |
 Dec. $+18.7^{\circ}$ to $+27.3^{\circ}$ (1855) | both plates |

Plates I 10103, I 5644 show the star, while it does not appear on I 16990 and I 14751.

These last plates show stars fainter than the variable on I 10103 & 5644 var. also marked & examined on plates I 12589 20266 21218 10888 21215 22474 12591 17618 14719

This star D.M. $+25^{\circ} 1250$ - has been announced by Espin as var. See A.N. Vol. 140 page 247 & Vol. 145 page 327

John C. Wolbach Library, Harvard-Smithsonian Center for Astrophysics.
 Provided by the NASA Astrophysics Data Systems

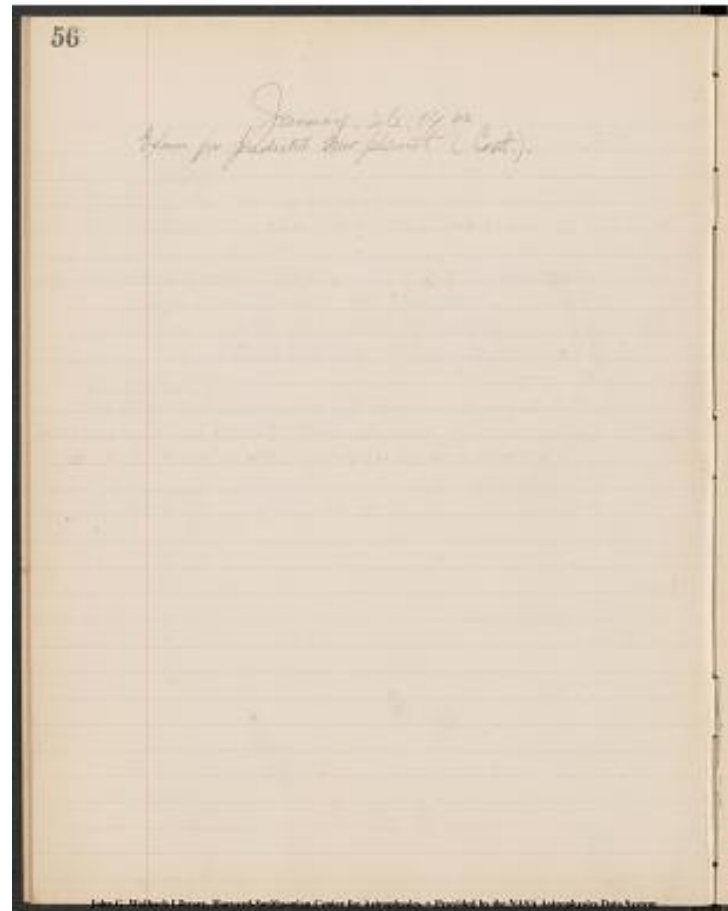


Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

56

January 26, 1900

Exam for predicted New planet (Cont.).



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

January 26, 1900.

Exam. of plates to determine variation if any in CDM -24°
~~2930~~ 10930 found on I 5974 ^[[see page
 119 Book 55]] R.a. 13^h 21.9^m dec. -24° 2' (1875)

Sp. Cl. for Spectrum pl.

B10823 Sp. too poor B8059, 8142, 3673, 15573, ft, 3373, 7982, 3634,
 1257, 548, 553, 1325, 1145, 1219, 525, 13390, 13149, 11010, 1853,
 B7990, 115112, 114858, B13754 ft, 114594 ft, 114625, ft, 114658, 15989,
 15926, ft, 11074, B8284, B9444, B9605, B8550, B3633, B13148,
 B13165, ft, B6217 ft, B11326, B13132, B5201, B5131, B4877, B7981,
 and 15974. These plates ~~in referral~~ do
 not show the star except where they are marked "ft". The object is too
 faint to show on spectrum plates in general, and no accurate estimates
 could be made

B16772 a = C.D.M. -24° 10924 13^h 21.1^m -24° 29.8' mag 9.4 b =
 C.D.M. -23° 11080 13^h 20.6^m -23° 56.1' magn. 9.11

On B16935, B16772, B15986, B15924, B15810, B17198, B17312,
 B17196, B16971, B18293, B18487, B18611, B18658, B18678, B18781,
 B18907, B15639, B15683, B15726, (too poor, B15727, too poor,
 B15728, B11236, B11230, 120769, 1760, too poor, B23008, B14069,
 B13931, 19523, B9524, B21430, B22686, ~~in referral~~

B16010, ~~in referral~~ B16403,

~~in referral~~ B16310 ~~in referral~~, B16177, 16123, 16061,
 B16675, 16603, 16411, 14018, 14071, 7379,

~~in referral~~ 7379 ~~in referral~~ 7380, 3515, 5413, 4992, 5308,
 B6493, 11449, 19837, 19674, 19230, 19070, 6433, 6029, 16267, 3574
 and 9523. The star is always fr then "a" and brighter than "b"

Slightly fr (0.1 to 0.2) than b. but near edge of plate
 B16010, 16310, 4827, 20037, 21082, 3376,

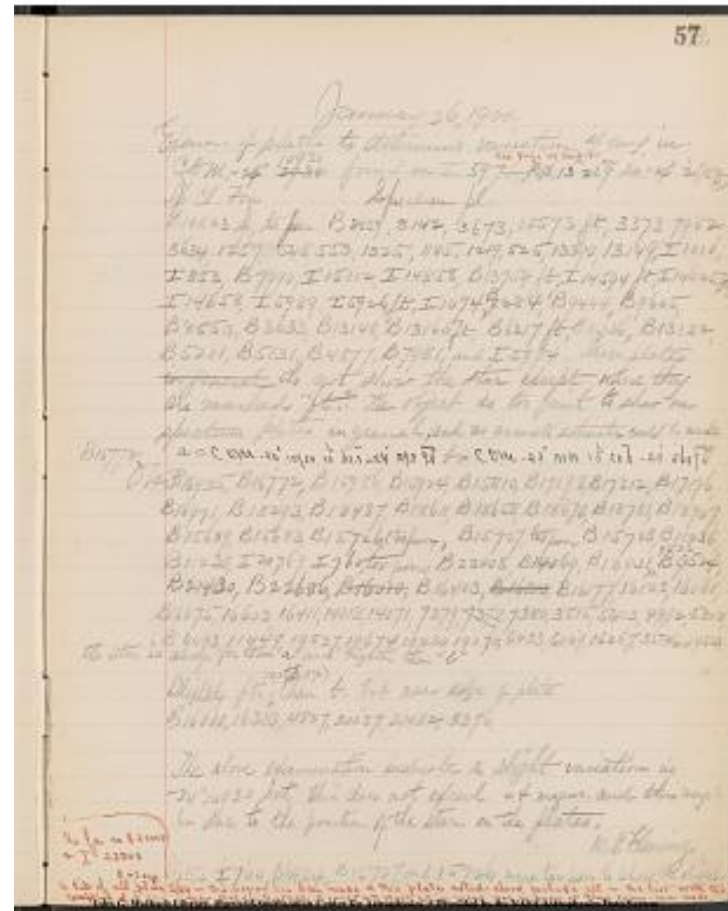
The above examination indicates a slight variation in -24° 10930 but this
 does not exceed 0.4 magns. and this may(?) be due to the portion of the
 star on the plates.

W.P. Flemming.

Plates 1760, B6434, B15727, and 15726 were too poor to show the
 object.

^[[As far as B23008, & I 23008 B&I says a list of all plates

~~in referral~~ the ~~in referral~~ in this region has been made on
 the plates noted above include all in the list with the exception of 1992,
 B7795, B7624, B15852, B15735 & B19427 which were not in boxes at
 time exam. was made.]]



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

58

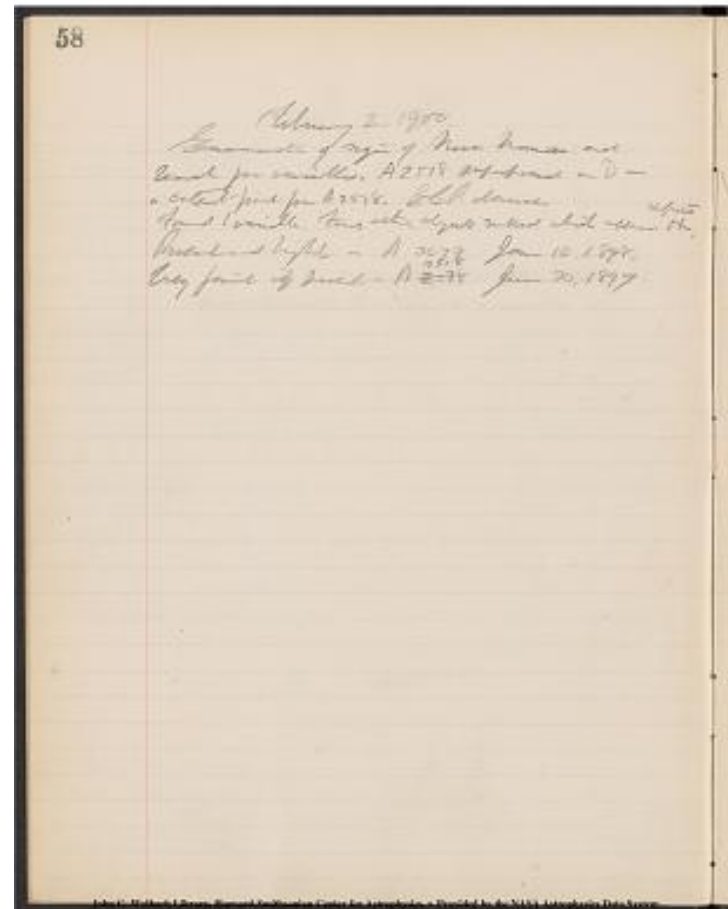
February 2. 1900.

Examination of magn. of Nova Normae and $[[?]]$ for variables. A 2518 superposed on D - a contact print for A2518. E.L.P. dense.

Found 1 variable. Faint other objects marked which appear to be defects.

$[[?]]$ and bright in A 3079 Jan. 10, 1894.

Very faint $[[?]]$ $[[?]]$ in A ~~2578~~ $[[?]]$ 2518 Jan. 20, 1897



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

59

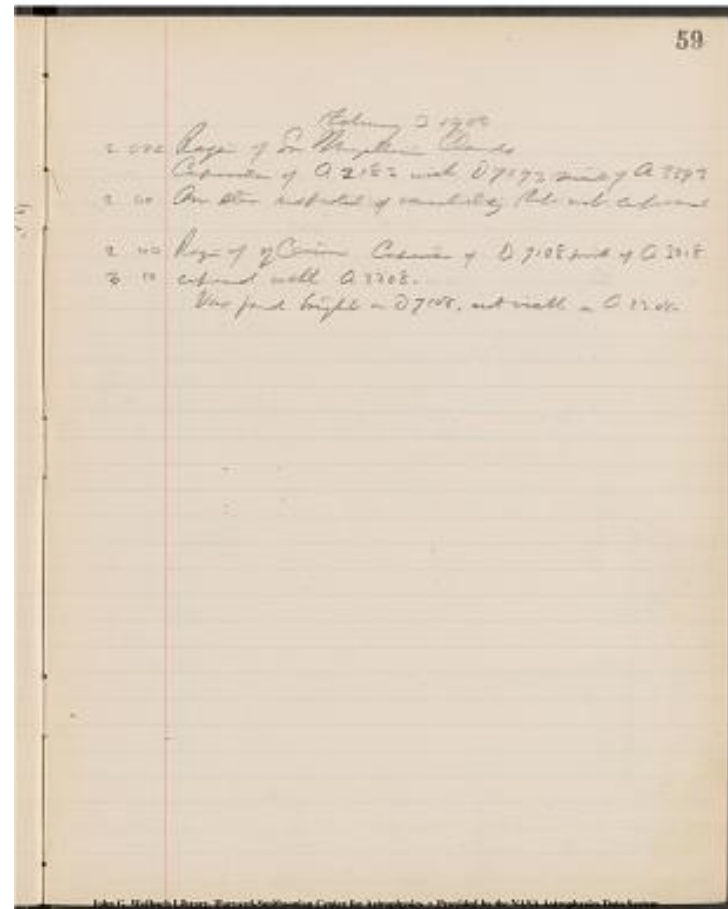
February 3 1900

2 00 +/- | Region of Sm Magellanic Clouds Companion of A2183 with D7193 units of A3393

2 40 | Am star expected of variability [[??]]

2 40 | Region of eta Carinae Companions of D7108 print of A 3018 compared with A 2208.

3 10 | compared with A 2208.
Var. part bright on D7108, not visible on A2208.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

February 6, 1900

Exam of plates for Mme. Ceraskie's new Algol variable. R.A 19h 40m 59.7s Dec. +32° 21' 6" (1855).
See Astron. Nach. No. 3614, p.223.

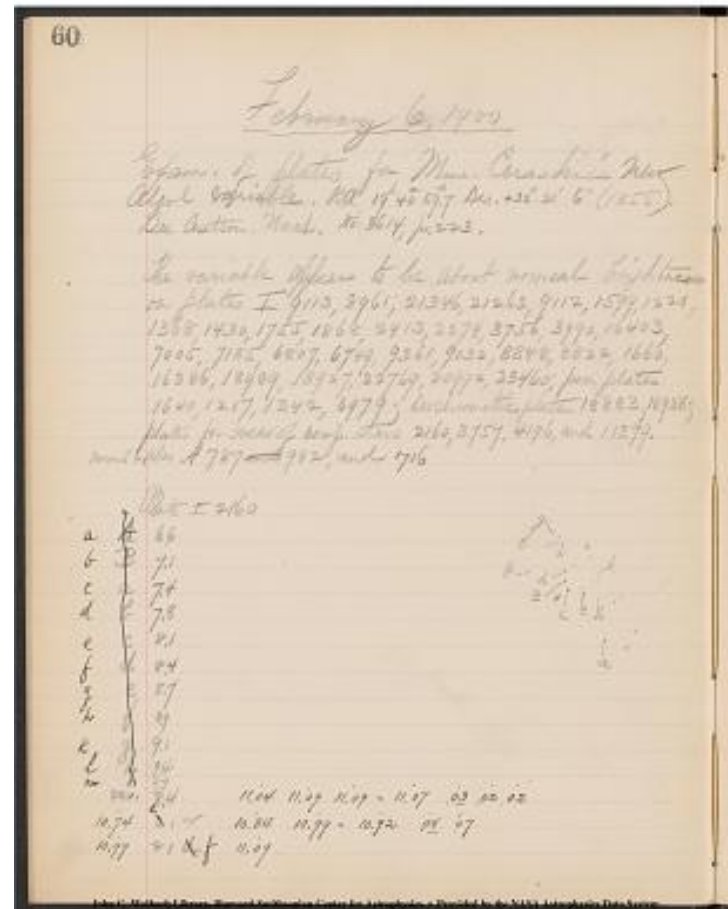
The variable appears to be about normal brightness on plates 19113, 8961, 221346, 21263, 9112, 1599, 1220, 1368, 1430, 1755, 1868, 2413, 2274, 3756, 3990, 16403, 7005, 7185, 6807, 6749, 9361, 9032, 8848, 8822, 1660, 16386, 18989, 18927, 22769, 20992, 23460; poor plates 1640, 1217, 1342, 6979; isochromatic plates. 18883, 18938; plates for meas. of comp. stars 2160, 3757, 4196, and 11379. normal plates 787 ~~and~~ 982, and 1716

[[image]]

Plate I 2160

a ~~[[/del]] A ~~[[/del]] 6.6~~~~b ~~[[/del]] B ~~[[/del]] 7.1~~~~c ~~[[/del]] C ~~[[/del]] 7.4~~~~d ~~[[/del]] D ~~[[/del]] 7.8~~~~e ~~[[/del]] E ~~[[/del]] 8.1~~~~f ~~[[/del]] F ~~[[/del]] 8.4~~~~g ~~[[/del]] G ~~[[/del]] 8.7~~~~h ~~[[/del]] H ~~[[/del]] 8.9~~~~k ~~[[/del]] K ~~[[/del]] 9.1~~~~l ~~[[/del]] L ~~[[/del]] 9.4~~~~m ~~[[/del]] M ~~[[/del]] 9.7~~~~

var 8.4 | 11.04 11.09 11.09 = 11.07 .03 .02 .02

10.74 ~~[[/del]] c ~~[[/del]] e1v 10.84 10.99 = 10.92 .08 .07~~~~10.99 v1 ~~[[/del]] d ~~[[/del]] 11.09~~~~

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

Feb. 6, 1900

Meas. of Mme Ceraskie's var. Cont.
Plate I 3757

a~~[[strikethrough]]~~A~~[[/strikethrough]]~~ 5.5
L~~[[strikethrough]]~~B~~[[/strikethrough]]~~ 6.1
c~~[[strikethrough]]~~a~~[[/strikethrough]]~~ 6.5
d~~[[strikethrough]]~~b~~[[/strikethrough]]~~ 6.9
e~~[[strikethrough]]~~c~~[[/strikethrough]]~~ 7.3
f~~[[strikethrough]]~~d~~[[/strikethrough]]~~ 7.7
g~~[[strikethrough]]~~e~~[[/strikethrough]]~~ 8.0
h~~[[strikethrough]]~~f~~[[/strikethrough]]~~ 8.3
k~~[[strikethrough]]~~g~~[[/strikethrough]]~~ 8.6
l~~[[strikethrough]]~~h~~[[/strikethrough]]~~ 8.9
m~~[[strikethrough]]~~k~~[[/strikethrough]]~~ 9.2
[[2 column table]]

var|7.3 10.79 10.74 10.69 = 10.74 .05 00 .05
10.74|e~~[[strikethrough]]~~c~~[[/strikethrough]]~~1v 10.84 10.89 = 10.86 .02 .03
10.89|v2~~[[strikethrough]]~~d~~[[/strikethrough]]~~f 11.09

Plate I 11379

a~~[[strikethrough]]~~A~~[[/strikethrough]]~~ 5.9
L~~[[strikethrough]]~~B~~[[/strikethrough]]~~ 6.4
c~~[[strikethrough]]~~a~~[[/strikethrough]]~~ 6.7
d~~[[strikethrough]]~~b~~[[/strikethrough]]~~ 7.0
e~~[[strikethrough]]~~c~~[[/strikethrough]]~~ 7.4
f~~[[strikethrough]]~~d~~[[/strikethrough]]~~ 7.8
g~~[[strikethrough]]~~e~~[[/strikethrough]]~~ 8.2
h~~[[strikethrough]]~~f~~[[/strikethrough]]~~ 8.5
k~~[[strikethrough]]~~g~~[[/strikethrough]]~~ 8.8
l~~[[strikethrough]]~~h~~[[/strikethrough]]~~ 9.1
m~~[[strikethrough]]~~k~~[[/strikethrough]]~~ 9.4
[[2 column table]]

var|7.5 10.84 10.79 = 10.82 .02 .03
10.74|e~~[[strikethrough]]~~c~~[[/strikethrough]]~~1v 10.74 10.79 = 10.76 .02 .03
10.79|v3~~[[strikethrough]]~~d~~[[/strikethrough]]~~f 11.09

Feb. 6, 1900

Meas. of Mme Ceraskie's var. Cont.

Plate I 3757

a	5.5
L	6.1
c	6.5
d	6.9
e	7.3
f	7.7
g	8.0
h	8.3
k	8.6
l	8.9
m	9.2

var|7.3 10.79 10.74 10.69 = 10.74 .05 00 .05
10.74|e~~[[strikethrough]]~~c~~[[/strikethrough]]~~1v 10.84 10.89 = 10.86 .02 .03
10.89|v2~~[[strikethrough]]~~d~~[[/strikethrough]]~~f 11.09

Plate I 11379

a	5.9
L	6.4
c	6.7
d	7.0
e	7.4
f	7.8
g	8.2
h	8.5
k	8.8
l	9.1
m	9.4

var|7.5 10.84 10.79 = 10.82 .02 .03
10.74|e~~[[strikethrough]]~~c~~[[/strikethrough]]~~1v 10.74 10.79 = 10.76 .02 .03
10.79|v3~~[[strikethrough]]~~d~~[[/strikethrough]]~~f 11.09

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

February 6, 1900

Meas. of Mme. Ceraskie's Algol var. (Cont).

Plate I 1541

[left margin] 11.95 [left margin] ~~k~~ / v 12.05 12.15 = 12.10.05.05[left margin] 12.15 [left margin] v / ~~l~~ 12.25

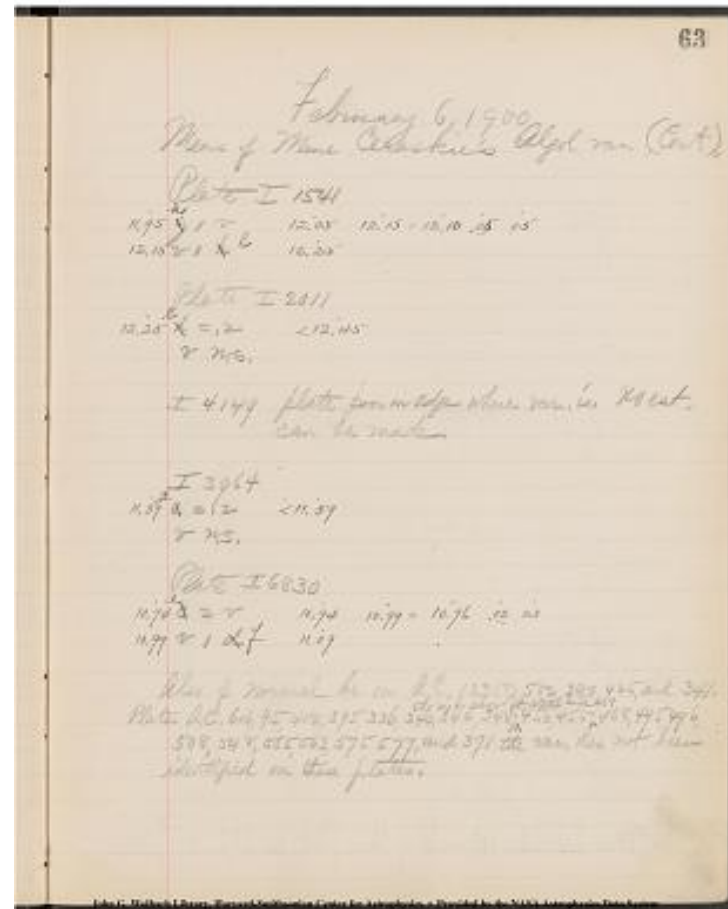
Plate I 2011

[left margin] 12.25 [left margin] ~~l~~ = .2 < 45
v n, s,I 4149 plate poor on edge where var. is. Noest.
can be made.

I 3964

[left margin] 11.39 [left margin] ~~g~~ = .2 < 11.59
v n, s,

Plate I 6830

[left margin] 10.74 [left margin] ~~l~~ z v 10.94 10.99 = 10.96 .02 .03[left margin] 10.99 [left margin] v / ~~f~~ 11.09Also of normal ~~l~~ A, C, 133 (?) 502, 280, 425, and 341.Plates A, C, 616, 95, 418, 395, 336, 340, 342, 344, do not show pt stats
456, 455 and 467, 468, 495, 496,
508, 548, 555, 563, 575, 577, and 371 the var. has not been
identified on these plates.

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February 7, 1900.

Meas. of mme. Ceraskie's var. at +32° (Cont).

Plate I 6830 2nd meas.

$10.74 \text{ } \overline{c} \text{ } 2 \text{ v } 10.94 \text{ } 10.99 = 10.96$
 $.02 \text{ } .03 \text{ normal } [?]$
 $10.99 \text{ v } 1 \text{ } f \text{ } 11.09$

I 3964 2nd meas

$11.67 \text{ } f \text{ } = .2 < 11.87$ Images poor
 v n.s

I 2011 2nd meas

$12.25 \text{ } h \text{ } = .3 < 12.55$
 v n.s

I 1541 2nd meas

$12.25 \text{ } h \text{ } 1 \text{ v } 12.35$
 $v = .1 ?$

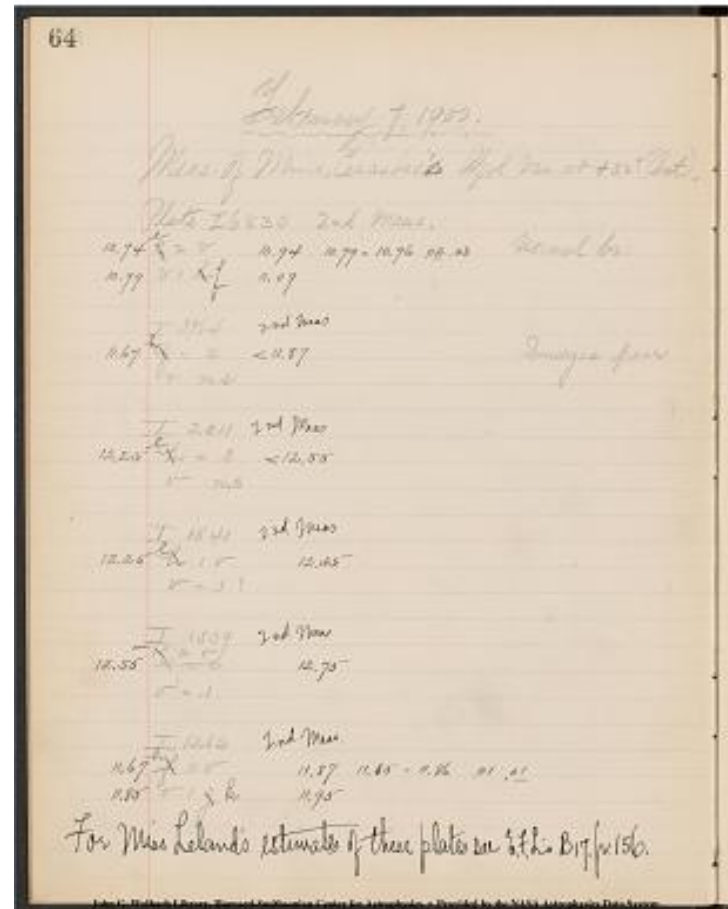
I 1539 2nd meas

$12.55 \text{ } k = .2 \text{ } 2 \text{ v } 12.75$
 $v = .1$

I 1262 2nd meas.

$11.67 \text{ } f \text{ } 2 \text{ v } 11.87 \text{ } 11.85 = 11.86$
 $.01 \text{ } .01$
 $11.85 \text{ v } 1 \text{ } g \text{ } k \text{ } 11.95$

For Miss Leland's estimates of these plates see E.F.L. B17.p.156.



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65

February 9, 1900. {underlined}

Meas. of Mme. Ceraskie's Algol var. +32° (Cont.)

Plate A 787

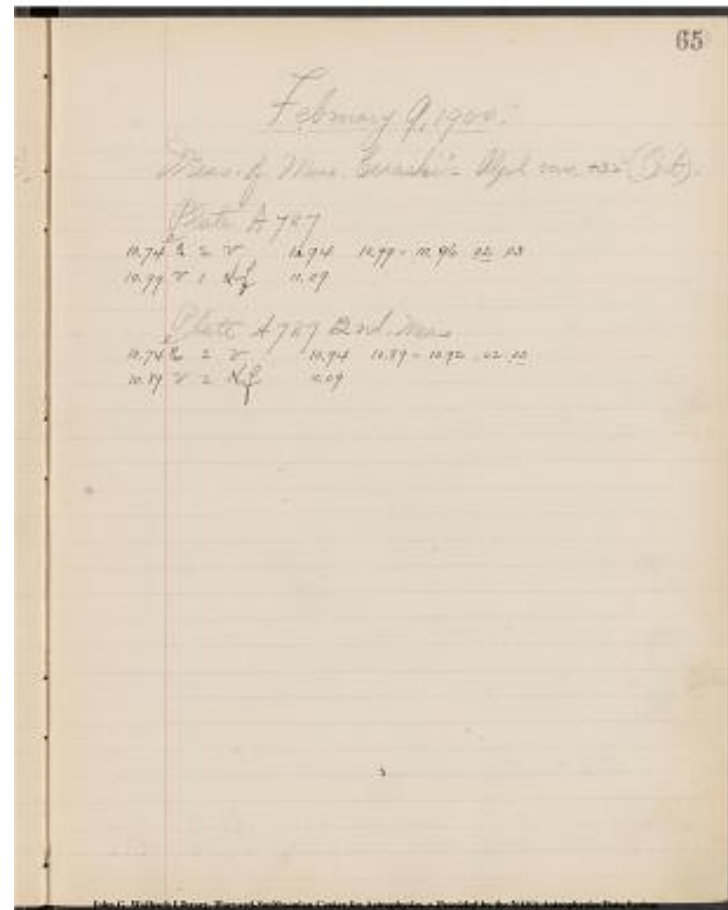
[/left margin] 10.74 [/left margin] ~~l z v~~ 10.94 10.99=10.96
.02 .03

[/left margin] 10.99 [/left margin] v / ~~z~~ f 11.09

Plate A 787 2nd, Meas

[/left margin] 10.74 [/left margin] ~~l z v~~ 10.94 10.89-10.92
.02 .03

[/left margin] 10.89 [/left margin] v z ~~z~~ f 11.09



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March 5, 1900

Exam. of Plates I 24688 and I 24690 for Minor Planet Fortuna (No 19)
Magn 10.4

Found independently on I 24687 and 24689
Plates superposed and planet found ^ W.P.F.

Rd Dec

W.P.F I 24688 // 5 18 + 3 56

(M.C.S) I 24688 // 5.3 + 3 56

(WPF) I 24690 // ~~4~~ 5 15 + 3 57.5

(M.C.S.) I 24690 // 5.2 + 3 56

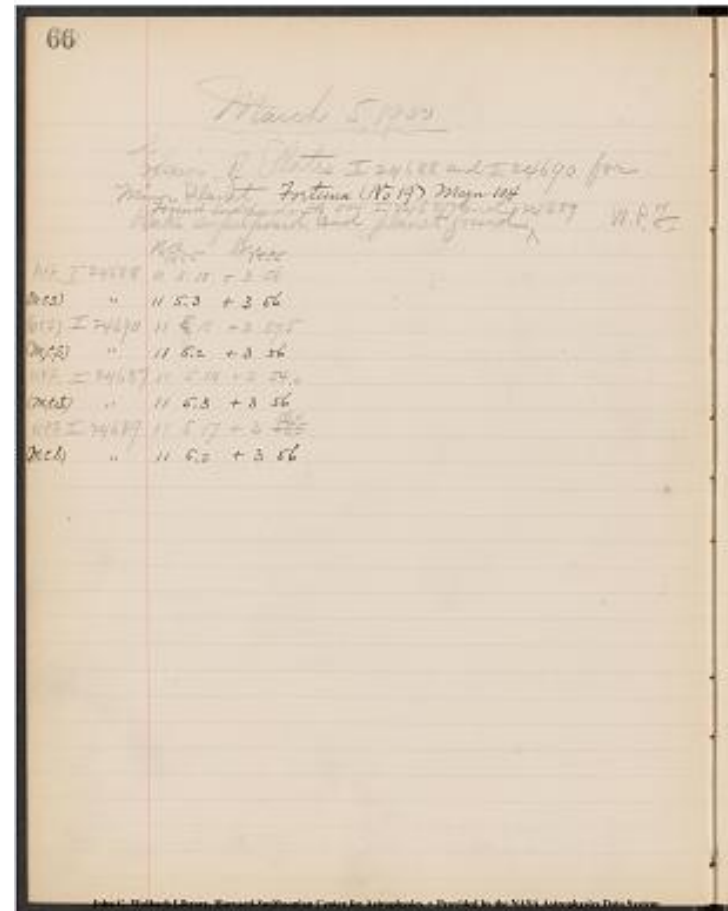
W.P.F I 24687 // 5 18 + 3 54.0

(M.C.S) I 24687 // 5.3 + 3 56

WPF I 24689 // 5 17 + 3 ~~55.5~~ 56.0

(MCS) I 24689 // 5.2 + 3 56

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March 6, 1900.

A further examination of Plates I 24687 & 24689
shows the Asteroids Urania and Fides
(on smaller sheet)

H

Plate I 24690 // 5.2 + 3° 56'

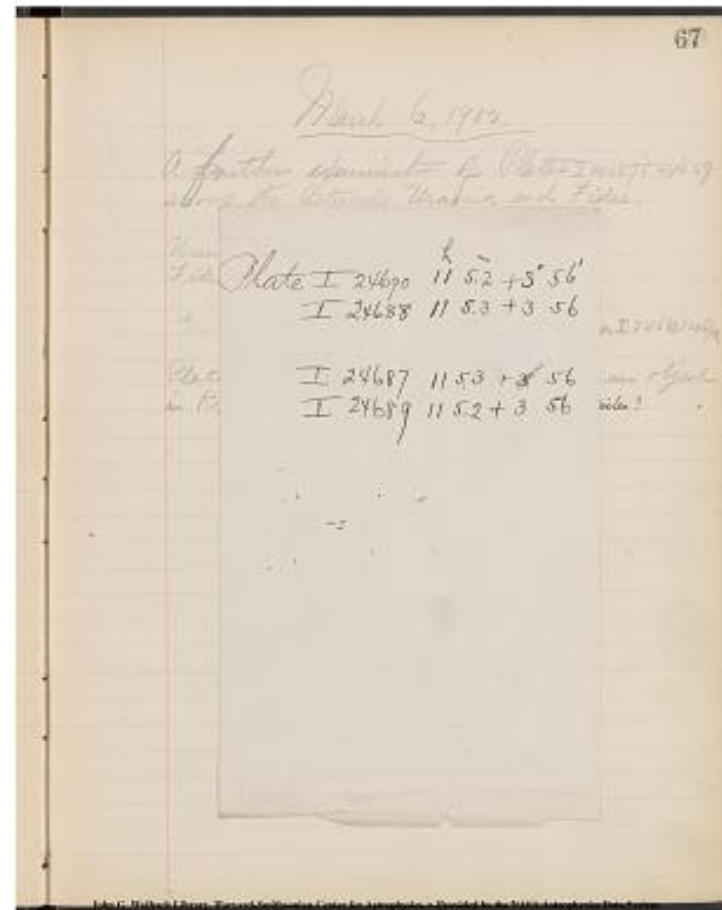
I 2468 // 5.3 + 3 56

I 24687 // 5.3 + 3 56

I 24689 // 5.2 + 3 56

(on original paper)

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67

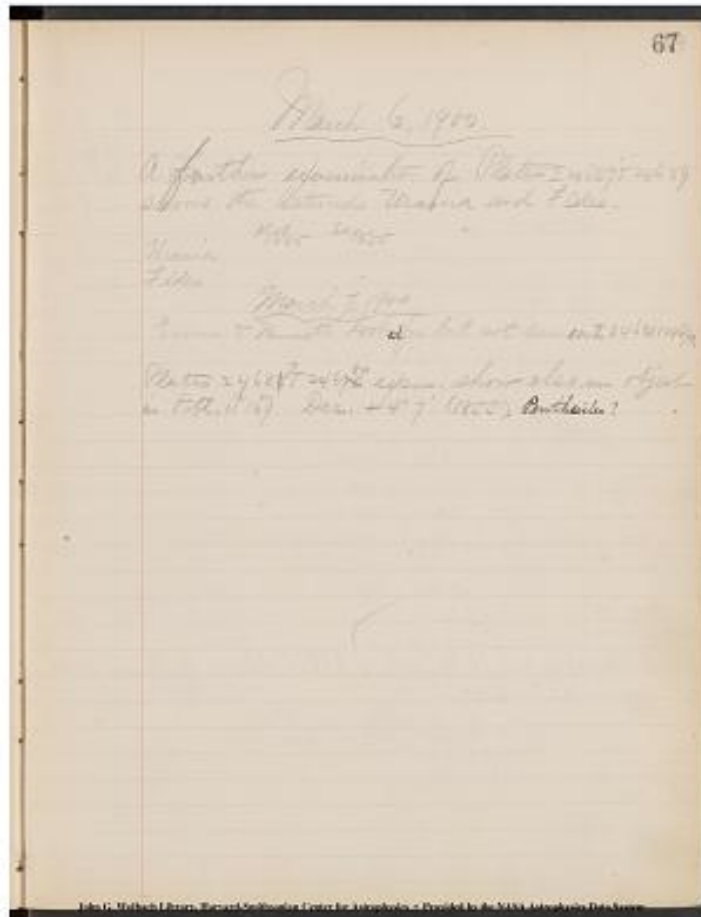
March 6, 1900.

A further examination of Plates I 246870 24689 shows the Asteroids
Urania and Fides.
Rd. 1855 Dec. 1855
Urania
Fides

March 7, 1900

Emma + Neunnette[?] looked for but not seen on I 24688024690

Plates 2468~~8~~~~9~~ exam. show also, an object in
R.A. 11^{h} 16^{m} Dec. $+4^{\circ} 7'$ (1855).
Penthesilea?



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Extracted Aug-29-2022 03:00:04

March 8, 1900.

Exam. of plates to confirm variation if any
 $-13^{\circ} 53' 2''$ 41.0° $-13^{\circ} 4'$ (1855) 6.3 For Vol. XLV M.P.

[4 Column Table]

Plate | Date | Var. | Est. |
~~B~~ | ~~1886~~ | ~~July 15, 1896~~ | ~~6.0~~

B 20198	Aug. 27, 1897.	ft.	7.5
B 22112	Nov. 2, 1898.	br	6.0
B 16861	July 15, 1896.	br	6.0
B 10392	Oct. 7, 1893.	---	6.5
B 20408	Sept. 16, 1897.		6.8
B 10415	Oct. 13, 1893.		6.0
B 17188	Aug. 15, 1896.		6.8
B 12210	Sept. 19, 1894.		6.8
B 14964	Oct. 25, 1895.		6.5
B 22385	Dec. 30, 1898.		6.0
B 17800	Nov. 9, 1896.		6.2
B 20915	Dec. 20, 1897.		7.0
B 14724	Sept. 27, 1895.		6.8
B 12611	Nov. 16, 1894.		6.3

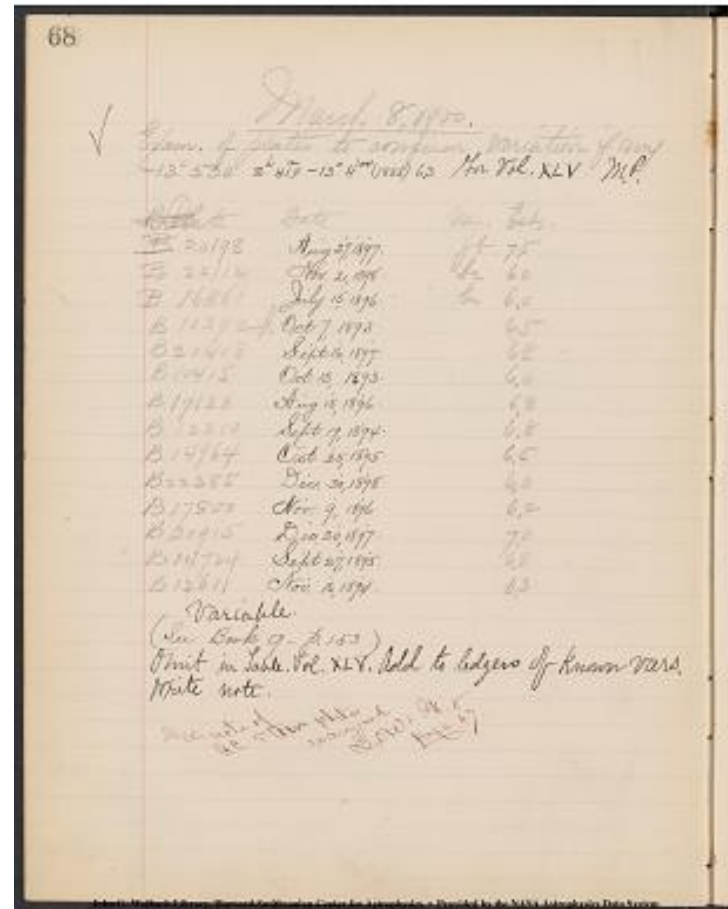
Variable.

(See Book 9 - p. 153)

Omit in Table. Vol. XLV. Add to ledgers of known vars.

Write note.

See note of A.C. & AM plates examined S.D.W's Bk. 5 page 47.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

March 8, 1900.

[[?]] of plates to confirm variation if any in
-8° 53.6' 24" 45.1"m - 8° 52'm 7.8 (1855). For Vol XLV. N.P.

Plate	Date	Var	Est
B 20198	Aug 27, 1897	[[?]]	6.5
B 22112	Nov 2, 1898	---	7.0
B 16861	July 15, 1896	---	6.8
B 20408	Sept 16, 1897	---	6.8
B 10415	Oct 13, 1893	---	7.0
B 10410	Oct 12, 1893	---	7.0
I 14181	Dec 31, 1895	---	6.8
I 16294	Oct 25, 1896	---	6.7
B 14980	Oct [[striketrough]] 26, 1895	---	7.1
B 17188	Aug 15, 1895	---	6.9
B 12210	Sept 19, 1894	---	7.0
B 14964	Oct 25, 1895	---	7.1
B 12153	Sept 14, 1894	---	6.7
B 14723	Sept 27, 1895	---	7.0

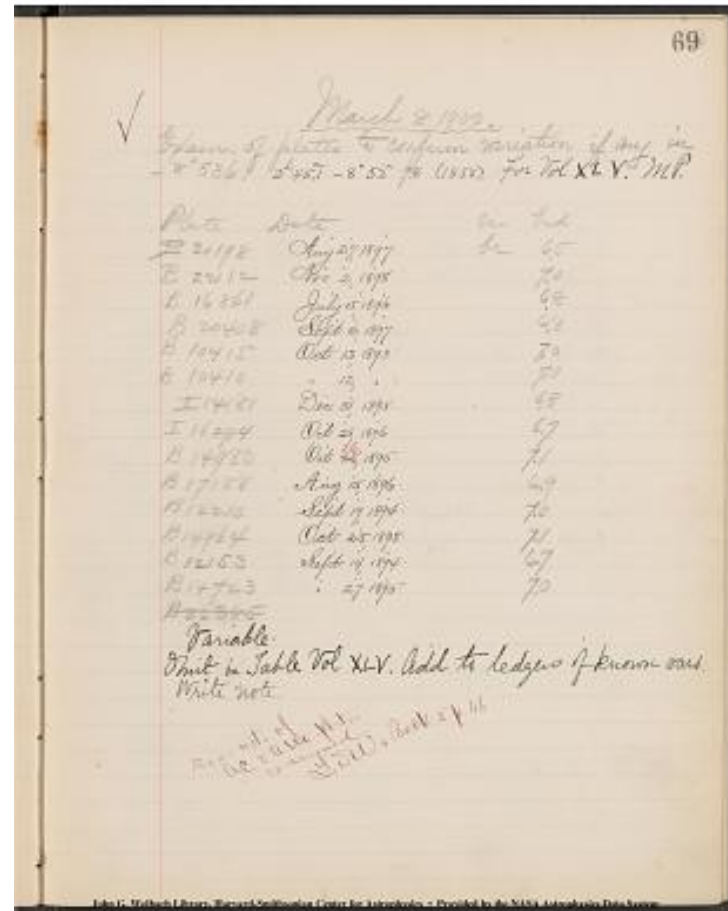
~~[[striketrough]]~~

Variable

[[?]] in Table Vol XLV. Add to ledgers of known vars.

Write not.

see note of AC



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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March 10, 1900

[[?]] of plates to confirm variation if any in + ~~31° 1946~~ ~~17 44~~ ~~9h~~
4.6m +31° 23' (1900). M.P. Vol XLV.

Comp. star +31° 1941 BD magn 7.5 used as [[?]]

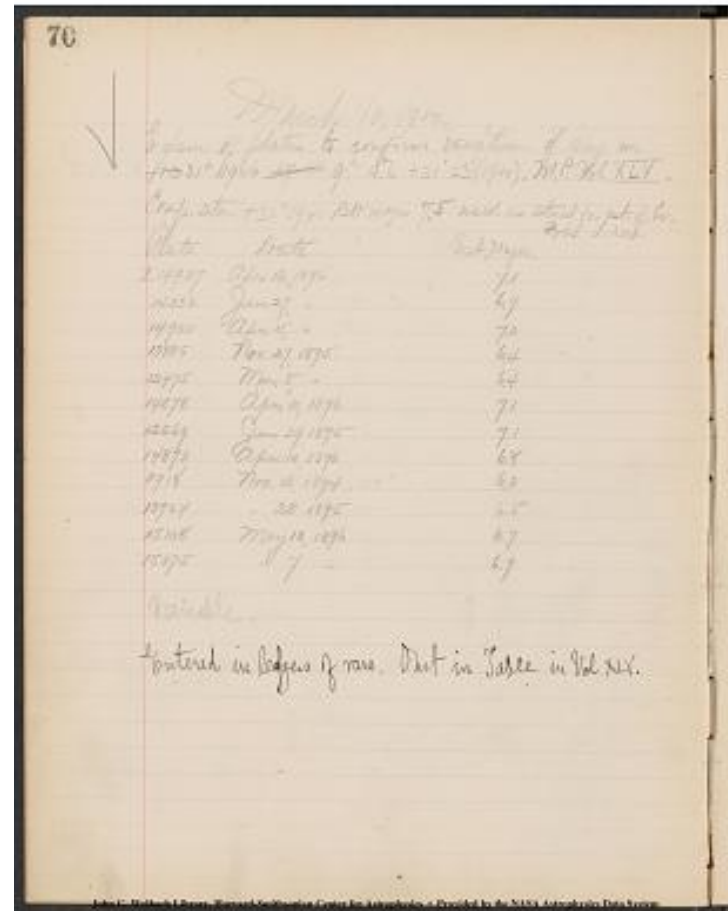
[[3 columned table]]

Plate|Date|[[?]] Magn.|

Plate	Date	Magn.
14937	Apr. 16, 1896	7.1
14336	Jan. 17, 1896	6.9
14900	Apr. 15, 1896	7.0
13885	Nov. 27, 1895	6.4
12475	Mar. 5, 1895	6.4
14878	Apr. 10, 1896	7.1
12269	Jan. 29, 1895	7.1
14873	Apr. 10, 1896	6.8
11918	Nov. 15, 1894	6.3
13924	Nov. 28, 1895	6.5
15108	May 13, 1896	6.7
15075	May 7, 1896	6.9

variable

[[?]] in ledgers of vars. [[?]] in [[?]] in Vol XLV.



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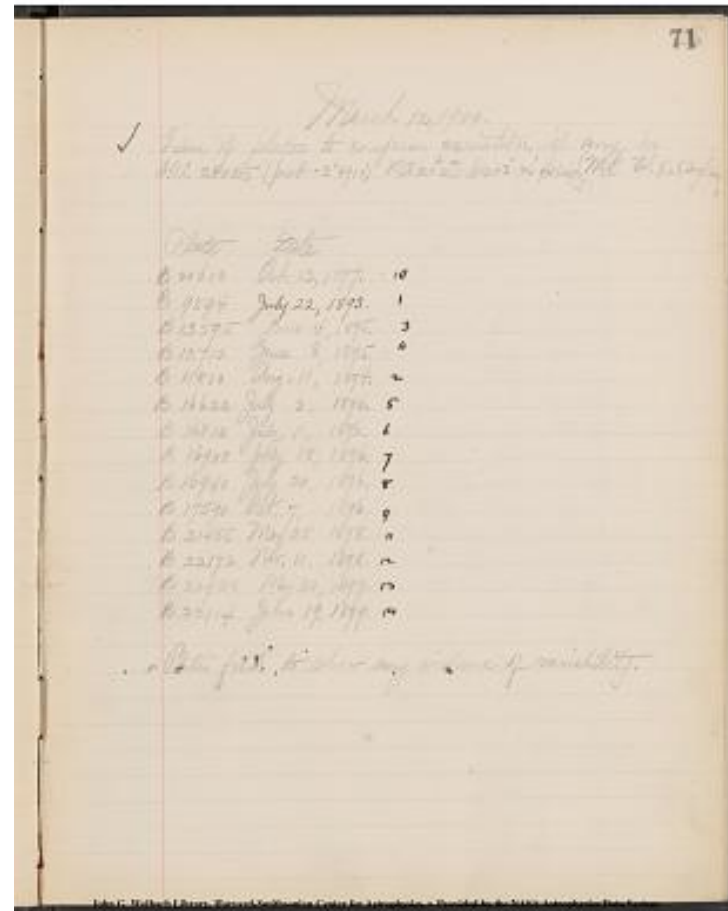
March 12, 1900.

