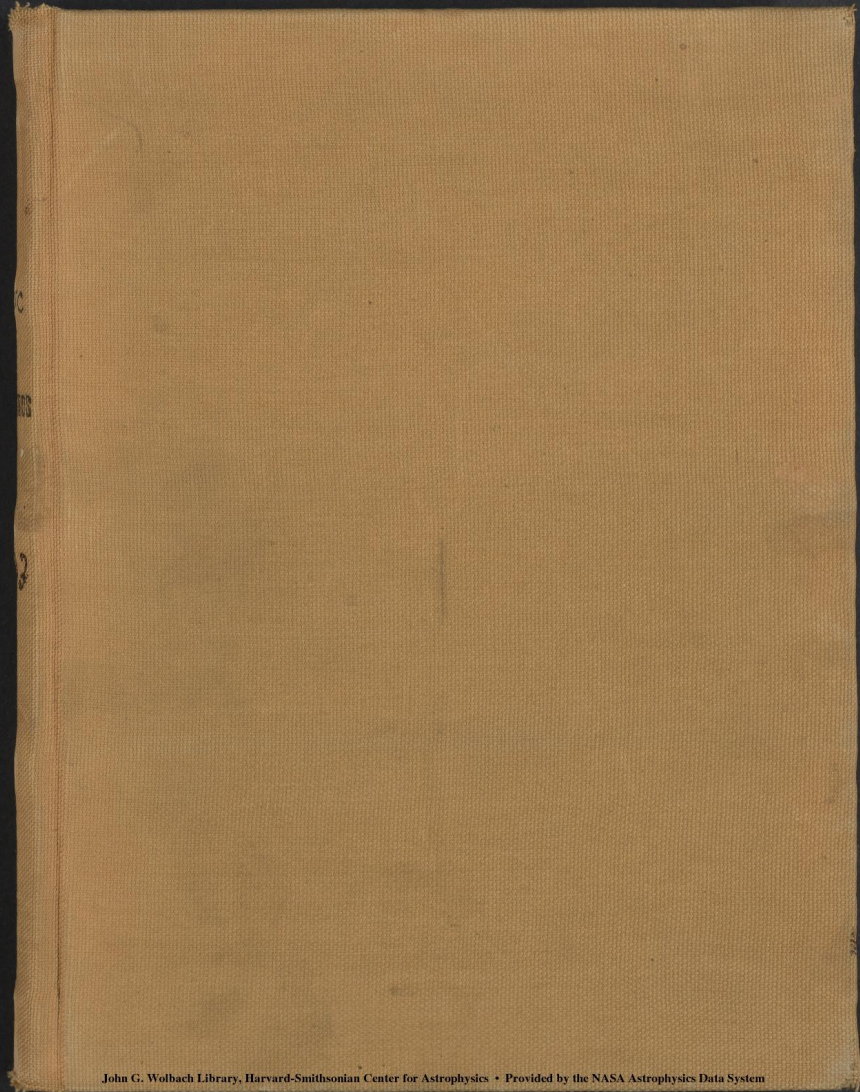




4 46 29.7 + 34.56.5 mag 9.2
 + 34° 924

Comet follow, it is a little north of this star
 July 7, 1911.

Miss Couch

1917 204

94

July 20, 1911

- ✓ B40294
 Peculiar sp. -1903634 ^{very} H β 5
 A wide absorption band. This band
 looks something like H γ & of another star but
 Chart plate shows no other lines.
 Conf. on B9444 sp. rather ft.
 B11395 " " "
 B9604 " " "
 B40575 good.
 B13138 rather ft.

This absorption bands is seen in
 actin & stars on these plates, but
 much less marked. I have never
 seen a spectrum in which it is so
 conspicuous. Let wavelengths of band.

July 20, 1911

- ✓ B40431 ¹⁹⁰⁰
^{-32°125'18" 179.0-3232}
 H β bright. Faint by line other lines
 very ft, so that sp. is almost contin-
 from H β to H γ

B20242
 Sp. almost continuous
 Bright H β not seen. This plate
 does not show the line H β in
 any stars as faint as this.

B14152.
 Lines very ft. Helium 4076 present,
 H β not seen. Requin 1074

July 20, 1911.

✓ B 23004

Object 13155. 17 33.5 - 54 51

Remark states that this sp. and
that of object 13154 V. Paronis
are peculiar each than Type IV.

