

KG
11366
199

Ida E. Woods
Book 23.
Cluster Variables.

MS.
6362
6541

KG11366.199

Vars near Clusters

no
near
3201

1900

10 4 2.8 -46 31.4

10 11 20 -47 25.0

10 19 13 -45 46.9

near NGC 6541

14 17 52 39 -43 26.8

44 17 54 15 -42 40.3

13 17 54 18 -43 28.2

51 17 54 37 -42 35.6

66 17 54 48 -43 41.5

12 17 55 2 -43 22.7

18 17 55 10 -43 21.9

67 17 57 28 -43 51.0

3 17 58 20 -43 52.2 WL

28 17 58 26 -42 17.0

72 17 58 29 -42 16.7

27 17 58 40 -42 13.6 Lookup: Algol? Short

25 17 59 19 -42 24.2

52 18 1 42 -44 2.8 To pursue

50 18 2 24 -42 37.7 Cepheid?

68 18 3 48 -44 54.0

24 18 4 36 -42 17.7

58 18 5 11 -42 25.7

59 18 5 21 -42 28.2

Proved Perhaps Cepheid?

To pursue Small range

Proved

Cepheid?

Proved

Proved

To pursue

Proved

Proved

Proved

Lookup: Algol? Short

Proved? 1 max

To pursue

Cepheid?

Proved

Proved

Proved

1 min Defective Algol?

Vars.

1900

15	18	5	53	-43	45.6	Proved
31	18	6	31	-42	47.8	Proved
30	18	6	39	-42	56.1	Small range to prove
39	18	7	30	-44	29.0	Proved
36	18	7	36	-43	19.4	Cephoid?
16	18	8	35	-42	55.3	Proved
6	18	9	24	-43	52.3	Proved

near NGC 6723

3	18	44	46	-36	34.1
5	18	44	53	-37	25.3
118	18	46	49	-36	28.1
15	18	46	58	-37	49.4
13	18	48	7	-35	41.9
4	18	48	9	-36	50.1
1	18	48	47	-36	18.7
14	18	48	49	-37	42.9
7	18	51	27	-38	16.0

near NGC 6584

4

6

H.C. 6362

Harvard College Observatory.

Ida E. Woods.

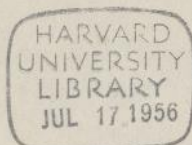
Book No. 23.

Cluster Variables.

Continued from Bk. 22.

Beg. late exam. of 6362

KG 11366 .199



Page

4

N.G.C. 6362, Index of Work

95

6541, " " "

N.G.C. ⁶³⁶²~~2808~~

Index of Work

p. 22
p. 6 etcNew A plates recently received.
Examine new plates

HB 777 Bailey, Vars.

6

and Thursday, April 19, 1923.
Wednesday, April 18, 1923.

Examination of recent A Plates

Exam. A 12059

12136

12136 superposed.

found Apr. 19 found Vars. 12 & 13.

also, new,

Br. 12136 Ft 12059

12060

12074

12077

12143

on print

good distance
 from center

Make this No. 17

Conf. by

12-
 13-


Apr. 19:

also, new,

Br. 12059

Ft 12136

12110

12079

~~12202~~

12077

12161

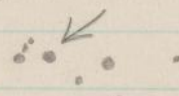
12143

12202

print

Make this No. 18

Conf. by


 -d

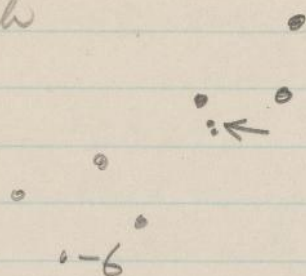
See nebulosity(?) marked on 12136
 Does not seem to be ft. stars.

1)

2)

Exam. 120⁶⁰~~74~~
12⁰⁷⁴~~110~~

Watch



Seems smaller on 12074

may be defective.

Br. 12079

12134

12182

12077

Susp. Var. small range Br. 12060 Ft. 12074

Br. 12143 Ft. print

(found again on) 12079

12143 12075

Apr. 19

Make this No. 19

Conf. by J

? → . . .

Exam. 12079
12134

Nebulosity ruled on 12134

8 NYC 6362

Excellent plates:

12079

12182

12128

12077

N
Co

Va

Exam. 12110

12182

12110 improved

12110 not very good

Exam. 12079

12182

Found Vars 8, 13,

April 19 12182 defective ^{film} at center of cluster.

Make this No. 20

Conf. by

Br. 12182 Ft. 12079

12077

12128

See also p. 10

New - small range.

Var. No. 16 Exam of Prof. B's Var. as noted on small print.

Br. 12128

Ft. on all plates exam.

Very faint but shows change.

12128 -

12077

12190 Min.

10

Expos. 12077
12128

Apr. 19

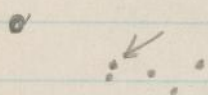
• - b

Br. 12077

Th. 12128

Br. on print

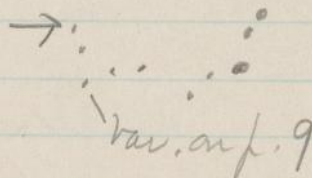
if not defective



Make this No. 21

Conf. by

Apr. 19



Br. 12077

Th. 12128

Br. on print

Make this No. 22

Conf. by

See nebulae marked on 12128

Friday April 20, 1923.

Exam A 12075

12143

12143 superseded.

Specially mtd for suspected faint nebulae

12075 only 3+ but good images

These plates have especially comparable images even to edges.

New

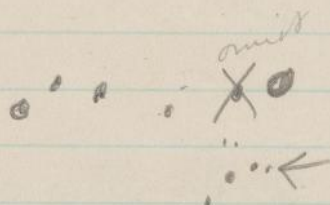
Ocl.

B. 12075

Th. 12143

12077

12128



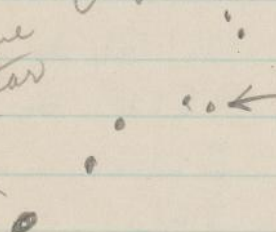
Make this

No. 23

Conf. by 1

very faint; change or defective?

same
star



better plotting, larger scale,
from 12143.

Several nebulae marked on 12143

12 *

m

April 20.

Exam. 12130
12131

consecutive plates but different dates

Star m of sequence is surp. var.

Br. 12130 H 12131

may be a dbl. star - see 12130

not very good plates for proof.

Monday, April 23, 1923.

Gram. 12164

12175

1

Q-A

maybe slight change —
match

Oct

1
↓
-2

extreme N Center of
plate

marked on 12164

Possibly star 2 changes a little.

Make this 24
No.

Var. γ 1 is slight but seems to be proved

Comp. by

B₁*12175

* 12110

* 12182

12113

12109

12202

Fh. *12164

* 12143

* 12077

12190 pt?

* 12161

May?

12182

12202

12161

* 12143

12164

14 N.G.C. 6362 Tuesday, April 24, 1923.

Exam. of A 12202
12161

12202 superposed

Var. 12 (among other of the earlier vars.) is noted
Of very good range. See Br. on print
It on 12202

Note Nebulosity mtd on 12202

& Exam. 12133
12190

12190 superposed.

12133 poor images. Slight exam made

Monday, September 10, 1923.

15

Exam of
A 12109
A 12190

12109 poor focus

find B. 12190
12131
slight change?