[[?]] of plates to confirm variation if any in [[?]] 28085 (prob -3°49'10")
R.A. 20h 21.1m Dec. -3° n' 9.4 (1855)(M.P. Vol XLV [[?]])

[[3 columned table]]

Plate	Date	
B 20618	Oct. 13, 1897.	10
B 9894	July 22, 1893.	1
B 13595	June 4, 1895.	3
B 13710	June 8, 1895.	4
B 11810	Aug. 11, 1894.	2
B 16622	July, 2 1896.	5
B 16810	July 11, 1896.	6
B 16908	July 18, 1896.	7
B 16940	July 20, 1896.	8
B 17590	Oct. 7, 1896.	9
B 21485	May 25, 1898.	11
B 22172	Nov. 11, 1898.	12
B 22938	May 30, 1899.	13
B 23114	June 19, 1899.	14

Plates fail to show any evidence of variability.



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Extracted Aug-29-2022 03:00:04

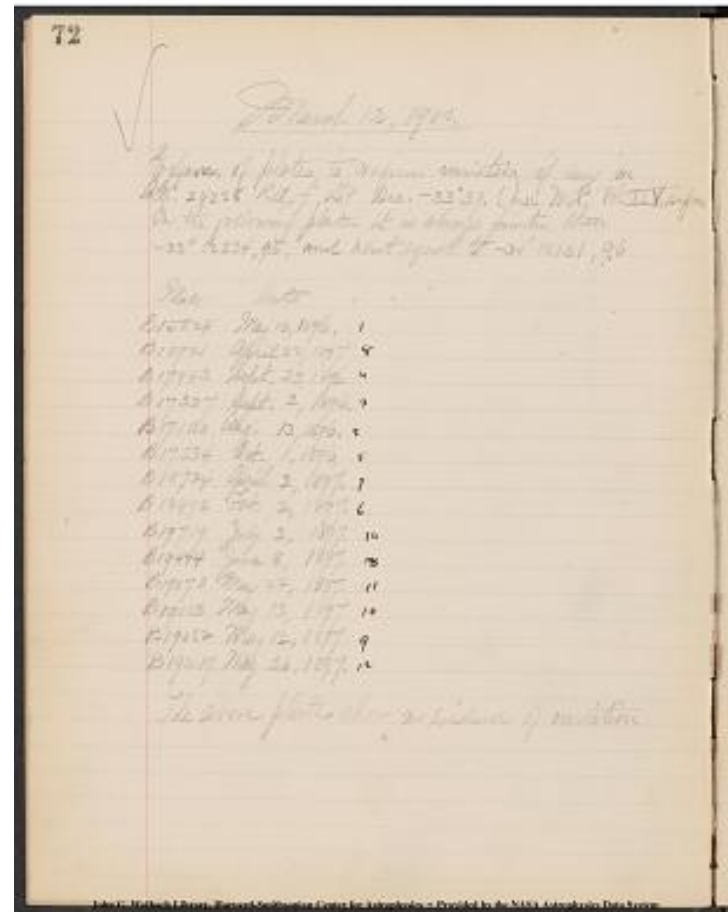
March 12, 1900.

[[?]] of plates to confirm variation if any in [[?]] 24228 R.A. 17h 44.9m
Dec. $-33^{\circ}39'$. (See M.P. Vol XLV [[?]])
On the following plates it is always fainter than $-33^{\circ}12534, 9.5$, and
about equal to $-34^{\circ}12131, 9.6$

[[3 columned table]]

Plate	Date	
---	---	---
B 15824	May 12, 1896.	11
B 18921	April 22, 1897	8
B 17443	Sept. 23, 1896.	4
B 17327	Sept. 2, 1896.	3
B 17120	Aug. 13, 1896.	2
B 17534	Oct. 1, 1896.	5
B 18724	April 2, 1897.	7
B 18492	Feb. 2, 1897.	6
B 19719	July 2, 1897.	14
B 19444	June 8, 1897.	13
B 19170	May 22, 1897.	11
B 19113	May 13, 1897.	10
B 19022	May 12, 1897.	9
B 19217	May 26, 1897.	12

The above plates show no evidence of variation



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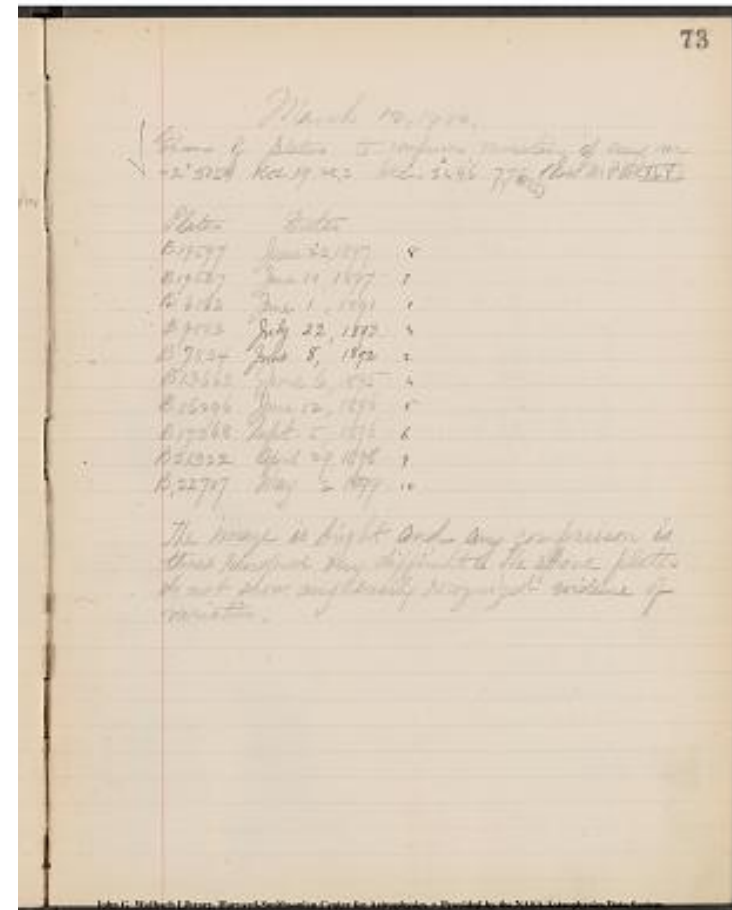
March 12, 1900.

[[Checkmark]] Efun j plates to uniform variation y any m
-2°5054 rd, 19 28,3 Dec, 2'<4.6 77(855) |Dec m P Val XLV

[[3-Column Table]]

Plates	Dates	
B19597	June 23, 1897	8
B19527	June 10, 1897	7
B6162	June 1, 1891	1
B9883	July 22, 1893	3
B7834	June 8, 1892	2
B13663	June 6, 1895	4
B16296	June 12, 1896	5
B17368	Sept. 5, 1896	6
B21322	April 29, 1898	9
B22707	May 2 1899	10

The mage is bright and any comparison is
this gendered fery difficult the above plates
do not phor any easily recognized evidence of
variation.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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March 12, 1900

Gam of plates to confirm variation if any m ABC 25638.R.A.18^h 38.6
Dec.-38° 41' (1875) MP Vol XLV (pusfm)

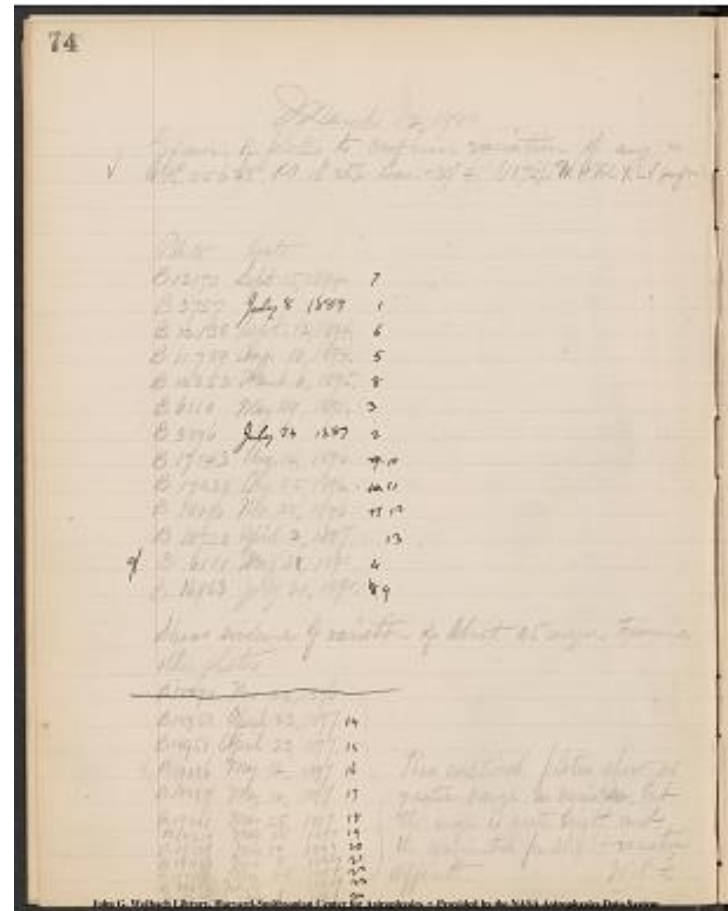
Plate	Date	
B12170	Sept. 15, 1894	7
B3757	July 8, 1889	1
B12138	Sept. 12, 1894	6
B11789	Aug. 10, 1894	5
B12853	March 6, 1895	8
B6110	May 29, 1891	3
B3896	July 24, 1889	2
B17143	Aug. 14, 1896	9 10
B17239	Aug. 25, 1896	10 11
B18090	Nov. 28, 1896	11 12
B18728	April 2, 1897	13
B6111	May 21, 1891	4
B16983	July 21, 1896	8 9

Shows evidence of variation of about 0.5 magn, Examine other plates.

[[3-Column Table]]

Plate	Date	
B18090	Nov. 28, 1896	11
B18950	April 23, 1897	14
B18951	April 23, 1897	15
B19086	May 12, 1897	16
B19087	May 12, 1897	17
B19201	May 25, 1897	18
B19219	May 26, 1897	19
B19509	June 1, 1897	20
B19450	June 10, 1897	21
B19245	May 28, 1897	22
B19690	July 1, 1897	23
B19691	July 1, 1897	24

[[Right margin]] These additional plates show no greater range in variation, but the image is quite bright and the examination for slight variation difficult.
W. P. F.



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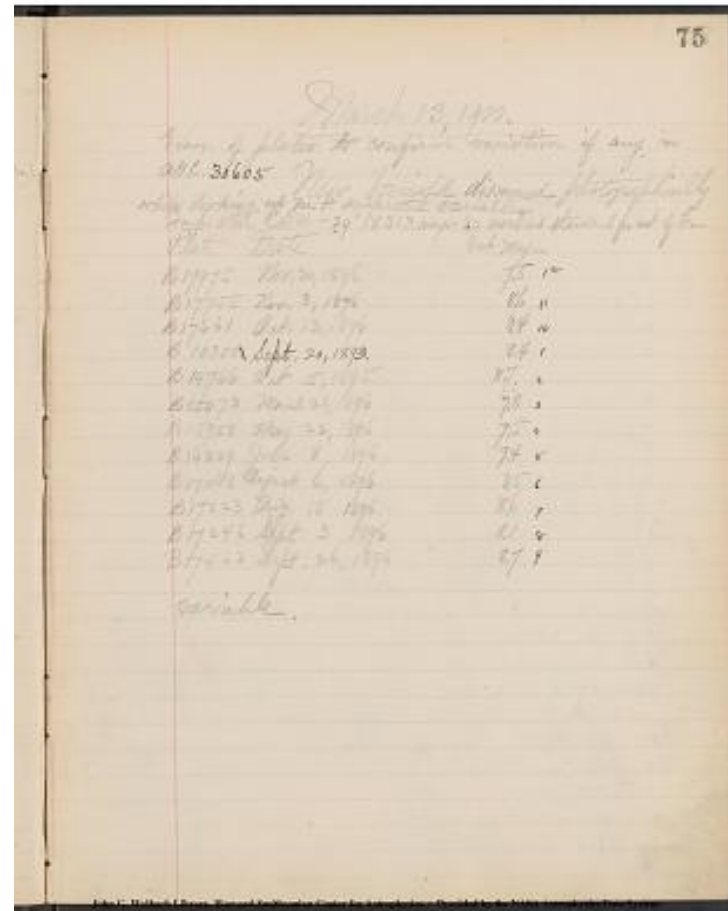
March 13, 1900.

Exam. of plates to confirm variation if any in
AG.C. 30605

New Variable discovered photographically
while looking up M. P. suspected variables.
Comp. star CDM - 29° 18313 magn 8.0 used as standard for est of br.
[[4 Columned Table]]

Plate	Date	Est Magn	
B17975	Nov. 20, 1896	7.5	12
B17755	Nov. 3, 1896	8.6	11
B17661	Oct. 13, 1896	8.4	10
B103000	Sept. 20, 1893	8.4	1
B14766	Oct. 5, 1895	8.7	2
B15473	March 26, 1896	7.8	3
B15958	May 22, 1896	7.5	4
B16209	June 8, 1896	7.4	5
B17068	August 6, 1896	8.5	6
B17223	Aug. 18, 1896	8.6	7
B17346	Sept. 3, 1896	8.1	8
B17463	Sept. 16, 1896	8.7	9

variable.

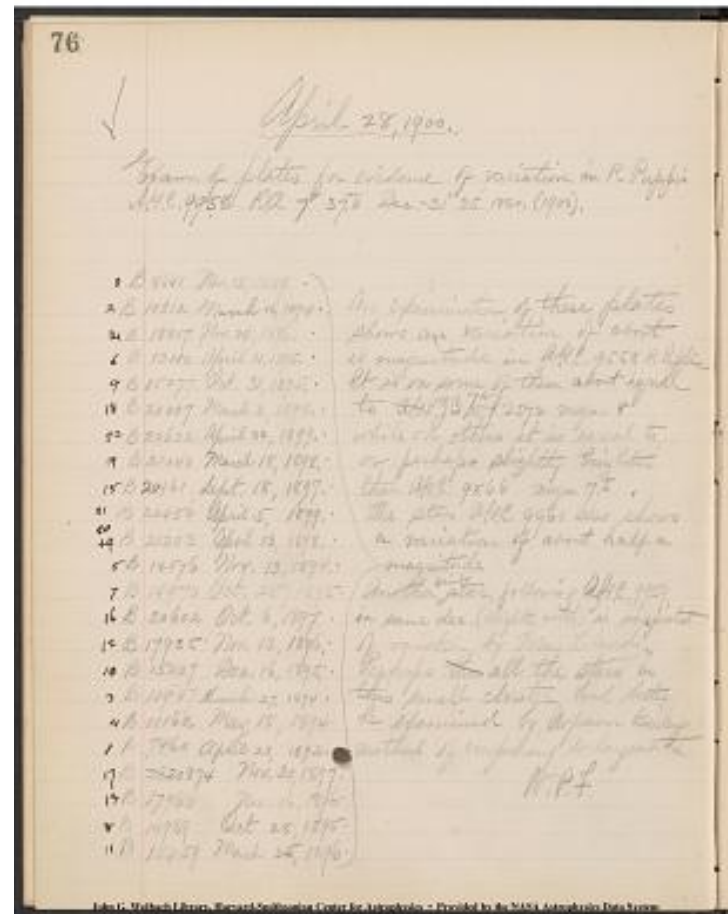


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April 28, 1900

Exam of plates for evidence of variation in R Puppis
A.G.C.9958 R.A. 7^h 37.0^m Dec. 31°35'(1900).
[3 Columned Table]

0	B4641	Nov. 18, 1889	.
2	B10812	March 16, 1894	. An examination of these
14	B18017	Nov. 24, 1896	. plates shows a variation
6	B13012	April 11, 1895	. of about 0.6 magnitude
9	B15077	Oct. 31, 1895	. in A.G.C.9558 R.Puppis,
18	B21007	March 3, 1898	. It is on some of them
22	B22622	April 22, 1899	. about equal to
19	B21040	March 18, 1898	. [[A.M.C]]
15	B20461	Sept. 18, 1897	. [[Z.C.7]]
21	B22456	April 5, 1899	. [[superscript]h]]
20	[[B21040]]	[[March 18, 1898]]	[[through]]5[[strike-
	[[B20461]]	[[Sept. 18, 1897]]	[[through]][[superscript]h]]
	B21203	April 13, 1898	. 2572 magn. 8
5	B12576	Nov. 13, 1894	. while on others it is
7	B14970	Oct. 25, 1895	. equal to... or perhaps
16	B20602	Oct. 6, 1897	. slightly brighter
12	B17935	Nov. 13, 1896	. than A.G.C.9866 magn 7.5
10	B15227	Dec. 16, 1895	. The star A.G.C.9961 also
3	B10947	March 27, 1894	. shows a variation of
4	B11162	May 18, 1894	. about half a magnitude
1	B7460	April 23, 1892	. Another faint star,
17	[[B11162]]	[[May 18, 1894]]	[[following A.G.C.9959,
	[[B7460]]	[[April 23, 1892]]	[[in same dec.(slightly
	[[B11162]]	[[May 18, 1894]]	[[north) is suspected
13	B17960	Nov. 16, 1896	. of variation by Miss
8	B14989	Oct. 28, 1895	. Lehand.,
11	B15459	March 25, 1896	. Perhaps [[strike-through]]
			[[this]]
			all the stars in this
			small cluster had better
			be examined by Professor
			Baileys method of
			comparing [?]
			W.P.F.



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77

April 28, 1900.

Exams of plates for evidence of variation in A.M.C. 30650 (1900?) RA 22 23.4 Dec. $-37^{\circ} 28' 74''$, on in 30649 R.A. 22 23.4 Dec. $-37^{\circ} 29' 834''$.

[[4 column table]]

B | 10001 | July 27, 1893 | 2 |

B | 19991 | August 9, 1897 | 11 |

B | 23090 | June 17, 1899 | 13 |

B | 13723 | June 8, 1895 | 3 |

B | 14767 | October 5, 1895 | 5 ~~4~~ ~~4~~ |

B | 6324 | June 14, 1891 | 1 |

B | 13953 | July 3, 1895 | 4 |

B | 15831 | May 12, 1896. | 6 |

B | 16151 | June 5, 1896. | 7 |

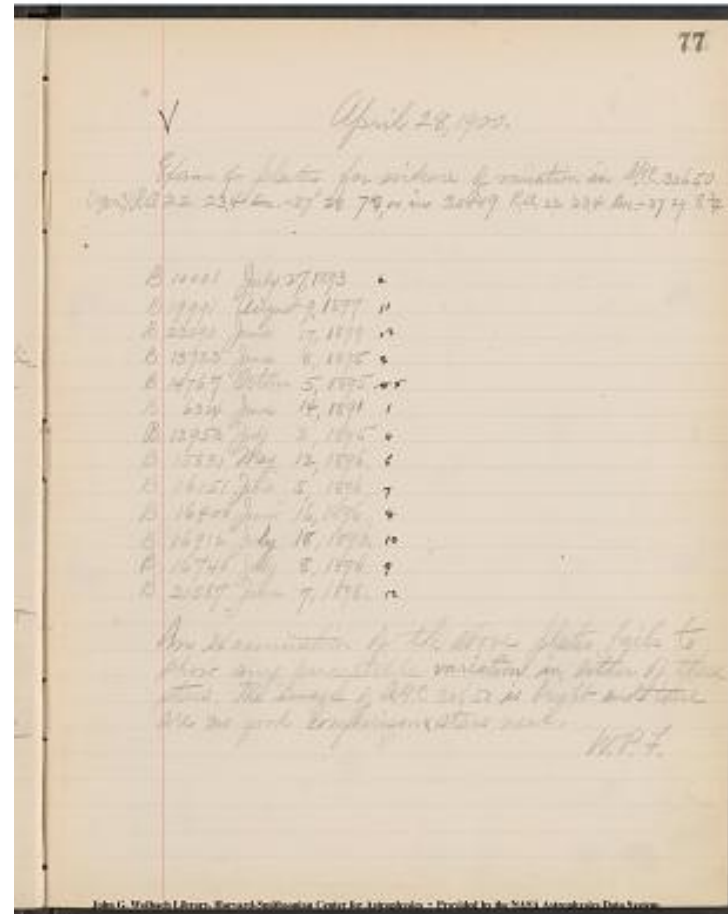
B | 16400 | June 16, 1896. | 8 |

B | 16912 | July 18, 1896. | 10 |

B | 16740 | July 8, 1896. | 9 |

B | 21587 | June 7, 1898. | 12 |

An examination of the above plates fails to show any perceptible variation in either of these stars. The images of A.M.C. 30650 is bright and there are no good companion ~~s~~ ~~s~~ stars near.
W.P.F.



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78

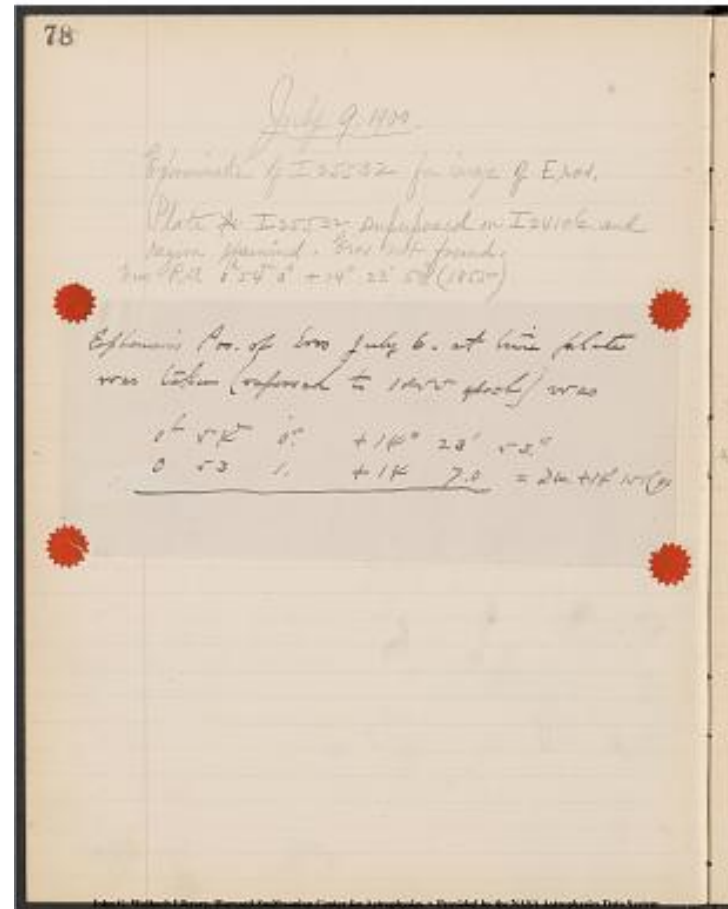
July 9, 1900

Examination of I25532 for image of Eros.

Plate ~~S~~ I 25532 superposed on I24106 and region examined. Eros not found.
Eros RA $0^h 54^m 0^s + 14^\circ 23' 53''$ (1855-)

Ephemeris Pos. of Eros July 6. at time plate was taken (referred to 1855 epoch) was

$0^h 54^m 0^s + 14^\circ 23' 53''$
 $0 \ 53 \ 1.0 \ +14^\circ 7.0 = \text{DM. } +14^\circ 151 \ (9.0)$



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July 9, 1900.

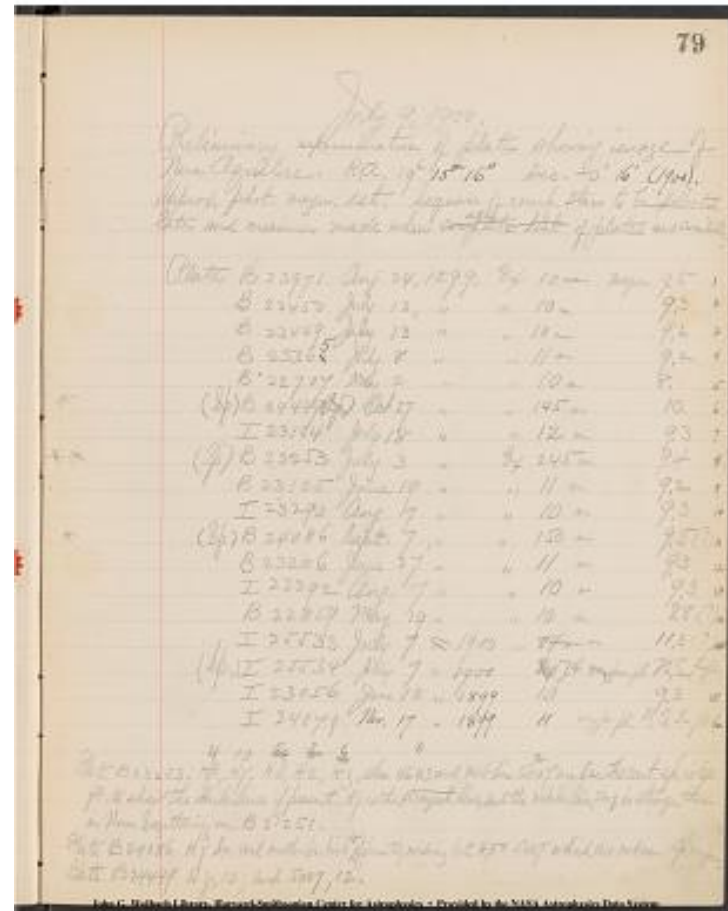
Preliminary examination of plates showing image of Nova Aquilae, R.A. $19^{\text{h}}15^{\text{m}}16^{\text{s}}$ Dec, $-0^{\circ}16'$ (1900). Approx. phot. magn. est. Sequence of comp. stars to be selected later and measures made when ~~complete list~~ all of plates are available

[6 columned table]

[Plate B 23971 Aug 24, 1899 Ex. 10m magn 9.5 1]
B 23450 July 13, 1899 Ex. 10m 9.3 2]
B 23449 July 13, 1899 Ex. 10m 9.2 3]
B 2336 [[[strikethrough]]0[[[strikethrough]]5 July 8, 1899 Ex. 11m 9.2 4]
B 22707 May 2, 1899 Ex. 10m 8 5]
*(Sp)B 24449 [[[strikethrough]]Sp. [[[strikethrough]] Oct 27, 1899 Ex. 145m 10 6]
I 23184 July 18, 1899 Ex. 12m 9.3 7]
** (Sp)B 23253 July 3, 1899 Ex. 245m 9.4 8]
B 23105 June 19, 1899 Ex. 11m 9.2 9]
I 23290 Aug 7, 1899 Ex. 10m 9.3 10]
*(Sp)B 24086 Sept 7, 1899 Ex. 150m 9.5(?) 11]
B 23206 June 27, 1899 Ex. 11m 9.3 12]
I 23292 Aug 7, 1899 Ex. 10m 9.3 12]
B 22859 May 19, 1899 Ex. 10m 8.8(?) 14]
I 25533 July 7, [[[strikethrough]]1899[[[strikethrough]]1900 Ex. 84m 11.3(?) 15[[[strikethrough]]15[[[strikethrough]]]
I (Sp)I 25534 July 7, 1900 [[[strikethrough]]60[[[strikethrough]]]
7.4 [[[strikethrough]]very[[[strikethrough]]poor pl N.S. too ft.]
I 23056 June 18, 1899 10 9.3 15]
I 24079 Nov 17, 1899 11 very poor pl. N.S. too ft. 16]

Plate B 23253. H beta⁴, H gamma¹⁰, H delta⁵, ~~[[[strikethrough]]10[[[strikethrough]]5]]~~, H epsilon³, ~~[[[strikethrough]]5[[[strikethrough]]3]]~~, H zeta¹, ~~[[[strikethrough]]3[[[strikethrough]]1]]~~, also 4643⁶ and neb. line 5007² are br. The cont. sp. is too ft. to show the dark lines if present. H gamma is the strongest line and the nebular line, 5007, is stronger than in Nova Sagittarii on B 21251.
Plate B 24086. H gamma¹⁰ br. and another br. line⁸ apparently midway bet. H beta & 5007 which are not seen. Sp. very poor.
Plate B 24449. H gamma, 10; and 5007, 12.

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July 11, 1900.

Examination of plates of region of Nova Aquilae (Cont).

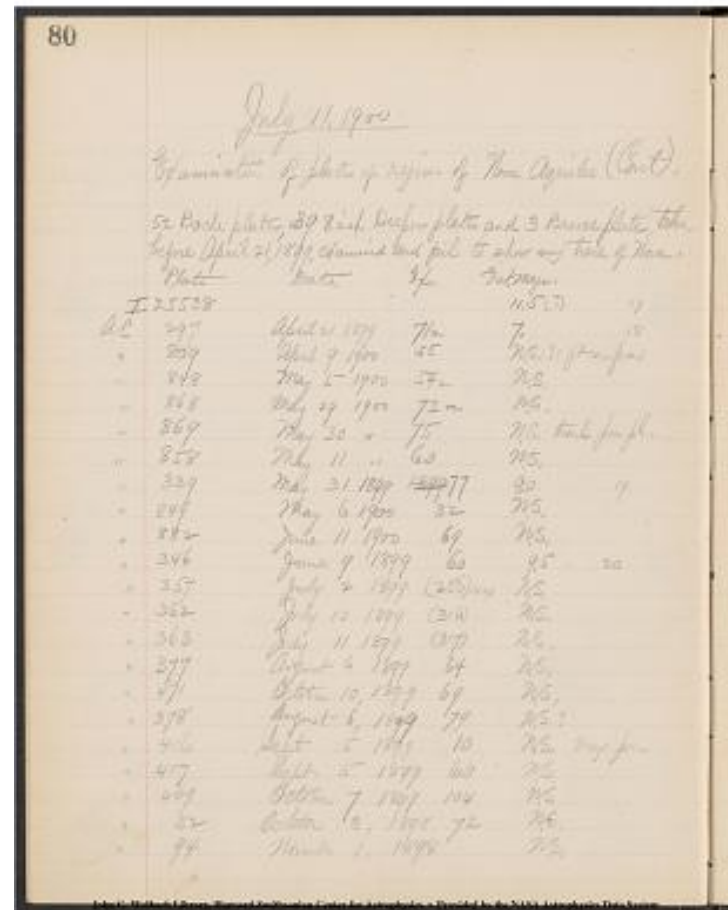
52 Bache plates, 39 8 inch Draper plates and 3 Bruce plates, taken before April 21, 1899, examined and fail to show any trace of Nova.

[5 columned table]

[Plate] [Date] [Ex.] [Est. magn.] []

[Plate]	[Date]	[Ex.]	[Est. magn.]	[]
I 25538			11.5(?)	17
AC 297	April 21 1899	71m	7.	18
AC 809	April 9 1900	55	N.S. (?)	ft comp=.1
AC 848	May 5 1900	54 m	N.S.	
AC 868	May 29 1900	72 m	N.S.	
AC 869	May 30 1900	75	N.S.	trails poor pl...
AC 858	May 11 1900	60	N.S.	
AC 339	May 31 1899	1899	77	9.0 19
AC 849	May 6 1900	32	N.S.	
AC 882	June 11 1900	69	N.S.	
AC 346	June 9 1899	60	9.5	20
AC 357	July 2 1899	(256)	14	ex N.S.
AC 362	July 10 1899	(316)	N.S.	
AC 363	July 11 1899	(317)	N.S.	
AC 377	August 6 1899	64	N.S.	
AC 471	October 10, 1899	6	N.S.	
AC 378	August 6, 1899	79	N.S.	
AC 416	Sept 5 1899	10	N.S.	very poor
AC 417	Sept 5 1899	60	N.S.	
AC 469	October 7 1899	104	N.S.	
AC 52	October 3, 1898	72	N.S.	
AC 94	November 1, 1898		N.S.	

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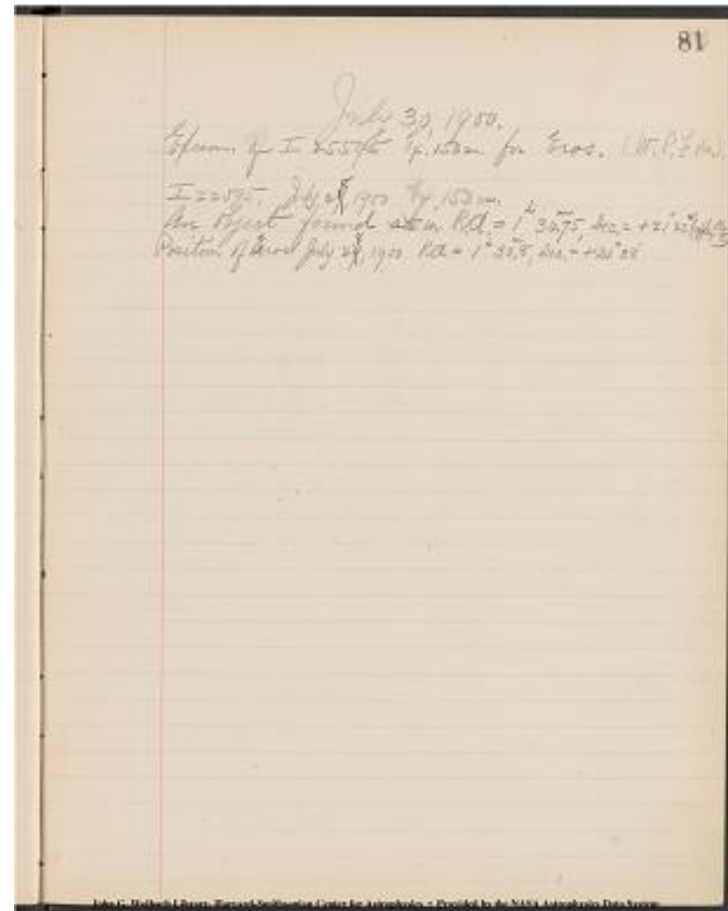
81

July 30, 1900.

Exam. of I25595 Ex. 153m. for Eros. (W.P.F. obs.)

I22595. July 2~~9~~~~8~~, 1900 Ex. 153 m.
An object found ~~at~~ in R.A. = 1^{h} 30.75^m Dec. = $+21^{\circ} 23'$ (approx 1855)
Position of Eros July 2~~9~~~~8~~, 1900 RA = 1^{h} 30.8^m, Dec. = $+21^{\circ} 38'$

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August 14, 1900.

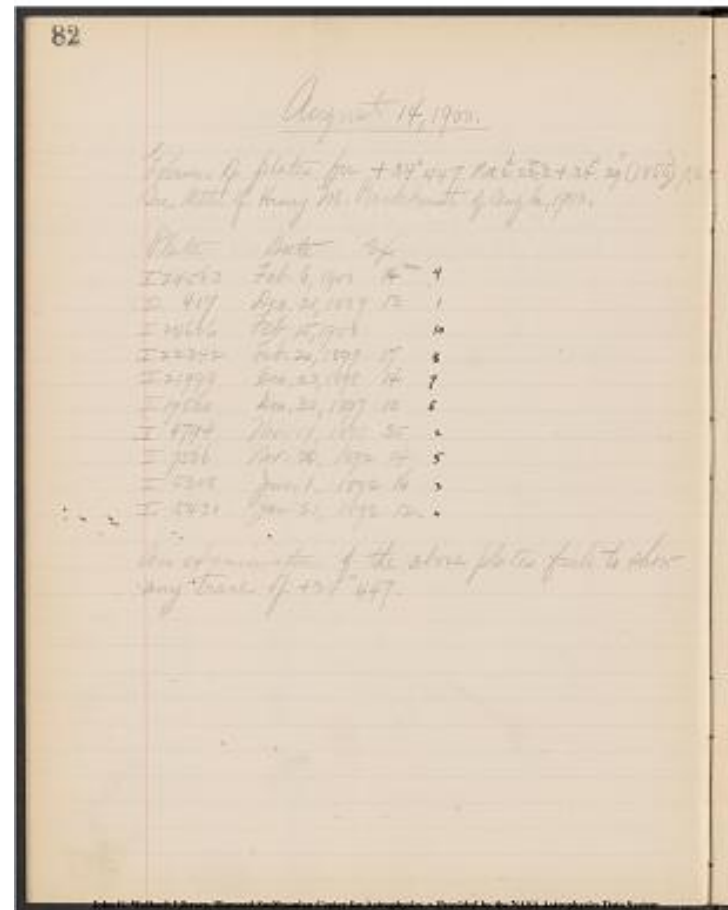
Exam. of plates for $+34^{\circ} 447$ RA $2^{\text{h}} 22.3^{\text{m}}$ + $34^{\circ} 29'$ (1855) 9.3
See letter of Henry M. Parkhurst of Aug. 6, 1900.

[[4 columned table]]

Plate	Date	Ex.	
24563	Feb. 6, 1900	14	9
417	Dec. 31, 1889	13	1
24606	Feb. 15, 1900		10
22342	Feb. 20, 1899	17	8
21999	Dec. 23, 1898	14	7
19860	Dec. 30, 1897	10	6
4794	Nov. 19, 1891	35	2
7566	Nov. 20, 1892	14	5
5308	Jan. 1, 1892	16	3
5430	Jan. 21, 1892	12	4

An examination of the above plates fails to show any trace of $+34^{\circ} 447$.

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March 12, 1901

Exam. of plates for Susp var of Prof. R. W. Willson. +8° 4261. According to his obs, magn. 8 on Sept 22, or 23, 1899.

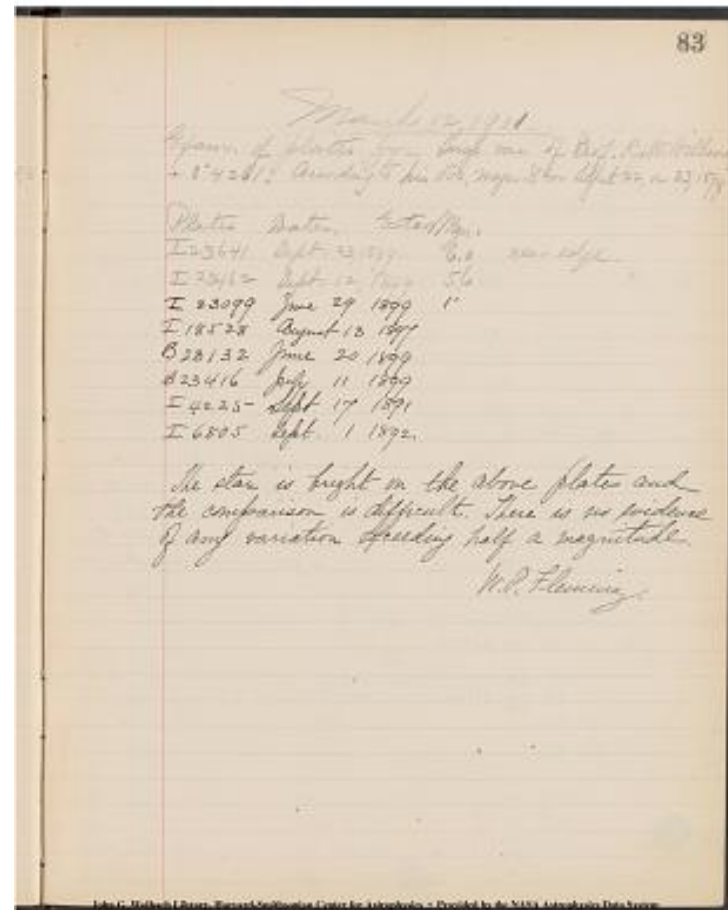
[3 columned table]

Plates	Dates	Estim Magn.
I23641	Sept. 23, 1899	6.0 near edge.
I23462	Sept. 12, 1899	5.6
I23099	June 29 1899	1
I18528	August 13 1897	
B23132	June 20 1899	
B23416	July 11 1899	
I4235	Sept 17 1891	
I6805	Sept. 1 1892.	

The star is bright on the above plates and the comparison is difficult. There is no evidence of any variation exceeding half a magnitude.

W.P. Fleming

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84

March 13, 1901

Need, to determine magn[[?]], of Eros. Ident. of [[?]]
stain[[?]] need for Oct, 28, 30, and 31, 1893, marked on
print from end of plate taken on Oct, 30, 1893.

Plate 19832 on edge of plate image[[?]] very poor[[?]]

Eros = E 9.6 9.6 9.60

1 9.2 9.4

32

2 9.5 9.6 9.55

44

3 9.9 10.0

E 9.5 9.4

[[Image on right side]]

Plate 19862 On edge of plate, images very poor[[?]]

E 9.3 9.4 9.35 haloud[[?]], 12 = .27 1=.00

1 9.1 9.2

23 = 40 2=.27

23

2 9.3 9.5 9.40

3=67

44

3 9.7 9.9

[[?]] 9862. 0.17 lightin A[[?]]

E 9.3 9.4

am 9832 - 0.20 lighting Atm[[?]] 9801

Plate 19801 On edge of Plate, Images very poor

E 9.5 9.3 9.38

1 9.0 9.1

33

2 9.3 9.4 9.35

44

3 9.7 9.8

E 9.3 9.4

March 14 1901 Olerali[[?]] Eros Main[[?]] [[Indecipherable]]

9h u5 9832 1 2 E[[?]] 20 9862 10 E .50 9801 E 0 2 27

2 0 E 27 E22 .07 E 3 3[[strikethrough]] 2 [[/strikethrough]] 37

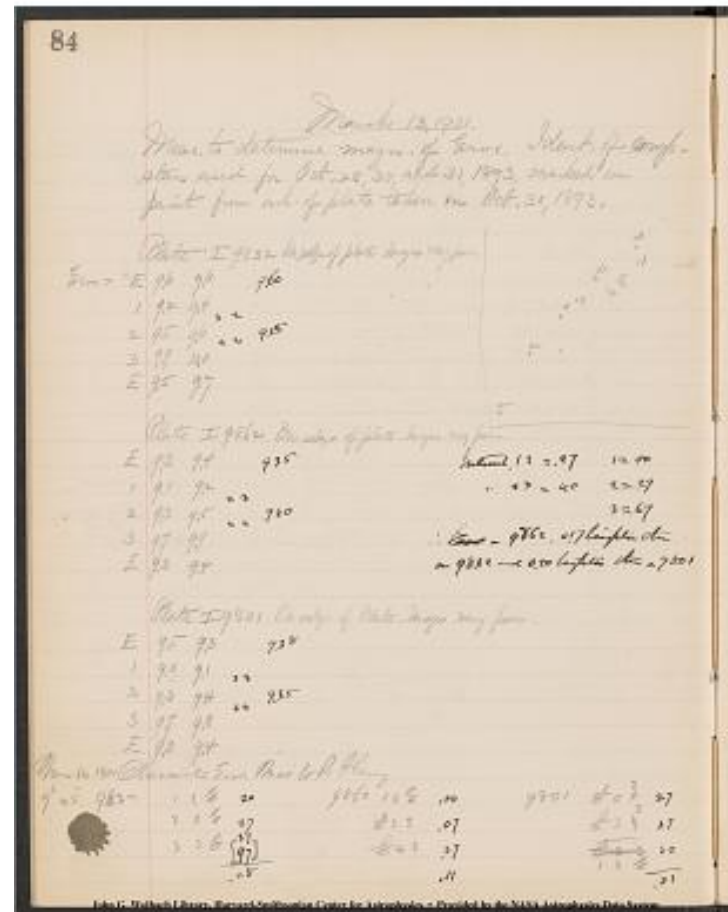
3 3 E [37 [[over]] 97] E 43 .27 1 3 E[[strikethrough]] E 3 3

[[/strikethrough]] 30

.28 .11 .31


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March 13, 1901

Meas. to det. magn. of Eros in 1896. 

B16165

Plate B16165 Comp. stars marked in print from Eul. on June 5, 1896.

E | ~~9.6~~ | 9.3 | 9.4 |~~E~~

f = 1 | 10.0 | 9.9 | E | 4 | 1 | 4.55 | 9.95

2 | 9.8 | 9.7 | E | 2 | 2 | 9.55 | 9.75

3 | 9.4 | 9.3 | E | 0 | 3 | 9.35 | 9.35

4 | 9.9 | 9.9 | E | 5 | 4 | 9.40 | 9.90

5 | 9.8 | 9.8 | E | 4 | 5 | 9.40 | 9.80

f = 6 | 9.4 | 9.4 | E | 2 | 6 | 9.20 | 9.40

E | 9.4 | 9.3

4 mod = 9.35

245 | 415

9.41 | 9.69

[[?]] - .28 = [[?]] Eros

[[symbol-therefore]] Eros on 16108 is 0.63 brighter
than on 16165 and on 16157 about 0.2 brighter still

Plate B 16108

E 9.3, 9.6, 9.3, 9.6

1 | 9.3 | 9.2 | 1 | 2 | E | 9.45 | 9.25

2 | 9.0 | 8.9 | 2 | 4 | E | 9.35 | 8.95

3 | 8.8 | 8.6 | 3 | 7 | E | 9.40 | 8.70

4 | 9.4 | 9.4 | 4 | 0 | E | 9.40 | 9.40

5 | 9.1 | 9.1 | 5 | 2 | E | 9.30 | 9.50

6 | 8.7 | 8.7 | 3 | 6 | E | 9.30 | 8.70

E 9.2, 9.6, 9.3, 9.7

8 [[?]] ~~9.45~~ 9.28 and 9.62

220 | 610

9.37 | 9.02

4.35

Plate B 16157 on edge of plate. Images very poor.