V. Paronis is in IV Type Cat.

17 33.5 is in Pec. This does not
look to me exactly like V. Paronis.
It is perhaps best to leave it
in Pec. with no remark.

Sept. 14, 1911

✓ B 42317
H₂ input? = -28° 13 35.9

Not conf on B 41501, B 3689,
B 36858.

T 659

233486

Very faint, but appears like Class 7.
0, 6, 10.

✓ + 53°37'9" 3, 6, 10. (II r II m. P. 7)

+ 5-10575

Strong image, but too much
blurred. Not type ☒
on extreme edges, but better plate.

I 36907 shows this sp. clearly, and
it is of Class K.
I don't checked by A.M.C.

0 16.8 + 5836

Not sure if silent.

Several objects mean, but not of
class n

8. ~~53° 66~~ + 53° 66 in plate

$$\textcircled{18} \quad (3, 6, 10)$$

Probability in Class R

✓ +53°37'9" on ± 35801 (3, 6, 10) looks
to me like +53°66" on ± 31314

Latter is in Class R

Home " " " R but is matched
by Mrs. Fleming on plate Class II,
and on plate corner (I 35 & O)
Class II 5-VI.
Did she mean to put it in Class R?

1 + 4305⁻³ 0 14.6

marked on Ac 4596.

no var. in Ac5215, 515.

5, 3 2, 5787, 5713, 5655,

5624, 5487, 5436, 5215,

638, ~~5215~~, 5153, 12645, 11090.

Marked on 31197
Sp. on 32283

Image seen quite clearly but can
not classify. 11040, 12758
Not Class N

 $+59^{\circ}274 \quad 126.8$

On 9 3 5788 a ep is seen, but
can not classify. May be more
several other plates do not show
it so well.

~~Now~~

Sept. 15, 1911

+58°501 232.3

Marked on I 23436

Sp. cont. no lines seen

I 23574 sp. R? very poor
 but I feel pretty sure of this class
 I 23365, I 23269 also look like
 it

243.6 + 57

✓ +57°647 on same plates as
 above.

Class R? but more
 uncertain than +58°501.

Is this really ran?

+47°783 26.7

Identified on I 28151

✓ Sp. on I 19656 ~~has~~ very faint 0.6, 10.
 I think it surely appears to be Class

Conf. by Professor Pickens

+51°762 3 34.1

✓ I 23485

75 on 25

✓ I 24534

72

Sept. 15, 1911

✓ +50°961

Nothing seen on I 23445, I 24530

✓ 432.6 + 4123

I 31003

Not seen. Sp. name is not Type II.

✓ -15°915 4255.0

R Leporis

✓ No sp. seen on B 12783, B 39704,
 B 24605, B 12628

Agh Miss Wells if she has this
 sp.

+68°398 530.2

I 16486 (2, 8, 10)

very poor, but
 after seems faint
 streaks like those
 between 4, 8, 10 lines

✓ +20°898 532 + 24

I 19792 Ma?

✓ I 20041

Ma

Marked on chart pl. I 34389.
 (check plates)

Sept. 16, 1911

B 42332

13 13.5 - 73

Type IV? A. J. C.

Known to muscans
shows only one bright band.on B 13468, marked Type IV, near
this is a (3, 6, 10) star, only very
faintPer. on B 39170 Mus. f.
Ab. " B 13468, " "

on B 39170 (0, 4, 10)

on B 13763, banded like
(3, 6, 10) only (3 band is not
seen. Absorption is stronger
than in (0, 6, 10) and whole effect
is more banded.

Sept. 16, 1911

X Cass. B 36639

Transf. of in position but
not to Class.

I 2791 nothing plain

I 33407 " "

I 36820 " "

+62° 59' 6" of banding.

✓ I 33486 one faint bright band seen. Probably Na.
I 659 too faint.(3 50. + 61
also in plates marked Nd
Class VI?)

U Cam. (cont.)

✓ I 36670 very faint probably Na
I 639 very faint probably Na.

Sept. 16, 1911

✓ 37221
H₃ bright. This was marked
in August.

+57°2374

H₃ bright, 2
471 dark, family well defined.
H₂ ~~not~~ not clearly seen
171 H₂ dark but not very
well marked.

Exact class can not be determined
May be like f Cass.
B 2 or 3

Sept. 16, 1911

3, 6, 10 stars.