12109

12128

Plates exam. Slight evidence but var. seems
exam. this on later plates - confirmed.

Watch one of double star N. of Cluster

a 12059

12134

12161

Select Comp. Star plates from

12130

12131

12136

12182

12202

Monday, February 18, 1924.

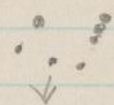
Exam.

new plates

A 12620 August 30, 1923 Exp 40

A 12643 September 3, 1923 Exp 40

2-5



entire field exam.

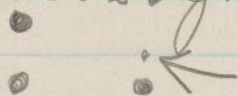
watch this - slight change indicated.

a few of the vars. already found were independently found from this pair of plates.
No new vars.

A 12074 July 12, 1922, Exp 56

12074 already exam., p. 7.

A 12526 July 18, 1923, Exp 45



entire field exam.

long space

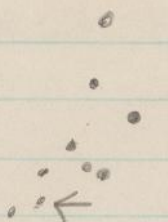
OC

Br. 12526

Ft 12074

F

Cont.
Var.



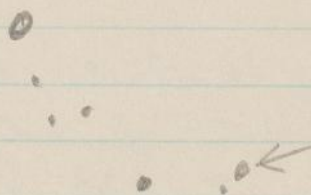
Br.

H.

Neb

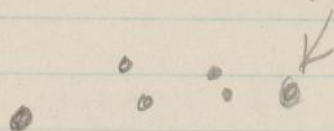
S edge

on both plates



In center no new vars. found.

Neb. on both plates. cl



Use B plates for this Var

Faintest?

Feb. 18, 1924 19

12131

Very bright, large range Var.
17 28.7 - 66.8 (Approx 1900)

←

ocl

stars near Var.

←

Br. 12526 -

12528

12463

12620

12643

Br. B 25365

Fh. 12074

A. Fh. 12617

12202 12059

12643 12161

12620 12060

12075

12077

12079

12116

12128

12143

12164

12175

12190

12130

12131

12136

12182

N. 8 B 47603

B 30589

12134

ft, not Min

B 27938

Very ft B 27725

Find between

12202 & 12463

Sept. 24, 1922 & June 21, 1923

no A pl.

Find B 53675^v seen

Apr. 1923

Van Cank. Not in Van. Catal.

All 1923 pl. show very br.

" 1922 " " ft.

extremely ft. I thought not quite

N.S.; Aug. 1922.

Seen on B 253 ~~65~~ br.

Gran. B 30589

etc., a few B plates of long exp.

M.S.C. 6362

Plates after March, 1922

				Start.	S.T. mid	Eff.	Qual.
					End		
6	12059	July 1, 1922		15 12	15 37	50 _m	4
7	12060	" 1, "		16 30	16 55	50	4
17, 7	12074	" 12, "		15 08	15 33	50	5
11	12075	" 12, "		16 22	16 44	45	3+
	12076	" 12, "		17 50	18 10	40	3+
10	12077	" 13, "		14 22	14 47	50	5
9, 7	12079	" 13, "		16 39	17 4	50	5
15	12109	" 31, "		16 28	16 53	50	4
	12110	" 31, "		17 49	18 14	50	5
	12111	" 31, "		19 22	19 47	50	3+
	12112	" 31, "		15 47	16 9	45	3+
	12113	" 31, "		17 03	17 25	45	4
	12114	August 1, "		18 30	18 55	45	3+
	12115	" 1, "		19 54	20 16	45	3
	12116	" 2, "		15 48	16 10	45	3
	12119	" 2, "		19 35	19 57	45	3+
	12120	" 3, "		15 56	16 18	45	3
10	12128	" 9, "		16 08	16 30	45	4
	12130	" 10, "		16 16	17 8	104	4
	12131	" 11, "		16 27	16 49	45	4
14	12133	" 11, "		~~17 25~~ 18 25	18 55	46	3
7	12134	" 12, "		16 27	16 49	45	4
6	12136	" 12, "		18 28	18 50	45	4+
	12138	" 12, "		20 28	20 50	45	3
11	12143	" 14, "		19 29	19 51	45	4
14	12161	" 27, "		18 14	18 37	46	3+
	12162	" 27, "		19 11	19 35	47	3+
13	12164	" 28, "		18 29	18 53	47	3+

7 *fine*

23237.	924 649 001	574 ^v
23237.	924 703	.628
48.	894 .646	.541 ^v
48.	894 .695	.590 ^v
48.	894 755	.650 ^v
49.	891 .614	.506 ^v
49.	891 .709	.601 ^v
67.	842 702	545 ⁴
67.	842 .758	.609
67.	842 .822	.665
67. ⁶⁸	842 .671	.514 [?]
67. ⁶⁸	842 .724	.567 ⁴
68.	839 .786	.626 ^v
68.	839 842	.682 ^v
69. ^v	836 672	509 ⁷
69. ^v	836 829	.666 ^v
70. ^v	833 677	511 ³
76. ^v	817 686	504 ^v
77. ^v	814 712	527 ⁸
78. ^v	812 699	512 ^v
78. ^v	812 .786	.599
79. ^v	809 .699	.509 ^v
79. ^v	809 783	.593 ²
79. ^v	809 866	.676 ^v
81.	803 .825	.629 ³⁰
94. ^v	768 774	.543 ²
94.	768 814	.583 ²
95.	765 785	.551 ⁰

N.Y.C. 6362

8K10

a

				Mid Exp	Exp.	Jud.
13	12175	Sept. 8, 1922	19 05	19 20	30	3+
9	12182	" 10, "	19 33	19 53	40	4
15, 14	12190	" 16, "	20 22	20 41	38	4
14	12202	" 24, "	19 25	19 47	45	4
	12463	June 21, 1923	15 55	16 17	45	3+
37	12469	" 22, "	15 50	16 10	40	4
17	12526	July 18, "	16 39	17 01	45	4
34	12528	" 18, "	19 47	20 9	43	4
	12617	August 29, "	19 12	19 27	30	3+
17, 32	12620	" 30, "	19 27	19 47	40	4
17	12643	Sept. 3, "	20 06	20 26	40	4
	12784	October 13, "	20 18	20 34	32	4
	12904	April 24, 1924	14 07	14 29	45	3i
	12924	May 2, "	18 20	18 42	45	4
	12926	" 3, "	16 8	16 30	45	3
	12930	" 5, "	16 10	16 32	45	4i
	12938	" 8, "	15 24	15 46	45	5
	12945	" 12, "	15 55	16 17	45	?
	12957	" 26,	15 40	16 00	40	3+
	12959	" 27,	15 53	16 10	35	
	12965	" 28,	14 58	15 20	45	3i
37	12970	" 29,	15 48	16 10	45	4i
	12972	June 2,	15 44	16 6	45	3i
32	12974	" 3,	15 16	15 38	45	4i
	12979	" 4,	16 25	16 45	40	4i
	12984	" 6,	15 47	16 9	45	4i
34	12987	" 7,	15 58	16 20	45	4i
	12988	" 9,	16 55	17 17	45	3
	12991	" 10,	16 58	17 20	45	4i

29 (thru 14110)