E | 10.3 | 10.3

1 | N.S. | —

2 | N.S. | —

3 | N.S. | —

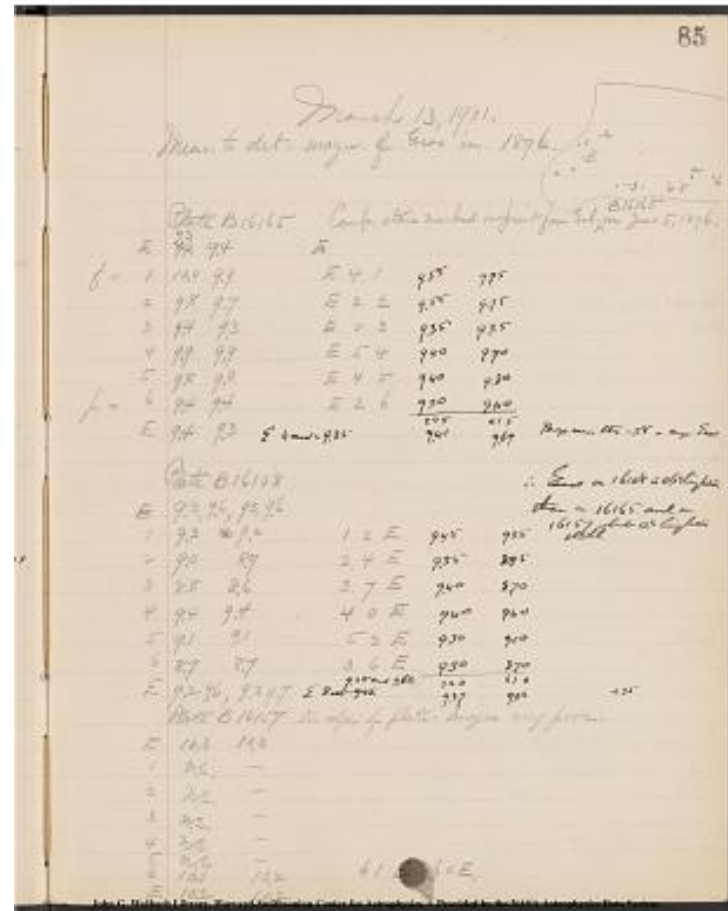
4 | N.S. | —

5 | N.S. | —

6 | 10.1 | 10.2

E | 10.2 | 10.2

61E, 60E,

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March 14, 1901

Examination of plates of Eros 1893, 4 & 6 to determine variation & bright

| |y|m|d|n| | |

Max. at beginning A222|'94|2|60| Bright,

[[line]] B15531|'96|4|6|60| Max

B16108|'96|6|4|70|Max

A1876|'96|6|30|60|

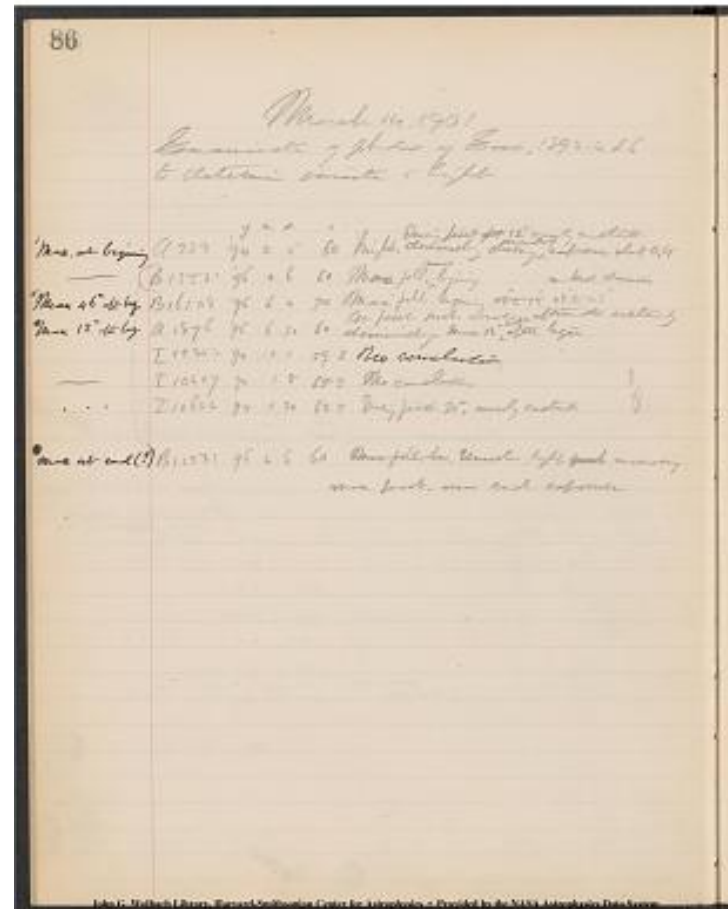
I10353|'94|1|1|59 s|No conclusion|

I10607|'94|1|8|65 s|No conclusion|

I10604|'94|1|30|62 s|During Joint[[?]] 30^n, nearly constant|

Max at end (?) B15531|'96|4|6|60|

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March 25, 1901.

of br. of on plates.

Plate A 1876 Trail divided into four parts a, b, c, & d.

b/a f/s a=0

b 2 3 c " b/c " b=1

c 2 d " c 2 d " c=3

d=5

Plate Bibsis

s 2 E: v=0 s=0

E: 5 v t=2 t=5

E: 3 t s v=7

of a trail at 187

~~d 2~~ t2d1 | α =7

s5d1l=5

dqli 2 v =5

6 dqE sligre fei

ltn E B16158

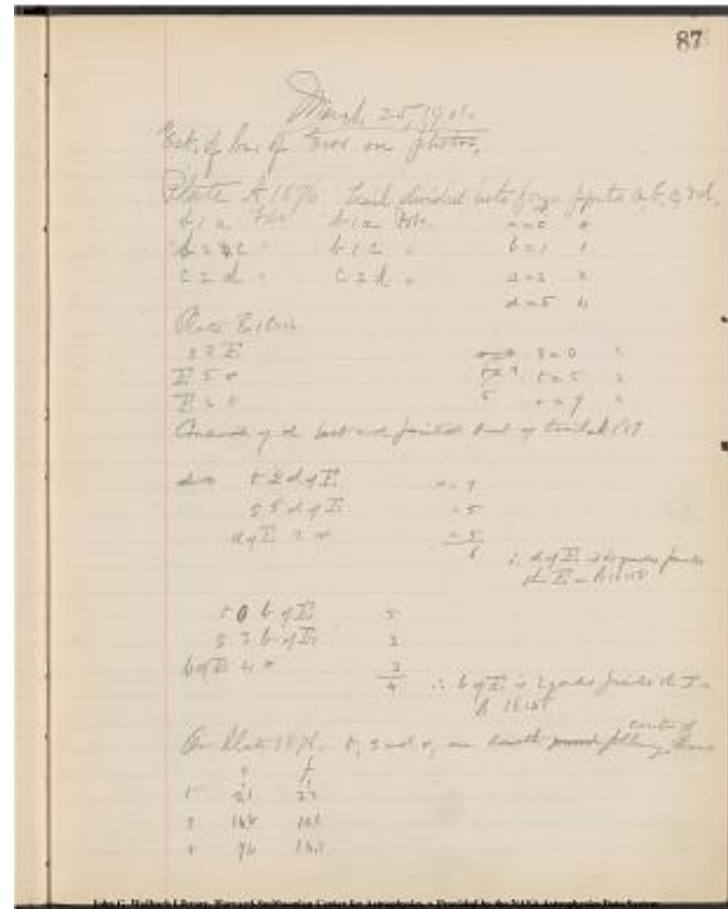
Can l1eh1876, t, s and r, an lenuk ~~mund~~ following center of

s/f

t 2.1|3.2

s 14.8|10.0

r 9.4|14.1



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14

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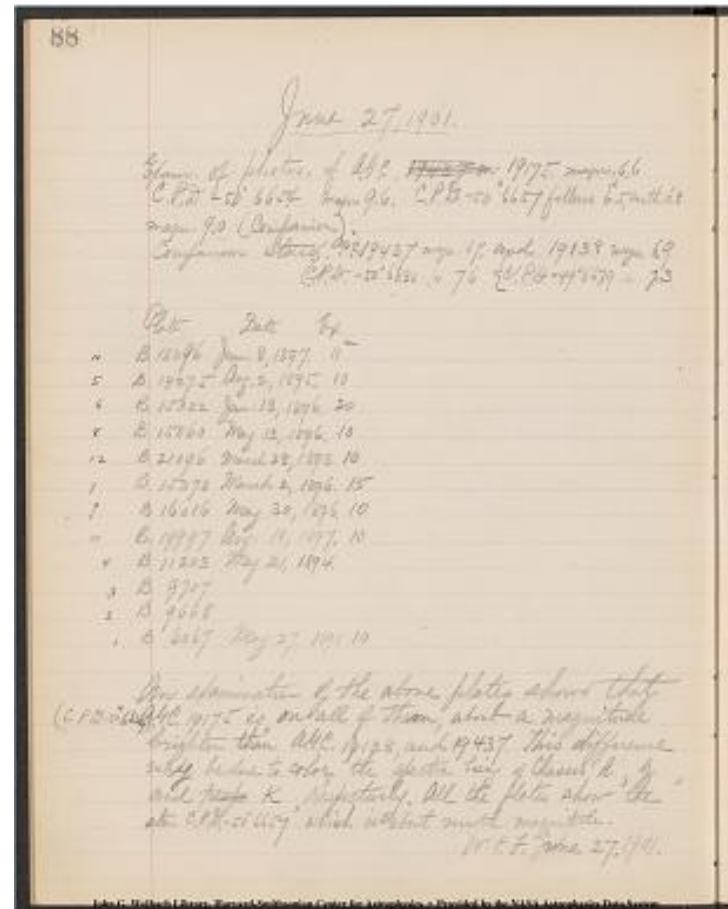
Extracted Aug-29-2022 03:00:04

June 27, 1901

Exam. of photos of A,R,E ~~19439~~
~~m~~19175 magn. 6.6 C.P.D -50[degrees] 6654 magn 9.6
 C.P.D -50[degrees] 6657 follows 6.5^h[s], south 0.8' magn. 9.0
 (Companion).
 Companion stars A, ~~19437~~, C, 19437 magn. 67. and 19138 magn. 69
 (C.P.D. -50[degrees] 6880 " 76 {C.P.D -49[degrees] 6679 " 7.3

	Plate	Date	Ex.
10	B18296	Jan. 8, 1897	11 ^m
5	B14275	Aug. 2, 1895	10
6	B15322	Jan. 13, 1896	20
8	B15860	May 13, 1896	10
12	B21096	March 28, 1898	10
7	B15370	March 2, 1896	15
9	B16016	May 30, 1896	10
11	B19997	Aug. 10 1897	10
4	B11203	May 21, 1894	
3	B9707		
2	B9668		
1	B6067	May 27, 1891	10

An examination of the above plates shows that (CPD-50[degrees]6654)
 A.~~19175~~.C 19175 is on all of them, about a magnitude brighter than
 A.~~19138~~.C 19138 and 19437. This difference may be due to color, the
 spectra ~~of~~ classes A, g, and ~~19437~~ ~~19437~~, respectively. All the plates show the plate C.P.D -
 50[degrees]6657' which is about ninth magnitude.
 W.P.F. June 27, 1901



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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June 27, 1901.

[[?]], of a few plates for conf. of Mrs. Ceraski's new [[Agolvar?]]
Astron, [[Nack?]]. 155, p. 351. BD-12° 5202 18^h 46^m 19.5s 7-12°
46.1 9 9.3 (1855).

[[Starsax?]], -12° 5198, 18^h 45^m.2-12° 45^m.8.9[[/strikethrough]] 2
[[/strikethrough]] ^ [[G?]], -12° 5199 18^h 45^m.4 -12° 40^m.94

CB, -12° 5208 18^h 47^m.4 -12 59 9.3 [[/strikethrough]] 4
[[/strikethrough]] ^d, -12° 5204 18^h 47^m.1 -12° 55^m.9.2(1855)

Selected Provisionally for comparison.

89

June 27, 1901.

Exam. of a few plates for conf. of Mrs. Ceraski's new Agolvar.
detected. Band 1st p. 351. Not yet given for the 1st-12.50. 12.50. 12.50.
Starsax, -12 5198, 18 45.2-12 45.8.9-12 40.94
12.50. 12.50. 12.50. 12.50. 12.50. 12.50. 12.50. 12.50. 12.50. 12.50.
Selected provisionally for comparison.

Plate	Date	Sec.	Set.
B 10120	July 6, 1892	10	24 2 2 6
B 10121	July 19, 1892	11	24 2 2 6
B 10122	June 11, 1897	10	24 2 2 6
B 10123	June 12, 1897	10	24 2 2 6
B 10124	June 3, 1897	10	24 2 2 6
B 10125	May 20, 1897	10	24 2 2 6
B 10126	May 20, 1897	10	24 2 2 6
B 10127	July 15, 1897	10	24 2 2 6
B 10128	July 15, 1897	10	24 2 2 6
B 10129	May 23, 1897	10	24 2 2 6
B 10130	July 25, 1897	10	24 2 2 6
B 10131	May 2, 1897	10	24 2 2 6
B 10132	July 17, 1897	10	24 2 2 6
B 10133	July 14, 1897	20	24 2 2 6
B 10134	June 2, 1897	10	24 2 2 6
B 10135	July 24, 1897	10	24 2 2 6
B 10136	July 25, 1897	10	24 2 2 6

On the above plates the star shows a variation of about
1/10 of a magnitude.

W. P. Fleming June 27/01

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June 27, 1901.

Exam. of plate for [[Mr. Ceraski's ?]] variable 19 7 37.01 +33 10 12.6
[[underline]] (1855). [[/underline]] [[?]] 155. [[?]] 351

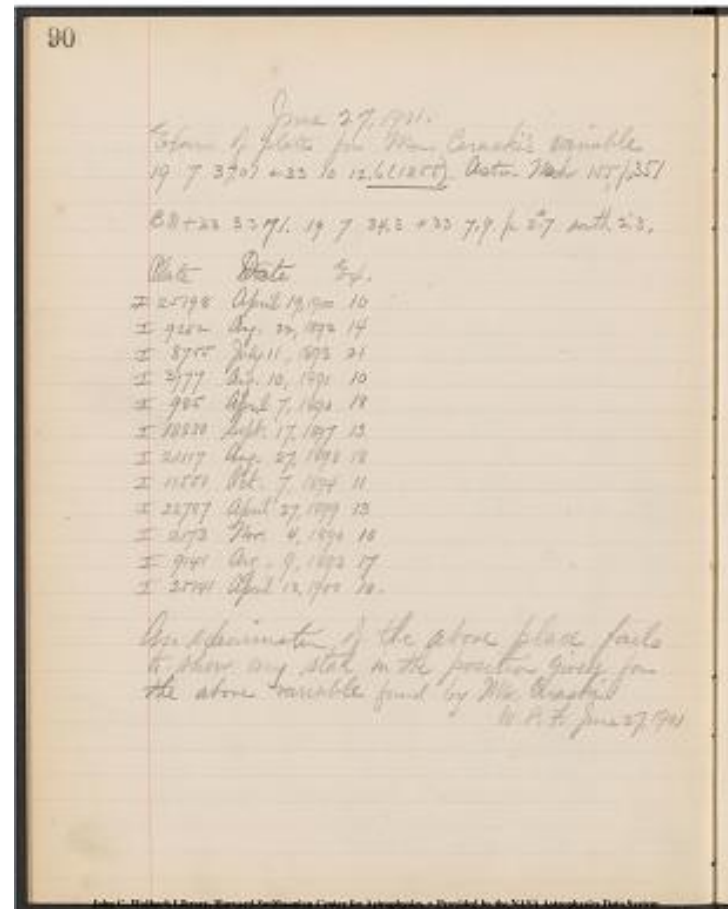
BA +33 33171/ 19 7 34.3 +33 7.9 [[?]] 2.7^[[s]] south 2'3.

[[3 columned table]]

Plate|Date|Ex.|

Plate	Date	Ex.
25198	April 19, 1900	10
9282	Aug. 22, 1893	14
8755	July 11, 1893	21
3977	Aug. 10, 1890	10
985	April 7, 1890	18
18880	Sept. 17, 1897	13
21117	Aug. 27, 1898	18
11551	Oct. 7, 1894	11
22787	April 17, 1899	13
2173	Nov. 4, 1890	10
9141	Aug. 9, 1893	17
25141	April 13, 1900	10

An examination of the above plate fails to show any star in the position
given for the above variable found by [[Mr. Ceraski ?]].
W.P.F. June 27, 1901



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July 9, 1901

Meas of Spectra cont.

I 27101 5°

f	0.90	112	5.35	423	+03
N	2.77	346		7.66	+04
g	1.80	225	6.33	408	-12
N	2.71	339		7.59	-03
h	2.05	256	6.98	4.42	+22
k	2.70	338	7.44	406	-14
			1679		
			4.20	-1	

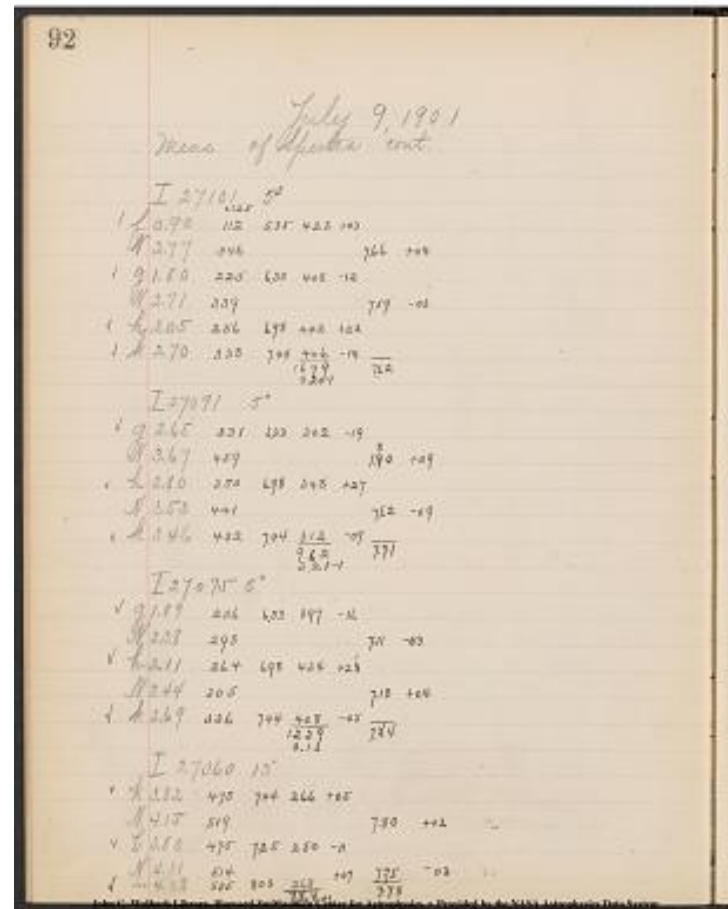
I 27091 5°

g	2.65	331	6.33	302	-19
N	3.67	459		7. 9	80 +09
h	2.80	350	6.98	348	+27
N	3.53	441		7.62	-09
k	3.46	432	7.44	312	-09
			962	7.71	
			3.21	-1	

I 27060 13°

k	3.82	478	7.44	266	+05
N	4.15	519		7.80	+02
l	3.80	475	7.25	250	-11
N	4.11	514		+07	7.75
m	4.28	535	8.03	268	7.78
			784	+1	

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93[[page number]]
 July 9, 1901
 Mean of spectric[[?]] count.
 I27112 5°
 x125
 k 2.68 335 7.44 409 +19
 N 3.14 392 7.82 -09
 I 2.72 340 7.25 385 -05
 N 3.28 410 8.00 +09
 m 3.41 426 8.03 377 -13
~~[[strikethrough]] 2272 [[/strikethrough]] 1141 7.91~~
~~[[strikethrough]] 7.5711 [[/strikethrough]] 390+1~~
 I27095 13°
 h 3.17 396 6.98 302 +32
 N 3.83 479 7.49 ~~[[strikethrough]] 067 [[/strikethrough]] 05~~
 k 3.88 485 7.44 259 -11
 N 3.90 488 7.58 +04
 I 3.80 475 7.25 350 -20
 811 7.54
 270+1
 I27085 5°
 h 2.07 259 6.98 439 +63
 N 3.02 378 7.54 -10
 k 3.15 394 7.44 350 -26
 N 3.18 398 7.74 +10
 I 3.08 385 7.25 340 -36
 1129 7.64
 I27074 5°
 g 3.80 475 6.33 158 -11
 N 4.43 554 7.23 -01
 4.21 526 6.98 172 +3
 N 4.45 556 7.25 +01
 4.53 566 7.44 178 +9
 508 169+1 7.24
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93

Mean of July 9, 1901
spectric count

I 27112 5°				
h	2.68	335	7.44	409 +19
N	3.14	392	7.82	-09
I	2.72	340	7.25	385 -05
N	3.28	410	8.00	+09
m	3.41	426	8.03	377 -13
[[strikethrough]] 2272 [[/strikethrough]] 1141 7.91				
[[strikethrough]] 7.5711 [[/strikethrough]] 390+1				
I 27095 13°				
h	3.17	396	6.98	302 +32
N	3.83	479	7.49	[[strikethrough]] 067 [[/strikethrough]] 05
k	3.88	485	7.44	259 -11
N	3.90	488	7.58	+04
I	3.80	475	7.25	350 -20
811 7.54				
270+1				
I 27085 5°				
h	2.07	259	6.98	439 +63
N	3.02	378	7.54	-10
k	3.15	394	7.44	350 -26
N	3.18	398	7.74	+10
I	3.08	385	7.25	340 -36
1129 7.64				
I 27074 5°				
g	3.80	475	6.33	158 -11
N	4.43	554	7.23	-01
4.21 526 6.98 172 +3				
N	4.45	556	7.25	+01
4.53 566 7.44 178 +9				
508 169+1 7.24				

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94

July 9, 1901

Meas of Spectra cont.

I 27052 13°

h 3.71 464 698 234 +17

N 4.03 504

k 4.30 538 7.44 206 -11

N 4.10 512

I 4.11 514 7.25 211 -6

651 7.25

I 27015 13° 2.17 + or - 0

Too Poor

I 26941 13°

f 3.60 450 5.35 085 -24

N 4.21 536 635 -05

g 4.21 526 633 107 -02

N 4.28 535 6.44 +04

h 4.51 564 6.98 1.34 +25

326
1.09-1 6.40

I 26897 5°

g 2.57 321 6.33 312 -06

N 3.21 401 7.19 -07

h 3.02 378 6.98 320 +02

N 3.32 415 7.33 +07

k 3.37 421 7.44 323 +05

955 7.26
3.18+1

~~I 26852 5°~~

94

July 9, 1901
Meas. of Spectra cont.

I 27052 13°
h 3.71 464 698 234 +17
N 4.03 504
k 4.30 538 7.44 206 -11
N 4.10 512
I 4.11 514 7.25 211 -6
651 7.25

I 27015 13°
Too Poor

I 26941 13°
f 3.60 450 5.35 085 -24
N 4.21 536 635 -05
g 4.21 526 633 107 -02
N 4.28 535 6.44 +04
h 4.51 564 6.98 1.34 +25
326
1.09-1 6.40

I 26897 5°
g 2.57 321 6.33 312 -06
N 3.21 401 7.19 -07
h 3.02 378 6.98 320 +02
N 3.32 415 7.33 +07
k 3.37 421 7.44 323 +05
955 7.26
3.18+1

~~I 26852 5°~~

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Extracted Aug-29-2022 03:00:04

95

July 9, 1901

Meas. of Spectra cont.

I26852 5°

x125

C 1.55 194 3.93 201 +09

N 2.18 272 4.64 -08

d 2.45 306 4.98 193 +01

N 2.30 288 4.80 +08

I 2.85 356 5.38 182/576 -10 /4.72

1.92

I26849 13°

Too poor

I27043 13°

g4.21 526 6.33 107 -35

N4.52 565 7.07 -01

h4.38 548 6.98 150 +08

N4.54 568 7.10 +02

k4.60 575 7.44 169/426 +27 /7.0

1.42

I26975 13°

d.3.78 472 4.98 026 -~~45~~21

N3.94 492 5.39 -06

f4.43 554 5.35 021 -26

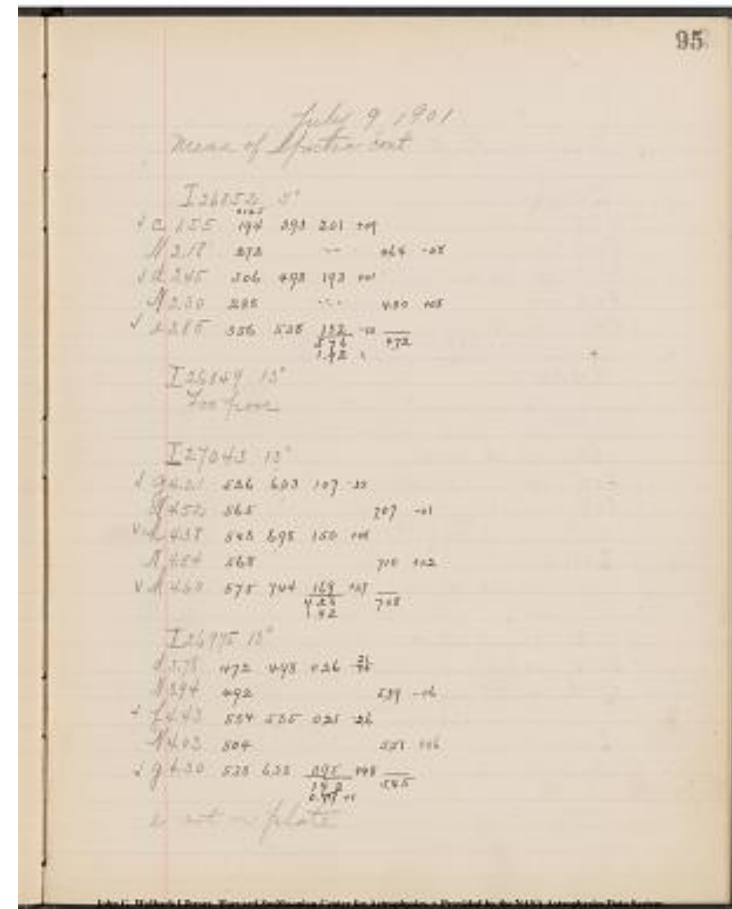
N4.03 504 5.51 +06

g4.30 538 6.33 095/142 +48 /5.45

0.847+1

e not on plate

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96

July 9, 1901

Meas. of Spectra cont.

I269 ~~4~~ 28 13°
 g|3.75|469|6.33|164|-10
 8|4.09|511| | |6.85|-10
 h|4.28|535|6.98|163|-11|
 N|4.11|514| | |6.88|+02
 k|4.40|550|7.44|194/521 1.74-1|+20|6.86
 I26886|13*
 d|2.90|362|4.98|136|+02
 N|3.17|396| | |5.30|+01
 e|3.12|390|5.38|148|+14
 N|3.15|394| | |5.28|-01
 f|3.34|418|5.35|117-17/401 1.34-1|5.29
 I26850 13*
 c|1.62|202|3.93|191|-22
 N|1.96|245| | |4.58|+02
 d|2.18|272|4.98|226|+13
 N|1.94|242| | |4.55|-01
 e|2.53|316|5.38|222/639 2.13|+09|4.56
 I26847 13*
 Joo Yuror

96

July 9, 1901

Meas. of Spectra cont.

I 269 13°

g	3.75	469	6.33	164	-10
h	4.09	511			6.85 -10
N	4.11	514			6.88 +02
k	4.40	550	7.44	194/521	1.74-1 +20 6.86

I26886 13*

d	2.90	362	4.98	136	+02
N	3.17	396			5.30 +01
e	3.12	390	5.38	148	+14
N	3.15	394			5.28 -01
f	3.34	418	5.35	117-17/401	1.34-1 5.29

I26850 13*

c	1.62	202	3.93	191	-22
N	1.96	245			4.58 +02
d	2.18	272	4.98	226	+13
N	1.94	242			4.55 -01
e	2.53	316	5.38	222/639	2.13 +09 4.56

I26847 13*

Joo Yuror

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

July 9, 1901

Meas. of Spectra cont.

I26835 13°

|x125|
 C|1.86|232|3.93|161|+15| | |
 N|2.64|330| | |4.76|+08|
 d|2.95|369|4.98|129|-17| | |
 N|2.52|315| | |4.61|-07|
 e|3.12|390|5.38|148|+02| | |
 438 |4.68| |
 1.46

I26813 5°

d|3.28|410|4.98|088|+08|
 N|3.52|440| | |
 e|3.78|472|5.38|066|-14|
 N|3.65|456| | |
 f|3.60|450|5.35|085|+05|
 239
 0.80-1

I26808 13°

f|2.70|338|5.35|197|2
 -43
 N|2.87|359| | |5.98|-05
 g|3.12|390|6.33|243|4
 +03
 N|2.95|369| | |6.08|+05
 h|3.38|422|6.98|276|716|+34|-
 39 6.03
 2.40-1
 I

97

July 9, 1901
Meas. of Spectra cont.

I26835 13°

✓ 2.116	232	293	361	+15	
3.264	330				476 +08
✓ 2.295	369	498	129	-17	
2.520	315				461 -07
✓ 3.112	390	538	148	+02	
		438	4.68		
		1.46			

I26813 5°

✓ 3.28	410	498	088	+08	
3.52	440				5.20 -05
✓ 3.78	472	538	066	-14	
3.65	456				5.36 +05
✓ 3.60	450	535	085	+05	
		239			0.80-1

I26808 13°

✓ 2.70	338	535	197	+2	
2.87	359				5.98 -05
✓ 3.12	390	633	243	+4	
3.69					6.08 +05
✓ 3.38	422	698	276	+34	
		39	6.03		
		2.40-1			

I

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

98

July 10, 1901
Meas of Spectra cont.

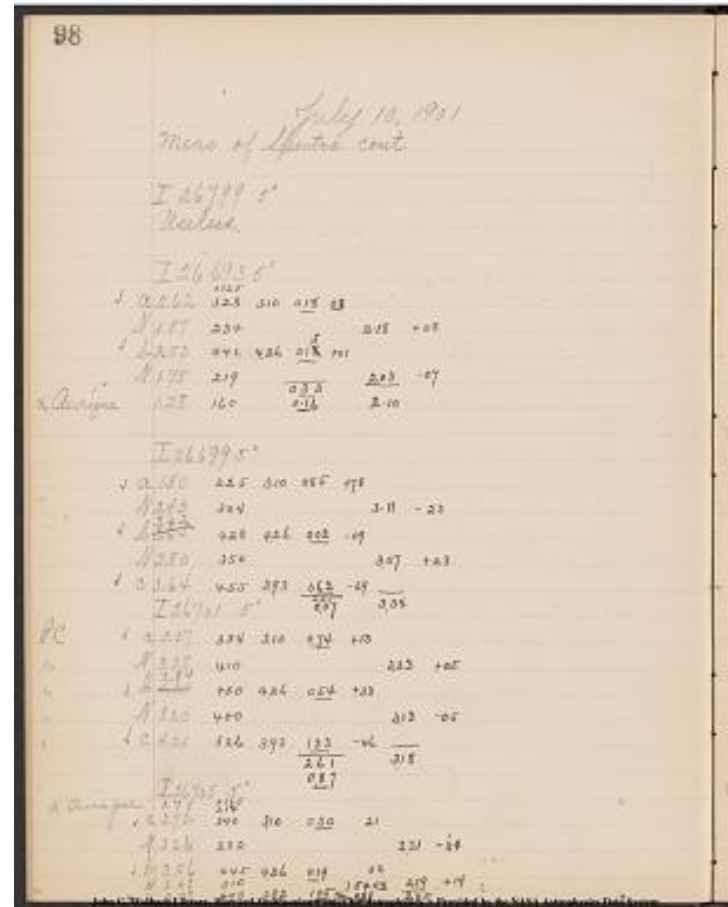
I 26799 5°
Useless.

I 26693 5°
a|2.62|328[^][x125]| |310|0[[underline]]18[[/underline]]|
[[underline]]02[[/underline]]
N|1.87|234| | |2.18|+08
b|3.53|441|4.26
[[underline]]01[[/underline]]~~8~~5[[/underline]]+01
N|1.75|219| | |[[underline]]2.03[[/underline]]|
-07
[[symbol]]Aurigae |1.28|160| | |[[underline]]0.16[[/underline]] ^[[033]]|
2.10

I 26699 5°
a|1.80|225|3.10|085|+78
N|2.43|304| | |3.11|-23
b|3.42|428|4.26|002|-09
N|2.80|350| | |3.57|+23
c|3.64|455|3.93|062|-69|-
0.21 3.34
0.07

I 26701 5°
a|3.07|384|3.10|074|+13
N|3.28|410| | |3.23|+05
b|3.84|480|4.26|054|+33
N|3.20|400| | |3.13|-05
c|4.21|526|3.93|133|-46|-
2.61 3.18
0.87

I 26705 5°
Annie gal|1.71|x125
214
a|2.72|340|3.10|030|21
N|2.26|282| | |2.31|-14
b|3.56|445|4.26|019|32
N|2.48|310| | |15454|2.59|+14
2.45
s|3.98|498|3.93|105|0.51



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

July 10 1901
Meas. of Spectral Count[[?]]

I26711 13 degrees

Alpha Aurigae 1.97 x125 246
N 3.59 449
Alpha Aurigae 1.85 231
N 3.37 421
Alpha Aurigae 2.00 250
N 3.45 431

I26727 5 degrees

Trail [[check mark]] a3.02 370 3.10 068 12
N2.39 299
[[check mark]] b3.67 459 426 033 23
N2.55 319
[[check mark]] C3.69 461 393 068 12
Alpha Aurigae 1.83 229
169 253
0.56+1
I26747 13 degrees
[[check mark]] B3.06 382 426 044
N349 436
[[check mark]] C.3.54 442 393 03[[strikethrough]]49
N3.43 429
[[check mark]] d.3.95 494 498 004
001 432
000
O.C I26774 5 degrees
[[check mark]] a3.40 425 3.10 115 +04
N3.78 472
[[check mark]] b4.15 519 426 093 +26 353 -09
N392 490 -30 +09
C4.34 542 3.93 149 354 362

99

July 10 1901
Meas. of Spectral Count

I 26711 13°

α Aurigae 1.97	125	246		
N 3.59	449			
α Aurigae 1.85	231			
N 3.37	421			
α Aurigae 2.00	250			
N 3.45	431			

I 26727 5°

Trail	a3.02	370	3.10	068	12
N2.39	299				
b3.67	459	426	033	23	
N2.55	319				
C3.69	461	393	068	12	
α Aurigae 1.83	229				
169	253				
0.56	+1				

I 26747 13°

[[check mark]] B3.06	382	426	044		
N349	436				
C.3.54	442	393	03	49	
N3.43	429				
d.3.95	494	498	004		
001	432				
000					

O.C I 26774 5°

a3.40	425	3.10	115	+04	
N3.78	472				
b4.15	519	426	093	+26	353 -09
N392	490	-30	+09		
C4.34	542	3.93	149	354	362

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

101.

July 10, 1901
Mias of Spectra cout. [?]

I26798 x125 13°
a | 0.23 | 029 | 3.10 | 281 | +49
N | 1.85 | 231 | | | 4.63 | +09
b | 1.50 | 188 | 4.26 | 238 | +06
N | 1.70 | 212 | | | 4.44 | -10
C | 1.73 | 216 | 3.93 | 177 | -55

$\frac{696}{232}$ $\frac{4.54}{}$

I26877 13°
C | 1.57 | 196 | 3.93 | 197 | +40
N | 2.40 | 300 | | | 4.57 | -15
d | 2.89 | 361 | 4.98 | 137 | -20
N | 2.65 | 331 | | | 4.88 | +16
e | 3.21 | 401 | 5.38 | 137 | -20

$\frac{471}{1.57}$ $\frac{472}{}$

I27141 5°
h | 2.17 | 271 | 6.98 | 427 | +38
N | 2.85 | 356 | | | 7.45 | -07
k | 2.87 | 359 | 7.44 | 385 | -04
N | 2.96 | 370 | | | 7.59 | +07
C | 2.95 | 369 | 7.25 | 356 | -33

$\frac{1168}{3.89+1}$

I27137 5°
k | 3.19 | 399 | 7.44 | 345 | +32
N | 3.77 | 471 | | | 7.84 | -07
l | 3.49 | 436 | 7.25 | 289 | -24
N | 3.88 | 485 | | | 7.98 | +07
m | 3.99 | 499 | 8.03 | 30 | -09

938
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101

July 10, 1901
Mias of Spectra cont.

I26798 13°
V 2.023 029 3.10 281 +49
N 1.85 231 | | 4.63 +09
b 1.50 188 4.26 238 +06
N 1.70 212 | | 4.44 -10
C 1.73 216 3.93 177 -55

I26877 13°
V 2.40 300 | | 4.57 -15
d 2.89 361 4.98 137 -20
N 2.65 331 | | 4.88 +16
e 3.21 401 5.38 137 -20

I27141 5°
h 2.17 271 6.98 427 +38
N 2.85 356 | | 7.45 -07
k 2.87 359 7.44 385 -04
N 2.96 370 | | 7.59 +07
C 2.95 369 7.25 356 -33

I27137 5°
k 3.19 399 7.44 345 +32
N 3.77 471 | | 7.84 -07
l 3.49 436 7.25 289 -24
N 3.88 485 | | 7.98 +07
m 3.99 499 8.03 30 -09

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

102
July 10, 1901
Meas. of Spectra cont.

I 27100 13°
[9 column table]
k	3.94	425	492	7.44	252	+02
N	3.92	490			7.40	-0.4
I	4.01	501	7.25	224	-26	
N	3.99	499			7.49	+0.5
m	4.23	529	803	274	+24	
750 7.44
250

I 27084 13°
[9 column table]
h	3.86	482	6.98	216	+23	
N	4.24	530			7.23	-03
k	4.45	556	7.44	188	-05	
N	4.29	536			7.29	+03
I	4.41	551	7.25	174	-19	
578 7.26
1.93-1

I 27061 5°
h	2.98	372	7.44	372	+23	
N	3.37	421			7.70	-02
I	3.24	405	7.25	320	-29	
N	3.39	424			7.73	+01
m	3.58	448	8.03	355	+06	
1047 7.72
349

I 27051 13°
h	4.01	501	6.98	197	+14	
N	4.40	550			7.33	+03
k	4.50	562	7.44	182	-01	
N	4.35	544			7.27	-03
I	4.45	556	7.25	169	-14	
548 7.30
183-1

102
Meas. of Spectra cont.
I 27100 13°
k	3.94	425	492	7.44	252	+02
N	3.92	490			7.40	-0.4
I	4.01	501	7.25	224	-26	
N	3.99	499			7.49	+0.5
m	4.23	529	803	274	+24	
750 7.44						
250						
I 27084 13°						
[9 column table]						
h	3.86	482	6.98	216	+23	
N	4.24	530			7.23	-03
k	4.45	556	7.44	188	-05	
N	4.29	536			7.29	+03
I	4.41	551	7.25	174	-19	
578 7.26						
1.93-1						
I 27061 5°						
h	2.98	372	7.44	372	+23	
N	3.37	421			7.70	-02
I	3.24	405	7.25	320	-29	
N	3.39	424			7.73	+01
m	3.58	448	8.03	355	+06	
1047 7.72						
349						
I 27051 13°						
h	4.01	501	6.98	197	+14	
N	4.40	550			7.33	+03
k	4.50	562	7.44	182	-01	
N	4.35	544			7.27	-03
I	4.45	556	7.25	169	-14	
548 7.30
183-1

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

1 26846 13°

103

July 10, 1901

Wares of *Spizella* cont.

Table 5

✓ 2.318	278	623	161	+4	
✓ 2.325	326				653 -17
✓ 2.335	326	698	326	-25	
✓ 2.395	329				716 +16
✓ 2.424	405	704	529	-43	720
			1042		
			34771		

Table 13

✓ 2.350	423	298	495	+12	
✓ 2.418	422				465 -26
✓ 2.450	522	498	166	-17	
✓ 2.427	524				477 +26
✓ 2.480	600	538	162	-25	491
			171		
			427		

Table 15

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

104

[[underline]] July 11, 1901 [[/underline]]

Meas.

I 26846 13°

c 2.94 x125 368 3.93 025 -37

N 3.50 438 5.00 -01

d 3.28 411 4.98 084 +25

N 3.52 440

e 3.72 465 5.38 073 + 11

185 5.01

0.62-1

I 26811 5°

f 2.48 310 5.35 225 -17

N 2.88 360 6.02 -08

g 2.97 371 6.33 262 +20

N 3.00 375 -0 6.17 +07

h 3.68 460 6.98 238 -04

725 [[6010?]]

242-1

I 26805 5°

c 3.72 465 3.93 072 -18

N 3.96 495

d 4.44 555 4.98 057 -03

N 4.00 500

e 4.58 572 5.38 034 +20

163 4.44

0.54+1

I 26771 5°

b 3.42 428 4.26 002

N 3.00 375 375 +01

c 3.32 415 3.93 022

N 2.98 372

d 3.80 475 4.98 023

1.52 190 001 3.74

104

July 11, 1901

Meas.

I 26846 13°

V	2.94	368	3.93	025	-37
N	3.50	438			-01
d	3.28	411	4.98	084	+25
N	3.52	440			
e	3.72	465	5.38	073	+11
		185	5.01		
			0.62	-1	

I 26811 5°

f	2.48	310	5.35	225	-17
N	2.88	360	6.02		-08
g	2.97	371	6.33	262	+20
N	3.00	375		6.17	+07
h	3.68	460	6.98	238	-04
		725			[[6010?]]
					242-1

I 26805 5°

c	3.72	465	3.93	072	-18
N	3.96	495			
d	4.44	555	4.98	057	-03
N	4.00	500			
e	4.58	572	5.38	034	+20
		163	4.44		
			0.54	+1	

I 26771 5°

b	3.42	428	4.26	002	
N	3.00	375	375		+01
c	3.32	415	3.93	022	
N	2.98	372			
d	3.80	475	4.98	023	
		1.52	190	001	3.74

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14

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Extracted Aug-29-2022 03:00:04

[[top right corner]]105

July 11, 1901

Trail |126713 5°
x125
Aurigae| 2.00 250
N| 3.16 395 3.64 -08
Aurigae| 1.99 249
N| 3.28 410 3.79 +07
Aurigae| 1.90 238
d | 429 536 4.98 [[underline]]038 -07
e | 450 562 5.38 [[underline]]024 +07 [[underline]]
062 3.72
[[underline]]0.31
|126707 13°
Trail a|4.51 564 3.10 [[underline]]254 +01
8
N|4.28 535 2[[strike-through]]10 +08
a|4.54 568 3.10 [[underline]]258 -03
N|4.15 519 2.64 -08
a|4.50 562 3.10 [[underline]]252 +03 [[underline]]
764 2.72
[[underline]]2.55-1
P.C. |12670.4 13°
a|3.58 448 3.10 [[underline]]138 -02
N|3.73 466 3.30 -04
b|4.47 559 4.26 [[underline]]133 +03
N|3.80 475 3.39 +05
c|4.23 529 3.93 [[underline]]136 00 [[underline]]
407 3.34
1.36-1
P.C. |126698 5°
a|3.87 484 3.10 [[underline]]174 -21
N|3.73 766 3.13 +02
b|4.48 560 4.26 [[underline]]134 +19
N|3.70 462 [[underline]]3.09 -02
c|4.36 545 3.93 [[underline]]152 +01 [[underline]]3.09 -02
460 1.53+1 3.11

[[bottom of page]]

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Handwritten astronomical data page from Project PHaEDRA, dated July 11, 1901. The page contains several tables of star positions and magnitudes, with handwritten notes and corrections. The page number 105 is visible in the top right corner.

July 11, 1901

Trail I 26713 5°

2.00	250		
3.16	395	3.64	-08
1.99	249		
3.28	410	3.79	+07
1.90	238		
429	536	4.98	038 -07
450	562	5.38	024 +07
	062	3.72	
			0.31

|126707 13°

4.51	564	3.10	254 +01
			8
4.28	535		2[[strike-through]]10 +08
4.54	568	3.10	258 -03
4.15	519		2.64 -08
4.50	562	3.10	252 +03
	764	2.72	
			2.55-1

P.C. |12670.4 13°

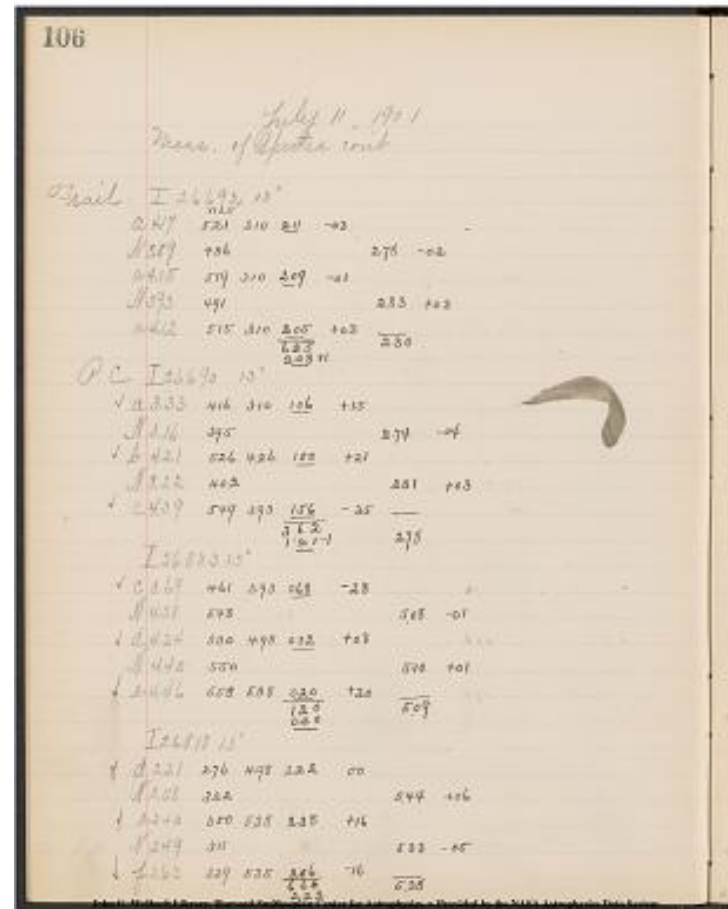
3.58	448	3.10	138 -02
3.73	466		3.30 -04
4.47	559	4.26	133 +03
3.80	475		3.39 +05
4.23	529	3.93	136 00
	407	3.34	
			1.36-1

P.C. |126698 5°

3.87	484	3.10	174 -21
3.73	766		3.13 +02
4.48	560	4.26	134 +19
3.70	462		3.09 -02
4.36	545	3.93	152 +01
	460	1.53+1	3.11

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

July 11, 1901
 Meas. of Spectra cont.
 Trail || 26692 13°
 x125
 a|4.17 521 3.10 [[underline]]211 -03
 N|3.89 486 2.78 -02
 a|4.15 519 3.10 [[underline]]209 -01
 N|3.93 491 2.83 +03
 a|4.12 515 310 [[underline]]205 +03 [[underline]]
 625 2.80
 2.08+1
 P.C || 26690 13°
 a|3.33 416 3.10 [[underline]]106 +15
 N|3.16 395 2.74 -04
 b|4.21 526 4.26 [[underline]]100 +21
 N|3.22 402 281 +03
 c|4.39 549 3.93 [[underline]]156 -35 [[underline]]
 362-1 2.78
 1.21-1
 || 26833 13°
 c|3.69 461 3.93 [[underline]]068 -28
 N|4.38 548 5.08 -01
 d|4.24 530 4.98 [[underline]] 032 [[underline]] +08
 N | 4.40 550 5.10 +01
 I | 4.46 558 5.38 [[underline]] 020 +20
 120 5.09
 0.40
 || 26818 13°
 d|2.21 276 4.98 222 00
 N|2.58 322 544 +06
 I|2.4000000 300 5.38 238 +16
 N|2.49 311 533 -05
 f|2.63 329 535 [[underline]] 206 [[underline]] -16
 666 538
 222



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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 Extracted Aug-29-2022 03:00:04

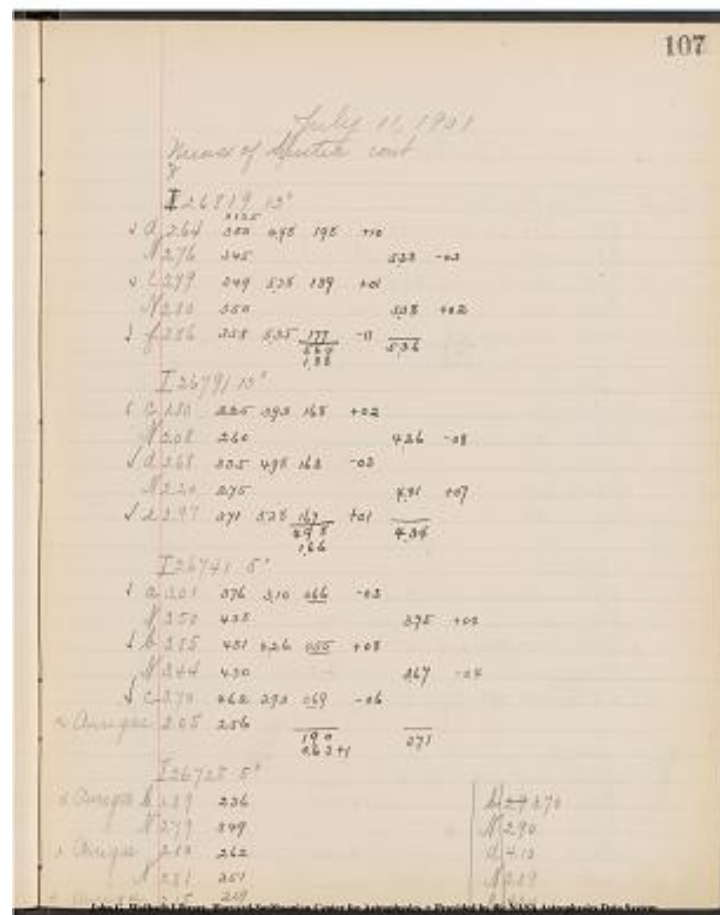
July 11, 1901
 Meas. of Spectra cont.
 [[?]]
 I 26819 13°
 x125
 d. 2.64 300 4.98 198 +10
 N. 2.76 345 5.33 -03
 E. 2.79 349 5.38 189 +01
 N. 2.80 350 5.38 +02
 L. 2.86 358 535 177 -11

$\frac{564}{1.88}$
 I 26791 13°
 C. 1.80 225 3.93 168 +02
 N. 2.08 260 4.26 -08
 d. 2.68 335 4.98 163 -03
 N. 2.20 275 4.41 +07
 d. 2.97 371 5.38 167 +01
 4.34

$\frac{498}{1.66}$
 I 6741 5°
 a. 3.01 376 3.10 066 -03
 N. 3.50 438 3.75 +04
 b. 3.85 481 4.26 055 +08
 N. 3.44 430 3.67 -04
 C. 3.70 462 3.93 069 -06

alpha Aurigae 2.05 256
 190 3.71
 0.63+1
 I 26728 5°

alpha Aurigae ~~[[?]]~~ b ~~[[?]]~~ 1.89 236 |b|
~~[[?]]~~ 2.9 ~~[[?]]~~ 3.70
 N. 2.79 349 |N| 2.90
 alpha Aurigae 2.10 262 |d| 4.10
 N. 2.81 351 |N| 2.89
 alpha Aurigae 2.15 269 ||| 4.34



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

108

July 11, 1901
Meas of Spectra cont.