✓ +53°66 m 31314

✓ +53°379 3580

0°15.2 -17°2442

12 19.2 S Centauri

13 13.5 T Muscae 36, 10

14 59.4 S Apodis (36, 19, 10)

18 4.0 -18°3576

In Class R

" " R " IV-VI"
" " R " IV-VI"

Sept. 16, 1911

Class R stars

+61° 667 on J33486. out(3, 6, 10)

Sept. 16, 1911

✓ +18° 979. 5- 35.5 +17 29

Marked in orig. primitive copy, Class IV
Ma. near Henry. Pl. J31274+196 +17° 979 looks to me like an
mb star, a little n. of this sp
there appears blue and absorption
band carbon superposing on
Chapt. pl. this band appears
blue H β of aurifer star

Marked in J36372 Chapt

✓ J2819 object marked No. 1433

Sp. Ma

✓ J2538 per K5-?

J689 obj. 881

✓ J31403 Sp K or Ma

Sept. 16, 1911.

+44° 1288 5^h 41.3 +44 48 V

✓ Identified on I 35,61 too poor to classify

I 36508 class K?

I 37120 class K?

I 26154 too poor

✓ +26° 1117 6^h 4.7 +26° 3'

I 691 class K very fr.

I 20474 Bright image class K 0, 8, 10
Object not marked on this plate.

✓ +27° 1024

I 691 too fr.

~~I 28561~~ K?

I 20474 K?

I 28561 K?

Sept. 16, 1911.

✓ 0 Aurigae

I 34626 not seen

I 35205 " "

I 34010 " "

I 33015 " "

I 32729 Bare trace seen but cannot classify.

I 32967 Sp. seen appears to be class K (0, 6, 10)
check identificationMarked on I 31204 (chart)
not on I 20087

Sept. 17, 1911

✓ +3° 1214 6^h 17.2 +3° 29'

marked on I 32761

I 26239 1st sp. seen. Too poor to classify

I 21469 Sp. seen. Not distinct enough to classify.

I 23975 very short sp. seen. Probably red end.

How this star photographed

✓ +14° 1283 6^h 19.8 +14 48

I 26241 Sp. 5, 0, 8, 10

6^h 20.2 +19 10

marked on I 24034 no sp. seen.

I 31372 no sp. seen.

+3° 1381 6 39.4 +3 25

✓ marked on I 23975 Too poor

B 20657 Sp. seen but too poor to classify

See H 1865 Sp. like +42° 55

And no line seen in B 20607

Sept. 17, 1911

✓ M Monocrotus 6 47.5-7.2

I 5423 Chert

I 35849 Sp. Sp. not seen. It seems round
or superposed on adjacent star

✓ +14° 1594 7 6.7 +14 53

marked on I 32391 (sp.)

1st II on I 30944. Sp. seen, faintly

superposed on another. Can not

classify, but not Type II

I 11980 Too faint

I 23967 Sp. seen distinctly. Appears to be B or K2

Certainly not type II.

✓ -7° 1742 7 2.1-7

marked on B 25085. Breeding one of the double.

B 29419 little brighter.

B 15245 Sp. not seen.

Sept. 17, 1911

+24° 1656 marked on I 33713

Extends farther into the blue than marked on I 26125.

Marked on I 26125.

I 24943 slightly spec. more blue light.

Have taken with long exp.

✓ -12° 2279 7 57.5 -12 44 marked on I 36394
 I 10605 too ft. too faint
 I 31337
 I 36416 very ft. sp. spec. cannot classify.

✓ T leavis +20° 2243

I 324987

I 35648

I 35859

I 36397

sp. not seen

Sept. 17, 1911

✓ U Hydrae 10 46.8-20 43

B 13146 An object appears in position marked but too ft. to classify

I 11067

I 12739

I 33016

I 35271

B 40282

sp. not seen

✓ Ray ~~Di~~ ^{Di} ~~Di~~ ^{Di}

I 33878, also 33942

Pec.

0, 3 (black band very strong) 10 band very light, and light extends brownish red more than in ordinary stars

✓ S S Virg.

I 35862

0, 2, 10

✓ M Hydrae

I 35891

Something like S S Virg. ~~Di~~ ^{Di} ~~Di~~ ^{Di}

Sept. 17, 1911

-19° 49' 07"

18 7.9

B 36147 line of sp. seen
not classify. Int. Class 2

✓

-19° 46' 44" 17^m 23.8 - 19 24
marked on B 4562, 3

B 13153

B 9817

B 7755

B 9166

B 17091

sp. not seen

✓

+36° 31' 68"

18 28.9

Small sp. seen Int. class 12

Sept. 17, 1911.