23206. ^v	<i>free</i>	735	803	+001=539 ^v
3308. ^v		730	826	001 557 ^v
3314. ^v		713	859	001 573 583
22. ^v		691	822	" 514 ⁵
3592. ^v	<i>free</i>	954	.677	632 ²⁹
93. ^v		949	.672	622
3619. ^v		878	707	586 ^v
19. ^v		.878	837	716 ^v
3661. ^v		763	808	572 ³
62. ^v		760	.822	583 ⁴
66. ^v		749	849	.599 ^v
3706. ^v		.640	855	.496 ^v
3900. ^v		.108	602	.711 ⁰
3908. ^v		.086	.777	.864 ^v
3909. ^v		.083	.686	.770 ^v
3911. ^v		.078	.687	.766 ^v
3914. ^v		.070	.655	.726 ⁵
18. ^v		.059	.677	.737 ⁶
32. ^v		.020	.665	.686 ^v
33. ^v		.018	.672	691 ⁰
34. ^v		.015	.637	.653 ⁴
35. ^v		.012	.672	.685 ^v
39. ^v		.001	.669	671 ^v
40. ^v		.999	.650	.650 ⁴⁹
41. ^v		.996	.696	.693 ^v
43. ^v		.990	.671	.662 ^v
44. ^v		.988	.679	.668 ⁷
46. ^v		.982	.718	.701 ²
47. ^v		.979	.720	.700

32

Saturday, April 9, 1927 Mark Var. on B 25365

esc 6362 Exam A 12620
12974

12620 superprod

These objects have
not been compared
with earlier var
of region.Numbered & ent. on
A 12987No. 1 17 16-66.3
*Oil*Position meas.
Bb. 49, p. 112Good range

Br 12620

12111

12526

12643

NS 12974 12924

NS 12987 12930

12979 12938

12984 12957

12904 12965

No. 2 17 34-66.6 (19m) -2

Position meas.
Bb. 49, p. 113

3

2) Br 12620

12930

12957

Very ft 12974 12469 12643 12965

Sun, ft. 12987 12984 12904

12526 12991 12924
12938

17 36.5-66.7

Position meas.
Bb. 49, p. 114

3) Br 12620

Very ft 12974

12970

12984

12617

12626

Very good range Medium 12987

12784

12984 X 12643

12526 12957

12991 12965

m_4) - 17 ³¹ 23 - 66.8 (19^{or})
 m_5) 29 - 66.7
 * . .

4) Position meas. Bb. 49, d. 115

(5) " " " " 116 . .

... - 5

4

4) Br. 12620

Ft. 12974

Very ft 12987

*

5) Br. 12620

Ft 12974

Very br 12528

NS 12987

Large range 12469*

12970

Very br B 25365

17 30 - 67.3

Position meas. No. 6

Bb. 49

f. 117

6

Br. 12620

Ft. 12974

much fainter 12987

12079

Very small range but seems real.

m varying? July 12

ft 12111 br 12113

br 12469

12926

12930

12938

12784

12957

12979

984

988 brightens

991

965

970

974

12075

med. 12079

Position
measured
Bk 49, p. 118

No. 7 17 14 - 67.1 (1900)

Good range

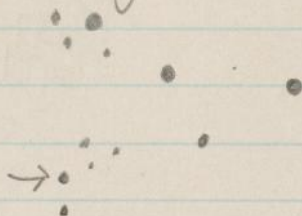
Br 12620

NS 12974

12111

NS 12987

12979



Elam. A 12528

12987

12987 superposed

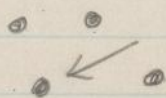
No. 8

17 30 - 66.5

Br. 12987

Ft 12528

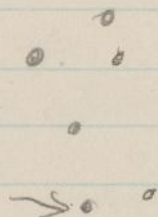
Position
meas.
Bk. 49, p. 119



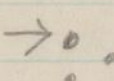
Fairly good range

No. 9 

Bc 12528 Ft 12987

Position meas.
Bh. 49, p. 120

Rather near center

No. 10 17 34-67.6 (1900)
Bc 12987 Ft 12528Position
measured, 

Bh. 49, p. 121

Good range

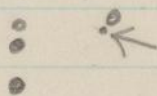
near full edge, but should not be affected by this.

No. 11 17 21-68.4 a faint star

Position

measured

Bh. 49, p. 122.



Bc 12528

Trace only 12987

12526

" "

12075

-12643 med 12079

12620

12469

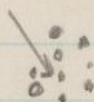
12926

12930

12938

April 9

marked on print (Star 1)

No. 12 Center of Cluster not mtd on 12987
see sketch

Br 12987

* 12528

Ft 12987⁷⁴

12987

12784

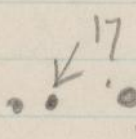
Small range, but probably real.
Watch on other plates

Gram A 12111

12979

12111 superposed

No. 13



17 34 - 66.6

12075

074 XX

12079 *

Br 12111

114

Very ft 12979
" " 12987Good range

12526

omit

No. 14

17.23 - 67.2 (1900)

Slight if any var.
A brighter starWatch

Probably apparent

magn. is
affected by the
ft. star close to this,
on plate where it seems
to change. Always between 1 & 2, never 2. May change a few tenths.-2
→ 0. -1

Br 12111

Ft 12111
12987

12979

12784

12984

12904

17 32 = 67.7
 No. 15 A small range, if any Omit for present

? Probably about .3 or .4 range?
 a 12111 Ft 12987

Position No. 16 Bright on poorer plate 17 26 - 68.2
 meas. Bb. 49, p. 127. $\leftarrow$ Br = b. than 2 Ft = fainter than 2

meas 12984

Br. 12111

Ft 12979

12957

12987

* 12784

12076

12965

12075

12074 better pl but
 12957 ft.

Little ft. even at max

(showing ft. stand 2526 nearly = x

* 12957 b, x barely seen

proof

12784 - 12926 12965 - 12979

h 12957 May 26

h 12965 " 28

h 12970 " 29

h 12974 June 3

h 12975 " 4

h 12979 June 4

h 12985 June 9

Example 12469

12970

12469 superseded.

Br. 12469

NS 12970

No. 5

Very large range

May 29

970 June 148

12972 2

74 3 13.6

79 4 13.8

84 6 13.2

87 7 ft

88 9 14.6

91 10

No. 17 not very large range. Just south of Cl. or
 possibly part of Cl. Good range

Br. 12469 med

Ft 12970

12843

* 12984 12111

12987

12112*

12079

12076

12114

12965*

12526

970

Exam. A 12784

12984

12784 superposed

April 16 ~~No new objects found~~
 Central Star of Cluster. Was this found before?

No. 18 $\rightarrow \cdot \cdot$

seems to be Star 1 of print.

June 22, 1929

No 19' In center marked on ^{en} large print

S of center

-1

•

••

••••

19

only Max? ^{be} A 12528
 very ft - 12526 July 18

ft on print = X 12161

A 12987

12974

12620

12784

12469

12643

12926

12930

938

Monday, April 18, 1927. June 10, 1929.