Trail I 26712 13

x125
a 1.83 229 310 081 +39
N 2.32 290 33[[crossed out]]4[[crossed out]]2 +0[[crossed out]]3[[crossed out]]7
b 2.87 359 426 067 +25
N 2.29 286 328 -07
c 3.32 415 393 02[[crossed out]]8[[crossed out]]2 -64 ____
126 335
042

Trail I 26706 13

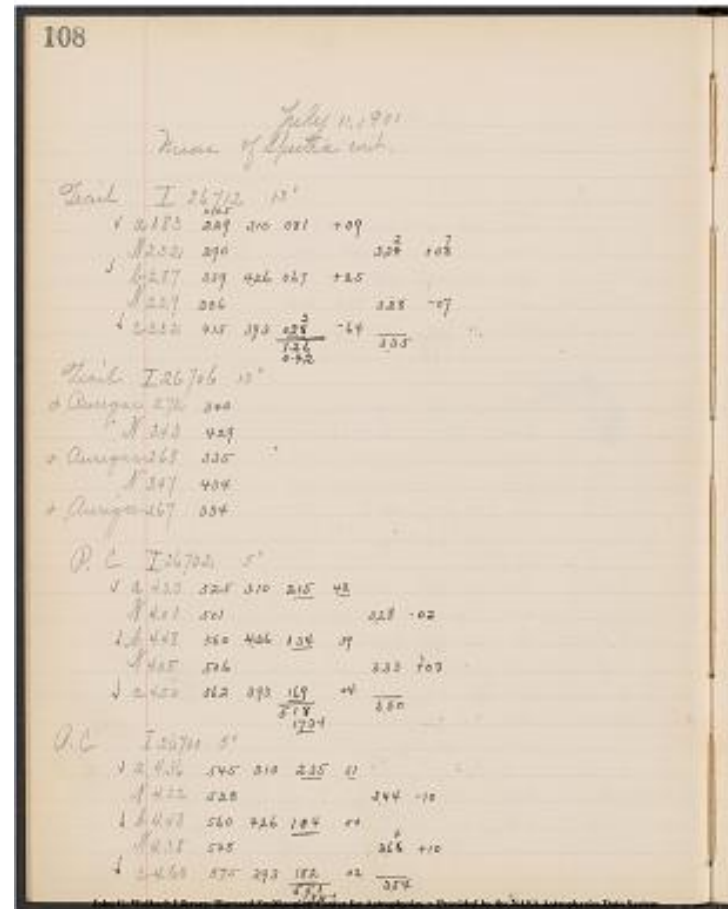
+ Aurigae 2.72 340
N 3.43 429
+ Aurigae 2.68 335
N 3.47 434
+ Aurigae 2.67 334

P.C I 26702 5

a 4.20 525 310 [[underlined]]215 [[underlined]]42
N 4.01 501 328 -02
b 4.48 560 426 [[underlined]]134 39
N 4.05 506 333 +03
c 4.50 562 393 [[underlined]]169 04 ____
518 330
173-1

P.C I 26700 5

a 4.36 545 310 [[underlined]]235 [[underlined]]51
N 4.22 528 3.44 -10
b 4.48 560 426 [[underlined]]134 50
N 4.38 548
c 4.60 575 3.93 [[underlined]]182 5.51 1.84-1 or [[?]] ____ 3.54



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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July 11, 1901
Meas of spectral coub

Trail I26697 5 degrees
a 4.51 564 x125 310 254 +04
N 4.43 554 2.96 +02
a 4.54 569 310 258 00
N 4.40 550 292 -02
a 4.58 572 310 262 774 258 -04 ____ 294

Trail I26691 13[degrees]
+Auriga 1.98
N 2.77
+Auriga 1.87
N 2.52
+Auriga 1.99

I26834 13[degrees]
Loo fsoor [?]

I26680 13[degrees]

a 3.00 375 310 065 +32
N 1.65 206 1.09 -15
b 4.09 511 426 085 +12
N 1.88 235 1.38 +14
c 4.27 534 3.93 141 2.91 0.97 44 -56 ____ 1.24

109

July 11, 1901
Meas of spectral coub

Trail I 26697 5°

a 4.51	564	x125	310	<u>254</u>	+04
N 4.43	554				
a 4.54	569	310	<u>258</u>	00	
N 4.40	550	292	-02		
a 4.58	572	310	<u>262</u>	774	<u>258</u> -04
			<u>258</u>		

Trail I 26691 13°

+Auriga 1.98
N 2.77
+Auriga 1.87
N 2.52
+Auriga 1.99

I 26834 13°
Loo fsoor

I 26680 13°

a 3.00	375	310	<u>065</u>	+32
N 1.65	206	1.09	-15	
b 4.09	511	426	<u>085</u>	+12
N 1.88	235	1.38	+14	
c 4.27	534	3.93	<u>141</u>	2.91 <u>0.97</u> 44 -56 ____ 1.24
			<u>251</u>	
			<u>097</u>	

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

July 11, 1901
 Meas of Spectra cont.
 PC 126824 5
 x125
 a 3.04 380 310 070[underlined] +19
 N 4.12 515 4.26 +08
 b 4.10 512 426 086[underlined] +02
 N 4.08 510 4.21 -09
 c 4.04 505 112[underlined] -23 ____
 268 4.18
 .89^+1
 I26679 13
 a 3.79 474 310 164[underlined] -36
 N 0.64 084 .44 -14
 b [[~~striethrough~~]]4.18 4.13 516 426 090[underlined] +38
 N 0.90 112 .16 +14
 c 4.18 522 393 129[underlined] -01 ____
 .88 .00
 1.28^-1[underlined]
 -01 [[underlined]] 0.30

 I26688 13[[degrees]]
 Trail a 3.42 428 3.10 [[underlined]]118 00
 N 2.43 304 2.86 -06
 1 3.40 425 3.10 [[underlined]]115 +03
 N 2.52 315
 a 3.45 431 3.10 [[underlined]]121 3.54 [[underlined]]1.18 -03 __ 1.92

 I27136 13[[[degrees]]]
 f 3.96 495 535 040 -41
 N 4.56 570 651 -01
 g 4.45 556 633 077 -04
 N 4.57 556 6.33 077 -04
 N 4.57 571 6.52 00
 h 4.58 572 6.98 [[underlined]]126 2.43 0.81 +45 __ 6.52

110
 July 11, 1901
 Meas of Spectra cont.
 P.C. I26824 5
 x125
 a 3.04 380 310 070 +19
 N 4.12 515 4.26 +08
 b 4.10 512 426 086 +02
 N 4.08 510 4.21 -09
 c 4.04 505 112 -23
 268 4.18
 .89^+1
 I26679 13
 a 3.79 474 310 164 -36
 N 0.64 084 .44 -14
 b 4.18 4.13 516 426 090 +38
 N 0.90 112 .16 +14
 c 4.18 522 393 129 -01
 .88 .00
 1.28^-1
 -01 0.30

 I26688 13
 Trail a 3.42 428 3.10 118 00
 N 2.43 304 2.86 -06
 1 3.40 425 3.10 115 +03
 N 2.52 315
 a 3.45 431 3.10 121 3.54 1.18 -03 1.92

 I27136 13
 f 3.96 495 535 040 -41
 N 4.56 570 651 -01
 g 4.45 556 633 077 -04
 N 4.57 556 6.33 077 -04
 N 4.57 571 6.52 00
 h 4.58 572 6.98 126 2.43 0.81 +45 6.52

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

July 11, 1901
 [[Weas?]] of Spectra [[?]]

I 26674 13°
 Loo poor

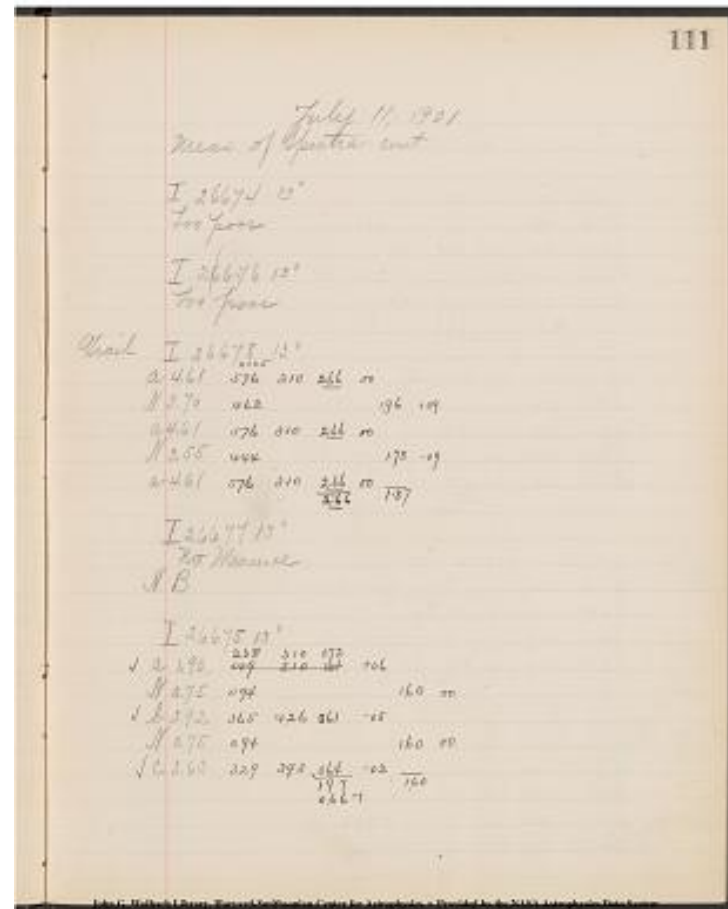
I 26676 13°
 Loo poor

Trail I 26678 13°
 x125

A 4.16 576 3.10 266 00
 N 3.70 462 1.96 +09
 A 4.61 576 3.10 266 00
 N 3.55 44 1.78 -09
 A 4.61 576 3.10 266 00
 266 1.87

I 26677 13°
 No Measure
 N.B

I 26675 13°
 238 310 072
 A 1.90 ~~[[strikethrough]]~~ 149 310 072 ~~[[strikethrough]]~~ +06
 N 0.75 094 1.60 00
 B 2.92 365 4.26 061 -05
 N 0.75 094 1.60 00
 C 2.63 329 3.93 064 -02
 197 1.60
 0.66-1



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

112
 July 11, 1901
 Meas of Spectra Cont.

I 27176 13°
 g 2.75 344[x125 above] 633 289 -09
 N 3.38 422 7.20 00
 b 3.20 400 6.98 298 00
 N 338 422 7.20 00
 h 350 438 7.44 206[underlined] +08 ____
 893 7.20
 298^1
 I 27175 5°
 g 1.18 148 633 435 +40
 N 1.89 236 6.81 +12
 h 2.21 276 6.98 422 -23
 N 1.70 212 6.57 -12
 k 2.53 316 7.44 428[underlined] -??17 ____
 1335 6.69
 4.454
 I 27148 13°
 g 4.02 502 6.33 131 -27
 N 4.30 538 6.96 +02
 h 4.21 526 6.98 172 +14
 N 4.28 505 6.93 -01
 k 4.59 574 7.44 170[underlined] +12 ____
 473 6.94
 158^1

112
 July 11, 1901
 Meas of Spectra cont.

I 27176 13°
 ✓ g 2.75 344 633 289 -09
 N 3.38 422 7.20 00
 ✓ b 3.20 400 6.98 298 00
 N 338 422 7.20 00
 ✓ h 350 438 7.44 206 +08
 893 7.20
 298^1

I 27175 5°
 ✓ g 1.18 148 633 435 +40
 N 1.89 236 6.81 +12
 ✓ h 2.21 276 6.98 422 -23
 N 1.70 212 6.57 -12
 ✓ k 2.53 316 7.44 428 -??17
 1335 6.69
 4.454

I 27148 13°
 ✓ g 4.02 502 6.33 131 -27
 N 4.30 538 6.96 +02
 ✓ h 4.21 526 6.98 172 +14
 N 4.28 505 6.93 -01
 ✓ k 4.59 574 7.44 170 +12
 473 6.94
 158^1

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

113
July 11, 1901
Meas. of Spectra cont.

I 27163 13°
Too Poor

I 27162
Too Poor

I 26823 13°
h 3.28|3.11|3.26
1 3.30|3.30|3.40| 2|29|14| 12|10|07|02
k 3.50|3.51|3.55| 20|21|15| 19|01|02|04
2 3.52|3.63|3.56| 2|12|1| 5|03|07|04
m 4.02|4.01|3.95| 50|38|39| 42|08|04|03
3 4.15|4.14|4.06| 13|13|11| 12|01|01|01

I 26818 13°
h 3.25|3.36|3.20
1 3.52|3.68|3.45| 27|32|25|28|01|04|03
k 3.58|3.68|3.45| 6|2|17|8|02|06|09
2 3.63|3.68|3.67| 5|2|5|3|02|05|02
m 3.93|4.01|3.94| 30|33|30|31|01|02|01
3 4.21|4.30|4.29| 28|29|32|30|02|01|01

113

July 11, 1901
Meas. of Spectra cont.

I 27163 13°
Too poor

I 27162
Too poor

I 26823 13°

h	3.28	3.11	3.26	2.19	14	12	10	07	02
1	3.30	3.30	3.40	20	21	15	19	01	02
2	3.50	3.51	3.55	2	12	1	5	03	07
m	4.02	4.01	3.95	50	38	39	42	08	04
3	4.15	4.14	4.06	13	13	11	12	01	01

I 26818 13°

h	3.25	3.36	3.20	27	32	25	28	01	04
1	3.52	3.68	3.45	6	2	17	8	02	06
2	3.63	3.68	3.67	5	2	5	3	02	05
m	3.93	4.01	3.94	30	33	30	31	01	02
3	4.21	4.30	4.29	28	29	32	30	02	01

ax
ax
ax
ax
ax

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Extracted Aug-29-2022 03:00:04

July 11, 1901.

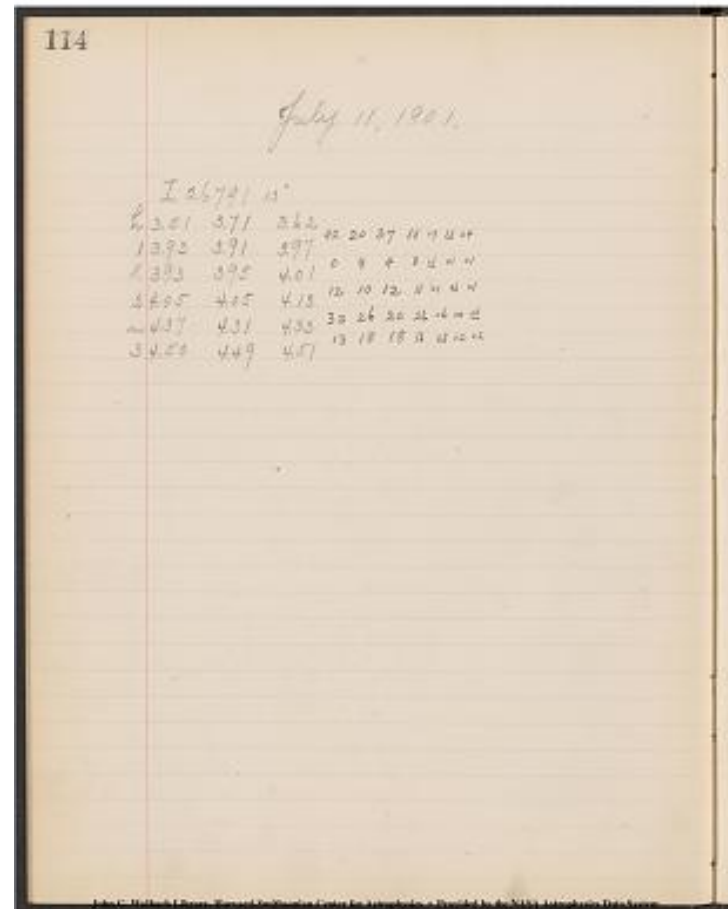
I26791 13 [[degrees]]

[[4 columned table]]

h	3.51	3.71	3.62
l	3.93	3.91	3.97
k	3.93	3.95	4.01
2	4.05	4.05	4.13
m	4.37	4.31	4.33
3	4.50	4.49	4.51

[[7 columned table]]

42	20	37	33	09	[[underline]] 13 [[/underline]]	04
0	4	4	3	[[underline]] 03 [[/underline]]	01	01
12	10	12	11	01	[[underline]] 01 [[/underline]]	01
32	26	20	26	06	00	[[underline]] 06 [[/underline]]
13	18	18	16	[[underline]] 03 [[/underline]]	02	02



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

115

July 15, 1901

Meas. of br of sp. of Nova Persei No. 2,
13[degree symbol] prism plates

[left margin 11^[h]] 30^[m]]

I26823 i

[[7 column table]]

|||mean|||

R|1.49|1.52|1.66|13|14|0.18|

B1-2|2.57|2.76|2.66|13|14|0.18|

B6|1.55|1.35|1.45|10|10|0.03|

Y1-2|1.62|1.35|1.48|14|13||

G1-2|1.71|1.66|1.68|03|02|0.20|

I26808 i

[[7 column table]]

R|3.04|3.00|3.02|02|02|0.06|

B1-2|3.93|3.76|3.84|09|08|0.76|

B6|2.96|2.80|2.88|08|08|0.20|

Y1-2|3.04|3.12|3.08|04|04||

G1-2|2.93|2.95|2.94|01|01|0.14|

I26818 c

[[7 column table]]

B1-2|2.90|2.89|2.90|00|01|0.52|

B6|2.11|2.10|2.10|01|00|0.28|

Y1-2|2.49|2.28|2.38|11|10||

G1-2|2.58|2.35|2.46|12|11|0.08|

I2670~~]]8[[~~6 i & t

[[7 column table]]

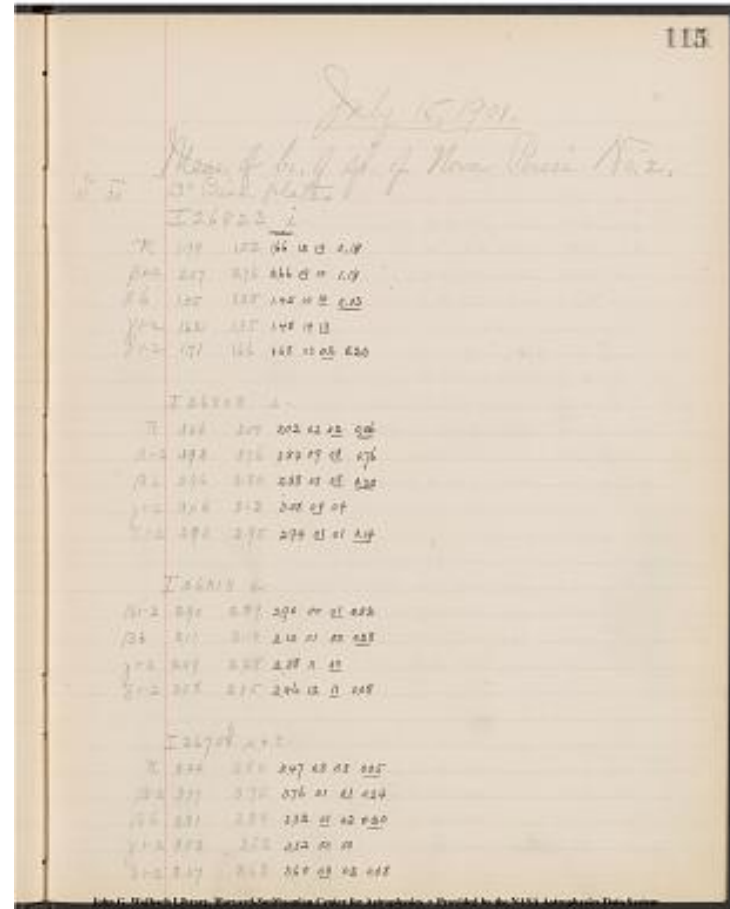
R|3.44|3.50|3.47|03|03|0.05|

B1-2|3.77|3.75|3.76|01|01|0.24|

B6|3.31|3.34|3.32|01|02|0.20|

Y1-2|3.52|3.52|3.52|00|00||

G1-2|3.57|3.63|3.60|03|03|0.008|



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Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

July 15, 1901

I26850 i
R 2.39 2.52 2.46 07 06 0.27
B1-2 3.03 2.90 2.96 07 06 0.77
B6 1.97 2.22 2.10 13 12 0.09
?1-2 2.22 2.16 2.19 03 03
S1-2 230 2.20 2.30 00 00 0.11

I27052 i
R 4.02 4.02 4.02 00 00 0.18
B1-2 4.43 4.40 4.42 01 02 0.22
B6 3.90 3.92 3.91 01 01 0.29
?1-2 4.24 4.15 4.20 04 05
S1-2 4.28 4.20 4.24 04 04 0.04

I27149 i
R 4.20 4.36 4.28 08 08 0.18
B1-2 4.55 4.55 4.55 00 00 0.09
B6 4.42 4.33 4.38 04 05 0.08
?1-2 4.46 4.46 4.46 00 00
S1-2 4.49 5.01 4.75 26 26 0.29

I27148 i
R 4.44 4.42 4.43 01 01 0.15
B1-2 4.61 4.61 4.61 00 00 0.33
B6 4.18 4.13 4.16 02 03 0.12
?1-2 4.31 4.25 4.28 03 03
S1-2 4.40 4.39 4.40 00 01 0.12

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116

July 16, 1901

I 26850 A

R	2.39	2.52	2.46	07 06	0.27
B1-2	3.03	2.90	2.96	07 06	0.77
B6	1.97	2.22	2.10	13 12	0.09
?1-2	2.22	2.16	2.19	03 03	
S1-2	230	2.20	2.30	00 00	0.11

I 27052 A

R	4.02	4.02	4.02	00 00	0.18
B1-2	4.43	4.40	4.42	01 02	0.22
B6	3.90	3.92	3.91	01 01	0.29
?1-2	4.24	4.15	4.20	04 05	
S1-2	4.28	4.20	4.24	04 04	0.04

I 27149 A

R	4.20	4.36	4.28	08 08	0.18
B1-2	4.55	4.55	4.55	00 00	0.09
B6	4.42	4.33	4.38	04 05	0.08
?1-2	4.46	4.46	4.46	00 00	
S1-2	4.49	5.01	4.75	26 26	0.29

I 27148 A

R	4.44	4.42	4.43	01 01	0.15
B1-2	4.61	4.61	4.61	00 00	0.33
B6	4.18	4.13	4.16	02 03	0.12
?1-2	4.31	4.25	4.28	03 03	
S1-2	4.40	4.39	4.40	00 01	0.12

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

117
July 15, 1901.

127176 i.

[7 column table]

R | 3.86 | 3.80 | 3.83 ^[[weau.]] | 03 | 03 |
0.57 |
beta 1-2 | 3.43 | 3.88 | 3.87 | | |
beta 6 | 3.13 | 3.15 | 3.14 | 01 | 01 |
0.12 |
gamma 1-2 | 3.18 | 3.33 | 3.26 | 08 | 07 |
delta 1-2 | 3.53 | 3.50 | 3.52 | 01 | 02 | 0.26

126791 i.

[7 column table]

R | 1.98 | 1.85 | 1.92 | 06 | 07 | 0.38 |
beta 1-2 | 2.72 | 2.45 | 2.58 | 14 | 13 | 1.04 |
beta 6 | 1.30 | 1.33 | 1.32 | 02 | 01 |
0.22 |
gamma 1-2 | 1.58 | 1.50 | 1.54 | 04 | 04 |
delta 1-2 | 2.10 | 1.90 | 2.00 | 10 | 10 | 0.46

127139 i.

[7 column table]

R | ~~[[?]]~~ F | F | F | | |
beta 1-2 | 4.61 | 4.61 | 4.61 | 00 | 00 | 0.01 |
beta 6 | 4.55 | 4.52 | 4.54 | 01 | 02 |
0.06 |
gamma 1-2 | 4.60 | 4.60 | 4.60 | 00 | 00 | |
delta 1-2 | F | F | F | | |

126846 i.

[7 column table]

R | 3.68 | 4.00 | 3.84 | 16 | 16 | 0.28 |
beta ~~[[?]]~~ 1-2 | 4.30 | 4.38 | 4.34 |
04 | 0.78 |
~~[[?]]~~ 1 | ~~beta 6~~ | 3.46 | 3.
~~[[?]]~~ 40 | 3.43 | 03 | 03 |
0.13 |
gamma 1-2 | 3.61 | 3.52 | 3.56 | 05 | 04 |
delta 1-2 | 3.70 | 3.61 | 3.66 | 04 | 05 | 0.10

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

119
July 15, 1901.

126849 i.

[7 column table]

R | 4.54 | 4.56 | 4.55 ^[weau] | 01 | 01 |
0.05 | image ray poor.
beta 1-2 | 4.60 | 4.61 | 4.60 | 00 | 01 | 0.10 |
beta 6 | 4.42 | 4.42 | 4.42 | 00 | 00 | 0.08 |
gamma 1-2 | 4.50 | 4.51 | 4.50 | 00 | 01 |
delta 1-2 | 4.55 | 4.58 | 4.56 | 01 | 02 | 0.06

126707 i.+t.

[7 column table]

R | 4.37 | 4.40 | 4.38 | 01 | 02 | 0.06 |
beta 1-2 | 4.55 | 4.55 | 4.55 | 00 | 00 | 0.23 |
beta 6 | 4.26 | 4.20 | 4.23 | 03 | 03 |
0.09 |
gamma 1-2 | 4.34 | 4.31 | 4.32 | 02 | 01 |
delta 1-2 | 4.37 | 4.40 | 4.38 | 01 | 02 | 0.06

127043 i.

[7 column table]

R | 4.47 | 4.52 | 4.50 | 03 | 02 |
0.04 |
beta 1-2 | 4.61 | 4.61 | 4.61 | 00 | 00 | 0.07 |
beta 6 | 4.39 | 4.46 | 4.42 | 03 | 04 |
0.12 |
gamma 1-2 | 4.53 | 4.55 | 4.54 | 01 | 01 |
delta 1-2 | 4.60 | 4.60 | 4.60 | 00 | 00 | 0.06

126975 i.

[7 column table]

R | 3.01 | 3.30 | 3.16 | 15 | 14 |
0.62 |
beta 1-2 | 3.92 | 3.85 | 3.88 | 04 | 03 | 0.10 |
beta 6 | 3.53 | 3.40 | 3.46 | 07 | 06 |
0.32 |
gamma 1-2 | 3.76 | 3.79 | 3.78 | 02 | 01 |
delta 1-2 | 4.00 | 3.87 | 3.94 | 06 | 07 | 0.16

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

120
July 15, 1901.

I26928 i.

[7 column table]

R | 3.74 | 3.72 | 3.73 | mean | 01 | 01 |
0.23 |
beta 1-2 | 4.38 | 4.32 | 4.35 | 03 | 03 | 0.39 |
beta 6 | 3.80 | 3.88 | 3.84 | 04 | 04 |
0.12 |
gamma 1-2 | 3.98 | 3.93 | 3.96 | 02 | 03 |
delta 1-2 | 4.06 | 4.04 | 4.05 | 01 | 01 | 0.09

I26886 i.

[7 column table]

R | 3.52 | 3.42 | 3.47 | 05 | 05 | 0.35 |
beta 1-2 | 4.00 | 3.75 | 3.88 | 12 | 13 | 0.76 |
beta 6 | 2.88 | 2.80 | 2.84 | 04 | 04 | 0.28 |
gamma 1-2 | 3.10 | 3.15 | 3.12 | 02 | 03 |
delta 1-2 | 3.19 | 3.23 | 3.21 | 02 | 02 | 0.09

I26692 i.+t.

[7 column table]

R | 3.55 | 3.53 | 3.54 | 01 | 01 |
0.11 |
beta 1-2 | 3.98 | 3.94 | 3.96 | 02 | 02 | 0.31 |
beta 6 | 3.55 | 3.22 | 3.38 | 17 | 16 |
0.27 |
gamma 1-2 | 3.72 | 3.58 | 3.65 | 07 | 07 |
delta 1-2 | 3.98 | 3.71 | 3.84 | 14 | 13 | 0.19

I26690 c. P.C.

beta 1-2 | 3.20 | 3.10 | 3.15 | 05 | 05 | 0.11 |
beta 6 | 3.03 | 3.00 | 3.02 | 01 | 02 |
0.02 |
gamma 1-2 | 3.05 | 3.04 | 3.04 | 01 | 00 |
delta 1-2 | 3.11 | 3.10 | 3.10 | 01 | 00 | 0.06 |

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

122
July 15, 1901.

I267433 c.

[7 column table]

beta 1-2 | 3.58 | 3.78 | 3.68 [^][[meau.]] | 10 |
10 | 0.12 |
beta 6 | 3.42 | 3.50 | 3.46 | 04 | 04 |
0.10 |
gamma 1-2 | 3.52 | 3.60 | 3.56 | 04 | 04 |
delta 1-2 | 3.83 | 3.72 | 3.78 | 05 | 06 | 0.22

I27111 i.

[7 column table]

R | 4.41 | 4.45 | 4.43 | 02 | 02 | 0.03 |
beta 1-2 | 4.50 | 4.60 | 4.55 | 05 | 05 | 0.15 |
beta 6 | 4.28 | 4.28 | 4.28 | 00 | 00 | 0.12 |
gamma 1-2 | 4.42 | 4.39 | 4.40 | 02 | 01 |
delta 1-2 | 4.47 | 4.45 | 4.46 | 01 | 01 | 0.06

I26691 i.+t.

R | 2.46 | 2.45 | 2.46 | 00 | 01 |
0.04 |
beta 1-2 | 3.02 | 3.05 | 3.04 | 02 | 01 | 0.54 |
beta 6 | 2.20 | 2.22 | 2.21 | 01 | 02 |
0.29 |
gamma 1-2 | 2.46 | 2.53 | 2.50 | 04 | 03 |
delta 1-2 | 2.85 | 2.79 | 2.82 | 03 | 03 | 0.32

I26680 i.

R | 1.62 | 1.68 | 1.65 | 03 | 03 |
0.19 |
beta 1-2 | 1.88 | 1.90 | 1.89 | 01 | 01 | 0.05 |
beta 6 | 1.72 | 1.60 | 1.66 | 06 | 06 |
0.18 |
gamma 1-2 | 1.94 | 1.75 | 1.84 | 10 | 09 |
delta 1-2 | 2.20 | 1.97 | 2.08 | 12 | 11 | 0.24

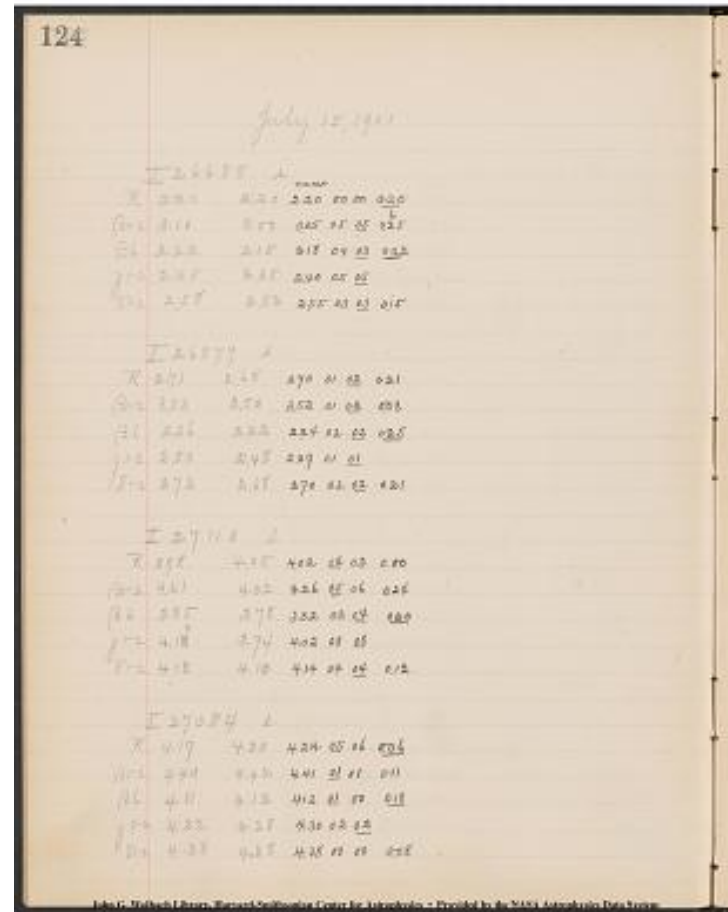
Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

124
 July 15, 1901
 I26688 i.
 R 2.20 2.20 mea ais 2.20 00 00 0.20
 B1-2 3.10 3.00 3.05 05 05 6 0.85
 B6 2.22 2.15 2.18 04 03 0.22
 y1-2 2.45 2.35 2.40 05 05
 s1-2 2.58 2.52 2.55 03 03 0.15

I26877 i.
 R 2.71 2.68 270 01 02 0.21
 B1-2 3.53 3.50 3.52 01 02 0.03
 B6 2.26 2.22 2.24 02 02 0.25
 y1-1 2.50 2.48 2.49 01 01
 S102 2.72 2.68 2.70 02 02 0.21

I27110 i.
 R 3.98 4.05 4.02 04 03 0.00
 B102 4.21 4.32 4.26 05 06 0.24
 B6 3.85 3.78 3.82 03 04 0.20
 y1-2 4.1~~1~~ ~~8~~ 0 3.94 4.02 08 08
 S1-2 4.18 4.10 4.14 04 04 0.12

I27084 i.
 R 4.19 4.30 4.24 05 06 0.06
 B1-2 4.40 4.42 4.41 01 01 0.11
 B6 4.11 4.12 4.12 01 00 0.18
 y102 4.32 4.28 4.30 02 02
 S1-2 4.38 4.38 4.38 00 00 0.08



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July 15, 1901

I26678 i.

R 4.35 4.28 meais. 4.32 03 04 0.41

B102 4.52 4.52 4.52 00 00 0.61

B6 3.73 3.85 3. ~~7~~ 8 06 07 0.13

y1-2 3.88 3.94 3.9 ~~1~~ 03 03

S1-3 4.03 4.03 4.03 00 00 0.12

I27051 i.

R 4.28 4.40 4.34 06 06 0.12

B102 4.32 4.47 4.40 08 07 0.18

B6 4.00 4.12 4.06 06 06 0.16

y1-2 4.18 4.27 4.22 04 05

S102 4.32 4.38 4.35 03 03 0.13

I26848 i.

R 3.90 3.83 3.86 04 03 0.26

B1-2 4.23 4.18 4.20 03 02 0.60

B6 3.34 3.43 3.38 04 05 0.22

y102 3.61 3.58 3.60 01 02

S102 3.70 3.64 3.67 03 03 0.07

I26677 i. P.6.

R 4.02 4.08 4.05 03 03 0.17

B102 4.10 3.94 .02 08 08 0.14

B6 3.88 3.80 3.84 04 04 0.04

y1.2 3.90 3.86 3.88 02 02

S102 3.96 3.94 3.95 01 01 0.07

125

July 15, 1901

I 26678 i.

R	4.35	4.28	meais.	4.32	03	04	0.41
B102	4.52	4.52	4.52	00	00	0.61	
B6	3.73	3.85	3.	7 8	<u>06</u> 07	<u>0.13</u>	
y1-2	3.88	3.94	3.9	1	<u>03</u> 03		
S1-3	4.03	4.03	4.03	00	00	0.12	

I 27051 i.

R	4.28	4.40	4.34	<u>06</u> 06	0.12		
B102	4.32	4.47	4.40	08 07	0.18		
B6	4.00	4.12	4.06	<u>06</u> 06	<u>0.16</u>		
y1-2	4.18	4.27	4.22	<u>04</u> 05			
S102	4.32	4.38	4.35	<u>03</u> 03	0.13		

I 26848 i.

R	3.90	3.83	3.86	04	<u>03</u> 0.26		
B1-2	4.23	4.18	4.20	03	<u>02</u> 0.60		
B6	3.34	3.43	3.38	<u>04</u> 05	<u>0.22</u>		
y102	3.61	3.58	3.60	01	<u>02</u>		
S102	3.70	3.64	3.67	03	<u>03</u> 0.07		

I 26677 i. P.6.

R	4.02	4.08	4.05	<u>03</u> 03	0.17		
B102	4.10	3.94	.02	08	<u>08</u> 0.14		
B6	3.88	3.80	3.84	04	<u>04</u> <u>0.04</u>		
y1.2	3.90	3.86	3.88	02	<u>02</u>		
S102	3.96	3.94	3.95	01	<u>01</u> 0.07		

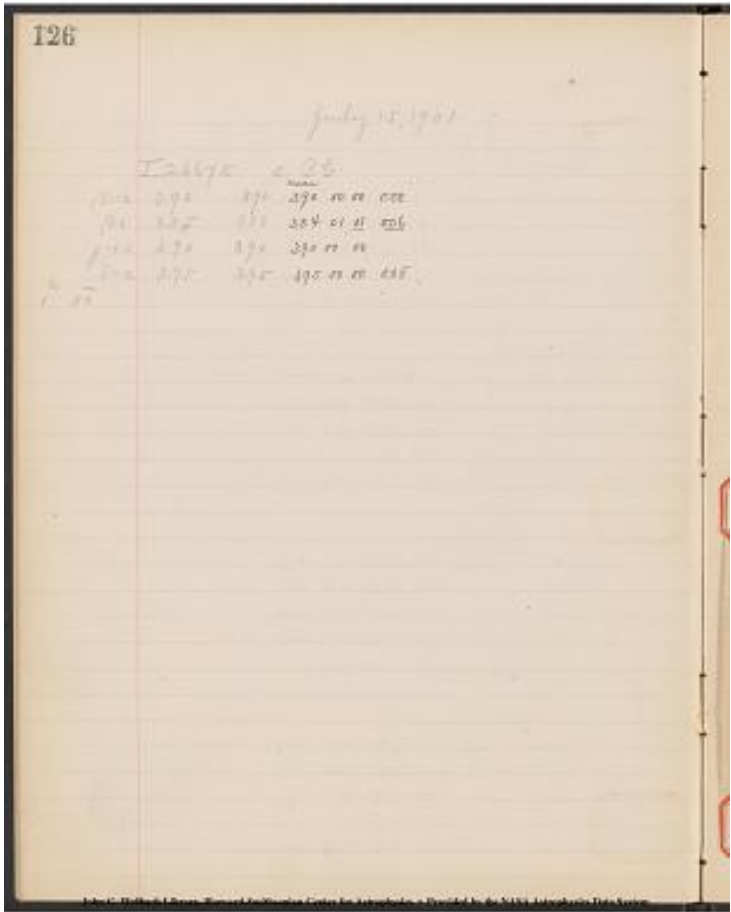
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July 15, 1901.

[[4 columned table]]

126675	c. P.C.		
	mean		
----	----	----	----
beta 1-2	3.90	3.90	3.90 00 00 0.00
beta 6	3.85	3.83	3.84 01 <u>01</u> 0.06
gamma -1-2	3.90	3.90	3.90 00 00
delta 1-2	3.95	3.95	3.95 00 00 005

1^[[h.]] 50^[[m.]]



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127

August 3, 1901

Exam. of plates for J. E. Gore's sixth magn. star in the vicinity of
Nova Persei No. 2.

See letter of J. E. Gore, July 23, 1901.

Plate | Date | Ex. | Limit of vis.

A.C. 1303 | Feb. 27, 1901. | 63° | 12 to 13 magn.

A.C. 1309 | Feb. 28, 1901. | 10° | 10 to 11 magn.

A.C. 1315 | March 2, 1901 | 20° | 9 to 9.5 magn.

[[image]] New star? Nova Persei No. 2

An examination of the above plates fails to show any trace of a star in
the position indicated on the accompanying chart of J. E. Gore.
W.P.F. Aug. 3, 1901.

[[image]] 36 Persei

New star

DM. + 44 $^{\circ}$, 734

Nova

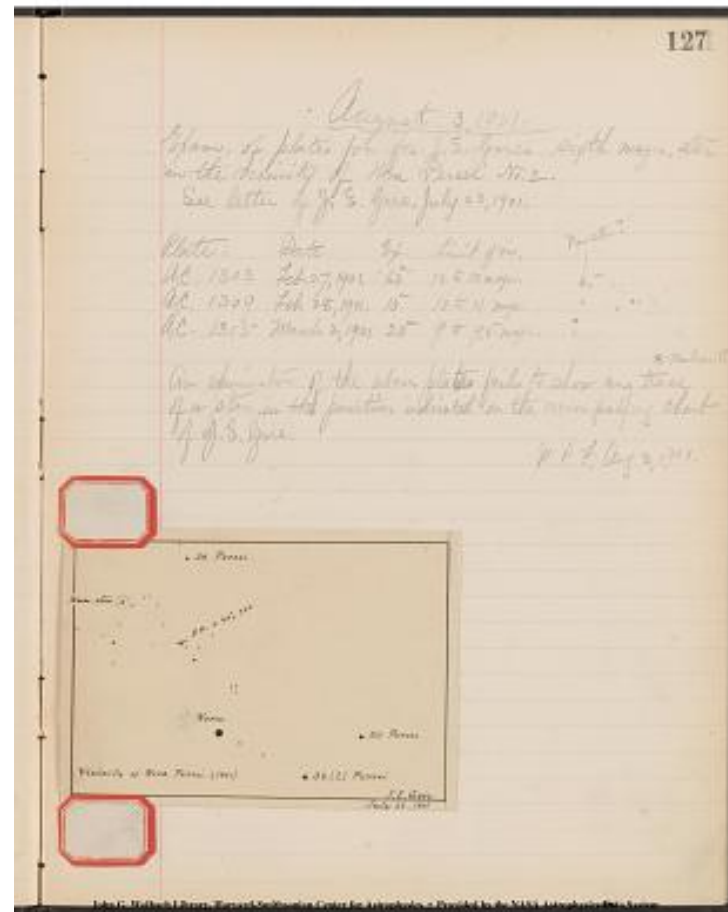
30 Persei

Vicinity of Nova Persei (1901)

32 (L) Persei

J.E. Gore

July 23, 1901



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Extracted Aug-29-2022 03:00:04

128

August 20, 1901.
Gram. of Photos of Lightning
P.obs. F.ree.

[[3 column table]]

July 18	I27216	Nothing
July 18	I27217	Nothing
July 18	I27128	(1) Low bright lines

(2)

(3)

[[3 column table]]

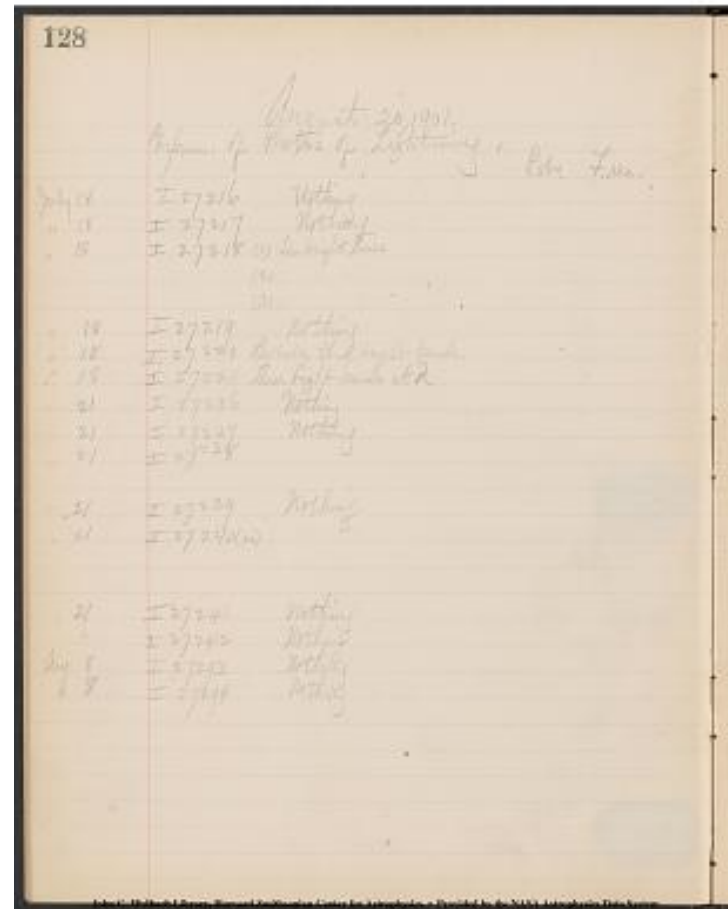
July 18	I27219	Nothing
July 18	I27220	Probably three bright bands.
July 18	I27221	Three bright bands at lambda
July 21	I27236	Nothing
July 21	I27237	Nothing
July 21	I27238	

[[3 column table]]

July 21	I27239	Nothing
July 21	I27240(m)	

[[3 column table]]

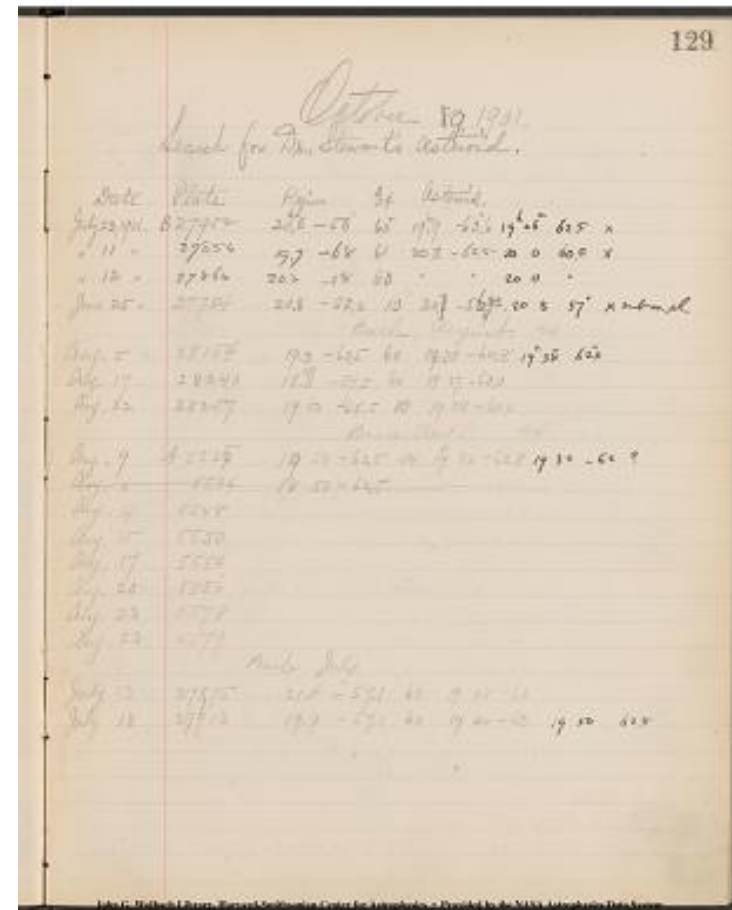
July 21	I27241	Nothing
	I27242	Nothing
Aug 8	I27293	Nothing
Aug 8	I27294	Nothing



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October [symbol] 9, 1.901
Search for Dr.[Stewart's] asteroid.