✓ RX Senti - 7° 46' 33"
on B 40598. class 12
Chart B 22796

Sept. 20, 1911

✓ Type II stars

+14° 3729 18 54.0 +14 14

On J 30942, ~~18~~ of seen extremely
far. Can not confirm Type II

J 25792, type uncertain

✓ +0° 4064 18 52.5 +0 19

Marked on B 3 F 111
Can not classify. Seems to have
an absorption band resembling
Class II but extends further
into the blue.Plate B 11379 J 25711 and
several others do not show the
star sp. at all.

✓ B 41894 (best) shows a mark of -

Shows Prof. Pickering. He thinks it does not
appear blue Type II.

Sept. 20, 1911

+20° 4417 20 0.7 +20 22

Nothing seen on J 34351.
J 37192 faint image suspected
which appears blue of Class II, 0, 6, 10Map up with Clark plate. J 34193
Clark plate shows the band of J 37192
blue in correct place for star +0° 4064 7.
Prof. P. thinks the image is on J 37192.
+37° 3903 20 17.9 +37 13

J 4666. Nothing seen.

✓ J 32257 " "
J 33222 something faintly seen
J 33562 " "

Can not classify.

✓ +45° 4121 22 58.2 +45 21

J 31294 (marked) Bare spectrum
J 21605 no feature
= =

Sept. 20, 1911

✓ +60° 2634 23 48.0 +60 27

J31322.

Sp appears like *Mo. audrei*
certainly not *Chass. h.*

Not seen J3698.

✓ +38° 935
H 45.7 +38 50

J31003 marked. Sp. seen

Not type II

J311349, not good

Shortly off P

Thinks it is not type II.

✓ -46° 1969 5 40.4 - 46 20

Marked on B 15220

B 18434 Sp. not seen

B 12756 not surely seen

Sept 21, 1911

No stars.

✓ 16 57.5 +10 7 +10° 3764
marked B23239 - 2h. image near by
Cannot classify

I 37790 Sp. not seen.

I 36835 Not seen

I 36120 not seen

✓ 19 25.8 + 45 50 Position marked on I 33763

I 20594 sp. not seen

I 22767 " "

I 32398 " "

I 23132 " "

4

Sept. 22, 1911

✓ Spectrum of RR Ceti 012700
for vol. 56, 6. Madeisky, J.C.M.
J 17189 G? Forth.

J 25862 much better but still
quite ft
sp. appears blue H

✓ +14⁰, 1259 on J 35122
#15?

Mrs. Fleming ~~believed~~ called
this "Polaris" and although too poor
to show the bands which H γ and
H δ appear blue "bright" this was
apparently following Sahle III.
The bright lines referred to are
not H γ & H δ but appear blue
streaks due to poor focus

Sept. 22, 1911

✓ 020911 V Arctis.
on J 32540

Mashed Pec. var?
This is Class K (3, 6, 10)
See if in proper list.

✓ +22⁰ x 137 - Tulpea.
on J 27193 Forth.
sp. on J 19053
Mtd. H γ and H δ bright.

✓ 214742 V3 Cygn
+ 42⁰ x 233
on J 31293 sp. G? too near
J 32278. #15?
J 19247 #15 or 9 -

September 25, 1911

[Prof. Hill of Pasadena here]

✓

19 57.1

19 58.5

very close plate in ^{or near} east place
 in $\sqrt{30399}$
 no sp. seen in $\sqrt{32375}$. Left
 block up machine plates

Sept. 25, 1911

✓

19 58.5 + 20 46

marked on B 32463 Chart

not seen I 27920

not seen I 22831

not seen I 26148

I 37192 not found.

✓

20 0.8 + 36 32 marked on I 33486

I 33486 Plate from but appears to be 0, 8, 10
 I

✓

20 9.8 +

R S legyqui

I 32359

0, 6, 10

✓

20 11.3

R T lequien

I 34178 marked.

0, 6, 10

Sept. 25, 1911

✓ 20 13.3 +36 36

Trace of a faint sp seen on I4666 in
position marked. Cannot classify.