Exam O Marking Vars. on B 25365 for identification
as mhd on A 12987

1 2 3 4 5 6 7 8 9 10 11 13 14 15 16

17

1 17 16 -66.3

2 17 34 -66.6

3 17 36.5 -66.7

4 17 31 -66.8

5 17 29 -66.7

6 17 30 -67.3

7 17 14 -67.1

8 17 30 -66.5

9 near center

10 17 34 -67.6

11 17 21 -68.4

12

13

14 17 23 -67.2

15 17 32 -67.7

16 17 26 -68.2

17 17 24 -67.2

18 = Star 1

19 near center

July 29, 1929

Exam. 12469

12938

12469 superposed

no new objects found

65
 66
 67
 68
 69

15 Vars. Bailey

HB 777

Data, range, photog magn, period PA 30, 665

(same as 777)

172166

a.r. 223, 45

15 Vars Words

HC 217

Seg of Carte 18-64 partially mbd B25365
 from 46946
 Magnus Bk. 35, p. 192

2	7.28	^{Corr} +0.02	7.30
3	7.50	.03	7.53
4	8.40	.10	8.50
5	8.82	.12	8.94
6	9.32	.17	9.49
7	9.93	.21	10.14
8	10.08	.22	10.30
9	10.24	.22	10.46
10	10.28	.22	10.50
11	10.44	.22	10.66
12	10.90	.23	11.13
13	11.43	.24	11.67
14	11.72	.24	11.96
15	12.18	.24	12.42
16	12.41	.24	12.65
17	12.60	.25	12.85
18	13.06	.26	13.32

marked on B22889
 18 incertai

mbd am 2755 a about = $15^{14} = 12.0$ on am 2755

$$e = 7-8 = 10.2$$

Seq. fnb362

as marked on print,
Small field

45

am 2755 & B25365

a 12.0 based on Covr. Magnus

b 12.3

c

d 12.6

e 12.8

f 13.0

g 13.0

h 13.2

i 13.5

134 j 13.5

m 13.7

n 13.8

o 14.2

p 14.5

q 15.0

r

mB34370

2 am 2755 y - stars near Var. 5

x - 4

x about = 11 = 10.7

y = 11.1

z = 11.6

am plates not good enough

12109 from focus

π^0 -d

Br. 12190

12109

N.Y.C. 6541

Bibliography

18 0 45 - 43 44 (1900)

H.B. 764 1 Var. announced JEW

HB 799 12 Var. " SIB

Index:

Bk. 5, p. 154 Exam. X Plates.

23, p. 94 Bibliography

23, 98 List of later plates, A.

23, 102- Exam. of A plates, New Vars.

Suspected objects, numbered consecutively, mtd on
A 12520.

A.G.C. 6541 Available Plates

later plates
12961
13077

page		Start S.T.	Stop	Exp.	L
A	12186	Sept. 13, 1922	19 43	40	4
107	12224	October 8, "	20 13	40	4
	12387	May 25, 1923	19 47	62*	4 cl. 2 ^m
Obj smbd →	12520	July 17, "	18 05	40	4i
107*	12535	July 20, "	20 26	40	3+
	12543	July 21, "	17 07	35	3+
119	12630	Sept. 1, "	20 45	40	4i
109	12681	Sept. 14, "	19 53	32	4i
114	12688	Sept. 15, "	19 04	40	4i
114	12727	Oct. 4, "	20 57	30	4i

12631
12735 Oct. 6, "

117	12743	Oct. 7, "	21 33	30	4i
116	12751	Oct. 9, "	21 45	30	4i
116	12768	Oct. 11, "	21 48	30	4
102	12776	Oct. 12, "	20 58	32	4
117	12786	Oct. 13, "	21 31	30	4
-	12792	Oct. 15, "	21 34	22	4i
not same again see 12808	12818	Oct. 26, "	21 46	30	4i
	12933	May 5, 1924	19 10	23	3
102	12961	May 27, "	17 36	30	4i
-	13077	Aug. 28, "	19 49	30	3+

109*	12531	July 20, 1923	16 09	40	4i
-	12808	October 26, 1923	21 46	30	4i

119	12533	July 20, 1923	18 06	40	4
	12685				

this 14110

2

23811.555 ✓

3336.508

3565.869

3618.647 ✓

3621.736 ✓

3622.594 ✓

3664.632

3677.557

3678.524

3697.547 - ?

3699

3700.564 ✓

3702.567 ✓

3704.563 ✓

3705.526 ✓

3706.545 ✓

3708.540

3719.521

3911.883

3933.761

4026.599

3621.558 ✓

3719.521

3621.639 ✓

NGC 6541

Using Blinks

Objects marked by
in A 12727
also in 12776, 12808

Selected by Dr. S. 12776-12961 p. 102 etc.

" 12535-12224 p. 107

12688-12727

12531-12681 ← both elongated but
about equally.

B plates

				Exp.
B 11419	17	52	-42	10
17708	18	30	-23	
25343	18	6	-42	10
27920	17	49	-42	60
30298	18	8	-42	61
32058	17	48	-42	60
33856	18	8	-42	10

102

Thursday, March 31, reversed
1927

A 12776

12961

Marked on A 12520

Cluster $\nwarrow$ No. 2No. 1 $\nwarrow$

This is Var. No. 1

Bk. 5, p. 156

This is the Variable
Announced in H.B. 764

No. 1 Br. 12961

Ft 12776

No. 2 Br. 12776? Ft 12961

12520

2 - probably

12520

due to diff. in NS 13077
plates.Cluster $\nwarrow$ X $\nwarrow$ mbd by
Adjustment in adjusting machine

Dr. Lyntin

No. 3 Br. 12776

Ft. 12961

Good range

12520

Br = a little brighter than X

Ft = only a little brighter than Y

12961 sup. on 17 58.2-44.0 NSB 11419

12776

when eye fixed

Position measured, Bk. 39, p. 98.

reversed

el

m.4

where?

m.5

where?

Br = brighter than x Ft = y Good range marked on 12961

Proch.

m.6

off edge of 12520
Br 12776 Ft 12961
Br = brighter than x

18 9.0-43.9
Position meas.
Bls. 39, p. 131

edge

m.7

leave for present

edge

m.8

Marked on 12961

off 12520
on extreme edge, perhaps
not var.

not Max
12524

Ft 12531

Br
12533
12535

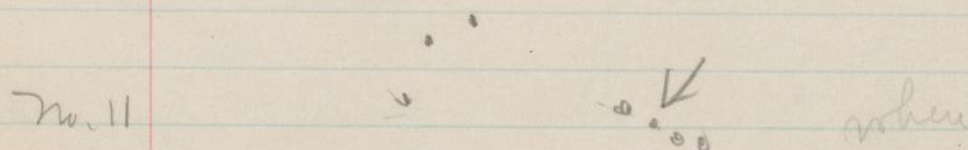
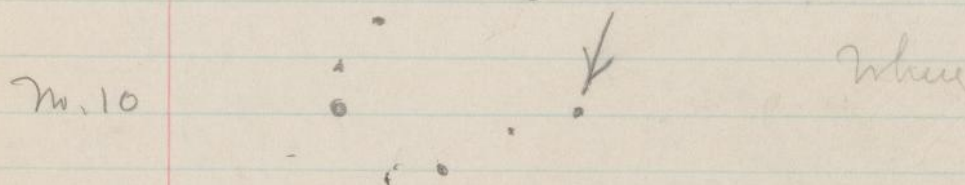
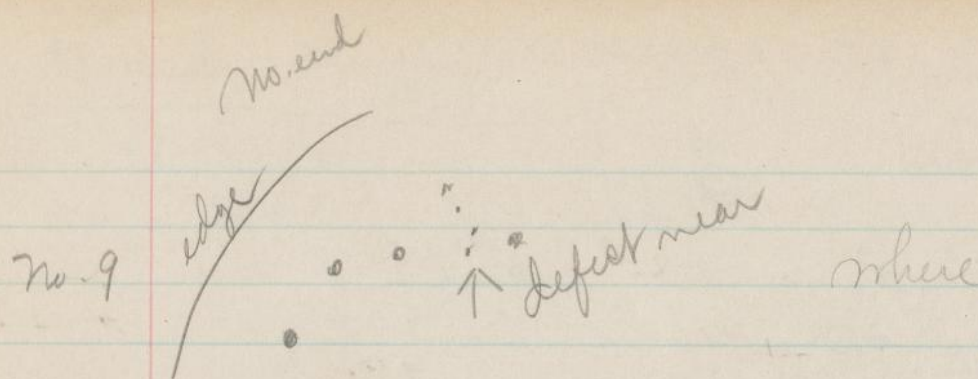
micros.
medium
12630