Date|Plate|Region|[[?]] asteroid.
July 23, 1901.[B27952|20.8 -58°|60|19.9^[[h]] -63.6° 19[[h]] [[?]] 62.5 x
"11"|27854|19.7 -68|61|20.2 -625 20 0 60.0 x
"12"|27864|20.3 -58|60|" " 20 0 "
June 25 "| 27754|20.8 -52.2|10|20.7 -[56]+- 20 8 57° x [[?]]
Bache, august. e4]
aug 5 "|28154|19.3 -62.5|60|19 38-62.8 19^[[h]] 38 62.4°
aug 17 "|28240|18.8 -57.5|60|19 27-63.0
aug, 22|28257| 19 50 -62.5|10|19 28-60.0
^Bruce aug, e4
aug 9| A5535|1950 -62.5|54|1932-62.8 19 32 -62 ?
[[strikethrough]] aug, "[5534|18 50-62.5| | | [[strikethrough]]
aug, 14| 5548| | | |
aug, 15| 5550| | | |
aug, 17| 5554| | | |
aug, 20| 5556| | | |
aug, 23| 5578| | | |
aug, 23| 5579| | | |
Bache July
July 13|27875|21.4-57.1|60| 19 45 -63
July 18|27913|19.9-57.1|60|19 40 -63 19 50 62.5



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April 24, 1902

Measure to determine $[[?]]$ $[[?]]$ of $-11^{\circ}27'41''$ discovered by $[[?]]$ $[[?]]$
 $[[?]]$

Plate 5086 $[[?]]$ 30.1901 $[[?]]$

x y x y
pm|+20.20|+2.80|20.20|+2.85|-11*2741|20.20|0000|2.84|4111
1|0.75|+3.30|75|3.30|-11*2732|0.75|00|3.30|00
2|9.55|+3.55|9.55|3.60|-11*2736|9.53|00|3.58|32
3|15.35|+1.85|15.35|1.90|-11*2738|15.35|00|1.88|32
4|23.30|+6.95|23.35|7.00|-11*2762|2332|23|6.98|32
2|35.|PM|20.20|+2.85|20.20|2.85|-11*2741

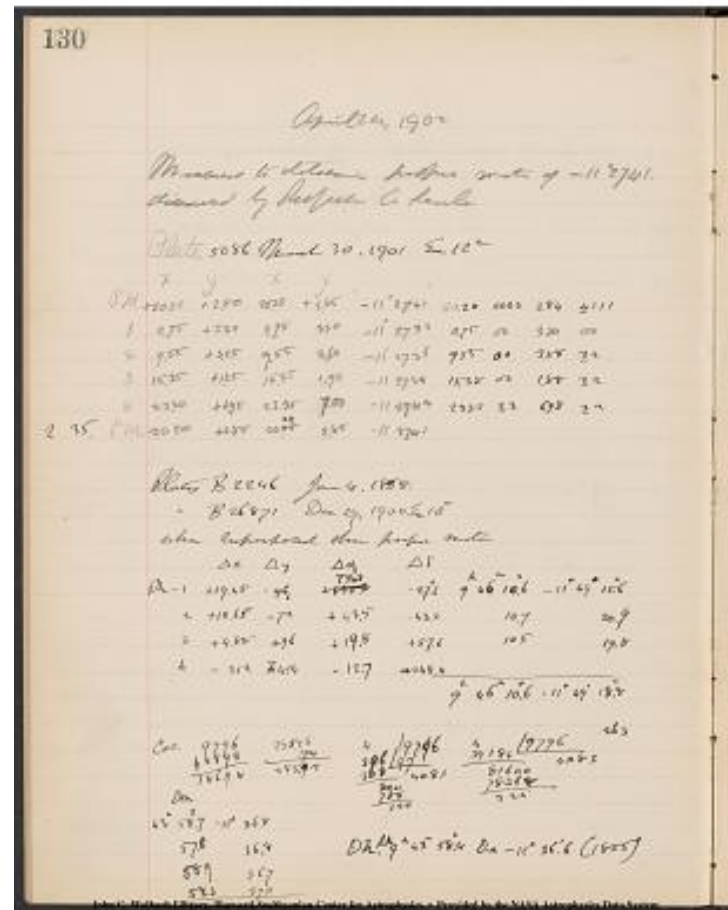
$[[?]]$ B2246 $[[?]]$, 1888

" B26871 Dec 29. 1900. $[[?]]$

$[[?]]$ $[[?]]$ $[[?]]$ $[[?]]$ $[[?]]$

$[[change]]x$ $[[change]]y$ $[[change]]x$ $[[change]]$ $[[?]]$

$[[?]]-1|+19.45|-46[[?]]|+79[[?]]|-27''.6[[?]]$



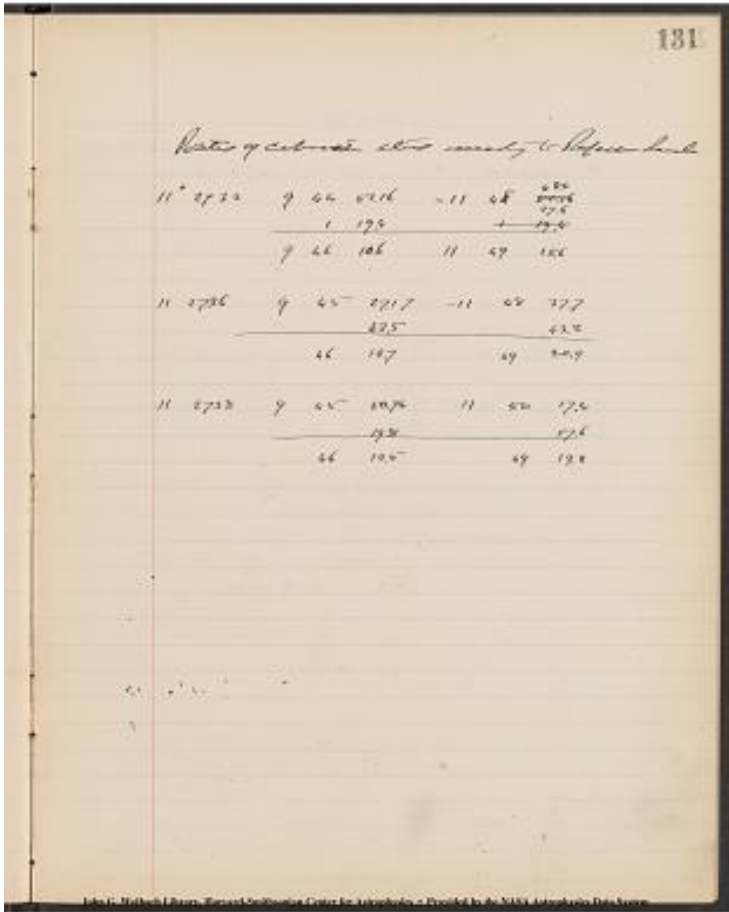
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Extracted Aug-29-2022 03:00:04

Rates of [[?]]

[[8 columned table]]

11°	2732	9	64	51.16	-11	68	51.16	68.0
				<u>19.4</u>				
				1			19.4	
				<u>7.6</u>				
			9	46	10.6	1	49	15.6
11	2736	9	45	27.17	-11	68	37.7	
				<u>43.5</u>			<u>63.2</u>	
				46	10.7	69	20.9	
11	2738	9	45	50.74	11	50	17.4	
				19.8			57.6	
				<u>46</u>	<u>10.5</u>		<u>49</u>	<u>19.8</u>

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Provided by the NASA Astrophysics Data Systems



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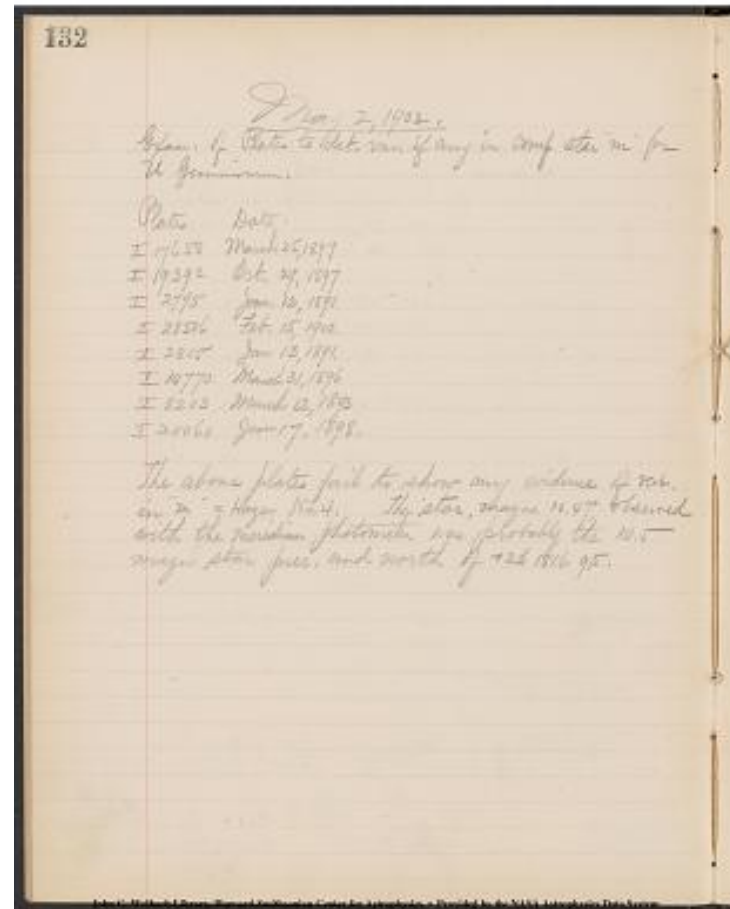
May 2, 1902.

Exam. of Plates to det. var. if any in comp star "m" for U Geminorum.

[2 columned table]

Plates	Date
I 17658	March 25, 1897
I 19391	Oct. 29, 1897
I 2795	Jan. 12, 1891.
I 28506	Feb. 15, 1902.
I 2815	Jan 13, 1891.
I 14770	March 31, 1896
I 8203	March 12, 1893
I 20060	Jan 17, 1898.

The above plates fail to show any evidence of var. in "m" = Hagen No. 4.
The star, magn. 10.47, observed with the meridian photometer was
probably the 10.5 magn star prec. and north of +22° 1816. 9.5.



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Extracted Aug-29-2022 03:00:04

May 29 1902

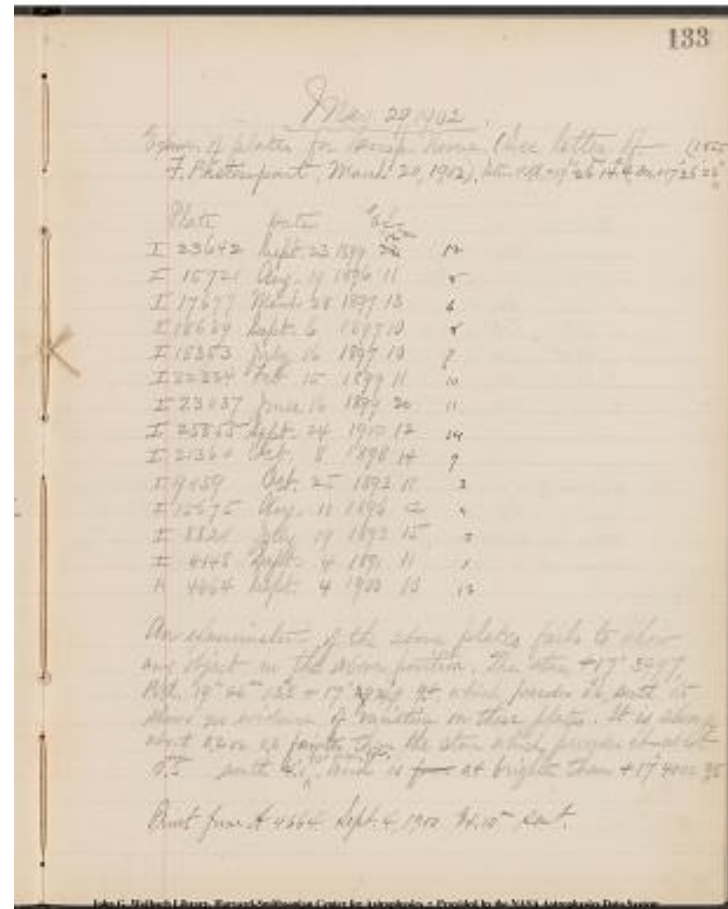
Exam. of plates for susp. Novae (See letter of.
F. [?]) Ristenpart, March 20, 1902). Sten R.A. = $19^{\circ} 26'$ $14.4''$ S, Dec. $+17^{\circ} 26' 23''$ (1855)

[4 columned table]

Plate	Date	Ex.
I 23642	Sept. 23, 1899	23 12° 12
I 15721	Aug. 19 1896	11 5
I 17677	March 28 1897	13 6
I 18689	Sept. 6 1897	10 8
I 18353	July 16 1897	10 7
I 22334	Feb 15 1899	11 10
I 23037	June 16 1899	20 11
I 25855	Sept. 24 1900	12 14
I 21360	Oct. 8 1898	14 9
I 9549	Oct. 25 1893	11 3
I 15675	Aug. 11 1896	12 4
I 8821	July 19 1893	15 2
I 4148	Sept. 4 1891	11 1
A 4664	Sept. 4 1900	10 13

An examination of the above plates fails to show any object in the above position. The star, $+17^{\circ} 39' 9''$ R.A. $19^{\circ} 26'$ $13.8''$ S, $+17^{\circ} 24' 9.4''$ S, which precedes $0.6''$ S, south 1:5 shows no evidence of variation on these plates. It is always about 0.2 or 0.3 fainter than the star which precedes it about $0.5''$ S, south 4:1 (Est magn. 9.2,) and is ~~from~~ 0.4 brighter than $+17^{\circ} 40' 9.5''$

Print from A 4664. Sept. 4, 1900 Ex. 10° sent.



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Extracted Aug-29-2022 03:00:04

134

May 29, 1902.

Exam. of plates for susp. Nova (see letter of F. Ristenpart March 20, 1902. RA 18^{h} , 24^{m} , 52.8^{s} , Dec. $+27^{\circ}40'40''$ (1855).

[[4 columned table]]

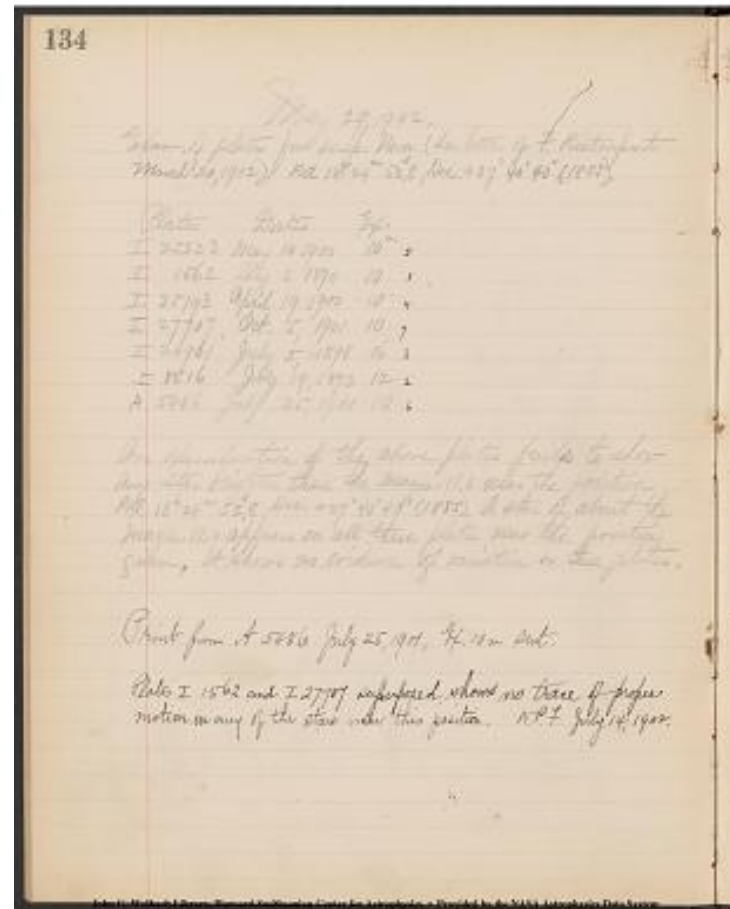
Plates	Dates	Ex.
---	---	---
I 25323	May 10 1900	10^{m} 5
I 1562	Aug 2 1890	10 1
I 25193	April 19 1900	10 4
I 27707	Oct. 5, 1901	10 7
I 20901	July 5, 1898	16 3
I 8816	July 19, 1893	12 2
A 5486	July 25, 1901	10 6

An examination of the above plates fails to show any star brighter than the Magn. 11.0 near the position R.A. 18^{h} 24^{m} 52.8^{s} Dec, $+27^{\circ}40'40''$ (1855). A star of about the Magn. 11.0 appears on all these plates near the position given. It shows no evidence of variation on these plates.

Print from A 5486 July 25, 1901, Ex. 10m sent.

Plates I 1562 and I 27707 superposed, shows no trace of proper motion in any of the stars near this position. W.P.F. July 14, 1902

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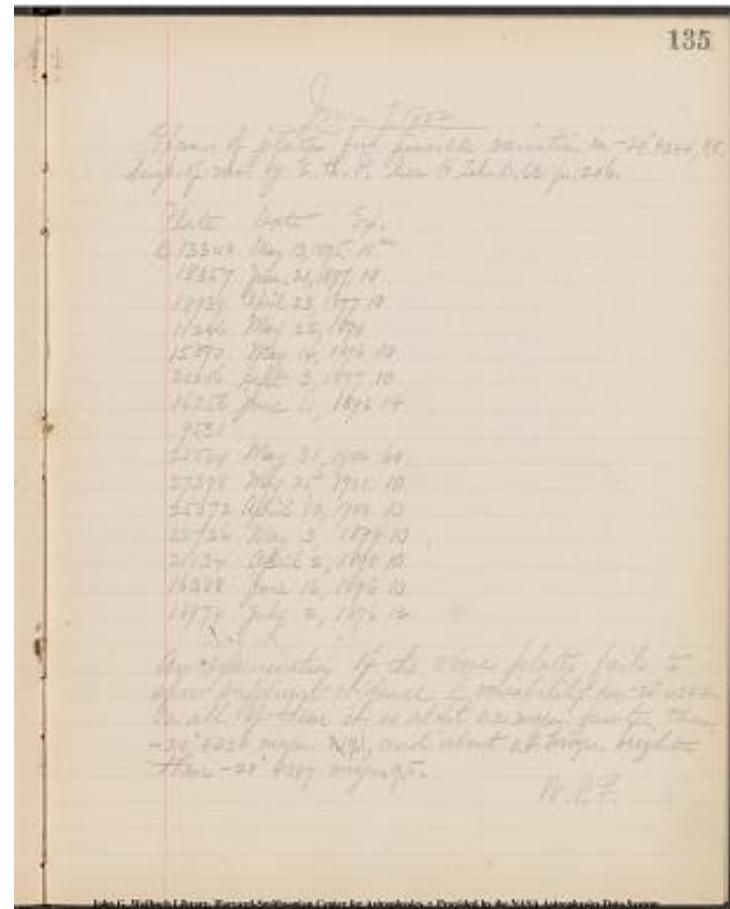
June 7, 1902.

Exam of plates for feasible variation in $-20^{\circ}4344.88$.
[[?]] of var. by epsilon, zeta, rho. See H. [[?]] B.6 sigma [[?]]. 206.

Plate	Date	Ef.
B13340	May 13, 1895	11 ¹ [[m]]
18357	Jan. 21, 1897	10
18939	April 23, 1897	10
11246	May 22, 1894	
15890	May 14, 1896	10
20256	Sept. 3, 1897	10
16258	June 11, 1896	14
9531		
25504	May 31, 1900	60
27398	May 25, 1901	10
25072	April 10, 1900	10
22726	May 3, 1899	10
21134	April 2, 1898	10
16388	June 16, 1896	10
16974	July 2, 1896	12

An examination of the above plates fails to show sufficient evidence of variability in $-20^{\circ}4344$. On all of them it is about 0.2 [[?]] fainter than $-20^{\circ}4336$ [[?]]. ~~8.1~~ ~~9.1~~, and about 0.4 [[?]] brighter than $-20^{\circ}4347$ [[?]]. 9.5.

W.P.F.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

June 25, 1902.

Exam. of plates for Bessel - Weisse 16h 260, [[?]]

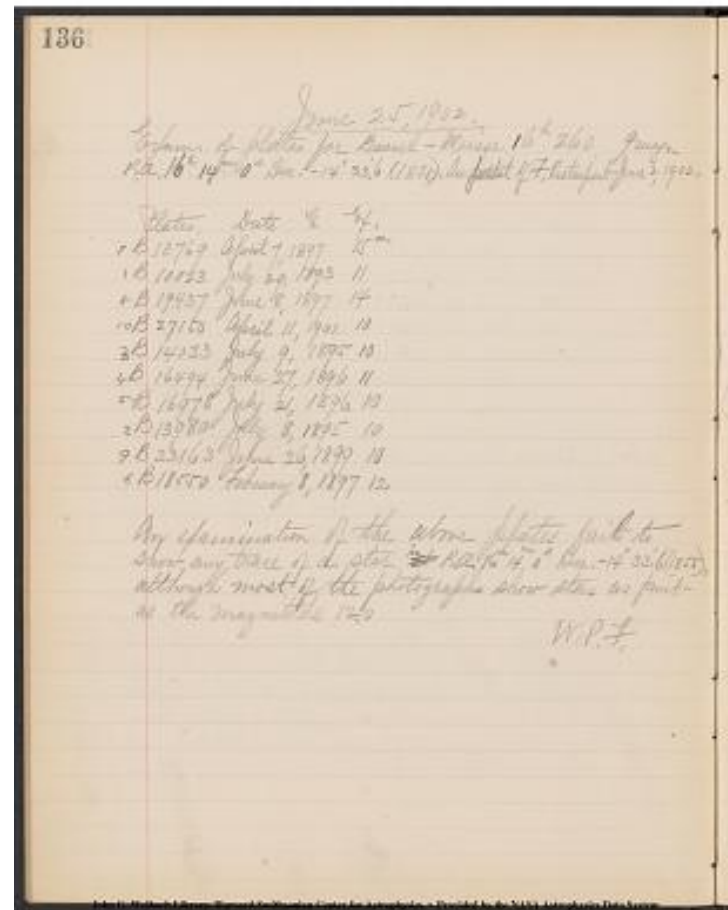
RA, 16h 14m 0s [[Du?]] - 14[[degrees]] 33'.6 (1855). See postat of 7, [[Ristonfont?]] June 2, 1902.

[[4 Columned Table]]

Plates	Date	Y	Ex.
---	---	---	---
7B18769	April 7	1897	15m
1B10023	July 29	1893	11
8B19437	June 8	1897	14
10B27150	April 11	1901	10
3B14033	July 9	1895	10
4B16494	June 27	1896	11
5B16978	July 21	1896	10
2B13980	July 8	1895	10
9B23163	June 26	1899	10
6B18550	February 8	1897	12

My examination of the above plates fails to show any trace of a star in R.A. 16h 14m 0s Dec. -14[[degrees]] 33'.6 (1855), although most of the photographs show stars as faint as the magnitude 12.0

W.P.F



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

June 25, 1902

Exam of plates $[[?]]$ star in R.A. 2h20m16s NPD 78.8 $[[?]]$ 27'.7 (1900, v) $[[?]]$. $[[?]]$ Su postal of Hans $[[?]]$. (No date). Rec. June 1902.

Plate Date Ex

5 I 5429 Jan. 21, 1892 10

4 I 5264 Dec. 19, 1891 19

3 I 4743 Nov. 6, 1891 20

1 I 2142 Oct. 31, 1890 12

2 I 3260 March 10, 1891 10

7 I 15944 Sept. 11, 1896 10

(Isochromatic) 9 I 19087 Sept. 29, 1897 11

13 ~~[[?]]~~ 12 2 11 ~~[[?]]~~ I 244504 Jan. 21, 1900 21

11 ~~[[?]]~~ 10 ~~[[?]]~~ I 22229 Jan 26, 1899 17

8 I 16291 Oct. 25, 1896 10

6 I 7564 Nov. 20, 1892 13

12 ~~[[?]]~~ 11 10 ~~[[?]]~~ I 24014 Nov. 9, 1899 12

14 I 26657 Feb. 19, 1901 60

10 ~~[[?]]~~ 9 ~~[[?]]~~ I 22166 Jan. 20, 1899 12

An examination of the above plates shows that the star in R.A. 2h20m6s NPD 78 $[[?]]$ 27.7 (1900) is probably identical with +11 $[[?]]$ 335 R.A. 2h17m.8 Dec. +11 $[[?]]$ 20' (1855) $[[?]]$ 7.3. It shows slight if any variation in brightness being always about the seventh magnitude. W.P.F.

137

June 25, 1902.

Exam of plates from star in R.A. 2h20m16s NPD 78.8 $[[?]]$ 27'.7 (1900, v) $[[?]]$. Su postal of Hans $[[?]]$. (No date). Rec. June 1902.

Plate	Date	Ex.
5 I 5429	Jan. 21, 1892	10
4 I 5264	Dec. 19, 1891	19
3 I 4743	Nov. 6, 1891	20
1 I 2142	Oct. 31, 1890	12
2 I 3260	March 10, 1891	10
7 I 15944	Sept. 11, 1896	10
(Isochromatic) 9 I 19087	Sept. 29, 1897	11
13 [[?]] I 244504	Jan. 21, 1900	21
11 [[?]] I 22229	Jan. 26, 1899	17
8 I 16291	Oct. 25, 1896	10
6 I 7564	Nov. 20, 1892	13
12 [[?]] I 24014	Nov. 9, 1899	12
14 I 26657	Feb. 19, 1901	60
10 [[?]] I 22166	Jan. 20, 1899	12

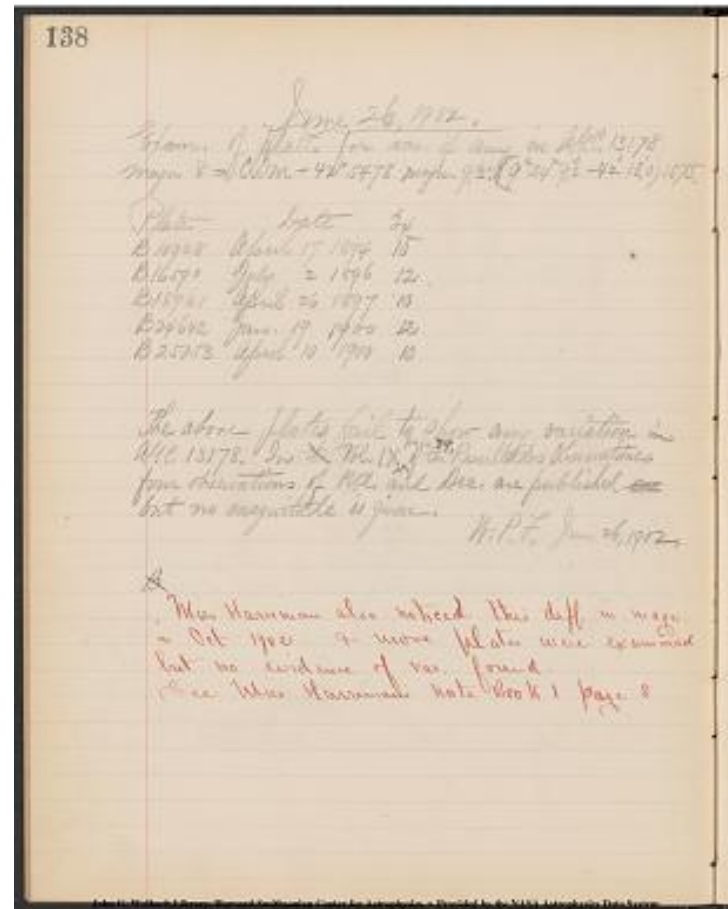
An examination of the above plates shows that the star in R.A. 2h20m6s NPD 78 $[[?]]$ 27.7 (1900) is probably identical with +11 $[[?]]$ 335 R.A. 2h17m.8 Dec. +11 $[[?]]$ 20' (1855) $[[?]]$ 7.3. It shows slight if any variation in brightness being always about the seventh magnitude. W.P.F.

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June 26, 1902.
 of plates for now. if in 1378 $8 = -42^{\circ}$ 5478
 $9.3.4(9^h34^m9.3^s-42^{\circ}18.0)1875$.

[Plate]	Date	[Ef]
B10928	April 17 1894	10 ^m
B16590	July 2 1896	12
B18961	April 26 1897	10
B24642	Jan. 19 1900	12
B25053	April 10 1900	10

The plates fail to show any variation in
 13178. In the ~~the~~ vol. IX^a page 74
 of Resultados Observations four observations of ~~the~~, and Dec. are
 published on ~~on~~ but no magnitude is given.
 N.P.F. June 26, 1902,
~~B~~
 Miss also noticed this diff in ~~mag 21.~~ in Oct 1902- ~~the~~ plates
 were examined but no evidence of ~~the~~ found. See Miss note Book 1
 page 8



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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July 1, 1902

Exam of plates for $[[var?]]$? if any in Hogen Nos, 13 and 19
Comp. $[[steirofor?]]$ R. $[[Corueloperdalis?]]$ 14h 25m + 84 $[[degrees]]$ 17'
(1900).

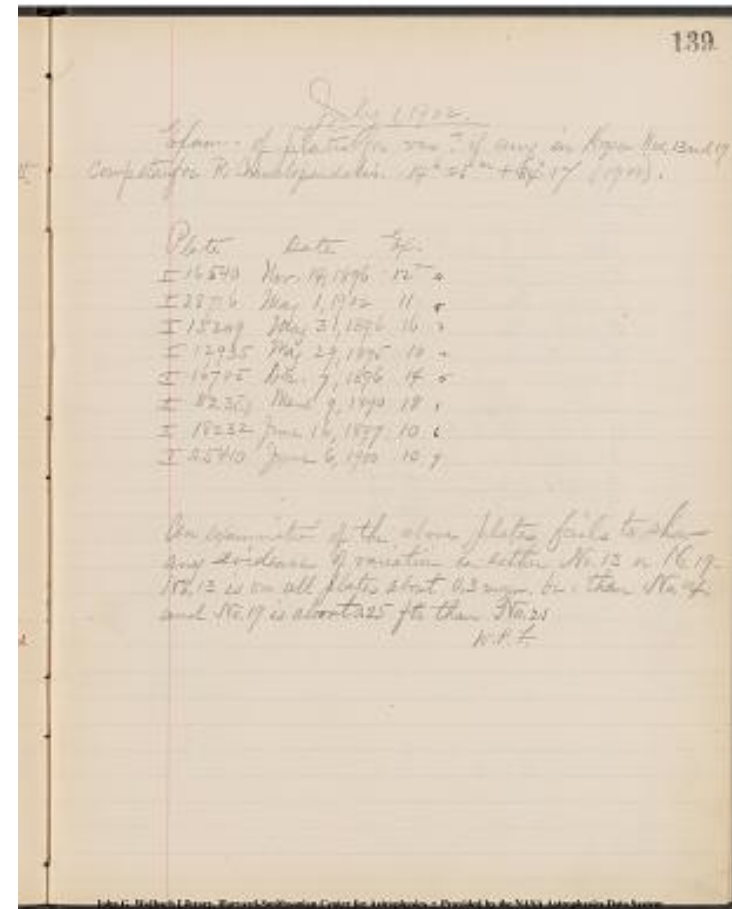
[[4 Columned Table]]

Plates	Date	Ex.	
---	---	---	---
I 16540	Nov. 14, 1896	12m	4
I 28716	May. 1, 1902	11	8
I 15209	May. 31, 1896	16	3
I 12935	May. 29, 1895	10	2
I 16705	Dec. 7, 1896	14	5
I 823(?)	March 9, 1890	18	1
I 18232	June 16, 1897	10	6
I 25410	June 6, 1900	10	7

An examination of the above plates fails to show any evidence of variation in either No. 13 or No. 19.

No. 13 is on all plates about 0.3 magn. $[[br?]]$, then No. 14 and No. 19 is about 0.25 ftr than No. 21

W.P.F



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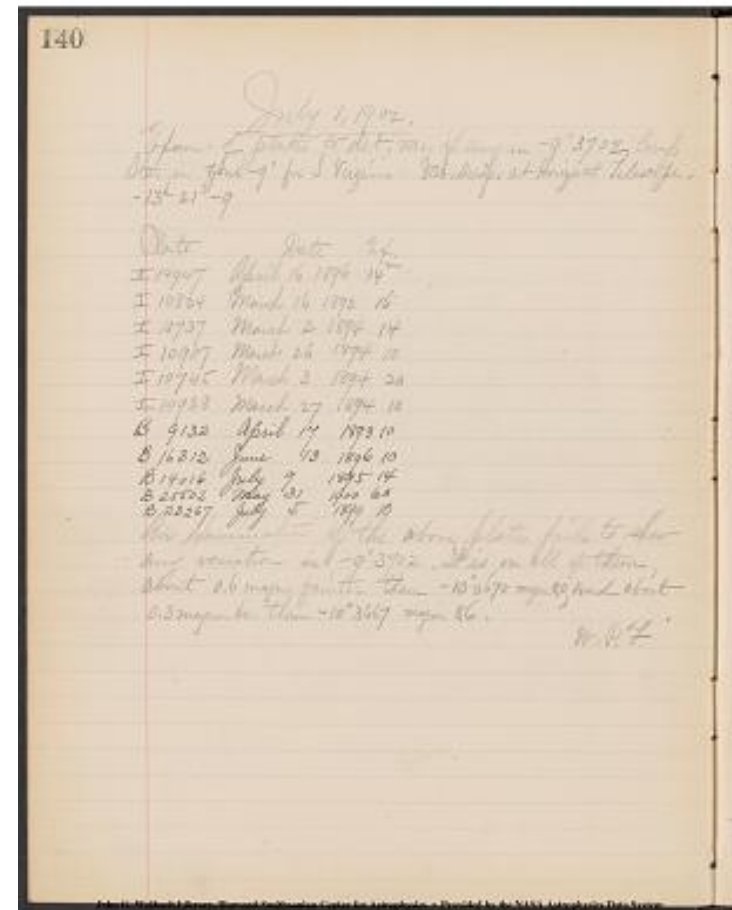
July 1, 1902

Exam of plates to det. var. if any in -9 [[degrees]] 3702 [[Coruf?]]
 Star in [[?]] -9 [[degrees]] for X Virgins, Var, [[suaf?]], at [[Hrigtat?]]
 telescope
 -13h 21' -9

Plate	Date	Ex.
I 14947	April 16 1896	14m
I 10834	March 16 1893	16
I 10737	March 2 1894	14
I 10907	March 26 1894	10
I 10745	March 3 1894	20
I 10938	March 27 1894	10
B 9132	April 17 1893	10
B 16312	June 13 1896	10
B 14016	July 9 1895	14
B 25502	May 31 1900	60
B 23267	July 5 1899	10

An examination of the above plates fails to show any variation in -9 [[degrees]] 3702. It is on all of them about 0.6 magn, fainter than -10 [[degrees]] 3670 magn. 8.0, and about 0.3 magn. br. than -10 [[degrees]] 3667 magn. 8.6 .

W.P.F.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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141

July 12, 1902

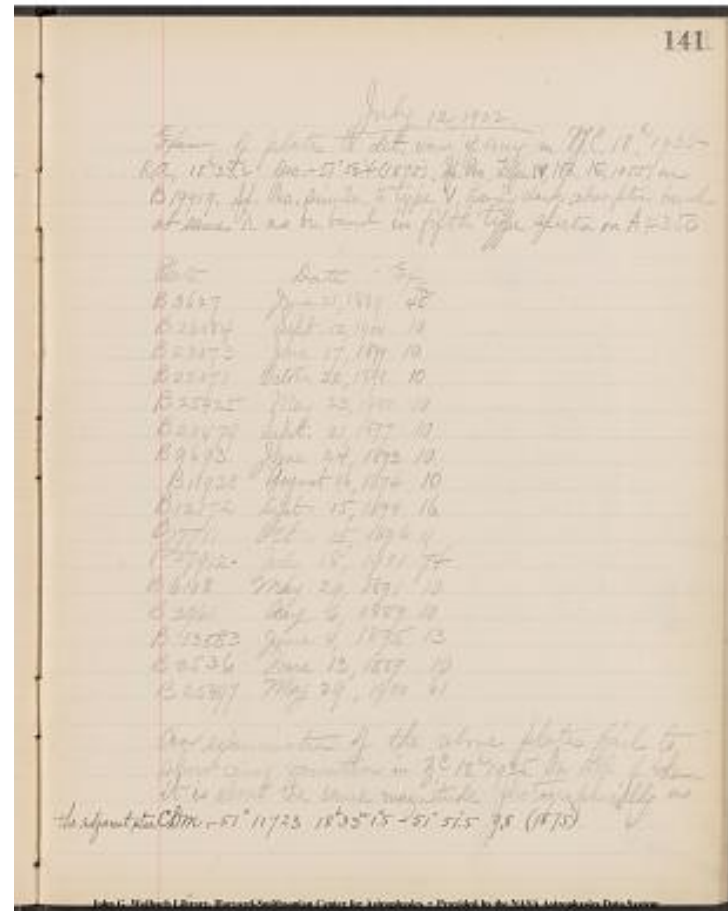
Exam of plates to det. [??] of [??] in [??] 18h 1935 R.O. 18h 33.2 Dec.-
51° 524(1875) [??]

[[3 column table]]

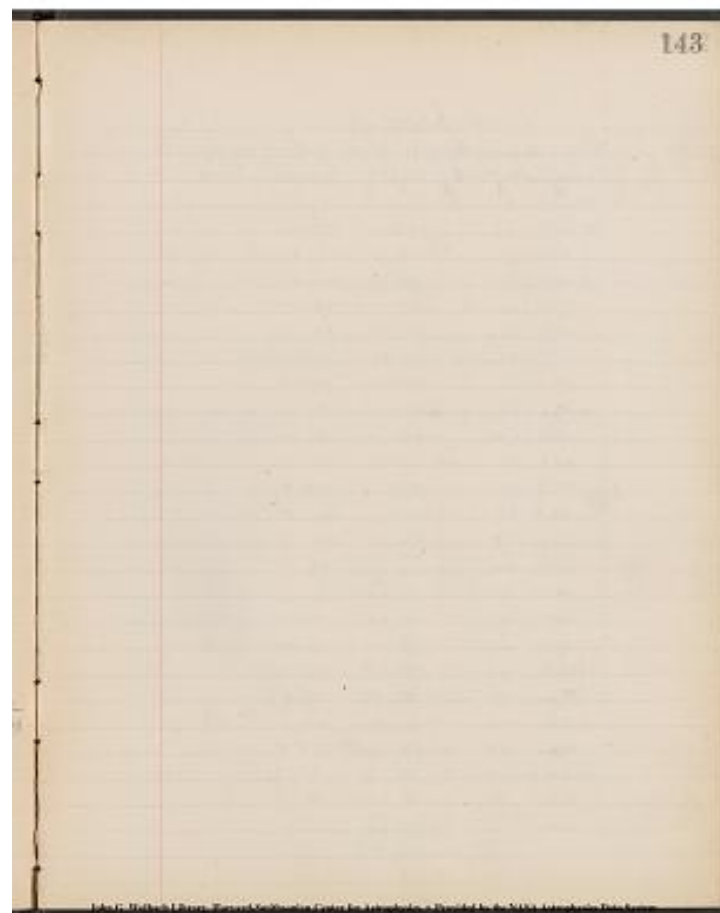
Plate	Date	Ex.
B3627	June 21, 1880	45
B26084	Sept. 12, 1900	10
B23073	June 17, 1899	10
B22071	October 22, 1898	10
B25425	May 23, 1900	10
B20479	Sept. 21, 1897	10
B9693	June 24, 1893	10
B11938	August 16, 1894	10
B12172	Sept. 15, 1894	16
B17711	Oct. 15, 1896	11
B27912	July 18, 1901	74
B6108	May 29, 1891	10
B3961	Aug 6, 1889	10
B13583	June 4, 1895	13
B3536	June 13, 1889	10
B25497	May 29, 1900	61

[[/3 column table]]

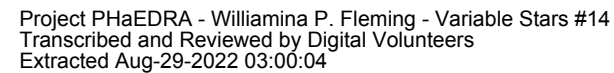
An examination of the alone plates fails to show any variation in [??]
18h 1935. On all of them it is about the same magnitude
photographically as the adjacent plate CDM_51° 11723
18h 33m 1.5s - 51° 51.5' 9.8 (1875).



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Thursday July 31, 1902

Briccie (323)

Object (defect?) not in DM at 6^h 528^h2 +18° 28' found by Mrs Fleming. var?

h h m magn [[?]] 160
 2412087.4 1891 Dec |20|9|29|12|6|51.5|+21|15|+2.2|-3
 -35 8 54 2.3 39

89.5 |22|12|16|11|41|49.2|+21|54|
 1.3 19

90.45 |23|11|11|10|36|47.9|+22|13
 Dec |31|9|36|8|52|37.0|12.3|+24|50|177
 99.4 1892 Jan |9|58|115|35.6|+25|10
 2077

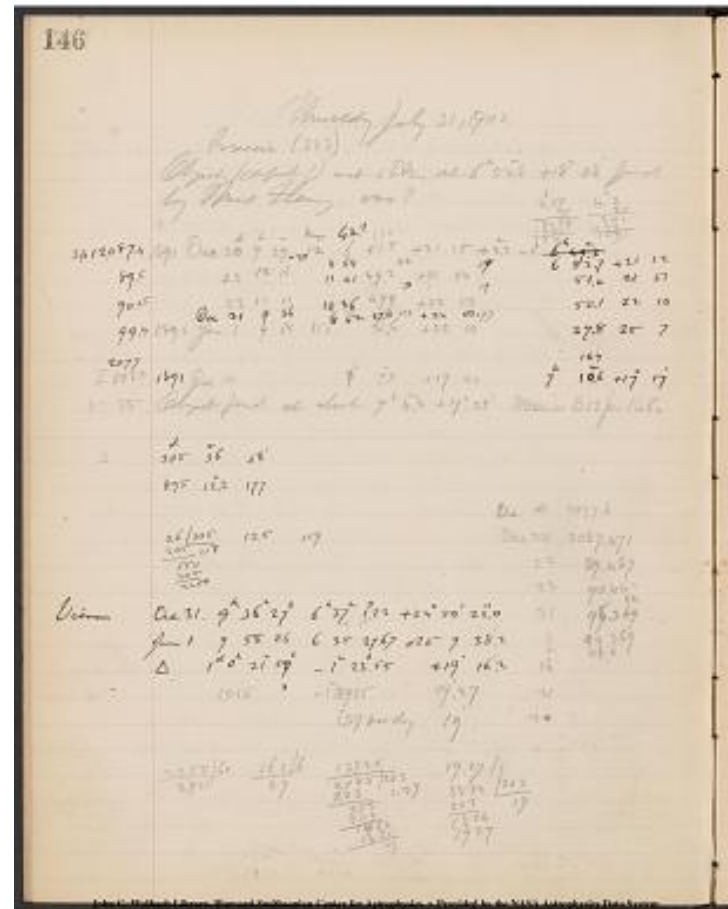
h - h m
 I5050 1891 Dec 10 7|7.5|+17|20 7|10.6|+17|17'
 5 55 [[Object?]] found at about 7h 4.3- +17 25' meas. in B12 p.168

h m
 1 |3.05|3.6|58'
 |8.95|12.3|177

[[calculations]]

[[?]] Dec 31 9h 36m 27s 6h 37m 1.22s +24° 50' 22.0"
 Jan 1 9 58 26 6 35 37.67 +25 9 38.2
 Delta 1d 0h 21m 59s -1m 23.55s +19' 16.2

[[formula]] [[formula]]



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[[table]]
 1855 | G.M.T. | 7-87.37 | 1.3d | RA. Cnr | 6-c | 20'x7 | Conf Dec | 6-c |
 6 49.3 +21 18 | 2412087.371 | 0.0.0 | 0.0 | 49.3 | 0 | 0 | 21° 18' 0" |
 47.0 21 57 | 89.487 | 2.12 | 2.8 | 46.5 | +.5 | 42' | 22 00 |
 [[/table]]
 [[/table]]+15[[/table]]-3 |
 45.7 22 16 | 90.442 | 3.07 | 4.0 | 45.3 | +.4 | 6.1' | 22 19 | -3 |
 33.4 25 13 | 99.369 | 12.00 | 15.6 | 33.7 | -.3 | 24.0.0 | 25 18 | -5 |

[[/table]]7^[[h]] 6.2 17 23[[/table]]

Or R.a.