✓ 20 17.4 +35

Sp. I4666 marked
Sp. seen but can not class.
Probably not it
Same on I33561

✓ U Cygni 20 16.5

I36216 At 0, 6, 10

The 6 band exhibits fainter
towards blue than normal✓ I36210
(36, 10) but not especially
banded

I36206

Special intermediate

Sept. 25, 1911.

✓ 20 14.8 +37 9 +37° 33' 5.6 Mr X Cygni

I4666 Sp. ~~+~~ adjacent star
I32359 ~~51, 0, 50~~ = 38%
Q 1546

0, 6, 10

Sept 27, 1911

✓

Ry. legum

20 6.6 + 35 37

A 1546

0,6,10

✓

20 17.4 + 35 17 + 35° 40.77

Trace of sp seen on I 4666 not fourth type
 Trace of sp seen on A 1546 not type IV.

✓

+ 39° 42.08

Ry. legum

20 25.2 + 39 39

Trace of sp seen on I 309 T3
 Cannot classify.

✓

+ 40° 42.10

20 27.4 + 40 11 marked on I 31018

I 4666 sp. n.s.

I 30933

n.s.

I 32359

n.s.

Sept. 27, 1911

✓ 20

43.4 + 45

Sp seen on I 23 748 but cannot
 classify.

Sept. 27, 1911

Additional IV type stars.

✓ +62° 211 faint. checked

I 33412

a

✓ +50° 920

I 31456

Too faint,

✓ +63° 56

I 33411

not type IV. May be Ma. but uncertain

✓ +38° 575

I 26324

Faint image which appears to be of type IV
conf. by Prof. Pickering and Mrs. Wells.

I 15792

Faintest very faint on this plate. Look up.

+58° 525 Aug. H.C. 167

Variability conf. by A.C.M.

Lumi. m 129731 Sep. 22 m < 14.0

Brown I 10080, May. 12?

Sept 27, 1911

✓ +50° 920

I 31456

Faint sp. rev. cannot classify.

✓ I 26513

Too faint cannot classify.

✓ I 24524

Too faint. Cannot classify.

✓ +5° 5223

B 12340

N 2, 6, 10

✓ +70° 644

I 33033

H5 (good)

Announced from I 1313 which was to form.

Sept. 28, 1911

✓ +29° 1177

I 28561

very ft sp. seen. cannot classify.

✓ +45° 1053

I 25944

Sp. seen, not clear. Not clear mountain.

✓ +45° 1083

I 19657

Sp. seen not clear N.

September 29, 1911

✓ +47° 3429

21 26.1

on I 25954

Faint sp. seen. Probably not clear N.

29
Sept 29, 1911

✓ A 229 ^{No. 780} Object marked by Mrs. Fleming.
-58° 10 1. 2 58 11
H β apparently Br. also on B 35749

B 41152 not seen

B 41147 not seen

✓ It appears on A 229 on the side of quadrilateral of H β
On B 35749

One very bright line at or near
H β the rest of the spectrum is nearly continuous

Sept 30, 1911

✓ I 37257
While qualifying I glanced at several
spectra and noticed very excellent
Bo spectrum
I identify as H. R. 8561. + 64' 1864
Given from H. R.
Certainly Bo

October 4, 1911

Additional IV Type stars from Espin second
Catalogue. Not 2m stars approx position
marked on sp. plates by miss machine.

✓ 1 37.7 + 60 7

I 35788

No sp. of class V seen.

✓ 1 37.8 + 61 7

No sp. of class V seen.

✓ 2 3.4 + 63 9

I 35788

No sp. of class V seen.

✓ 3 51.3 + 60 33

I 33671

No sp. of class V seen.

✓ 6 33.3 + 22 42

I 36516

No sp. of class V seen.

✓ 6 55.3 + 68.19

I 36643

No sp. of class V.

October 4, 1911.

✓ 20 11.8 + 36 47

I 30983

No sp. of class V seen.

21 6.5 + 32 57

✓ I 35003

No sp. of class V seen.

October 11, 1911

I 31321 21 23.3 +629

Not N. Probably Mar

Looking on I 37172, the only
schub plate found

✓ +49° 3535 21 25.8 +49 54

I 35786

Specimen Probably not N

✓ +50° 3552 21 26.7 +51 10

I 35786

Specimen Not class N

✓ +52° 3036 21 43.6 +52 13

I 35786

Specimen Not class N

✓ +52° 4607 21 30.5 +17 53

I 13715

Specimen. Does not appear to be class N

October 12, 1911

✓ +37° 4407 21 39.1 +37 34

I 32043

Class N 0, 6, 10

✓ +53° 2692 21 40.6 +54 8

I 35786

Specimen Not class N

✓ +53° 2693 21 40.6 +53 15

I 35786 In a group. No sp. of class N seen.