3 plates of July 20
quick change

12543

Br 1982

1975



Friday, April 1, 1927

Is B43

dbl on 12768

105

See p. 134

June 28

12776

12961

exam. by eyepiece

12776 superseded

a very ft star. Good range

Apr. 1 No. 12

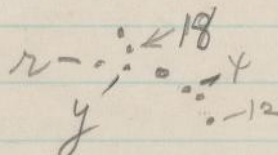
17 55-43.4

Br. 12776

Ft. 12776

Medium 12520

cluster



Br. = brighter than r.

Ft = y

Corrected Cont. p. 133

Position measured, Bk. 39, p. 102

Apr. 1 No. 18

Br. 12776

Ft. 12961

A very ft star

12520

Very small range but seems

12 slightly found on marking No. 12 precedes 18

17 55-43.4

Br. = nearly = r Ft. = nearly as ft as y

12 slightly S of 18

Position measured, Bk. 39, p. 102

Quick change

17 54-43.5m. 13

Br. 12776

Ft. 12961

Br. = brighter than x

Not Bailey

12681

12520

Ft. = trifle brighter than y

41 & 43

cluster

12531

13077

A very ft star but fair range

17 54.0-43.6

Position meas. Bk. 39, p. 102 Prof Bailey on A 12727

No. 14

17 53.0-43.4

Br. 12776

Ft. 12961

Ft on normal = usually between x & y

12727

Br. = brighter than x

12768

Poor

nearly y

12751

12630

12520

→ mean 43 but not same star

14 found again on p. 116

→ a very ft. star.

Short Per. probably Cepheid?

Position meas. Bk. 39, p. 100

Position measured, Bb. 39, p. 129.

A very ft star but fair range

No. 15

18 5.6 - 43.8

B₁ = Brighter than x

B₂ = ~~x~~

Ft. fainter than y

x → y

→ y

No. 16

18 8.5 - 42.8

↓

edge

Position meas.

Bb. 39, p. 130

see below

No. 17

Small range

⊙

pretty faint

B₁ 12776

Ft. 12961

12520

⊙

⊙

Leave for present

No. 16 B. 12224

Cont. Very br 12681

Seen, very faint, 12531

12533

1219

NS on A 1975 and 1982,

No. 18 close to No. 42 Mkd on 12727

Due to diff. in plates.
not exam. as Var.

New No. 18 see p. 105

⊙

Probably long print?

B ₁ * 12776	12792	Ft. 12961	12543
12786	*12727	12520	12630
*12768	12751	12808	
*12743			

B₁ 12776

Ft. 12961

off edge of 12520

Does not seem to be due to edge of film as stars beyond shown on both plates

proved that this is not due to edge of film on 12961 et al.

April 1. and April 2, 1927

107

Comp. A 12224

12535

Tried this pair with Blink. Adjustment not very satisfactory. Exam. about $\frac{1}{2}$ of plate.

12224

12535 with eyepiece

12224 superimposed

April 1 No. 19 very fr. 12224

very fr. 12535
fr 12520

✓ large range Bailey

This is No. 46, mbd on 12808

April 1 No. 20

mbd 12520

Probably small range or defect

Br. 12224

m 12535

Br - about = X Ft =

←

Watch - leave at present

April 2 No. 21

mbd 12520

←

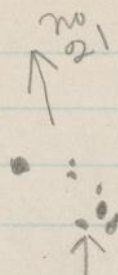
Br 12224

Ft 12535

A very fr star Leave for present
~~17 59.0 - 424 (1900)~~

April 2

No. 22



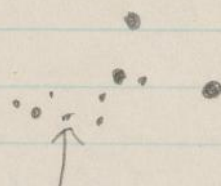
mhd 12520

Br. 12224

Ft. 12535

Small, if any, range

No. 23



mhd 12520

extremely faint, probably no var.,
only difference of the two plates

Br. 12224 Ft. 12535

Leave for present

No. 24 Cont from p. 109

NS or Ft.

Br.

12224

12630

12531 probably barely seen

12688

12533 very ft if seen

12961

medium

12535 NS

12751

13077 NS

12776

Probably long period. N.B. plate Nos.

Saturday, April 2, 1927

A 12531

12681

12681 superposed

Probably not same
see Bailey 18.45-42.6
18 4.2 - 42.3 (1900)No. 24
Cmt. p. 108

north edge

Mbd 12520

 Very Br. 12681 Very ft or NS 12531
 Seem like a star image. 12520
 Br = brighter than x Ft = N.S.

Large range

Position measured, Bb. 39, p. 120.

M 25 Good range

17 59.5-42.4 ! through a ft star

(See 12520

12630

Br. 12531

N.S. 12681

12520

12224

12533

12688

12535

12727

12543

Br = x

Ft = NS when y

is seen

near North edge, nearly north of Cluster

Position meas. Bb. 39, p. 110

No. 26

Hazy?

Br. 12531

Ft = ? 12681

17 59-42.3

Small range

12520

Medium?

12535?

12224

Leary for

26 north Watch

slightly prec. 25

17 58.8-42.2

No. 27

Br. 12531

Very ft 12681

NS? 12520

27 - a possible Nova.

Large range but

probably not Nova.

Position meas. Bb. 39, p. 110

27, 28

No 28

Br 12681

12531

Cmt p. 125

17 58.6-42.3

Ft 12520

28 " 128

Position meas. Bb. 39, p. 110

110

April 2

no 29 175 $\leftarrow$ 29 17 59.0-42.4
 Br 12531 N B 12681

a very ft star

Br = fainter than x

Slight change but apparently
Var.

Leave for present

Cont. p. 130

Meas Pos. Is range sufficient?

No. 30

Very small range
a few tenths

18 7.0-43.1

Position meas., Bk. 39 p. 126

No. 31

Fair range

18 6.8-42.8

31
 30
 x - o o

30 Br = a little brighter than x

Br 12520

12681

12581

12224

12531

12533

12535

12543

12630

B30298

North, following
Quasar

31 Br = fainter

Fr = fainter than S

Br 12681

Fr 12681

12688

12531

12630

12520

12727

12224

12786

12533*

12535**

12543

~~No. 32~~ this is quite bright, large range.
 Omit Already marked No. 38 on 12520
 by Bailey

No MF
plates

No. 32

May be defective film N free edge

1923 g again
largex - y $\leftarrow$ No. 32Br = must
Brighter than x

Fr = y or other

Fair range

17 56.2-42.4

Cont. p. 127

B25343 shows

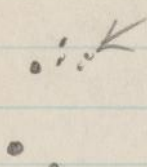
Not Bailey See 55

(x is fairly bc

Position meas. Bk. 39, p. 108 May be trace on 12681

April 2.