Jan 16 | 2412114.37 | 27.0 | 35.7 | 14.2 | 54.0 | +30° 18' | 6^[[h]]

14.2^[[m]] |

21 | 19.37 | 32.0 | 41.6 | 7.7 | 64.0 | +31° 58' | 6 7.7 |

Dec 10 4.3^[[m]] | 17° 25' | 77.37 | -10.0 | 13.7 | 03.0 | 200 | +17 58 | 7 |
 3.0 | +1.3 | -33'

[[/table]]3[[/table]]7^[[h]] 4^[[m]] 18^[[s]] | 17° 25' |

234^[[2100-7]] 1.37d^[[m 30.688]] 19d^[[425.6]] | 63.688^[[con alpha]]

64.3^[[con.]] | +.612 | 18^[[cont.]] 24.4 17 | 25^[[C]] |

6 49 18 | +21 18 | 12.629 17.302 240.95' | 50.302 49.3 | -10.02 | 21

29.0518 | -11.05 |

47 0 | 21 57 | 10.513 14.403 199.75 | 47.403 47.0 | -.403 | 22 10.2557 | -
 13.25 |

45 42 | 22 16 | 9.558 13.094 181.60 | 46.094 45.7 | -.394 | 22 28.40 | 16
 12.40 |

6 34 49.22 | 24 53 22.0 | 1.646 2.2[[/table]]255

31.274 | 35.255 34.820 | -.435 | 24 58.726 | 53.367^[[5.359]]

33 25.67 | 25 12 38.2 | 0.631 0.864 11.989 | 33.864 33.428 | -.436°

18.011' | 12.637.374^[[5.374]] |

14.653^[[000]] | [[/table]]19.865[[/table]]20.075

[[/table]]275.5[[/table]]278.41 | 6^[[6]]

[[/table]]13.135[[/table]]12.925^[[35.00]] | | 30° 8.41' |

19.641 [[/table]]26.715[[/table]]26.908

[[/table]]370.5[[/table]]373.18 | 6 6.285^[[6.092]] | | 31°
 43.18" |

Carh Du 10, 7^[[h]] 3.3 +18° 5'

Jan 16 6 12.7 +30 5 2114.653

21 6 5.9 +31 41 2119.641

[[equations]]

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Comp RA. Comp Dec.
1855 1855

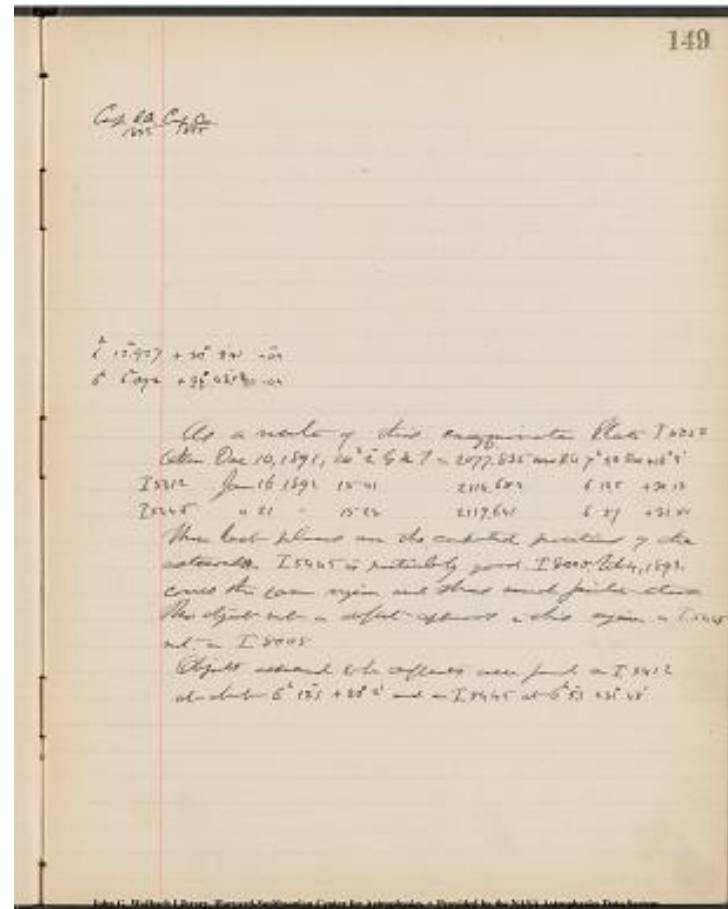
$6^{\text{h}} 12.927^{\text{m}} + 30^{\circ} 8.41' - 0.4''$
 $6^{\text{h}} 6.092^{\text{m}} + 36^{\circ} 63.18' - 0.4''$

As a result of this examination Plate I5058
[[6 columned table]]

[[?]] Dec 10, 1891, 20^h 2^m GM7=2077.835^h [[J.D.]] [[?]] RA
7^h 3.0 Dec +18° 8'
I5412 Jan 16 1892 1541 2114.653 6 12.5 +30 13
I5445 Jan 21 1892 1523 2119.641 6 5.7 +31 51

These last places are the computed positions of the
asteroid ~~s~~. I5445 is noticeably good.
I8005, Feb 4, 1893. covers the same region and shows much fainter
stars. The object not a defect - appears in this region on I5445 not on
I8005

Objects assumed to be defects were found on I5412 at about $6^{\text{h}} 12.1^{\text{m}} + 30^{\circ} 2'$ and on I5445 at $6^{\text{h}} 5.1^{\text{m}} + 31^{\circ} 48'$

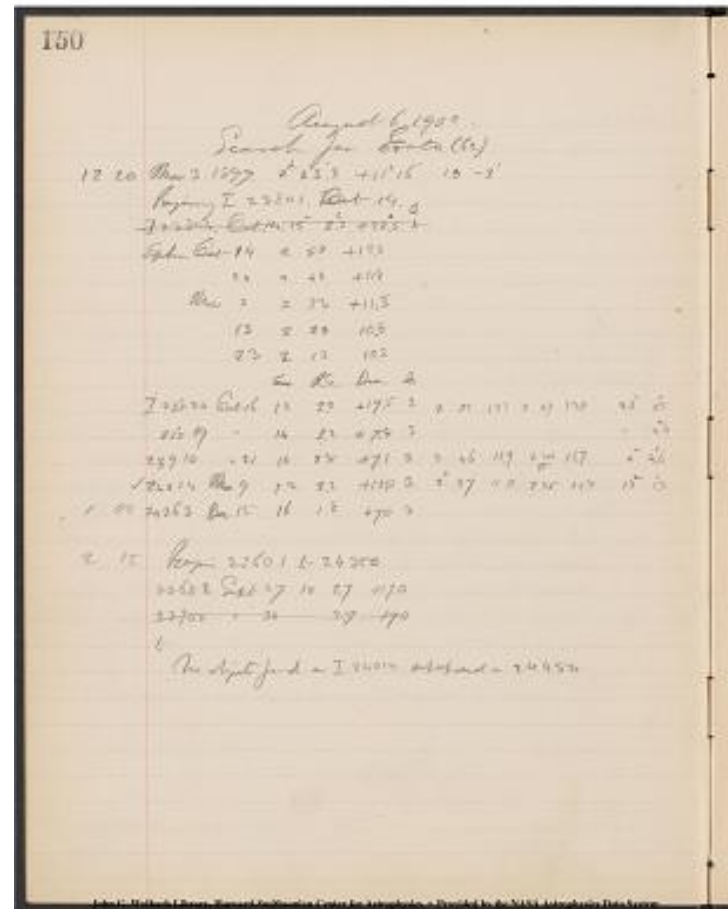


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Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

150

August 6, 1902
 Search for Erato (62)
 12 20 Mar 3, 1899 2^h 2 33.3 + 11° 16' 1.0 -3'
 Beginning I 23801 Feb 14
~~[[strikethrough]]~~ 23804 Feb 14 15^m 2.2^h +22.5^o 3 ~~[[/strikethrough]]~~
 Feb 14 2 53 +12.3
 24 2 43 +118
 Mar 3 2 33 +11.3
 13 2 23 10.8
 23 2 13 10.3
 Sec Ra. Dec. 8
 I 23820 Feb 16 12 3.2 +17.5 3 2 51 12.2 2 49 12.0 23 5.5
 23819 Feb 14 3.2 +7.4 3 4.6
 23910 Feb 21 10 2.8 +7.1 3 2 46 11.9 2 44 11.7 4 4.6
 55
 24014 Mar 9 12 2.2 +12.0 3 2 27 11.0 2 25 10.8 13 1.2
 1 00 24263 Dec 15 16 1.8 +7.0 3

 2 15 Begin 23801 h-29300
 23682 Sept 27 10 2.7 +17.0
~~[[strikethrough]]~~ 23700 " 30 2.7 17.0 ~~[[/strikethrough]]~~
 h
 No object for found on I 24014 superposed on 24454



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

151

Aug 1, 1907

Search for Klyler (73)

[[9 column table]]

Oct 25|4|26|+24|54|4|28.0|24|47|

Nov 4|4|26|+24|35|18.0|24|27|

14|4|16|+24|14|08.0|24|7|

24|11.8|4|06|+23|54|3|38.0|+23|47|

Dec 4|3|56|+23|34|48.0|23|27|

16|3|46|+23|14|38.0|23|7|

24|3|36|+22|54|28.0|22|47|

Jan 3|3|26|+22|34|18.0|22|27|

Begin 2380~~[[/strikethrough]]~~0~~[[/strikethrough]]~~ to 24560

~~[[/strikethrough]]~~ 1 24020 Nov. 9 |85| 4.8| ~~[[/strikethrough]]~~ m

24088 Nov 19 |12| 4.1^h| +27.5^0| 3L^1| ~~[[/strikethrough]]~~ 4^h| 0.9|

|23^0| +3^m| 45| ~~[[/strikethrough]]~~ 3| 53.0^m| 23| 57|

Begin 2388 T 24560

[[10 column table]]

~~[[/strikethrough]]~~ 24020|Nov 9|85|4.8|~~[[/strikethrough]]~~

24088|Nov 19|12|4.1|+27.5|3i| 3 530 23 87 43 45 image too long

24167|Dec 2|84|4.0|27.5|3i| 3 500 23 31 -4 40

24209|Dec 12|15|3.8|27.3|4|2 400 23 11

24212|Dec 12|10|3.5|22.5|3| 3 400 2.3 11

24393|Jan 6|60|3.8|22.7|4|3|12.0|2.2|21|

20"

1^m= 15' = 900^"

1^h= 38"

151

Aug 1, 1907

Search for Klyler (73)

Oct 25	4	26	12.0	24	47
Nov 4	4	26	18.0	24	27
14	4	16	08.0	24	7
24	11.8	4	06	23	54
Dec 4	3	56	23	34	48.0
16	3	46	23	14	38.0
24	3	36	22	54	28.0
Jan 3	3	26	22	34	18.0

Begin 2380~~[[/strikethrough]]~~0~~[[/strikethrough]]~~ to 24560

~~[[/strikethrough]]~~ 1 24020 Nov. 9 |85| 4.8| ~~[[/strikethrough]]~~ m

24088 Nov 19 |12| 4.1^h| +27.5^0| 3L^1| ~~[[/strikethrough]]~~ 4^h| 0.9|

|23^0| +3^m| 45| ~~[[/strikethrough]]~~ 3| 53.0^m| 23| 57|

Begin 2388 T 24560

[[10 column table]]

~~[[/strikethrough]]~~ 24020|Nov 9|85|4.8|~~[[/strikethrough]]~~

24088|Nov 19|12|4.1|+27.5|3i| 3 530 23 87 43 45 image too long

24167|Dec 2|84|4.0|27.5|3i| 3 500 23 31 -4 40

24209|Dec 12|15|3.8|27.3|4|2 400 23 11

24212|Dec 12|10|3.5|22.5|3| 3 400 2.3 11

24393|Jan 6|60|3.8|22.7|4|3|12.0|2.2|21|

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Extracted Aug-29-2022 03:00:04

152

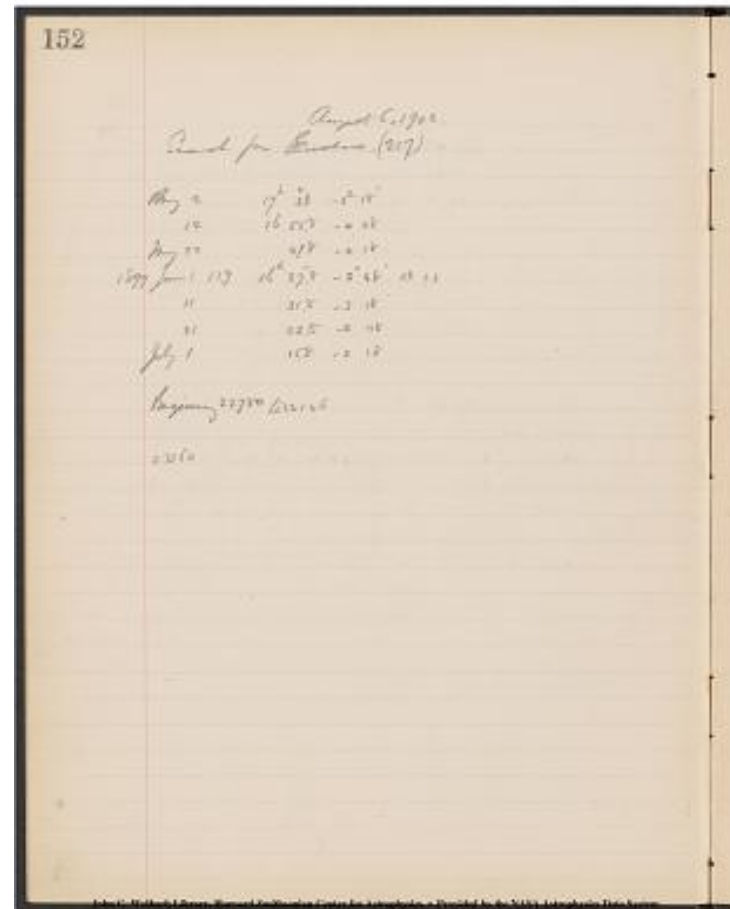
August 6, 1902

Second for Eudon[[?]] (217)

May 2		17^2		3^2.8		-5^0		18^1	
12		16		55.8		-4		48	
May 22				47.8		-4		18	
1899 June 1		11.9		16^h		39^2.8		-3^0	
								48^1	
		11		31.8		-3		18	
		21		23.8		-2		48	
July 1				15.8		-2		18	

Beginning 22780 li23146

23160



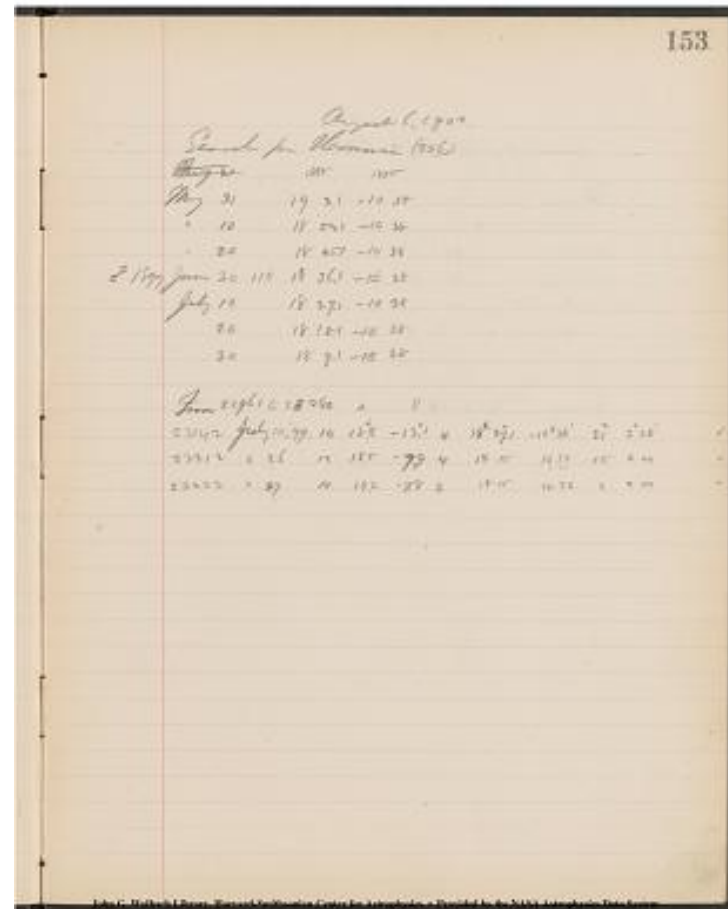
Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

153
August 1, 1902

Search for H... (236)
[[~~strickethrough~~]] May 21 [[~~strickethrough~~]] 1855 1857

May 31 19 3.1 -10 38
10 18 54.1 -10 38
20 18 45.1 -10 38
1899 June 30 110 18 36.1 -10 38
July 10 18 27.1 -10 38
20 18 18.1 -10 38
30 18 9.1 -10 38

From 22961623280 [[?]] [[?]]
23142 July 10, 99 | 14 | 18^h[[h]].8 | -13.1° | 4 | 18^h[[h]] 27.1 | -10°38' | 21
| 2°28'
23212 " 26 | 12 | 18.5 | -7.9 | 4 | 18 15 | 10 38 | 15 | 2 44
23223 " 27 | 10 | 18.2 | -7.8 | 3 | 18 15 | 10 38 | 3 | 2 50

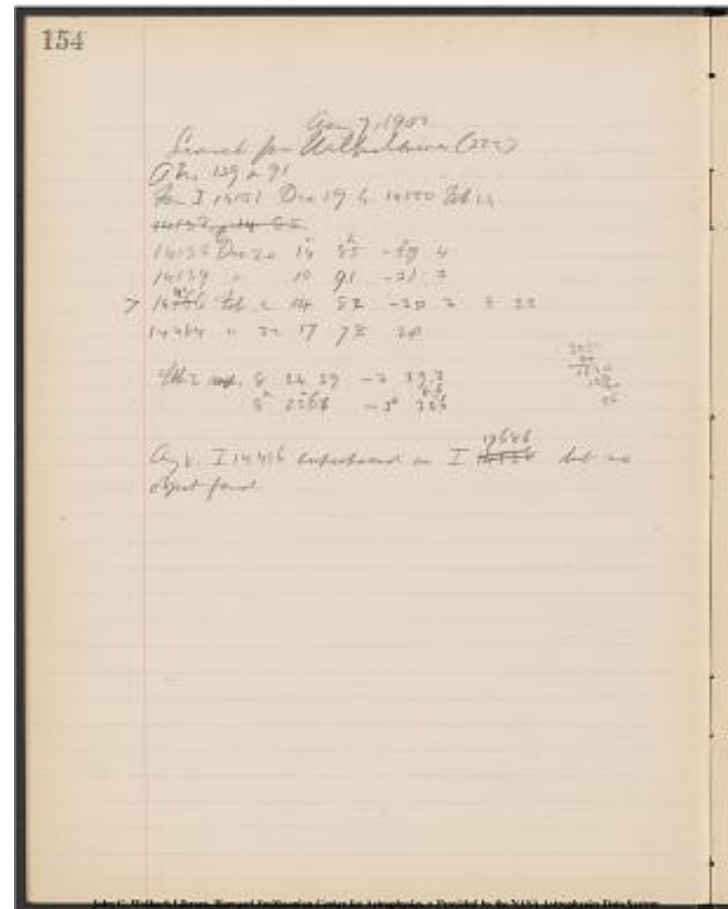


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Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

154
 April 7, 1902
 Search for Williamina (322)
 AN, 139 p. 91
 Im I 14101 Oct 19 on 14500 Feb 24
~~14138 14 84~~
 14138 Dec 20 | 14^h 8.5' - 2.9° 4
 14139 | Dec 20 | 10 9.1 | -3.1 3
 >14 ~~16~~ 416 | Feb. 2 | 14 8.2 | -3.0 3 | 8 22
 14484 | Feb. 2 | 22 17 | 7.8 2.0

Feb. 2 comp. | 8 24 39 | -3 39.2
 | || 8^h 22.6^m | -3° 30.6' 8.6

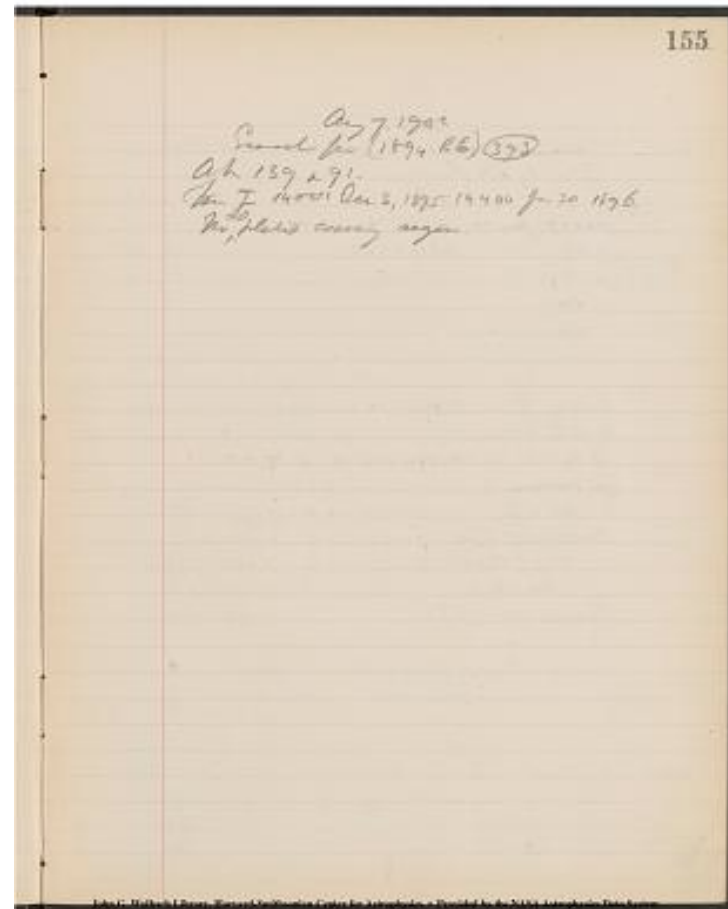
Aug 8. I 14416 compared on I ~~14138~~
 17686 but no object found



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
 Transcribed and Reviewed by Digital Volunteers
 Extracted Aug-29-2022 03:00:04

155

Aug 7, 1902
Search for (1894 B6) 393
Ah 139 91.
14001 Dec 3, 1895 14400 Jan 30 1896.
^ plates



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

January 23, 1903.

[Line through] January 15, 1903

Byrann? of plates for? Asteroid Lutetia major 10.8

Suand? Plates I [Line through] 28 yrs

7^h 25 13+24 39.1 298716 January 21, 1903 By.? 20^m Major.

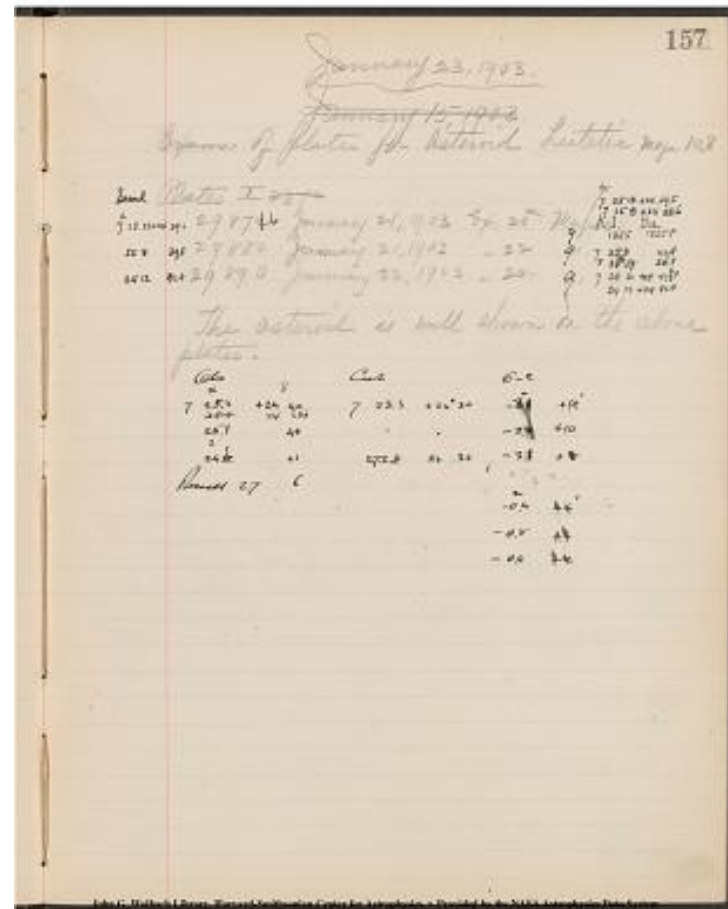
2513+24 39.5, 258+24 38.6, R.A. Dec.

258 39.5 29880 January 21, 1903 „22 9 7 25.8 400P, 9, 7 24.57 38.9

2412 41.0 29890 January 22, 1903 „20 9 7 24 2+24 41.2P, 24 12+24 41.0

The asteroid is well shown on the above plates.

Cols.?	Cach	C?-e
7 25.2 + 24 40	7 28.3 + 24 ^h Degrees. 30	-3.1+10
25.1 40		-3.2+10
24? 1 41 27.2 26		3.3 -3.1+8
Rauch? 2.7 6		-0.4+4
		-0.5+6
		-0.6+2



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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 Extracted Aug-29-2022 03:00:04

January 23, 1903.
Exam. of plates for the asteroid Chryseis.

[6 columned table]

Plates|Dates|Ex.|Magn.|R.A.|Dec.|

-----|-----|-----|-----|-----|-----|

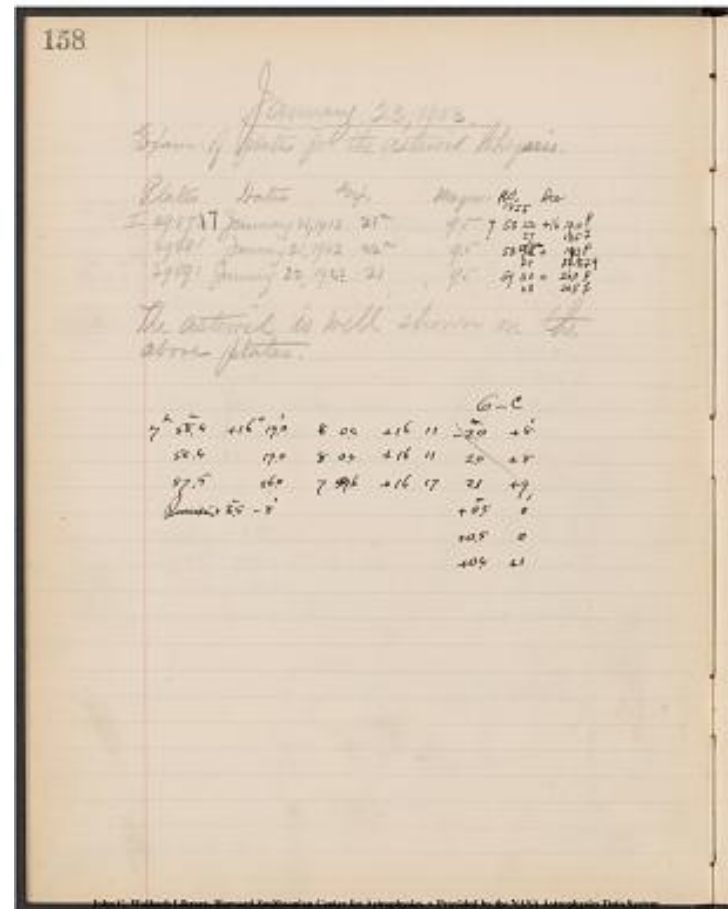
| 2987 | ~~3~~ | ~~7~~ | January 21,
1903 | 21^h 9.5^m 58.22^s | 1855 | 27 | +16 19.0 p^a 18.5 f |
2988	January 21, 1903	22^h 9.5^m 58	~~48~~	22	
~~2989~~	~~24~~	+1	~~7~~	p^a 18.	~~5~~
~~2989~~	~~19~~				
2989	January 22, 1903	21^h 9.5^m 57.30^s	28	+26.0 p^a 26.5 f	

The asteroid is well shown on the above plates.

6-C

[6 columned table]

7^h 58.4^m +16° 19.0' 8 0.4 +16 11 | ~~2.0~~ | ~~8~~ | +8'
~~58.4~~	~~19.0~~	~~8 0.4~~	~~16 11~~	~~2.0~~	~~8~~		
58.4	19.0	8 0.4 +16 11	~~2.0~~	~~8~~			
57.5	26.0	7	59	6	+16 17	~~2.1~~	+9
~~57.5~~	~~26.0~~	~~7~~	~~59~~	~~6~~	~~16 17~~	~~2.1~~	~~9~~
			+2.5^a	-8'			+0.5^a
			+0.5	0'			
			+0.4	+1			



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Extracted Aug-29-2022 03:00:04

[[top right corner]]

January 23, 1903
[Exam. of plates for asteroid Kalliope.

G.M.L. |Plates Dates Ex. Magn. R.D. 1855 Dec. 1855 JD
8 h m s

I|2987~~[[strike-through]]~~4 January 21, 1902 20 8 7 44 26 +37
39.6 P

I|29882 January 21, 1902 22 8 25 39.4 7
20 40.0 7 40.2 P

I|29892 January 22, 1902 20 8 43 10 + 43.2 P
10 43.6 7

|The asteroid is well shown on the above
|photographs

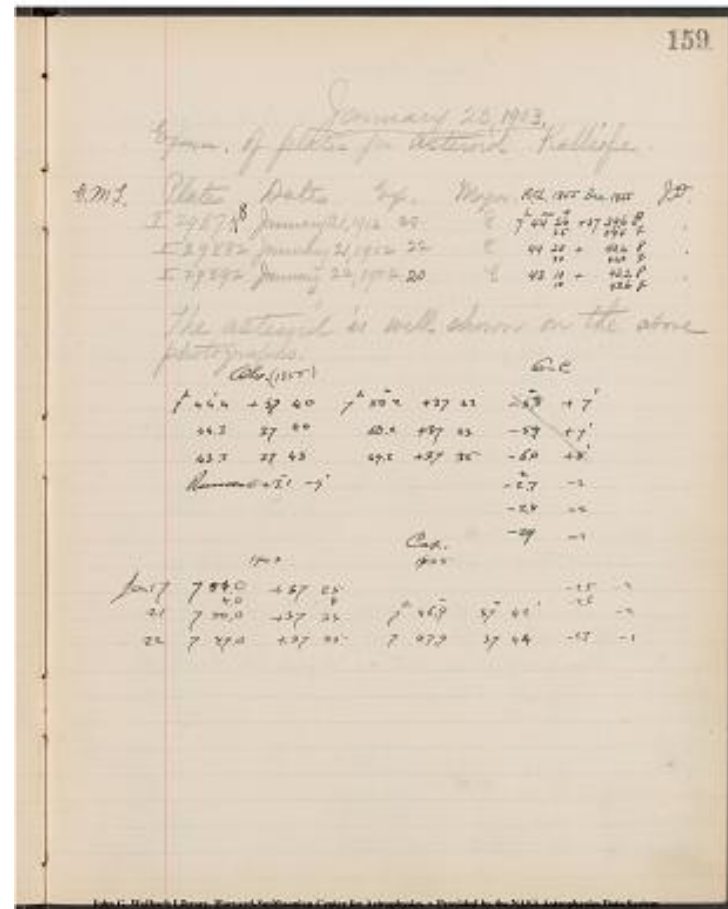
[[?]](1855) 6-C
h h 2 1
|7 44.4 +37 60 7 502 +37 33 -5.8 +7

44.3 37 60 50.2 +37 33 -5.9 +7

43.2 37 63 69.2 +37 33 -6.0 +8

[[?]]+3.1 -9 -2.7 -2

1903 1855
Jan 17| 7 54.0 +37 25 -25 -2
4.0 8 a 1 -2.6
21| 7 50.0 +37 33 7 46.9 37° 42 -2
22| 7 49.0 +37 35 7 67.9 37 44 -2.7 -1

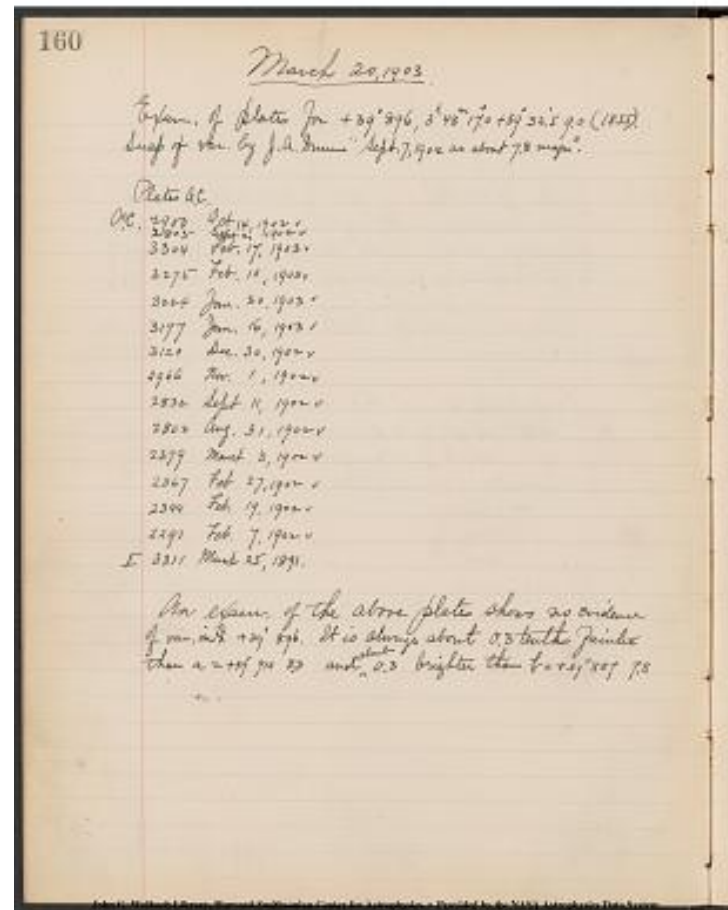


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March 20, 1903.
 Eyan.? Of Plates for $+39^{\circ}$ [Degrees]896, $3^{\circ}h$ $48^{\circ}m$ $17.0^{\circ}s$ +
 39° [Degrees]32.5 9.0 (1855).
 Susp? of var.? by J.A.Dunne? Sept.7,1902 as about 7.8 magn.

Plates A.C.
 AC 2900 Oct 14, 1902v
 2805 Sept 2, 1902v
 3304 Feb. 17, 1903v
 3275 Feb. 10, 1903v
 3224 Jan. 30, 1903v
 3177 Jan. 16, 1903v
 3120 Dec. 30, 1902v
 2966 Nov. 1, 1902v
 2832 Sept 11, 1902v
 2802 Aug. 31, 1902v
 2379 March 3, 1902v
 2367 Feb. 27, 1902v

An exam. of the above plates shows no evidence of var. $[[?]]$ $+39^{\circ}$ 896. It
 is always about 0.3 tenths $[[?]]$ than a $=+39^{\circ}$ 910 83 and \wedge about 0.3
 brighter than b = $+39^{\circ}$ 887 7.8



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March 28, 1903
Exam of plates for Nova Geminorum (Turner)
 $6^{\text{h}}[hh] \ 37^{\text{m}}[mm] + 30^{\circ} \ 3'$ (apparent pl) $6^{\text{h}}[hh] \ 34.7^{\text{m}}[mm] + 30^{\circ}16'$ (1855).
F. observes L. observes
Plate A.C. 3398 March 6, 1903 Ex 66m

[[6 columned table]]

```

11 51|a7n|a6h|a6N|a4N|.58|
|n2b|m3b|b1N|b1N|.18| |
|c5n|c4h|c4N|c3N|.40|
|n3d|m2d|N0d|d1N|.15|
|e3|[striketrough]]d[[striketrough]]n|e4m|e4N|e4N| |
|f5n|f4m|f5N|f5N|
|g3n|g3m|g2N|N1g|
|h5n|h3m|h3N|h2N|
|k3n|k4m|k4N|k4N|
|l7n|l7m|l4N|l3N|
|m4m|m3n|m[[striketrough]]0[[striketrough]]1N|m2n|
|m4o|m4o|N3o|N4o|
55|m20p|m18p|N8p|N7p|
|m4q| |N2q|N1q|
|m3r| |N2r|N1r|
12 0|m5s| |N2s|N1s|

```

F. observes L. observes

A.C. 3429 March 14, 1903 Ex 60m

[[8 columned table]]

| | | | | Magn | Sp | |

	t3N	t4N	t5N	t5N	5.54	K	+29°	1327	
--	-----	-----	-----	-----	------	---	------	------	--

$$|N_2|U|N_2u|u_0N|u_1N|7.46|A|+29^\circ$$

1320|

|N1~~W~~W~~N0w~~N1w|N3w|7.23|A|+31°

1363|

$$|a|N0p|N0p|N2p|N2p|7.13|[\text{A}][\text{B}8\text{A}] + 30^\circ$$
1318|
H-JNC-|b|N6y|N5y|N5y|N6y| |A|+30° 1300|
|N6|N6|N6|N6| 2 16|A|: 00° 10|

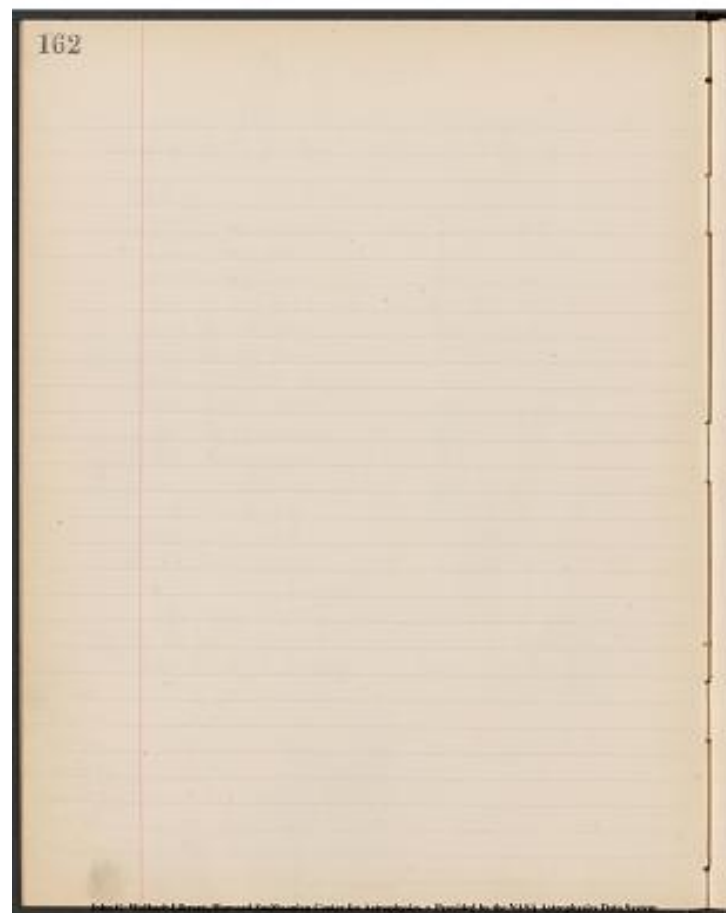
| |N6y|N6y|N6y|N6y|8.16|A|+29° 1297|

Estimates Continued on p. 164.

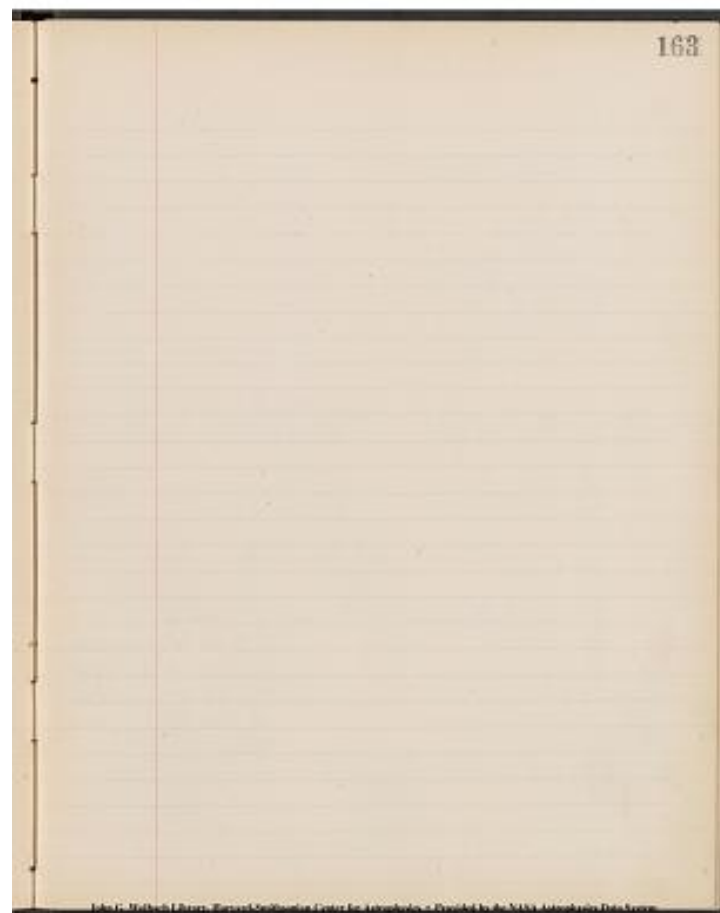
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[illegible]

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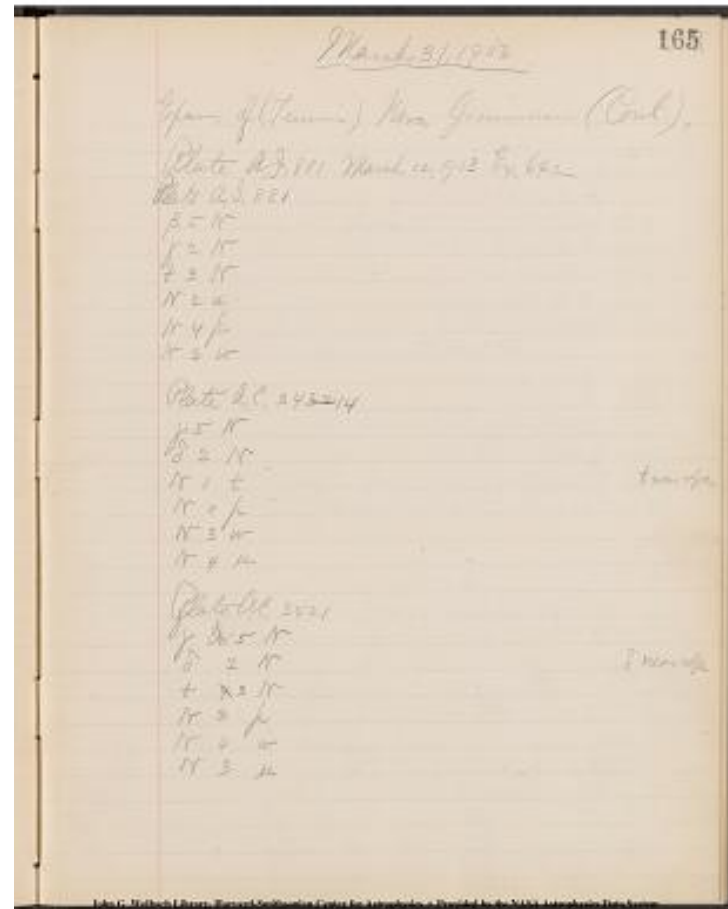
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Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

March 31, 1903

Exenu of ~~[[?]]~~ Mover ~~[[?]]~~ (Cont.)
 Plate N.J.881 March 12, 1903 Ex.642
 Plate A.J.881
 B 5 N
 J 2 N
 t 3 N
 N 2 u
 N 4 h
 N 3 w

Plate A.C. 34~~[[strikeout]]~~32~~[[strikeout]]~~14
 J 5 N
 S 2 N
 N 1 t t mean edge.
 N 0 h
 N 3 w
 N 4 m

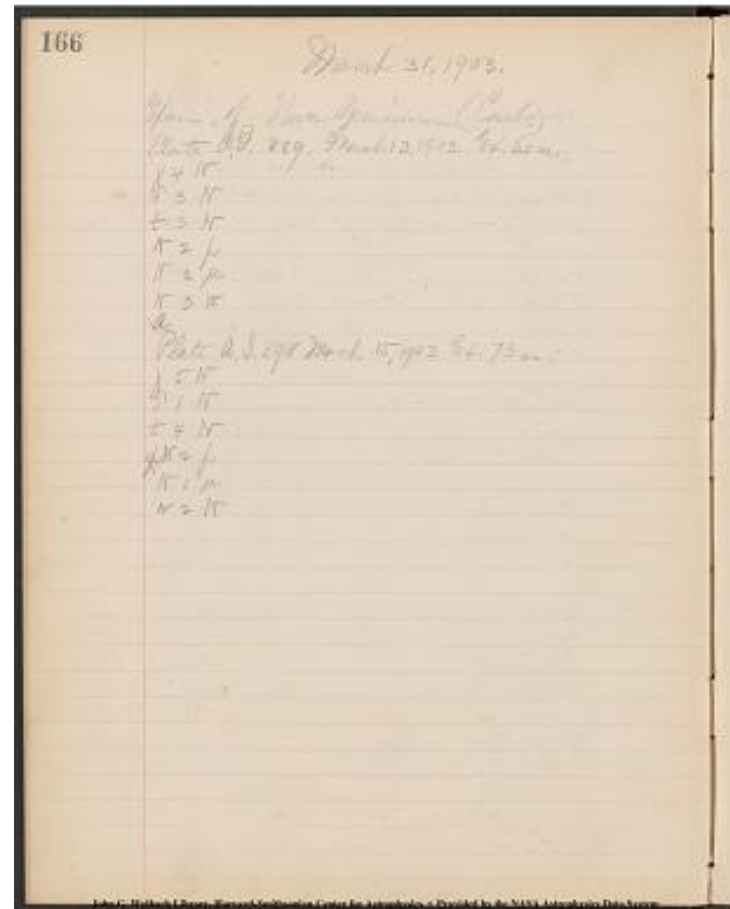
Plate A.C. 3421
 j ~~[[strikeout]]~~A~~[[strikeout]]~~ 5 N
 S 2 N S mean edge
 t ~~[[strikeout]]~~4~~[[strikeout]]~~ 3 N
 N 3 h
 N 4 w
 N 3 m



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166
March 31, 1903

Extenu of Nova? ~~[[?]]~~ (Cont.)
Plate A.J. 889 March 13, 1903 ~~[[?]]~~ 60m.
j 4 N
d 3 N
t 3 N
N 2 h
N 2 m
N 3 W
~~[[a]]~~
Plate A.J. 898 March 15, 1903 Ex. 73m
J 5 N
d 1 N
t 4 N
N 2 h
N 1 m
N 2 N



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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167

March 31, 1903

Exam. of Sp. plates of Nova Geminorum

Plate I 30216 March 25 1903 Ex. 84m. 3 degrees Prism.