No. 33, ^{near} free edge North, slightly fol., No. 14


 A very small range, if any.
 Leave for present - ft. star

-14

Br. 12531 Ft 12681

Medim? 12520

✓

34

Same star as 42 of Prof. Bailey on 12727
 No 34 bright 12681 Ft 12531
 13808 12520

35

12387

This is Obj. 49 mtd on 12776 by Prof. Bailey (?)
 No. 35 very br 12681 Ft. 12531

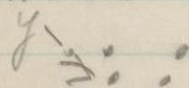
✓

12808

12520

12387

Cepheid? No. 36 18 7.5-43.3 (1900) ^{marked on print} See Bailey 18 7 15-43.3
 Br. 12681 Ft 12531 ^{not same star}



Medim 12520

12533

12768

12535

12776

12543

12786

1975

12224

12792

12630

12808

12751

12961

this star seen is
 probably the
 Var. of the image
 Good small range
 Ft. a little brighter than y
 Br. =

Position meas. Bb. 39, p. 128

April 2 and April 4, 1927, Monday

Defect? (Nebulous) near center of 12531
fol. cluster, slightly south.

April 2 No. 37



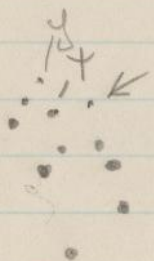
Br 12681 Ft 12531
12520

~~Good range~~
18 5-43.3 (1900)

Slight if any var. Defect close by.

Apr. 2

No. 38



Br. 12681

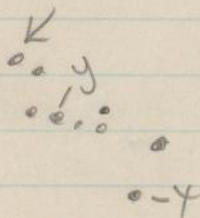
Ft 12531

12520

Br = nearly = x
Ft = a trifle brighter than y
A very ft star — ~~small~~ range
Leave for present

April 4

No. 39



12630
Very br. 12681

Ft 12531

12688

12727

12520

Br = much brighter than x
Ft = fainter than y

12743

medium

12786

12808

12792

* 12961

12224
12533
12535
12543

Br. B 25343
30298

Large range
18 7.5-44.6

Position measured,
Br 39, p. 118.

Perhaps not quite Max A 8975, use for position.

April 2 No. 40

✓

Good range
Br

12681

12727

NS

12520

12531

12688

Bailey 17 54-440
See No. 44 as misd on A 12727
probably same star

Undoubtedly = Bailey 17 53 40 - 43 56.4

April 2 No 41

just N of 31

18 6.2-42.6

Br. 12531

Ft 12681

12520

A ft star.

Leave, unless more proof.

Barely seen on good AM plates at Max. Not to est.
39 Estimates on AX plates
marked ax 1761 11.7 July 10-11 1926

a 12688
12727
12727 superseded

no 40 of Pig B noted as var but is marked a
a 12727.
Also No. 43, B.

April 4 W No. 42

Near edge on 12727, may not be
really variable.

Be 12688 FK 12727
12520

Leave

The rest of the MF plates were exam. No Min. except
12727. Probably faint because edge of film

No. 43

↑

Seems a
real change
but small

very small, if any, range .4 or .5?
ft. star

Be 12727 FK 12688
12520 12224

12531

Medun
12533

12688

12535

12727

12543

12743

leave for
present

W No. 44

Not much range

Probably about .5 or .6

~~Leave for present~~

Small range,

but seems

real.

Enough to

measure?

Br. 12727 Ft 12688
 12520 Medium? 12681
 12224 12743 12751
 12768 12776
 12727

Position measured, Bk. 39, p. 106.

No. 45

A very ft star, but fair range.

Probably

two ft to

more

with

many plots

Br. 12727 Ft. 12688

12520

Br = x Ft = nearly limit

18 2.5 - 44.2

No. 46, near Prof B.'s No. 44, just prec. 44.

—x
 y
 y
 y

A very ft star

Br. = x

Ft = fainter than y

Br. 12727 Ft 12688

Medium 12520

17 52.2 - 44.1

No. 47 perhaps a small range, fairly bright star

→
 y
 y

perhaps a little brighter on 12727 than 12688

Leave for present

April 4 and Tuesday, April 5, 1927

April 4 No. 48 Br. ~~Fl.~~ A 12727
 12688
 Off edge (S) of 12520, if not defective, See marked on 12727
 extreme S edge - probably not vac.
 Leave at present

April 5 12751
 12768
 12751 superimposed

No. 49 Br. Fl. or probably
 12768 defect
 12751

•
 • • • ←

no. 14 was found independently on this
 pair of plates.

Defect (nebulous?) on 12768

← Ocl

$\frac{1}{2}$ this pair of plates was also exam. by
 the Blink. - No objects

April 5, and Wednesday, April 6, 1927

A 12743

12786

12743 superposed

Have A W
check this
marking

No. 50

Probably B on A 2667, with y and star close to it, not showing

12727 - ?

Br 12743

medium
12224

FT 12786

12520

12751

12792

13077

12531

12533

12743

April 5

Cepheid?

Good range - Br = brighter than x

FT = nearly as
ft as y

18 2.2 - 42.8 (1900)

Position measured, Bk. 39, p. 119.

April 6 A 12792

13077

12792 superposed

No. 51

Br 13077

FT 12792

17 54.8 - 42.6 (1900)

Br = brighter than x

12520

FT = about = y

Cont on p. 126

near extreme prec, N, edge but does not seem
near enough to edge of film to have this cause
change

Position ^{large range} meas., Bk. 39, p. 106

Proof? No. 52 bright, ^{large range} main center, S of Cluster

Br 12792

FT 13077

medium

B32058

30298

12520

FT B27920

Br = nearly = x

FT = a little
fainter than y

B11419

18 1.5 - 44.1

12808

12531

12533

12543

12224

medium

12535

12751

12681 12688

12630

12786

12727 12

12792

12743

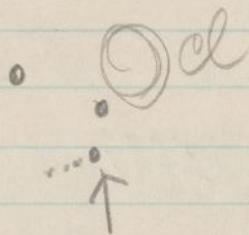
12061

Position meas.,

Bk. 39, p. 114

118

April 6 No. 53

Nearly position
of center.One of Cluster stars
Bright star, not large
rangeBr. 13077 Ft 12792
12520Very slight change
Watch — leave for present

Nova? No 55 Cont. from p. 119 (Ft.)

* Very br.	12681	12543
" "	12688	12535
	12743	13077

Bailey

12751
12768
12776
12786
12792
12808
12961

Friday, April 8, 1927.

NYC 6541

Exam. A 12533

12630

12630 superposed

No. 54

Br 12533

Ft 12630

Probably only defective on 12630

Examined other plates. Not min
except 12630.

Clear

(See print Assumed to be Bailey 39)

17 56 - 42.7 — Is this Bailey?

Br. 12630 Ft 12533

12520

12224

12531

No. 55

See p. 118

✓

Large range Br = brighter than x Ft = barely seen

New

17 53.2 - 43.3

No. 56

57

56

Fair range

Br. ? 12630 Ft 12533

Not much range, if any variation

Br nearly = x Ft between x & S

No. 57

Br. 12533

Ft 12630

17 53.2 - 43.3

Br = B

Ft about = y

Small range but seems real.

120

Saturday, April 9, 1927.A 12387
12808

12808 superfound

noted stars marked by Prof B.

Show variation on these plates.

Check if these are already announced.

nos. 46

48

43

A few Vars. found independently on this pair
of plates that are already numbered on
12520 - 34, 35, etc.

no new objects

021

Saturday, April 16, 1927

121

Gran. 12543

12543 quite black

3933
3664
269

Van 39

use the

found are
other plates
to measure
of film.

good
ge

measured,
120

date!

Only 1 min

Good or No

Defective Good

? 18 5.0

58 precedes 5

58 perhaps 1

m. 59

18 5.0

Good range

What type

Posit

No 60

ik

leave

520
543

14
158

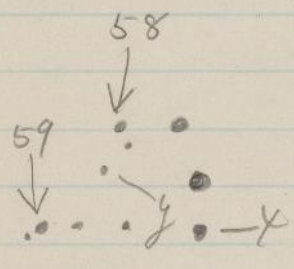
Saturday, April 16, 1927

Gram 12543
12786

12543 quite black

12786 superposed

near fol. edge. Does this cause the
diff. ? Other stars beyond.



(Br = a trifle
brighter than x

Fl = 4

plates that can be found are
exam. Br. or below limit of plate -
Very small range in all other plates
Fl probably due to
edge of film

Only 1 min

Appl or No 58

Defective Good range

A 5633 14x17, other 12630
12533
Br. 12753 12531
* 12543 12743
* 12535 12776
12798
Medium 12520
or Br. 12751
12961 12688 12727
13077 12727 12768
* 12224
12681

12786 - seems good
image

58 precedes 59

58 perhaps 1 n of 59

m. 59

Br

Fl

18 5.0-42.5 (190)

Good range
What type?

12543 Medium 12786
12520 12688 12630
12743 * 12681
* 12727 12531
12535 * 12533

Same date!

Position meas., Bk. 39, p. 120

No 60

Luen(?) shaped object, defect?

leave

On 12543

520
543
142
142
158

This is Bailey 41

Large range

17 53.5 - 43.4

No. 61

Br 12543

Perhaps Trace 12786

12520

Br. (or defective)?

Br. B11419 12630

12681

12224

12688

*12531

12533

12535

12543

Fair

Reject as
Subj. Obj.

No. 62 near 37

not much range, but seems real

Br. 12543

Ft 12786

12520

May be
defective

12535

12224

image

12727

18 3.6 - 43.2 (1900)

63

No. 63

Br 12543

Ft 12786

12520

12743

*12533

12768

A few tenths
only.

18 0 - 42.7

all the other

13077*

Include?

Small range

plates show
slow at about
max.poor pl. but
shows most
change

Very small change but seems real.

No. 64 rather good range

Br 12543

Ft 12786

12520

12224

? 12533 medium?

12535

Same date

perhaps too
small range
to measure

y. <

Br. much b. than y

Ft = slightly b. than y

12543

17 58 - 42.8

no 65 * probably defective on 12786

Be 12543

12520

Drum ft.
stab -

house

Bailey No 42 = W 34
Bailey 175417 is

Barley 1754 17 is

No. 66 ~~not~~ ^{good} range, fairly bright Br. = nearly = x
Br. 12543 Ft 12786

Pr. 12543

F# 12786

12520

Cont p. 127

$y - \bullet \leftarrow$

Position measured Bk. 39, p. 102

no. 67



A diagram showing a series of points forming a curve. The points are labeled with 'x' and 'y' coordinates. An arrow points to the curve, and a circled 'B' is at the bottom right.

$\text{Bi}^{*}12543$

FF 12786

Fair range

12520

$$B_2 = 4$$

1.7 $57 - 43.9$

Cont p. 129

Position meas, Bk. 39, p. 99.

No. 68

Br. 12543

Venz ft 12786

12520

B 25343

Probably 2 stars, the Northern one being the Var.

B_r = a trifle brighter than x
 $\#f$ = much fainter than y
 bk 30 1 116

It is much fainter than if
b. 30 1. 116

18 3.6 - 45.0

Very large range

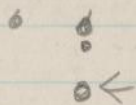
Position measured, Bk. 39, p. 116

On B 25340
Van much w
Linn 2

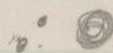
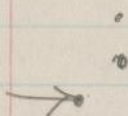
Van much
thru 2

34 W 66 may be another Var.

No. 69



Looks like defect 12543

No. 70 probably 2 stars. near 38
small if any variation

No. 71

Long exp. B(32058) very bright

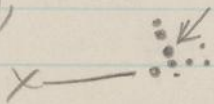
42

Marked B 32058

18 7.2-42.8

found Friday,
May 18.

on B plate with 12520

on idem of 30331,
near.Does not
seem to be
due to two stars
on closer field.A plates exam. Usually slightly
fainter than X. Later plates increasing
at 3077, not best of plates, shows it
much brighter, though not = Max of
B pl.

B 30298 not as br as 32058

Br = (see 32058)

Already marked
on A 1975

This is (Fleming)

Y Cor Austr. 18 7.2-42 53

72 - see p. 131

just off N edge of many plates

No 27 Cont. from 109

MS or FT

Br

12224

12533

12630

12727

12688

NB

— 12751 Quite Br. —

12743

Cepheid? or Algol?

12776

NB very far from Cluster

12961

13077

quick
Change12531 ^{Quite} Br

July 20 brighter than x

12533 Br

July 20 thifly ft. than x

12535 FT

July 20 fainter than y

12543

July 21 not cover

12727 Fairly so about = x Oct 4

12743 Very ft fainter than z Oct 7

* → 12751 Very Br Max? Oct 9

12768 Not cover

12776 1 Fainter than z Oct 11

12786 Not cover

12792 Not cover

12808 " "

M. 51 Cont. from p. 117

Many plates do not cover this star

Cepheid?

Br.

perhaps not Max. 12768

12776

Br. B 25343

Chiefly ft
quick change
to Br.

Fr 12224

* 12681

12688

12743

12751

* 12792

12808

12961

) apparently
decreasing

A 5626 14x17 use for
position as Var is bright
enough and not near
edge of film.

~~Na~~

Look up later again (32) No proof yet 127

No. 32 Cont. from p. 110 Range 15.7 ±

Probably seen

Br. 12531 July 20

Fl or NS

shows very fl
Sept 1923

B 30298 61^m

12520

12224

12630

14x17 5636

July 7, 1902 might this be a fl Nova?

12681

12688

9061

B 25206 60^m

630 Sept 1 trace

12727

8975

May 2, 1900

N.S. 32058 June 27, 1903

with other stars seen

*12743

B 32058 60^m NS

*12751

30298 61 NS

Other long off

12533 July 20

12768

3861

B pl. exam

12535 " 20

12776

NS AX 1761 1926

No results

edge 12543 " 21

12792

12808

B 27930 60^m NS

Am plates of 1923 exam.

12961

Star too fl. for am

13077

Am 16320, July 9, 1923 especially favorable date

5626

14x17

2667

14x17

No. 66 Cont. from p. 123

Fl

Br 12681

Medin 12630

12786 - Oct 13

12688

12792

~~13077~~

*12727

12961

12743

12533

12535

12531

12751

12224

12768

12776 - Oct 12

12808

13077

small range - Aug 1923

No. 28 Cont from p. 109

Be	Medium	Fl
12688	12224	12531
12681	12535	12630
	12533	12743
	12543	12751
	12727	12768

(watch star near
 → ∴ 12776 plate images from
 numbered 72, see p. 131 for proof.)