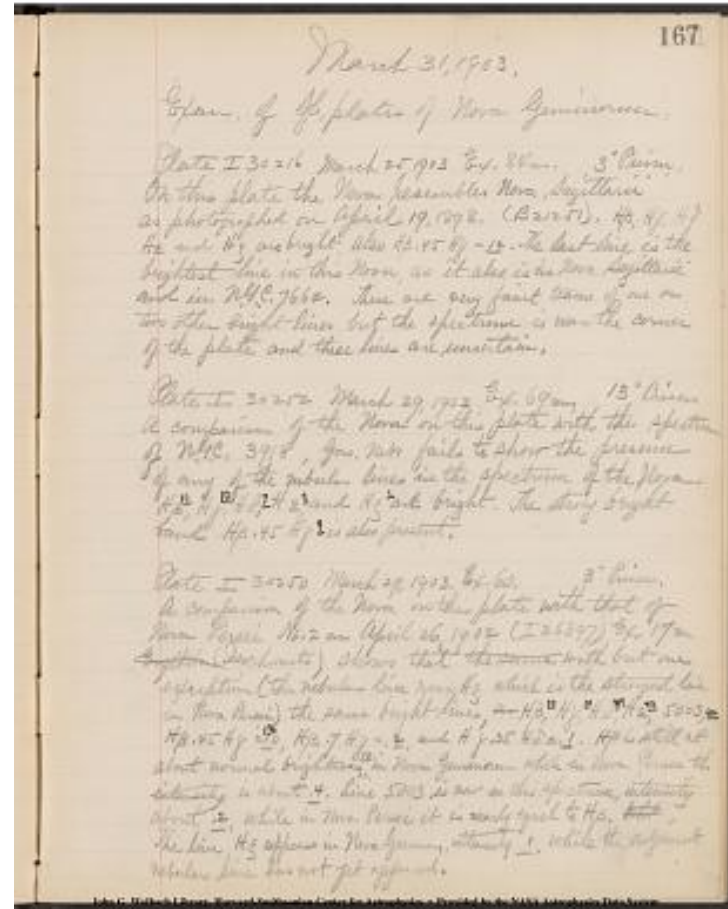
On this plate the Nova resembles Nova Sagittarii photographed on April 19, 1898. (B21251). H beta, H gamma, H delta, H epsilon and H zeta are bright, also H beta.45 H gamma = 12. The last line is the brightest line in this Nova, as it also is in Nova Sagittarii and in N.Y.C. 7662. There are very faint traces of one or two other bright-lines but the spectrum is near the corner of the plate and these lines are uncertain.

Plate I 30252 March 29, 1903 Ex. 69m. 13 degrees Prism

A comparison of the Nova on this plate with the spectrum of N.Y.C. 3918, Gas. Neb. fails to show the presence of any of the nebular lines in the spectrum of the Nova. H beta [^][10], H gamma [^][10], H delta [^][7], H epsilon [^][2], and H zeta [^][1] are bright. The strong bright band H beta.45 H gamma [^][9] is also present.

Plate I 30250 March 29, 1903 Ex. 60. 3 degrees Prism.

A comparison of the Nova in this plate with that of Nova Persei No. 2 on April 26, 1902 (I26897) Ex. 17m ~~Erythros~~ (Isochromatic) shows that ~~the same~~ with but one exception (the nebular line near H xi which is the strongest line in Nova Persei) the same bright lines, ~~the same~~ H beta [^][10], H gamma [^][10], H delta [^][9], H epsilon [^][03], 5003 [^][02], H beta.45 H gamma = 10 [^][12], H beta.7 H gamma = 2, and H gamma.35 H delta = 1. H beta is still at about normal brightness [^][10] in Nova Geminorum while in Nova Persei the intensity is about 4. Line 5003 is new in this spectrum, intensity about 2, while in Nova Persei it is nearly equal to H beta. ~~While~~ The line H xi appears in Nova Ge, intensity 1, while the adjacent nebular line has not yet appeared.



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168

[[underline]]April 2, 1903
[Exam of Dp. of Nova geminorme[[?]]

[Plate I 30266 April 1, 1903 Ex. 63 m
Line 5003=.2; HB = .9; HB.45 Hg =1.1; HgB 6 Hg =.1; HB 7
Hg=.1; Hg=1.0;
Hg 5Hs =.1; |Hg = 1.2 ; HS 5 HE = 1²[[strike-through]]3; HE =.4; HE=.3.

Spec [Plate I 30265
|C 3 N 8.59 8.57=8.58 01 , 01
|N 3 d 8

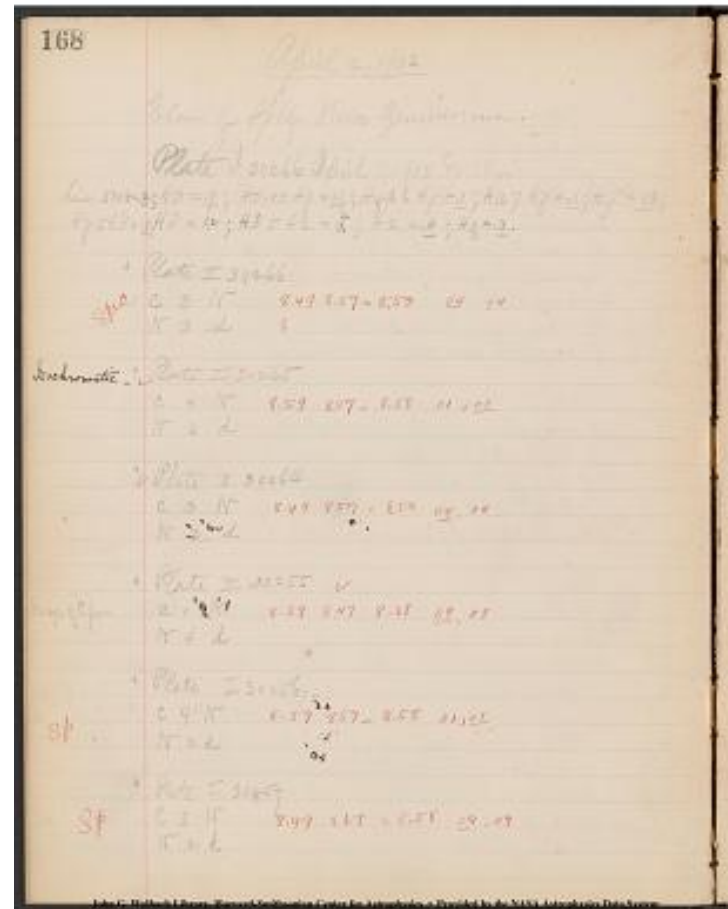
[Plate I 30264
|C 3 N 8.49 857 = 8.53 [[underline]]04, 04
|N 3""d

[Plate I 30255
Image of "C'por| C 1 N 8.29 8.47 8.38 [[underline]]09, 09
|N 4 d

[Plate I 30256
Sp |C 4 N 8.59°857= 8.58 01,[[underline]]01
|N 4 d

[Plate I 30257
Sp |C 3 N 8.49 867 = 8.58 [[underline]]09, 09
|N 2 d

[[bottom of page]]
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169

May 30, 1903

Exam. of J Coronae (Nova 1866).

[[3 columned table]]

[Plates 18673|June 30 1893|Ex. 11m]

[1520|July 23, ~~1900~~1890|Ex 10m]

[24819|March 12, 1900|Ex 14m]

[28786|May ~~y~~13, 1902|Ex 10m]

An examination of +26° 2765 in these plates fails to show any variety or change in position. It is about 0.3 mags fainter than a and 0.1 magn brighter than b, on all three plates.

Positions of stars a, b

[[8 columned table]]

|x|y| | | | | | |

|N|+5.70|+6.70| | | | |

|a|+12.90|+6.45|+7.20|-.25 sf|87^°|[s]|50.7'|

|b|+2.40|+4.80|-.330|~~10.37~~|-1.90

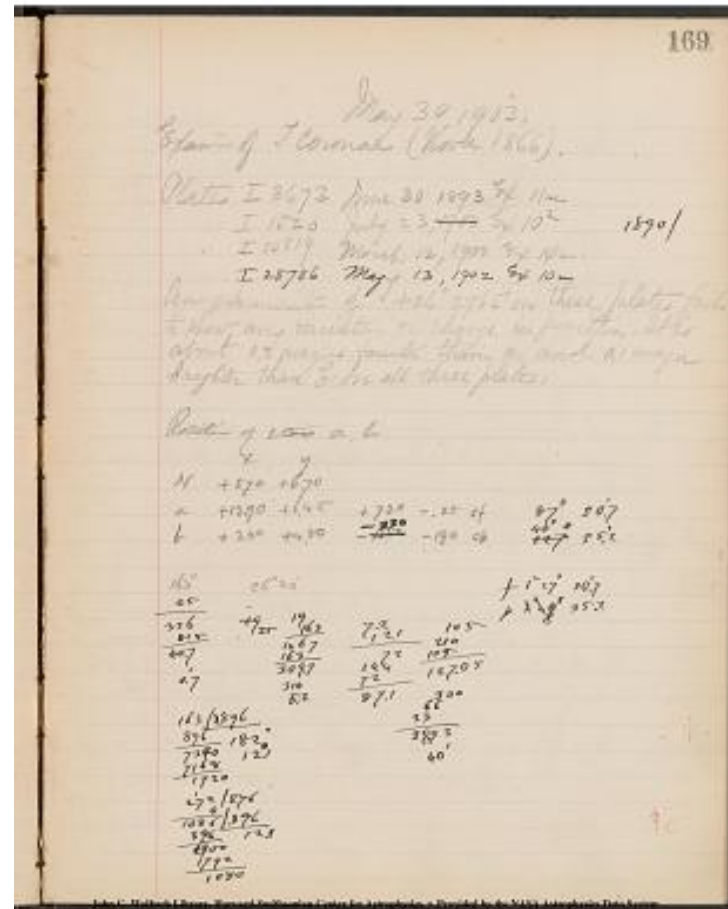
sp|40^°|[s]|~~127^°~~55.2'

163" 26°20'

[[equation]]

[[equation]]

[[equation]]



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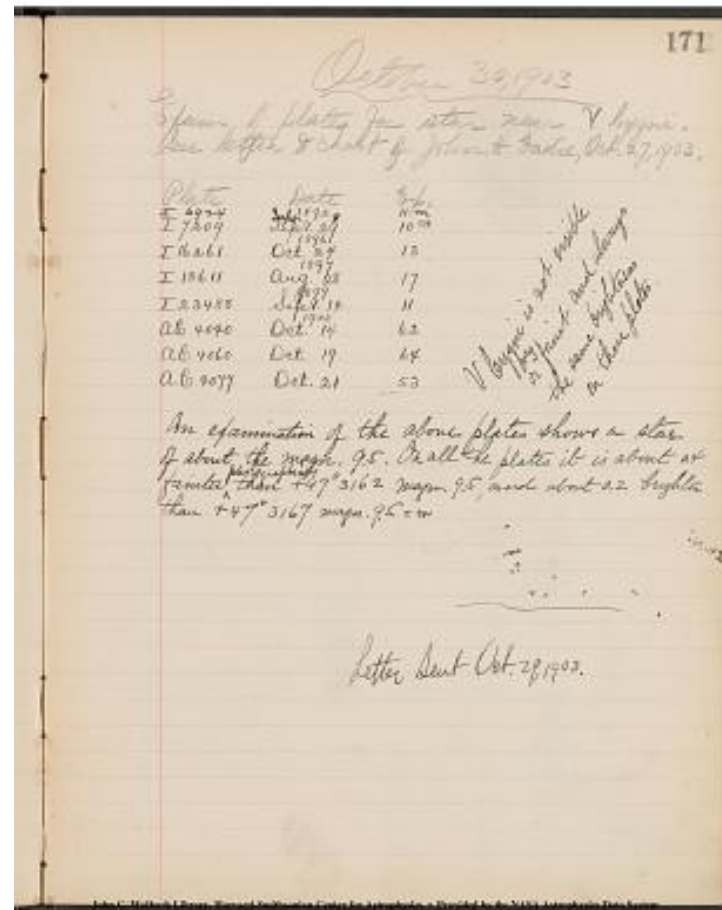
October 30, 1903
Exam. of plates for star near V Cygni.
See letter + chart of John H Eadie, Oct. 27, 1903.

Plate	Date	Ex.
I 6924	Sept. 1892	8 11 ^m
I 7209	Sept. 29 1896	10 ^m <u>m</u>
I 16261	Oct. 24 1897	13
I 18611	Aug. 28 1899	17
I 23488	Sept. 14 1903	11
AC 4040	Oct. 14	62
AC 4060	Oct. 19	64
AC 4077	Oct. 21	53

V Cygni is not visible or ^{very} faint and always the same brightness on these plates.

An examination of the above plates shows a star of about the magn. 9.5. On all the plates it is about 0.4 fainter ^{than} $+47^{\circ}3162$ magn. 9.5, and about 0.2 brighter than $+47^{\circ}3167$ magn. 9.5. = m

Letter Sent Oct. 29, 1903.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

Tuesday, Aug. 9, 1904
Variable discovered by ECP. north of Orion nebula est. magn. by Mrs. WPF

12.48
[[4 column table]]
| | V(P) | V([Ft])

AC 4519	Jan. 14, 1904	11.5	
4434	Dec 24 1903	11.7	[[drawing star field]]
4263	Nov. 1903	11.7	
[[margin]] 1.00 [[/margin]]			
6094	Oct 24 1903	11.8	
3320	Feb 9 1903	11.7	
3305	Feb 17, 1903.	11.7	
3325	Jan 30, 1903	11.7	11.9
2960	Oct. 13, 1902	11.9	12.4
2953	Oct. 30, 1902	11.8	12.3
2931	Oct. 24, 1902	11.6	12.2
2885	Oct. 9 1902	11.7	12.3
2398	March 10, 1902	11.9	12.3
2309	Feb. 10, 1902	11.8	12.1
2156	Jan. 3, 1902	11.7	12.0
2057	Dec. 5 1901	11.8	12.0
1894	Oct. [[strikethrough]] 12 [[/strikethrough]]	21 1901	11.9 12.1
[[strikethrough]] 1890 [[/strikethrough]] 1819 Oct 3, 1901 11.5 12.0			
1793	Sept 26, 1901	12.3	12.0
1779	Sept. 24, 1901	11.8	12.4
1369	March 23, 1901	11.5	12.3
1328	March 7, 1901	11.8	12.2
1272	Feb 21, 1901	11.8	12.2
1270	Feb. 21, 1901	11.5	12.0
1216	Feb. 7, 1901	11.3	12.2
1110	Dec. 29, 1900	11.8	12.0
1101	Dec. 28, 1900	12.0	12.2
719	Feb 8, 1900	11.4	11.8
613	Dec. 20, 1899	11.3	12.0

172

Monday, Aug. 9, 1904

Variable discovered by ECP. north of Orion nebula est. magn. by Mrs. WPF

12 48	AC 4519	Jan 14, 1904	11.5	
	4434	Dec 24 1903	11.7	
	4263	Nov. 1903	11.7	
	[[margin]] 1.00 [[/margin]]			
	6094	Oct 24 1903	11.8	
	3320	Feb 9 1903	11.7	
	3305	Feb 17, 1903.	11.7	
	3325	Jan 30, 1903	11.7	11.9
	2960	Oct. 13, 1902	11.9	12.4
	2953	Oct. 30, 1902	11.8	12.3
	2931	Oct. 24, 1902	11.6	12.2
	2885	Oct. 9 1902	11.7	12.3
	2398	March 10, 1902	11.9	12.3
	2309	Feb. 10, 1902	11.8	12.1
	2156	Jan. 3, 1902	11.7	12.0
	2057	Dec. 5 1901	11.8	12.0
	1894	Oct. [[strikethrough]] 12 [[/strikethrough]]	21 1901	11.9 12.1
	[[strikethrough]] 1890 [[/strikethrough]] 1819 Oct 3, 1901 11.5 12.0			
	1793	Sept 26, 1901	12.3	12.0
	1779	Sept. 24, 1901	11.8	12.4
	1369	March 23, 1901	11.5	12.3
	1328	March 7, 1901	11.8	12.2
	1272	Feb 21, 1901	11.8	12.2
	1270	Feb. 21, 1901	11.5	12.0
	1216	Feb. 7, 1901	11.3	12.2
	1110	Dec. 29, 1900	11.8	12.0
	1101	Dec. 28, 1900	12.0	12.2
	719	Feb 8, 1900	11.4	11.8
	613	Dec. 20, 1899	11.3	12.0

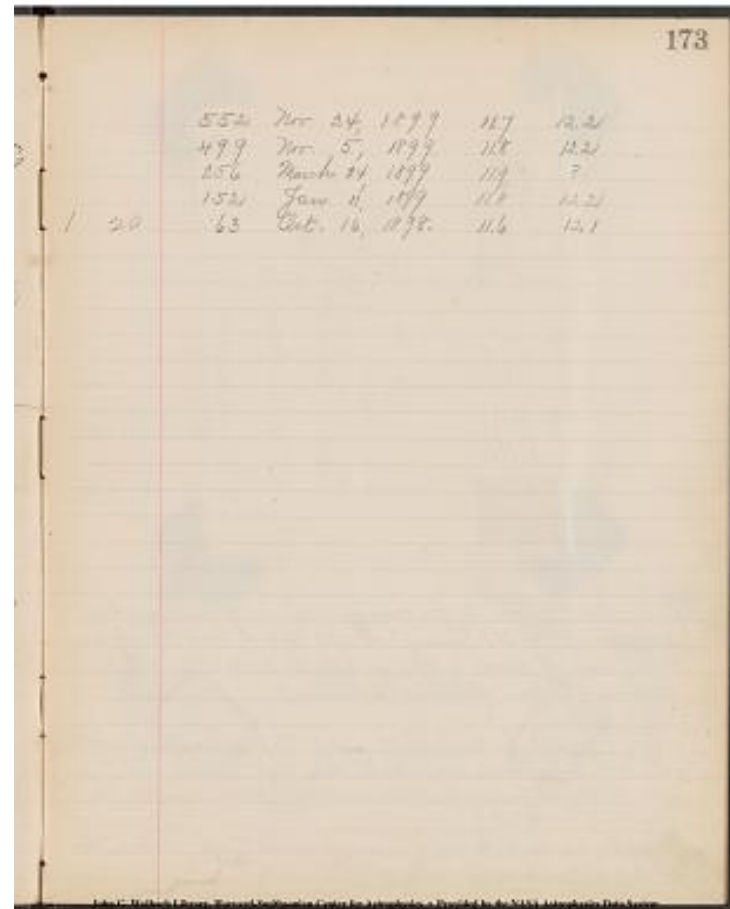
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Extracted Aug-29-2022 03:00:04

173

[[4 columned table]]
552|Nov. 24, 1899|11.7|12.2|
499|Nov. 5, 1899|11.8|12.2|
256|March 24 1899|11.9|?|
152|Jan. 11, 1899|11.8|12.2|
63|Oct. 16, 1898|11.6|12.1|

[[left margin]]
1 20
[[/left margin]]

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552	Nov. 24, 1899	11.7	12.2
499	Nov. 5, 1899	11.8	12.2
256	March 24 1899	11.9	?
152	Jan. 11, 1899	11.8	12.2
63	Oct. 16, 1898	11.6	12.1

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175

- 1^m 1^s Error of watch
12 40

1 3 41 Recorded time
1 4 12 Colson's time

[[image]]



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177

March 29, 1904.

Exam of plates to determine variation if any in CDM -38° 9405 - R.A. 14 21. 18.3 -38° 20.0' 93 (1875),
Sp. Mc. (var?) on A 6432.

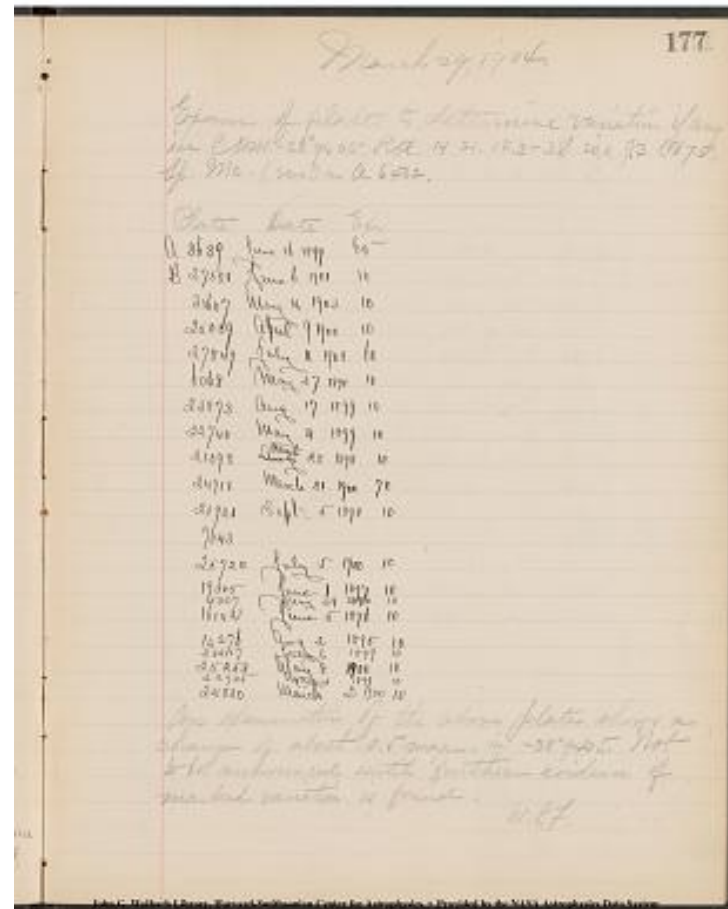
[[3 columned table]]

[Plate|Date|Ex.]

---|---|---

A 3639|June 16 1899|60^[[m]]|
B 27581|June 6 1901|10|
31607|May 4 1903|10|
25039|April 9 1900|10|
27849|July 11 1901|61|
6068|May 27 1891|10|
23873|Aug 17 1899|10|
22740|May 4 1899|10|
21098|March 28 1898|10|
24918|March 31 1900|70|
21921|Sept. 5 1898|10|
7643|
25720|July 5 1900|10|
19305|June 1 1897|10|
5327|May 29 1890|10|
161421|June 5 1896|10|
14276|Aug 2 1895|10|
23317|July 6 1899|10|
25253|May 8 1900|10|
22725|May 3 1900|10|
24830|March 2 1900|10|

Can [[elec...tre]] of the above plates shows a
change of about 0.5 [[mag..]], in -38 9405. Not
to be announced until further evidence of
marked variation is found.
W.P.F.



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Extracted Aug-29-2022 03:00:04

181

April 9, 1904.

Note on Examination of objects marked by E.J. King on plate I31457.

+42° 1514 6 ~~31.0~~ 5.5 +42 4.6 8.1 (1855).
Spectrum examined and found to be Class K? It may be
MD ~~but the identification of the lines is uncertain~~
lines is uncertain and one or more are due to defect.

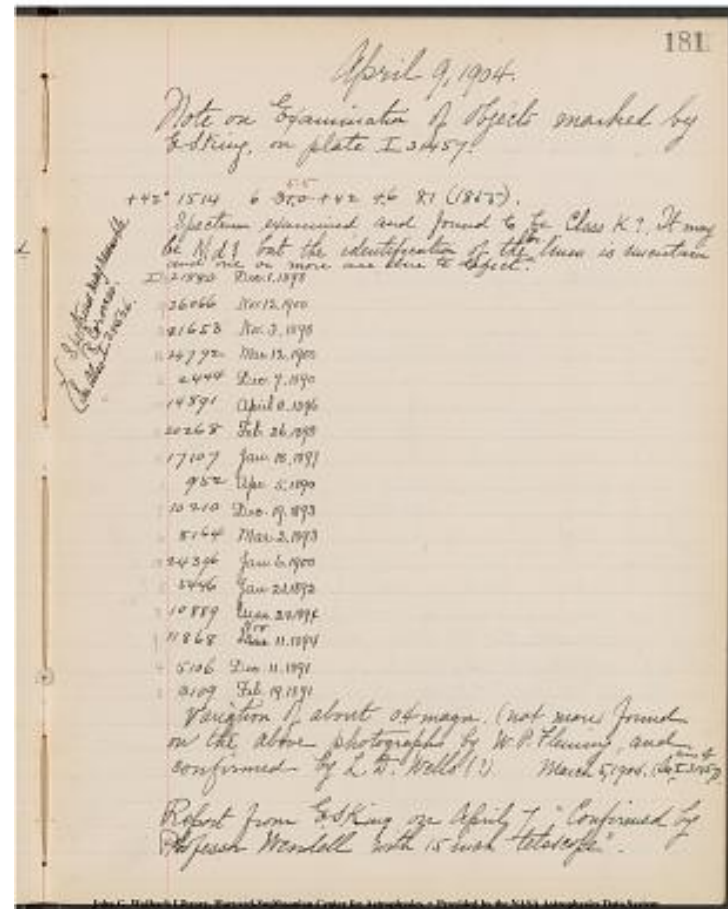
Spectrum may resemble R Coronae. See Also I24526.

[[3 columned table]]

14		21880		Dec. 1, 1898
17		26066		Nov. 12, 1900
13		21653		Nov. 3, 1898
16		24792		Mar. 12, 1900
2		2444		Dec 7, 1890
10		14891		April 11, 1896
12		20268		Feb. 26, 1898
11		17107		Jan. 18, 1897
1		952		Apr. 5, 1890
7		10210		Dec. 19 1893
6		8164		Mar 2, 1893
15		24396		Jan. 6, 1900
5		5446		Jan. 21, 1892
8		10889		Mar. 24, 1894
9		11868		Mar. Nov 11, 1894
4		5106		Dec. 11, 1891
3		3109		Feb. 19, 1891

Variation of about 0.4 magn. (not more found on the above photographs
by W.P. Fleming, and confirmed by L.D. Wells(?) March 5, 1904. (See
Cover of I31457).
Report from E.J. King on April 7 "Confirmed by Professor Wendell with
15 inch telescope".

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[[underlined]]April 11, 1904[[/underlined]]

Exam. of Plates for var. in R.A. 6^{h} 1.6^{m} $+43^{\circ}11''$ of. Md on I31457

[[4 columned table]]

|Pl.|Date|Ex.|

16	30076	Feb. 23 1903	13 ^h 13 ^m
10	21653	Nov. 3 1898	12
15	26066	Nov. 12 1900	10
3	3140	Feb. 22 1891	10
5	5446	Jan. 21 1892	10
2	3109	Feb. 19 1891	10
1	952	April 5 1890	10
4	5106	Dec. 11 1891	10
7	10210	Dec. 19 1893	13
6	8164	March 2 1893	13
9	17107	Jan. 18 1897	12
11	21880	Dec. 1 1898	14
13	24396	Jan. 6 1900	61
12	24361	Dec. 31 1899	67
8	10889	March 24 1894	14
14	24792	March 12 1900	14

Examination of above plates shows variation of about 2.5 magnitudes in the above star.

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182

April 11, 1904.

Exam. of Plates for var. in
R.A. 6^{h} 1.6^{m} $+43^{\circ}11''$ of. Md on I 31457.

Pl.	Date	Ex.
16	30076	Feb. 23 1903 13
10	21653	Nov. 3 1898 12
15	26066	Nov. 12 1900 10
3	3140	Feb. 22 1891 10
5	5446	Jan. 21 1892 10
2	3109	Feb. 19 1891 10
1	952	April 5 1890 10
4	5106	Dec. 11 1891 10
7	10210	Dec. 19 1893 13
6	8164	March 2 1893 13
9	17107	Jan. 18 1897 12
11	21880	Dec. 1 1898 14
13	24396	Jan. 6 1900 61
12	24361	Dec. 31 1899 67
8	10889	March 24 1894 14
14	24792	March 12 1900 14

Examination of above plates shows variation of about 2.5 magnitudes in the above star.

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Extracted Aug-29-2022 03:00:04

183

April 11, 1904.

Exam of Plates for var in
RA 6 11.3 +42 49 (1855) ~~and of~~ North
prec of two ft. cl. stars[^] [and of No. 6195 on I 31457 approx 1855 pos. 6
11.6 +42 46.] Sp Br lines on I31457.

[[3 columned table]]

Pl|Date|Ex|

---|---|---

I30076|Feb 23 1903|13|

21653|Nov 3 1898|12|

26066|Nov 12 1900|10|

~~3140~~|Feb 22 1891|10|~~3140~~

5446|Jan 21 1892|10|

3109|Feb 19 1891|10|

952|April 5 1890|10|

5106|Dec 11 1891|10|

10210|Dec 19 1893|13|

8164|March 2 1893|13|

17107|Jan 18 1897|12|

21880|Dec 1 1898|14|

24396|Jan 6 1900|61|

24361|Dec 31 1899|67|

10889|March 21 1894|14|

24792|March 12 1900|14|

Exam of above plate shows variation of about 0.5 in and about 0.6 magn
in the ~~above star~~ north prec. of two ft.
close stars. These changes may be photographic since the plates which
show the greatest changes are those which have coarse grain in the
film.

[Do not announce. Omit from Circular No. 80.] W.P.F.

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183

April 11, 1904.

Exam of plates for var in
RA 6 11.3 +42 49 (1855) ~~and of~~ North
prec of two ft. cl. stars[^] [and of No. 6195 on I 31457 approx 1855 pos. 6
11.6 +42 46.] Sp Br lines on I31457.

Pl	Date	Ex.
I 30076	Feb. 23 1903	13
21653	Nov. 3 1898	12
26066	Nov. 12 1900	10
3140	Feb. 22 1891	10
5446	Jan. 21 1892	10
3109	Feb. 19 1891	10
952	April 5 1890	10
5106	Dec. 11 1891	10
10210	Dec. 19 1893	13
8164	March 2 1893	13
17107	Jan. 18 1897	12
21880	Dec. 1 1898	14
24396	Jan. 6 1900	61
24361	Dec. 31 1899	67
10889	March 21 1894	14
24792	March 12 1900	14

Exam of above plate shows variation of about
0.5 in and about 0.6 magn in the ~~above star~~ north prec. of two
ft. close stars. These changes may be photographic since the
plates which show the greatest changes are those which have
coarse grain in the film.
[Do not announce. Omit from] W.P.F.
Circular No. 80.

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184

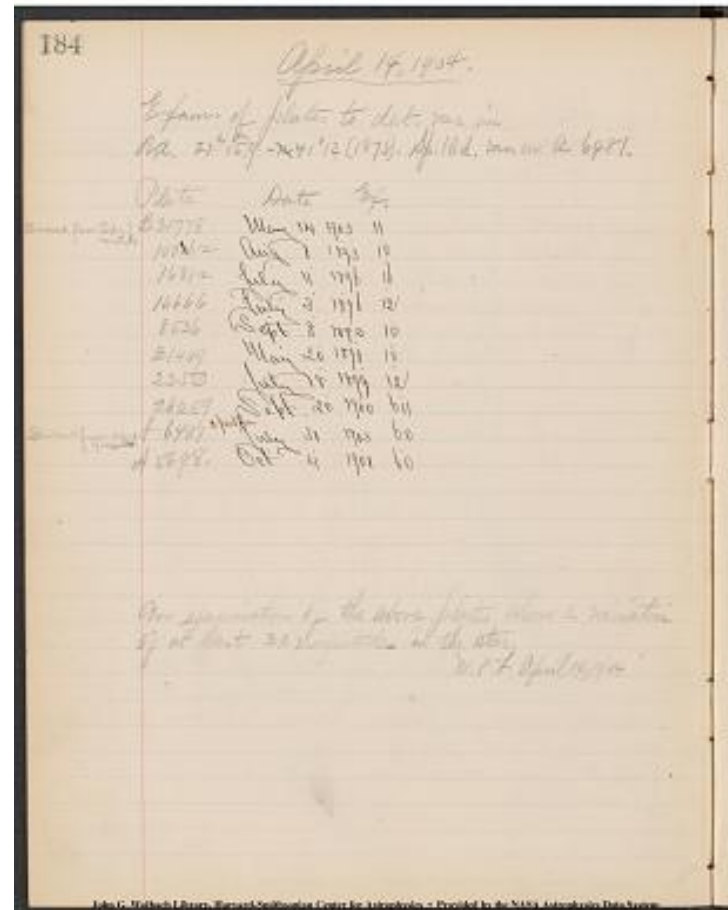
April 14, 1904

Exam. of plates to det. varia
R.A. 21 (? m) 15.9 -41.13 (1875) Sp. Md.(?)A 6481.

Plate|Date|[[E]].
Checked from [[City]] records
B31778| May 14 1903|11
10062| Aug 1 1893|10
16812| July 11 1896|16
16666| July 3 1896|12
8536| Sept 8 1892|10
21449| May 20 1898|10
23550| July 18 1899|12
26259| Sept 20 1900|64
A 6481 [[spectrum]]| July 31 1903|60
Checked from [[company]] of records.
A 5698.| Oct 4 1901|60

An examination of the above plates show a variation of at least 3.0
magnitudes in the star.

W.P.F. April 14, 1904



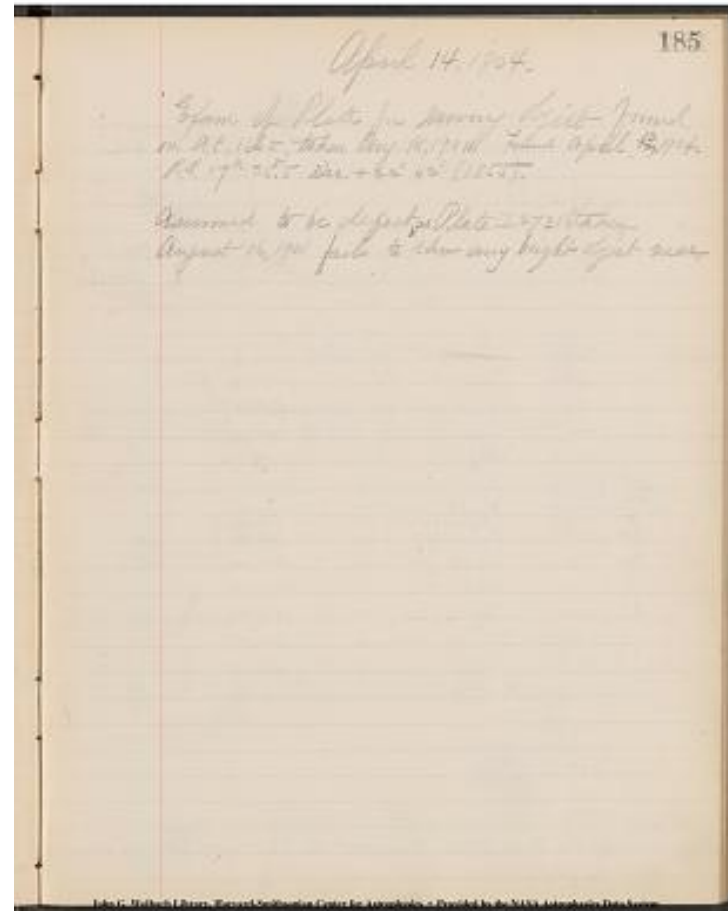
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Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

185

April 14, 1904

Exam of Plates for many object journal on A.C. 1665 taken Aug. 18, 1901. Found April ~~12~~ ~~13~~, 1904. Rd 17° 35.5° Dec. $+22^{\circ} 42'$ (1855)

Assumed to be defect, as plate I27316 taken August 16, 1901 fails to show any bright object near.



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
Transcribed and Reviewed by Digital Volunteers
Extracted Aug-29-2022 03:00:04

186
April 14, 1904

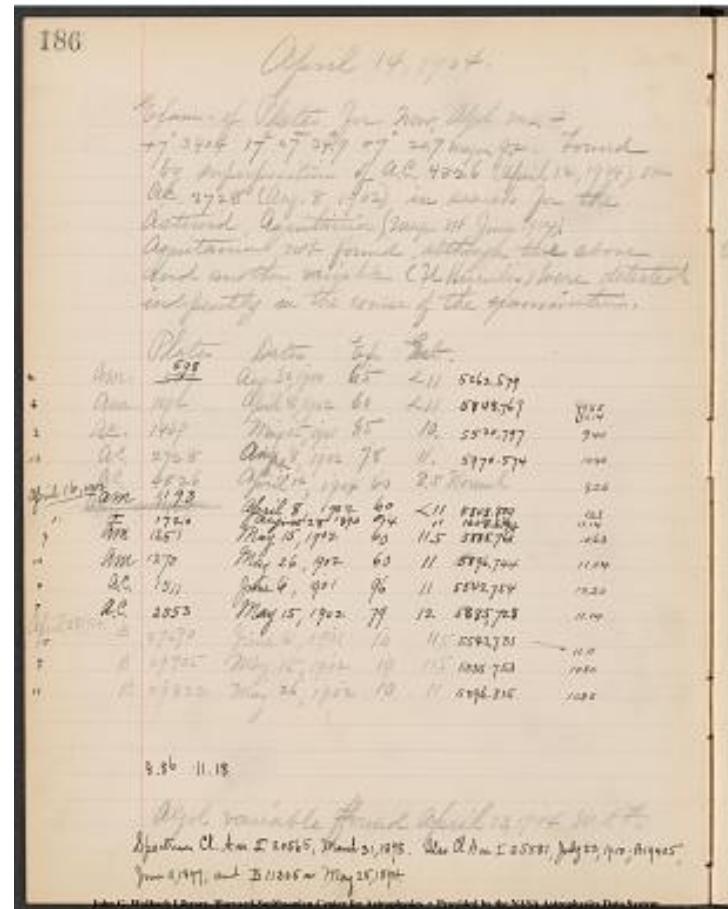
Exam. of Plates for new Algol var. -
+7° 34'04" 17^h 27^m 27^s +7° 20.7' magn. 9.2. Found by
superposition of A.C. 4826 (April 12, 1904) on A.C. 2728 (Aug. 8, 1902)
in search for the asteroid Aquitania, (Magn 8.4 June 1904). Aquitania
not found, although the above and another variable (U Herculis) were
detected independently in the course of the examination.

[Plates][Dates][Ex.][Est]
[---][---][---][---]

2 AM. [589][~~598~~][Aug. 30, 1900] 65 | <11 5262.579
6 AM [1192] April 8, 1902 | 60 | <11 5848.767
3 AC. [1469] May 15, 1901 | 85 | 10 5520.797
12 AC. [2728] August 8, 1902 | 78 | 11 5970.574
AC. [4826] April 12, 1904 | 60 | 8.5 normal
April 16, 1903
AM. [1193] April 8, 1902 | 60 | <11 5848.809
1 | [1720] August 28, 1890 | 14 | 11 1608.6174
9 AM. [1251] May 15, 1902 | 60 | 11.5 | 5885.76x
10 AM. [1270] May 26, 1902 | 60 | 11 5896.744
4 AC. [1511] June 6, 1901 | 96 | 11 5542.754
7 AC. [2553] May 15, 1902 | 79 | 12 5885.728
April 28, 1904 5 | B [27590] June 6, 1901 | 10 | 11.5 5542.781 [arrow]
11.11
5 B [29705] May 15, 1902 | 10 | 11.5 5885.753 | 10.80
11 B [29822] May 26, 1902 | 10 | 11 5896.815 | 10.85

8.86 | 11.18

Algol variable found April 13, 1904 W.P.F.
Spectrum Cl. A on I 20565, March 3, 1898. Also Cl A on I 25581, July
22, 1900; B10405,
June 5, 1897; and B11305 on May 25, 1894.



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[[Underlined]] April 27, 1904 [[/Underlined]]

Exam. of plate for var. in DM -10[°] 3353 R.A. 11^h 43^m 43.9^s Dec.-10[°] 24.1' 8.4 (1855) Sp. Mc[5?] dml31594.

Plate Date Ex.

I|31594|April 5 1904|60m
B|16125|June 5 1896|10m
B|21762|June 23 1898|10m
B|6032|May 22 1891|10m
B|19647|June 30 1897|10m
A.C.|574|Dec. 6 1899|58m
A.C.|276|April 10 1899|66m
A.C.|641|Dec. 30 1899|90m
A.C.|798|April 6 1900|26m
A.C.|799|April 6 1900|66m
A.C.|2277|Feb 5 1902|60m
A.C.|2445|March 31 1902|62m
A.C.|2527|May 8 1902|57m
A.C.|3055|Dec. 7 1902|40m
A.C.|3142|Jan. 1 1903|116m
A.C.|3314|Feb. 18 1903|67m
A.C.|3355|Feb. 24 1903|65m
A.C.|3350|March 1 1903|63m
A.C.|3513|April 18 1903|61m

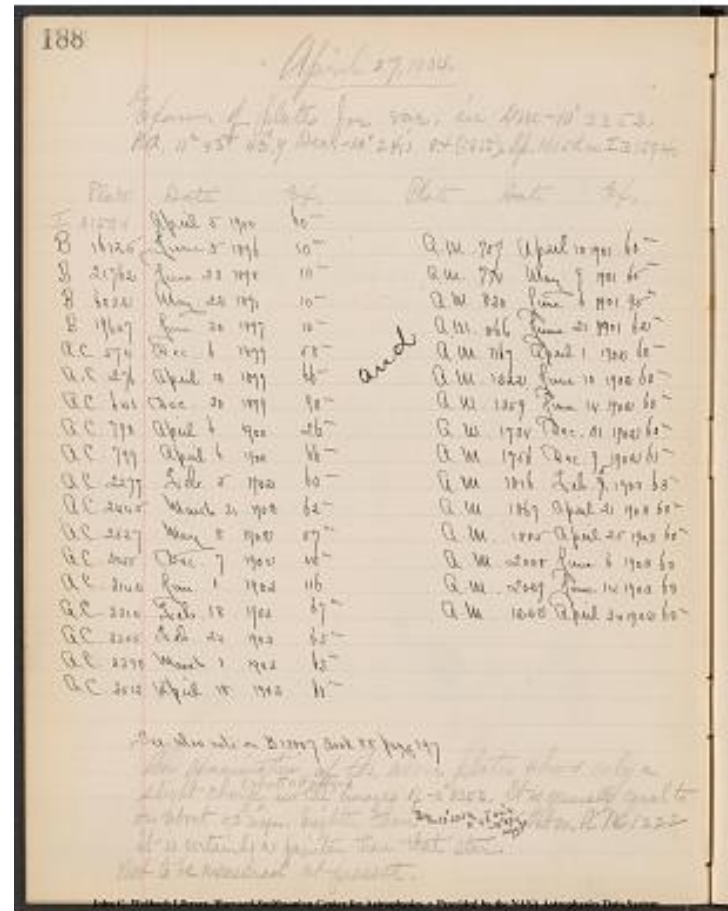
[[new column]]

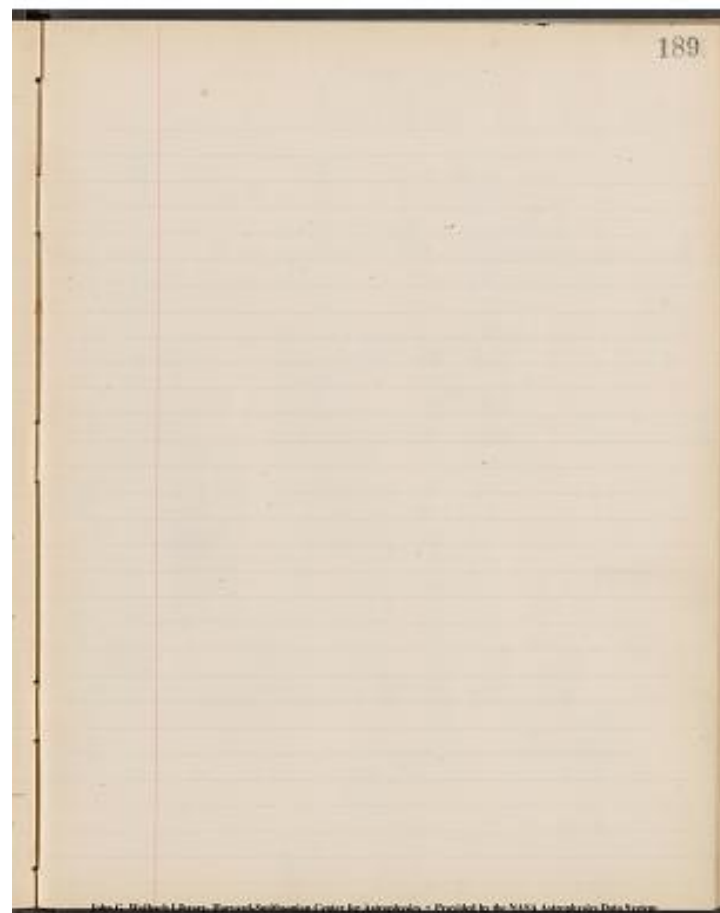
and

A.W.|757|April 10 1901|60m
A.W.|774|May 9 1901|65m
A.W.|830|June 6 1901|95m
A.W.|866|June 21 1901|62m
A.W.|1167|April 1 1902|60m
A.W.|1322|June 10 1902|60m
A.W.|1359|June 14 1902|60m
A.W.|1734|Dec. 31 1902|60m
A.W.|1756|Dec. 9 1902|61m
A.W.|1816|Feb. [[96?]] 1903|63m
A.W.|1869|April 21 1903|60m
A.W.|1885|April 25 1903|60m
A.W.|2008|June 6 1903|60
A.W.|2029|June 14 1903|60
A.W.|1222|April 30 1902|60m

See also note on B13807 Book 85 page 197

An examination of the above plates shows only a slight change [^](about 0.4 magn). in the images of -10°3353. It is generally equal to or about 0.3 magn. brighter than DM 10°3354 11h43m44.4s - 10°29.3 - mag. 9.0 but on AM1222 it is certainly 0.1 fainter than that star.
Not to be measured at present.





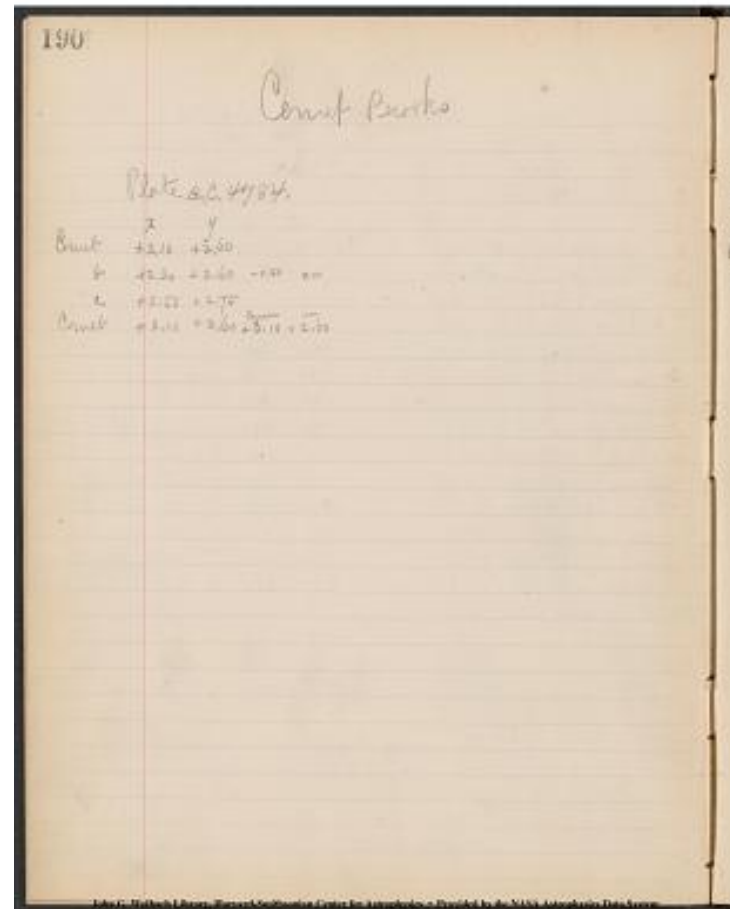
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190

Comet Brooks

Plate A.C. 4784.

	x	y		
Comet	+3.10	+2.60		
b	+2.30	+2.60	-0.80	0.00
c	+2.55	2.75		
		mean	m	
Comet	+3.10	+2.60	+3.10	+2.60



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 Extracted Aug-29-2022 03:00:04

191

May 25, 1904.
Eferm, f plates f V Ursae Majoris, 09015,

[[5-Column Table]]

Plate|Date|JD|EF|Est.|

Plate	Date	JD	EF	Est.
12473	March	15	15	15
1895	3258.628	10	9.5	
AC, 129	Dec. 16, 1898	4640.449	63	11.0 + 21.8
AC, 184	Jan. 30,			
1899	4685.153	65	9.5	11.5 ^{9.5}
66.8 x Reestarund	June 2, May 95.			
AC, 635	Dec. 29, 1899	5018.924	66	< 12 198.4
AC, 642	Jan. 1, 1900	5021.901	90	11.5 00
AC, 653	Jan. 3 1900	5023.781	64	11.4
AC, 812	April 11 1900	5121.608	60	9.50
AC, 2454	April 3 1902	5843.603	95	11.2 + 15.6
AC, 3141	Jan. 1			
1903	6116.803	95	95	64 9.5
AC, 3195	Jan 19			
1903	6134.49	1	1	146 9.4
AC, 3306	Feb 17 1903	6163.705	62	94
AC, 3354	Feb 24			
1903	6170.	103	103	659 63 95
AC, 3374	Feb 28 1903	6174.806	72	96
AC, 3381	March 1 1903	6175.772	64	95
AC, 3399	March 6			
1903	6180.64	8	8	9 65 9.8
AC, 3471	April, 1 1903	6206.632	62	11.5 167.1
AC, 3506	April 17			
1903	6222.60	8	8	9 71 11.5 183.1
AC, 3546	April 25 1903	6230.601	60	< 11 04.9
AC, 3586	May 2 1903	6237.600	68	10.5 6.6
AC, 4793	April 3 1904	6574.691	60	9.7

191

May 25, 1904.
Expos. of plates of V Ursae Majoris, 09015.