Early plates do not show it

No. 68 Cont from p. 123

1975
2667
a 8975
a 2597

Br. 12224

NS or Ft 12688

* 12531

12727

12533

12743

12535

12751

12543

12768

12630 fainter

12776

12681 "

* 12786

12961

* 12792

12808

Fades gradually —
Long period

* 13077
NS? B 27920 (y quite br)

" 30298 " " "

** Sem mag ft 32058 " " "

NS a 8853 short exp. but
other fainter stars show

also 9339, (1909)

No. 67 Cont from p. 123

Br = 12224

Medium 12531

12786

12543

12533

12776

* 12751

12535

12792

12630

13077

Long period

12681

12688

12727

12743 defect close by

12768

12808

12961

Van. 29 Cont. from p. 110

About 4? A ft star

31-33-35 all
July 20

Br* 12224 Medium 12533

41 12535

* 12531 12630

12543

12727 12786

12681

12520

12688

12743

12751

* 12768 Apparently
still fainter -
but ft. stars do not
show as distinctly
on this pl.

12776

12792

12808

* 12961

13077

Is this large enough range
to announce?

Position meas., Bb. 39, p. 110

No. 72 found on exam. of 28, p. 128
 Good range

about June 1929? Br. = a little br. Ft = slightly b. than y.
 (28 compares than 2 fainter than y.
 on same plate but this is ~~the~~ Var)

Br. 12543

Medim 12520

Ft 12681

12520

12630 *

12535

12224

* 12533

12727 **

12531

12688 *

13077

etc. proved, without exam. all
 set of plates.

73, see p. 134

m.26

Lease. Seems pretty constant
on plates exam.

13077 too poor

off edge 12543

triple br. 12688

12727

12533

12535

12630

12224

etc.

No. 12

Br. 12224

12630

12681

Medium?

12688

Fl. 12531

12533

12535

12543

12727

12743 *

12751

Proved

	Br	Medium	Fl
No. ~~13~~ 18	12743	12751	
		12768	
		12788	

Is this proved? Range would be less than 1.0, probably and only 2 plates show much change.

Tuesday, June 28, 1927.

No. 73

See note p. 105.

Prof. B's star No. 43 is double.

Seen by
Prof B.

His Var. is
the one mbd

a see HB 799

... 43
...

5p
...

Probably his 43 = ~~4~~
This is ^{usually the} brighter ^{star} and is
marked 43 by him on
A 12727

& is about
constant,
with little, if
any, variation
maybe slight
apparent
change but

For proof of change of both stars, see

12224

12543

12630 - &

12688

12727 marked by B

12776

12808

12961

this is probably
due to changes
in the other
(close) star.

Relative br. of 2 on several plates

12224 a Med, & Br

12520 a NS, & Br

* 12543 a NS & Br

12630 a NS & Br

12681 a ft & Med

12688 a ft but seen & Med

12727 both seen about = mbd by B

12743 " " " " med

12751 " " " " "

12776 a br & med

12768 a & b = 5 ft

12786 " = 5 ft

when a is mbd NS.
This is min of Var 43 of B.

12792 both about = and med
* 12808 a br b med
13077 a & b = b ft
* 12961 a br b med

Vars. 56 & 57 Probably fused but pretty faint
for power plates

56 Br 12751
12776

57 Br. 12751
12776

Var. 62 859

Bi 12688

Medim[?] 12743[?]

12681

12808[?]

12630

12531

12533

12751

12768.

12776

12792

12961

13077

Lease - Probably not much, if any, change.
 12786 is probably defective and is the
 only plate that shows Min.

Wine already mbd 30298, 61^m

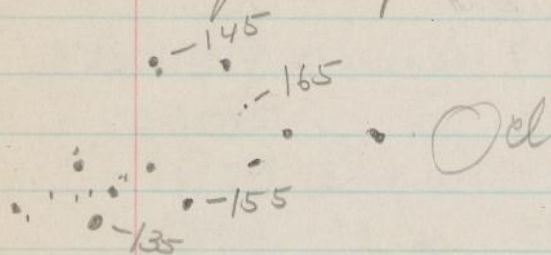
Comif. Sequence Carte 18 0 - 40.5 as marked on B5042
Magnus. BB. 35, p. 144 B47047

Mean

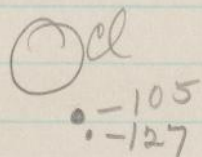
1			
2			
3	8.82	+0.12	8.94
4	9.18	.16	9.34
5	9.51	.18	9.69
6	9.81	.20	10.01
7	10.19	.22	10.41
8	10.42	.22	10.64
9	10.88	.23	11.11
10	11.22	.24	11.46
11	11.57	.24	11.81
12	11.70	.24	11.94
13	12.39	.24	12.63
14	12.60	.25	12.85
15	13.07	.26	13.33
16	13.28	.26	13.54
17			

which stars mean?
mbd diff. stars

Sequence for 6541 B25343, Am 14791 B 30298



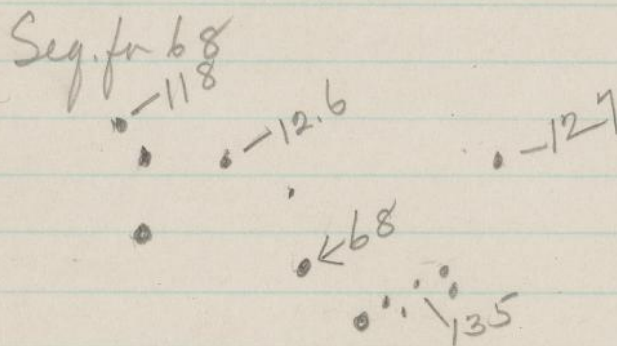
ft stars from A 12224.
13.5 est. from Carte Sq.
These stars were selected as
being about 1 mag. apart
from 13.5 to limit of plate =
17.0



Am B25343

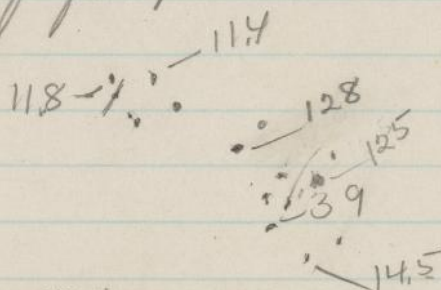
Someone
has cut,
magns. on
B 30298
13 was wrong.
14, diff. stars
are mbl m

B 47047, 50492



Seq. for 39

11.8



fr left 135 n fr

12224

Found Sept. 4, 1929

Object near Var 39 on B45484.

Fairly bright. — Suspected as Var. ^{new}B 45484 August 14, 1915 Mid Ept 18^h 6^m

Am 10993 " " " " 1915.

Am 10984 Aug 13

10985 " 13

Cannot find
find B45417

Not seen on Am plates.

Am 10993 is later than B 45484.Obj. would be seen on this plate if not just
below limit of plate.

6541 Comp. B plates

B 11419

13575

16157

17445

20356

23171

23413

25206

25343

29451

27920

30298

31404

32058

1922phae:proj.1201w