Plate	Date	JD	EF	Est.
I 12473	March	15	15	15
AC, 129	Dec. 16, 1898	4640.449	63	11.0 + 21.8
AC, 184	Jan. 30,			
AC, 635	Dec. 29, 1899	5018.924	66	< 12 198.4
AC, 642	Jan. 1, 1900	5021.901	90	11.5 00
AC, 653	Jan. 3 1900	5023.781	64	11.4
AC, 812	April 11 1900	5121.608	60	9.50
AC, 2454	April 3 1902	5843.603	95	11.2 + 15.6
AC, 3141	Jan. 1			
AC, 3195	Jan 19			
AC, 3306	Feb 17 1903	6163.705	62	94
AC, 3354	Feb 24			
AC, 3374	Feb 28 1903	6174.806	72	96
AC, 3381	March 1 1903	6175.772	64	95
AC, 3399	March 6			
AC, 3471	April, 1 1903	6206.632	62	11.5 167.1
AC, 3506	April 17			
AC, 3546	April 25 1903	6230.601	60	< 11 04.9
AC, 3586	May 2 1903	6237.600	68	10.5 6.6
AC, 4793	April 3 1904	6574.691	60	9.7

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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192

May 26, 1904

Eferm, of plates to determine vas if any in sten Ra, $11^{\circ}46.6'[[m]] + 19^{\circ}39'(1855)$. (Dp. Mesd m l 31692, "Very ft, may be due to defect.")

[[3-Column Table]]

Plate|Date|Ef,|

---|---|---

| 24481|Jan 26 1900|95^[[m]]|

| 20673|April 8 1898|13|

| 14511|July 24 1896|10|

| 15247|June 3 1896|7|

| 6148|April 24 1892|14|

| 84903|April 11 1893|10|

| 17945|April 20 1897|10|

| 25428|June 9 1900|12|

| 26622|July 9 1901|10|

| 22490|July 25 1899|14|

| 25087|April 8 1900|11|

| 22601|March 24 1899|12|

| 28548|March 2 1902|20|

| 30534|May 21 1903|12|

An exam of the above plate fails to show any evidence of fav. in the star R.d. $11^{\circ}46.4'[[m]]$, Dec. $+19^{\circ}39'$; (1855).

192

May 26, 1904.

Examination of plates to determine var. if any in star R.d. $11^{\circ}46.4'[[m]]$, Dec. $+19^{\circ}39'$; (1855). (Dp. Mesd m l 31692. "Very ft. may be due to defect.")

Plate	Date	Ex.
I 24481	Jan 26 1900	95
I 20673	April 8 1898	13
I 14511	July 24 1896	10
I 15247	June 3 1896	7
I 6148	April 24 1892	14
I 84903	April 11 1893	10
I 17945	April 20 1897	10
I 25428	June 9 1900	12
I 26622	July 9 1901	10
I 22490	July 25 1899	14
I 25087	April 8 1900	11
I 22601	March 24 1899	12
I 28548	March 2 1902	20
I 30534	May 21 1903	12

An exam of the above plate fails to show any evidence of fav. in the star R.d. $11^{\circ}46.4'[[m]]$, Dec. $+19^{\circ}39'$; (1855).

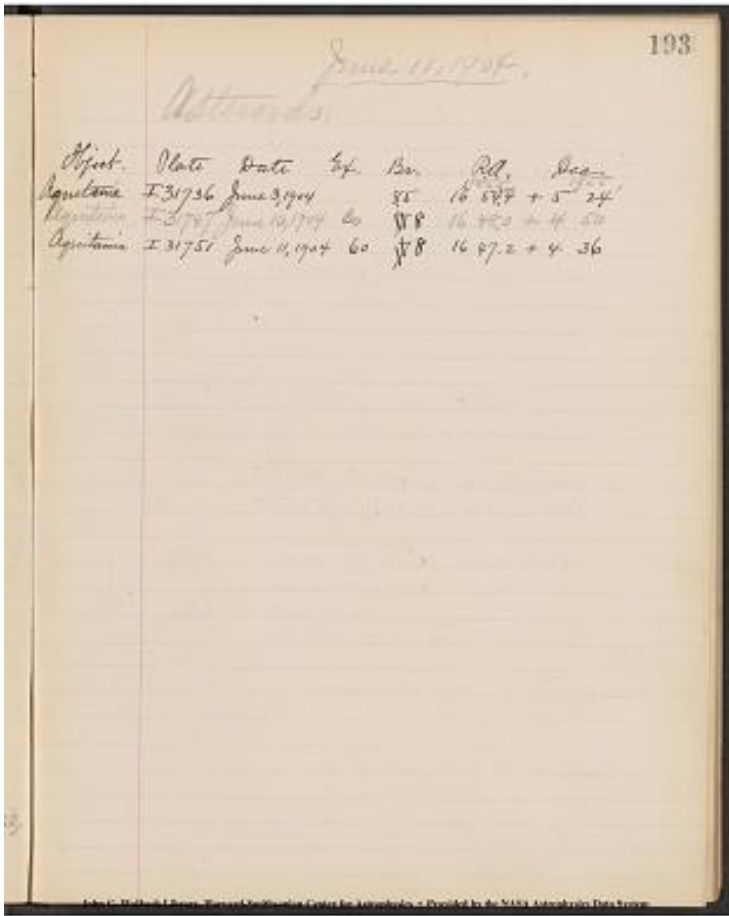
Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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June 11, 1904

Asteroids.

[7 columned table]						
Object	Plate	Date	Ex.	Br.	R.A.	Dec.
---	---	---	---	---	---	---
Aquitania	I 31736	June 3, 1904			8.5 16 ^h 54.4 ^m 1855	+ 5° 24' 1855
Aquitania	I 31747	June 10, 1904			8.5 16 ^h 48.0 ^m 1855	+ 4° 50' 1855
Aquitania	I 31751	June 11, 1904			8.5 16 ^h 47.2 ^m 1855	+ 4° 36' 1855

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Provided by the NASA Astrophysics Data Systems



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August 11, 1904.

Rough Meas. to det pos. of Phoebe.

Plate a 6677

Measured distance of dot marked on pl. by g.e.p.
from BD-16 degrees 58'16" R, CL, 21 22 30.96 - 16 40 42, 3
~~(1855)~~ (1900)

x. y 14.9

2.80+ 3.70

2.85+ 3.75

Dist 2.82+3.72

4/14.88 39 34 24 37 28.3

21 23 44.4

45 60 72.7

Phoebe is nh *

~~Phoebe Aug 8 '04 21^h 19^m 42^s~~

~~Phoebe Aug 8-04 21^h 23^m 0^s - 16 degrees 36'.4
22 46-~~

-16 degrees 58'16" (1900) 21 12 31.0-16 40.7 31.0 16 40.7

13.3+1.0 13.3 1.0

" (1904) 21 22 44.3 -16 39.7 3.1 0.3

14.9 + 2.8 14.9 28/41

[?] 21 22 59.2 -16 degrees 36'.9 02.3 -16 36.6

[?] 1904.0 21 21 11.29-22 49 38.4

14.43 17.5

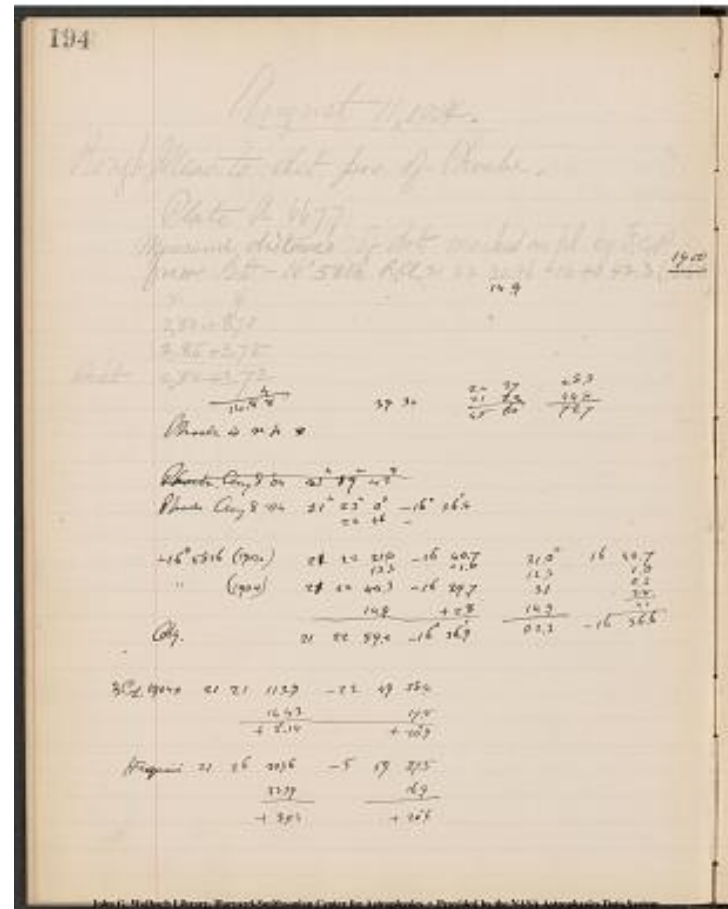
+3^h[5], 14 +20^h[11], 9

[?] 21 26 30.36 -5 59 37.5

33.39 16.9

+3.03 +20.6

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September 7, 1904.

Exam. of plates for D ($21^{\text{h}} 44.0^{\text{m}} +34^{\circ} 53'$) of $+34^{\circ} 4539$.

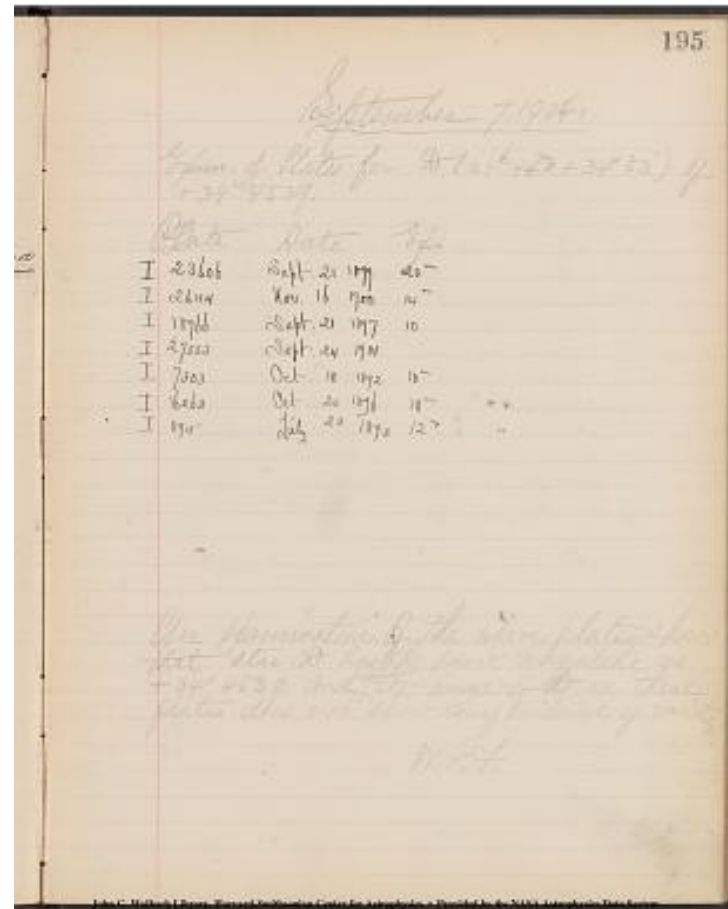
[3 columned table]

Plate|Date|Ex.

Plate	Date	Ex.
23606	Sept. 21 1899	20 ^m
26114	Nov. 16 1900	14 ^m
18966	Sept. 21 1897	10
27553	Sept. 24 1902	
7303	Oct. 10 1892	10 ^m
16263	Oct. 24 1896	10 ^m
8915	July 23 1893	12 ^m

An examination of the above plates shows that star D has the same magnitude as $+34^{\circ} 4539$. And ~~that~~ the image of D on these plates does not show any evidence of variation.

W.P.F.



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196 June 24, 1905.
Meas. of Oclo

A 6637 April 4, 1904 Ex. 90^m 13^h 24^m -14^h 54'

[[5 column table]]
| x | y | x | y |

phi|[[strikethrough]]+0.10|[[strikethrough]]-1.05
|[[strikethrough]]+13.50|[[strikethrough]]+13.65|-1.05|+13.65
phi|[[strikethrough]]-0.55|[[strikethrough]]-
1.60|[[strikethrough]]13.70|[[strikethrough]]+13.95|-1.65|+13.90
a|+3|[[strikethrough]]4|[[strikethrough]]8|[[?]].10|+1.30|+33.10|+1.30
b|+15.90|-18.25|+15.90|-18.25
c|+11.80|+25.25|+11.80|+25.25
d|-0.80|+26.85|-0.80|+26.85
e|-1.15|+29.90|-1.10|+29.90
f|-20.55|+3|[[strikethrough]]0|[[strikethrough]]3.95|-20.55|+33.90
g|-24.85|+30.55|-24.85|+30.55
h|-33.25|+9.25|-33.25|+9.25
k|-41.75|+13.75|-41.80|+13.70
phi|-1.05|+13.65|-1.05|+13.65
phi|-1.60|+13.90|-1.65|+13.95

[[formula]]

196

June 24, 1905

Meas. of Oclo

U. 6637 April 4, 1904 Ex. 90^m 13^h 24^m -14^h 54'

a	+15.90	-18.25	+15.90	-18.25
b	+11.80	+25.25	+11.80	+25.25
c	-0.80	+26.85	-0.80	+26.85
d	-1.15	+29.90	-1.10	+29.90
e	-24.85	+30.55	-24.85	+30.55
f	-33.25	+9.25	-33.25	+9.25
g	-41.75	+13.75	-41.80	+13.70
h	-1.05	+13.65	-1.05	+13.65
i	-1.60	+13.90	-1.65	+13.95

12	15	+18	69	2	5
135			60	47	5
11	480	+20	0	201	
25			17	1006	
11	484	+20	17	306	
				1530	
				26	

Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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Extracted Aug-29-2022 03:00:04

197
June 24, 1905

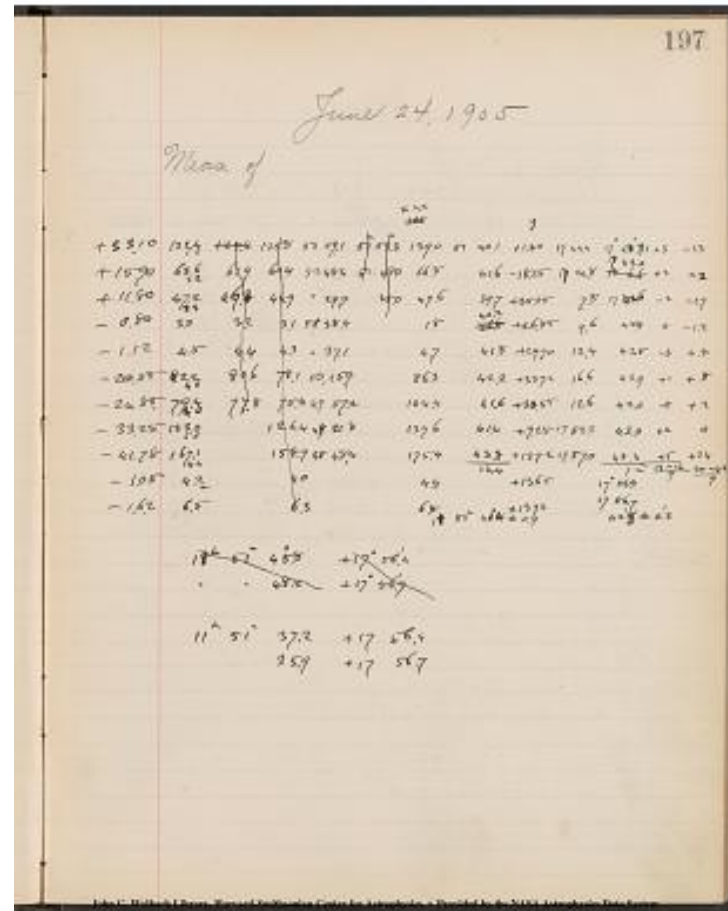
Meas. of

~~105~~ ~~x42~~

+33.10 | 132.4 | ~~125.8~~ | 125.8 ~~53 59.1~~
~~51 53.3~~ | 139.0 | 57 40.1 +1.30 | 17 44.4
17° 43.1' +3 -1.3
+15.90 | 63.6 ~~61.9~~ | 60.4 ~~52 48.4~~ |
~~51 48.0~~ | 66.8 | 50 41.6 | -18.25 | 17 29.4
| 18 6.6 ~~17 43.0~~ | +2 +2
+11.80 | 47.2 | ~~47.3~~ | 44.9 ~~52 | 299 |~~
~~35.0~~ | 49.6 | 39.7 | +25.25 | 7.8 | 17 |
42.6 | -2 | -1.7 |
-0.80 | 3.2 | ~~3.2~~ | 3.1 ~~51 | 38.4 | 1.8 |~~
~~36.6~~ | 40.2 | -26.85 | 9.6 | 42.8 | 0 | -1.2 |
-1.12 | 4.5 | ~~4.4~~ | 4.3 ~~51 | 37.1 | 4.7 |~~
41.8 | +29.90 | 12.4 | 425 | -3 | +4 |
-20.55 | 82.2 | ~~80.6~~ | 78.1 ~~50 | 15.9 |~~
86.3 | 42.2 | +33.92 | 16.6 | 42.9 | +1 | +8 |
-26.85 | 79.4 | ~~77.8~~ | 75.4 ~~49 | 57.2 |~~
104.4 | 41.6 | +30.55 | 12.6 | 42.0 | -8 | +2 |
-33.25 | 133.0 | ~~12.64~~ | 49 | 218 | 139.6
| 41.4 | +9.25 | 17 | 52.2 | 43.0 | +2 | 0 |
-41.78 | 167.1 | ~~158.7~~ | 48 | 48.6 | 175.6
| 43.8 | +13.72 | 1757.0 | 43.3 | +5
| +26 |
-1.05 | 4.2 | ~~4.0~~ | 4.4 | 124 | +13.65 |
17° 56.4' ~~72~~ | ~~13-13~~ ~~9~~ | ~~40-42~~ ~~9~~ |
-1.6.2 | 6.5 | ~~6.3~~ | 6.8 | 17 56.7 |
11 51' ~~414 +1392 +0.9 17 56.7 42.~~ 8
~~7 +0.3'~~

~~18^h~~ ~~51^m~~ 45.8° +17° 56.4'
18^h ~~51^m~~ 48.2 +17° 56.7' ~~51^m~~

11^h ~~51^m~~ 37.2 +17 56.4
35.9 +17 56.7

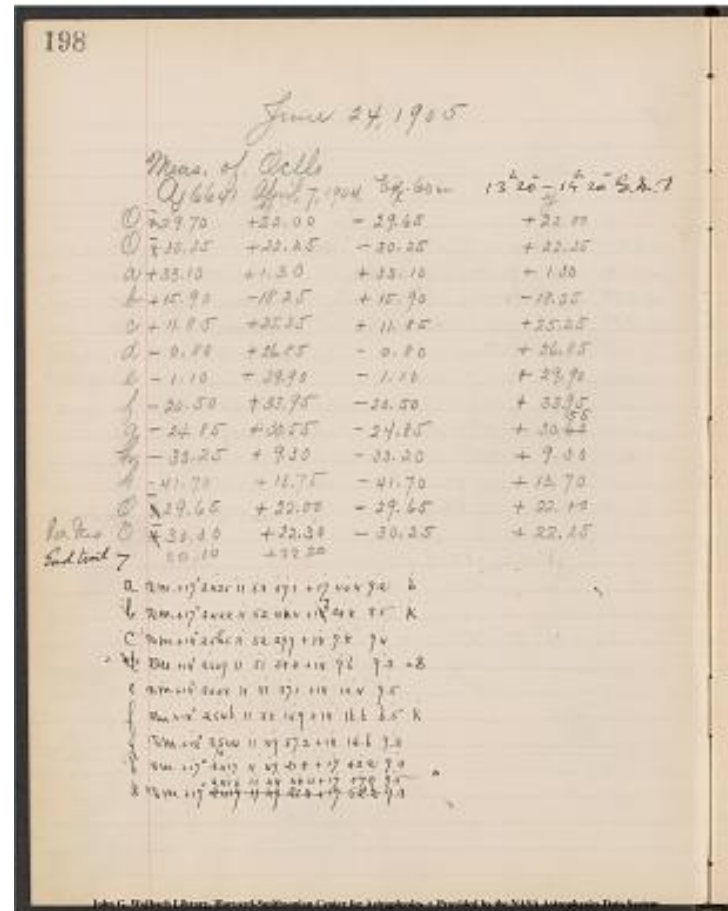


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198
June 24, 1905
Meas. of Occlio
A6641 April 7, 1904 Ex 60m

[[5 column table]]
| A6641|April 7, 1904|Ex 60m|13^[[h]]20^[[m]]-14^[[h]]20^[[m]] E.M.T|
|---|---|---|---|---|
O|[[strikethrough]]+[[strikethrough]]-29.70|+22.--|-29.65|+22.00|
O|[[strikethrough]]+[[strikethrough]]-30.25|+22.25|-30.25|+22.25|
a|+33.10|+1.30|+33.10|+1.30|
b|+15.90|-18.25|+15.90|-18.25|
c|+11.85|+25.25|+11.85|+25.25|
d|-0.80|+26.85|-0.80|+26.85|
e|-1.10|+29.90|-1.10|+29.90|
f|-20.50|+33.95|-20.50|+33.95|
g|-24.85|+30.55|-24.85|+30.55|
h|-33.25|+9.30|-33.20|+9.30|
k|-41.70|+13.75|-41.70|+13.70|
O|[[strikethrough]]+[[strikethrough]]-29.65|+22.00|-29.65|+22.00|
Pcr. Scans O|[[strikethrough]]+[[strikethrough]]-30.30|+22.30|-
30.25|+22.25|
|End trail 7|30.10|+22.20| | |

---|---|---|---|---|
a|DM+17°2425|11|53|59.1|+17|44.4|9.2|b|
b|DM+17°2422|11|52|48.4|+1|[[strikethrough]]8|[[strikethrough]]7|24.8|8.
5|K|
c|DM+18°25|[[strikethrough]]4|[[strikethrough]]55|11|52|29.9|+18|7.8|9.4|
|
d|DM+18°2549|11|51|38.4|+18|9.6|9.3|aB|
e|DM+18°2548|11|51|37.1|+18|12.4|9.5||
f|DM+18°2546|11|50|15.9|+18|16.6|6.5|K|
g|DM+18°2544|11|49|57.2|+18|12.6|9.3||
h|DM+17°2417|11|49|21.8|+17|52.2|9.3||
k|DM+17°|[[strikethrough]]2417|[[strikethrough]]2416|[[strikethrough]]11|[[
/strikethrough]]11|[[strikethrough]]49|[[strikethrough]]48|[[strikethrough]]2
1.8|[[strikethrough]]48.4|[[strikethrough]]17|[[strikethrough]]17|[[striket
hrough]]53.3|[[strikethrough]]57.0|
|[[strikethrough]]9.3|[[strikethrough]]9.5||



Project PHaEDRA - Williamina P. Fleming - Variable Stars #14
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[[Top Right Corner]]199

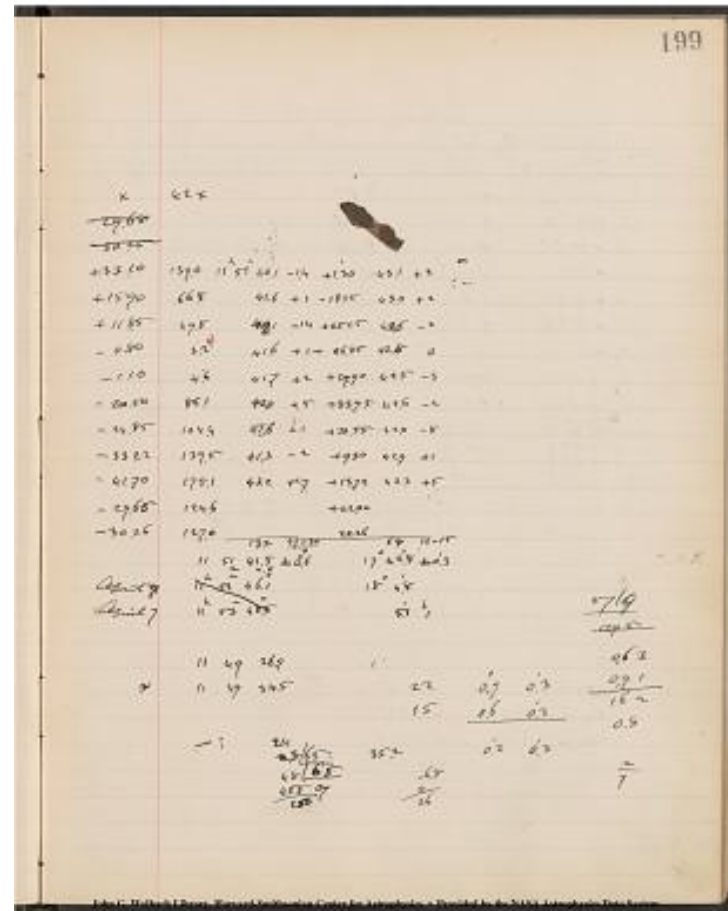
x | 42x
~~[[strike-through]]~~ -29.68
~~[[strike-through]]~~ -30.25

+33.10 | 139.0 11h 51n 60.1 -1.4 +1.30 43.1 +3
+15.90 | 66.8 41.6 +1 -18.25 43.0 +2
+11.8.5 | 49.8 ~~[[?]]~~ 40.1 -1.4 +25.25 42.6 -2

- 0.80 | 3.2⁴ 41.6 +1 +26.85 42.8 0
- 1.10 | 4.6 41.7 +2 +29.90 42.5 -3
-20.50 | 86.1 42.0 +5 +33.95 42.6 -2
-24.85 | 104.4 41.6 +1 +30.55 42.0 -8
-33.22 | 139.5 41.3 -2 +9.30 42.9 +1
-41.70 | 175.1 43.2 +1.7 +13.72 43.3 +5
-29.66 | 124.6 +22.00
-30.26 | 127.0 22.26

13.2 27-30 68 11-15
9
8
11 51 41.5 ± 0.6 17° 42.8 ± 0.3
4.6

h 6
April~~[[?]]~~ 7 | ~~[[strike-through all]]~~ 11 53 46.1 18° 4.8
h 5
April~~[[?]]~~ 7 | ~~[[strike-through all]]~~ 11 53 48.5 5.1 57/9
0.9 5
11 49 36.9 0.6 3
5
11 49 34.5 22 0.9 0.3 0.9 1
15 0.6 0.3 16 2 0.8
- i 2.4
2.8 ~~[[?]]~~ 65 35.2 0.2 0.3
48 ~~[[?]]~~ 65 6.5 2
455 07 4 7
250 26



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June 30, 1905

A 6978. Sept. ~~29~~28, 1904 Exp.
120ⁿ[[n.]]

Meas. of Asteroid near Saturn

|x|y|x|y|

A¹[[1]]+5.85|+0.55|+5.85|+0.55

A²[[2]]+6.05|+0.55|+6.05|+0.55

a|-11.85|+0.60|-11.85|+0.60|-17.81|+0.05

b|~~[[1]]~~+~~[[2]]~~-5.25|+4.40⁴[[4.38]]|-5.25|+4.35|-
11.21|+3.83

c|-2.65|+10.65|-2.65|+10.65|-8.61|+10.10

d|+5.75|-5.30⁴[[5.32]]|+5.75|-5.35|-0.21|-5.87

~~[[1]]~~~~[[2]]~~d|~~[[1]]~~~~[[2]]~~

e|+14.55|-2.30|+14.55|-2.30|+8.59|-2.85

A¹[[1]]+5.85|+0.55|+5.85|+0.55

A²[[2]]+6.10|+0.55|+6.10|+0.55

Mean A¹[[1]]+5.85|+0.55

Mean A²[[2]]+6.08+0.55[[u]]

Final Mean+5.96|+0.55[[u]]

[[right margin]].23

42[[u]]

46

92[[u]]

.966[[right margin]]

1555 positions magn.

a=[Dm]-17° 6206 21 4 48.9 -17° 46'[[']].1 9.2 A

b=[Dm]-17° 6209 21 5 16.9 -17 42.8 9.9

c=[Dm]-17° 6210 21 5 26.6 -17 36.2 9.0

d=[Dm]-17° 6213 21 6 2.8 -17 52.0 9.1 A

e=[Dm]-17° 6214 21 6 39.3 -17 49.0 9.0 A

log cos 17° 46' 9.9788

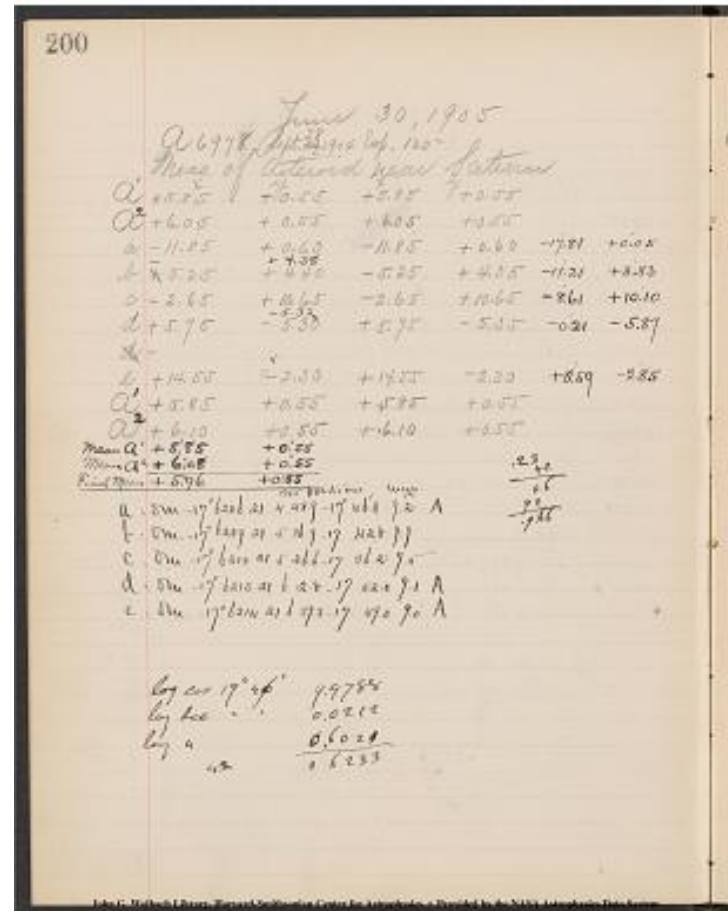
log sec " " 0.0212

log u 0.602~~0~~1[[u]]

4.2|0.6233

[[bottom of the page]]

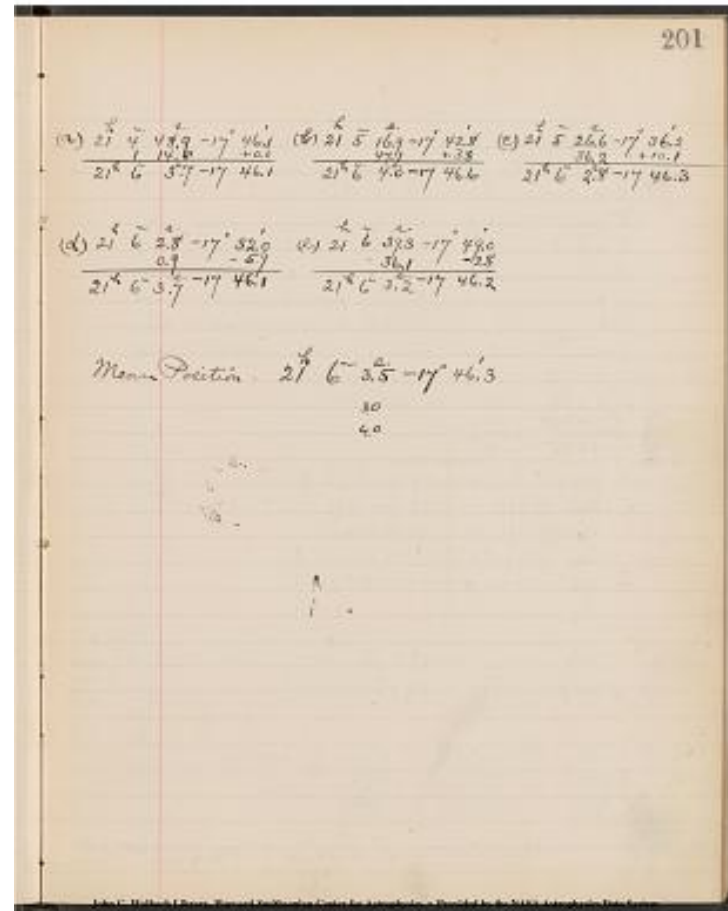
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(a) $21^{\circ} 4' 48''$ $16^{\circ} 5' 9''$ $17^{\circ} 46' 1''$ (b)
 $21^{\circ} 4' 5''$ $16^{\circ} 5' 9''$ $17^{\circ} 42' 8''$ (c)
 $21^{\circ} 4' 5''$ $16^{\circ} 5' 6''$ $17^{\circ} 36' 2''$
 $\frac{1}{1} \frac{14.8}{+0.0} \frac{1}{1} \frac{47.1}{+3.8}$
 $21^{\circ} 4' 6''$ $16^{\circ} 5' 7''$ $17^{\circ} 46' 1''$ $21^{\circ} 4' 6''$ $16^{\circ} 5' 7''$ $17^{\circ} 46' 6''$
 $21^{\circ} 4' 6''$ $16^{\circ} 5' 8''$ $17^{\circ} 46' 3''$

(d) $21^{\circ} 4' 6''$ $16^{\circ} 5' 8''$ $17^{\circ} 52' 0''$ (e)
 $21^{\circ} 4' 6''$ $16^{\circ} 5' 3''$ $17^{\circ} 49' 0''$
 $\frac{1}{1} \frac{0.9}{-5.9} \frac{1}{1} \frac{36.1}{2.8}$
 $21^{\circ} 4' 6''$ $16^{\circ} 5' 3''$ $17^{\circ} 46' 1''$
 $21^{\circ} 4' 6''$ $16^{\circ} 5' 2''$ $17^{\circ} 46' 2''$
Mean Position. $21^{\circ} 4' 6''$ $16^{\circ} 5' 5''$ $17^{\circ} 46' 3''$
3.0
4.0



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202

June 30, 1905.

Meas. of Asteroid near Saturn
A 6979 Sept. 29 1904. Exp 120^h[[m]]

[[6-Column Table]]

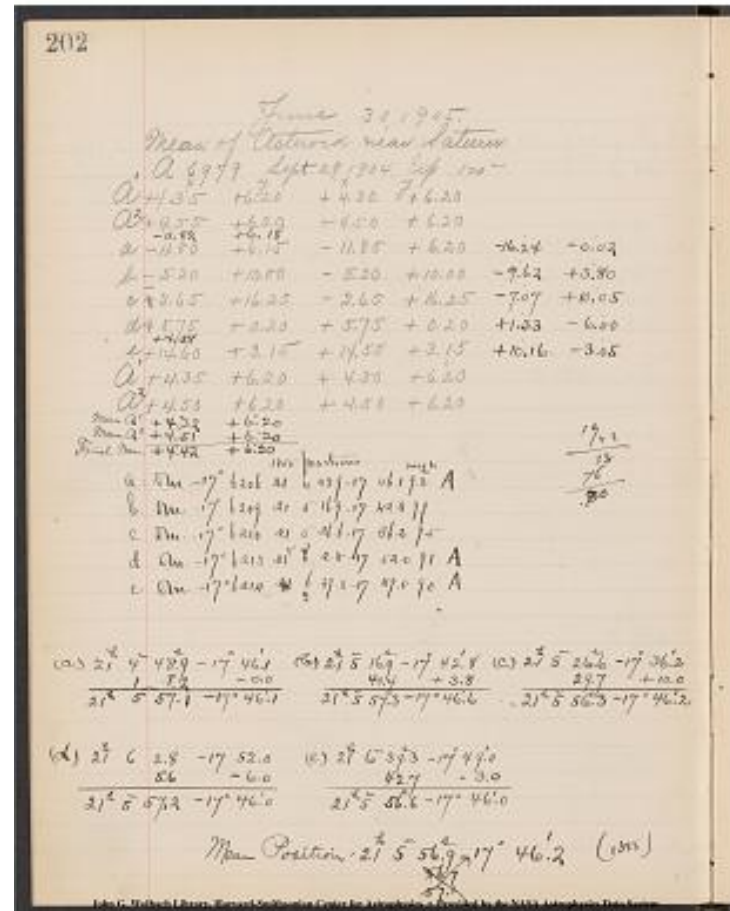
x y x y					
A ^h [[1]]+4.35+6.20+4.30+6.20					
A ^h [[2]]+4.55+6.20+4.50+6.20					
a -11.80 ^h [-11.82]]+6.15 ^h [+6.18]]-11.85+6.20 -16.24 -0.02					
b -5.20+10.00 -5.20+10.00 -9.62+3.80					
c [[striketrough]]+[[striketrough]] ^h [-]]2.65+16.25 -2.65+16.25 -7.07+10.05					
d +5.75+0.20+5.75+0.20+1.33 -6.00					
e +14.60 ^h [[+14.58]]+3.15+14.55+3.15+10.16 -3.05					
A ^h [[1]]+4.35+6.20+4.30+6.20					
A ^h [[2]]+4.50+6.20+4.50+6.20					
Mean A ^h [[1]]+4. ^h [[^h]]32+6 ^h [[^h]].20					
Mean					
A ^h [[2]]+4. ^h [[^h]]51[[^h]]+6. ^h [[^h]]20[[^h]]					
ne]]					
Trial Mean.+4 ^h [[^h]].42+6 ^h [[^h]].20					
[[right margin]]+19.42[[^h]]38[[^h]]76					
[[crossed-out]]+8[[^h]]90[[^h]]					

1855 positions mag"

[[10-Column Table]]

a= hm. -17° 6206 21 4 48.9-17 46.1 9.2 A
b. hm. -17° 6209 21 5 16.9-17 42.8 9.9
c hm. -17° 6210 21 5 26.6-17 36.2 9.5
d hm. -17° 6213 21 6 2.8-17 52.0 9.1 A
e hm. -17° 6214 21 6 39.3-17 49.0 9.0 A

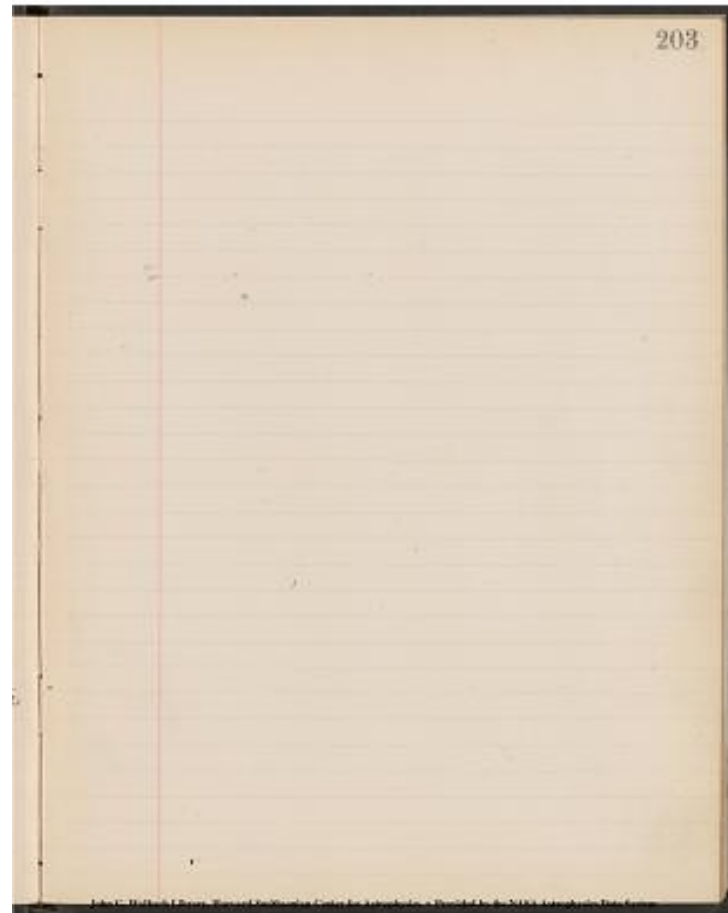
(a)|21^h[[^h]]4^h[[^h]]48^h[[^h]].9|-17^h[[^h]]
46^h[[^h]].1|(b)|21^h[[^h]]5^h[[^h]]16.9^h[[^h]].-
17^h[[^h]]42^h[[^h]].8|(c)|21^h[[^h]]5^h[[^h]]26.^h[[^h]].6|-17^h[[^h]]36^h[[^h]].2|
[[~~crossed-out~~]]+18.2|-0.0[[^h]]40.4+3.8
[[~~crossed-out~~]]+29.7+10.0[[^h]]
21^h[[^h]]5^h57.1|-17°|46^h[[^h]].1|21^h[[^h]]5^h[[^h]]57.^h[[^h]].3|-
17°|46^h[[^h]].6|21^h[[^h]]5^h[[^h]]56.^h[[^h]].3|-17°|46^h[[^h]].2|
(d)|21^h[[^h]]6|2.8|-17 52.0|(e)|21^h[[^h]]6^h[[^h]]39^h[[^h]].3|-17^h[[^h]]49^h[[^h]].0|
[[~~crossed-out~~]]5.6|-6.0[[^h]]42.7|-3.0 [[^h]]
21^h[[^h]]5^h[[^h]]57.2|-17°|46^h[[^h]].0|21^h[[^h]]5^h[[^h]]56^h[[^h]].6|-17°|46^h[[^h]].0|
Mean Position. 21^h[[^h]]5^h[[^h]]56^h[[^h]].9|-17°|46^h[[^h]].2|(1855)
[[~~crossed-out~~]]56.7[[^h]]
[[~~crossed-out~~]]57.1[[^h]]



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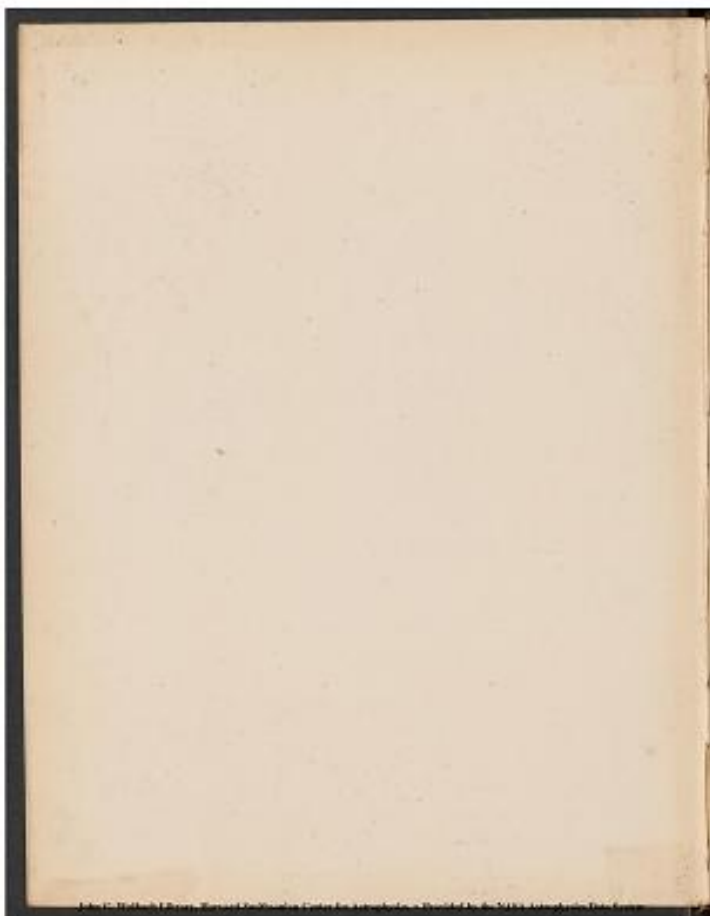
203

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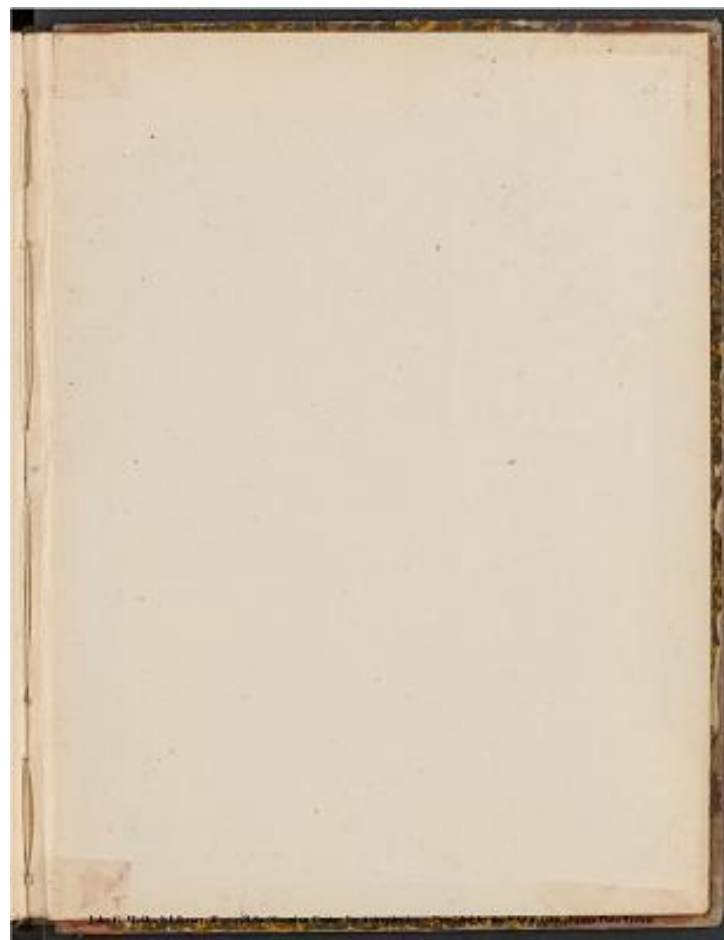
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[[back cover]]



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