✓ 21 43.0 +52 5

I 35786

sp Not seen This object does not appear
on chart I 27551

✓ +49° 3673 21 51.5 +50 1

I 35786

Probably too far to show sp.

✓ +65° 1770 22 25.0 +65 56

I 37244

Mar

October 12, 1911

✓ $+60^{\circ} 24' 32''$ 22 40.4 + 61 12

I 13697

Class N 0, 6, 10

✓ $+45^{\circ} 41' 21''$ 22 57.2 + 45 21

I 31294

Frank here says that class is not defined

October 14, 1911

Exam. of a few spectra to determine class for remarks in Lyfe II.Sapodis on B 14351 seems to me exactly like $+60^{\circ} 50' 57''$ on B 38912, and I think S Apodis should be in Class R.

S Sagittarii on B 39391

is like $-41^{\circ} 11' 53''$ on B 37604 except S Sag. has bright $H\gamma$ lines $-41^{\circ} 11' 53''$ is Lyfe II

S Sag. is med 2

✓ Crucis on A 3584

0, 6, 10, with $H\beta$ & $H\gamma$ bright

this looks quite different from R. U. Virg. on J 35359. The latter is 3, 6, 10,

✓ Aquilae resembles γ Hydri
B 38083 & B 38084 40598

October 17, 1911

Good plates for Kennic Draper

23 49 + 55.0 J 37241

October 17, 1911

Typical spectra for enlargement

C 15324, A 0

+ 43° 32'
Lines a little curved.

C 15065 H 0

C 16206 B 8

C 15197 B 5 + 63° 27'
152.3 + 63 K. 5 (1850)C 15000
G 5 = η Androm.C 15071 λ Cephei for class Oe.

C 18085 B 3

C 16108 G 5

C 15277 B 2

X 6438 β Com G 5X 5321 β Hydr G 0

October 24⁵, 1911

Per. Spectra.

7^h 48.3 - 11 22
- 11° 21' 41"

on B 12773 Mapec

Resembles - 80 1099 5^h $\frac{17.6}{15.4}$ - 488
on B 10366. Bright band bet
HB & H₂.

17 13.2 - 66 15

A 4588

Class K.

10 ft. on B plate.

Oct. 26, 1911

20 P. 5

RZ Say. on A 2023

Several B plates looked up
B 39598 shows this sp. very short
bright portion cont. crossed by
two or three absorption bands

October 26, 1911

JD 13780

Spectrum plates of Z And,

1897, Feb. 24

I 17400

Too near edge.

Only a faint blotch seen, no lines
or bands

I 32258

Too faint.

Barely seen

JD 16811
Apr. 26, 1900

I 32360

Too ft.

Barely seen

I 35681

n.s.

JD 18299
Dec. 23, 1898

I 31763

Too ft. Barely seen

JD 13925¹
Dec. 31, 1896

I 16947

Sp. seen, no faint lines distinctly
seen.

October 26, 1911

JD 15310

Z Androm Sp.

Oct. 17,

1900

I 25940

Recorded by Mrs. Fleming

By lines H α or H β ?Line was run through H α or H β Lines seen are H β , 4633 or 4688 or
both combined; H γ , H δ and H ϵ .H β , H γ + 4633, 88 are nearly
equally bright, H β is slightly
fainter.

JD 16462

I 31262 Dec. 13, 1903

Near edge but sp. is a little
brighter than in I 25940H γ , H δ 4633, 88 distinctly seen
H ϵ may be seen.

Oct. 26, 1911

16485

Jan. 5, 1904

J 31364
Z AndromH_b 688 H_γ & H_δ seen
All are bright

16412

Oct 24, 1903

J 31046
Br. lines seen
Spiral edge

16464

Dec 18, 1903

J 31303
H_b 688
H_b H_γ H_δ & H_ε seen
All bright
H_γ perhaps is the strongest

11444

Mar. 20, 1896

J 16843
Parr. Br. lines seen

Nov. 8, 1911

B 12673
obj. 6278 = $-11^{\circ} 21.4'$
Somewhat like π Lyr.

For enlargement

B 22784
obj. 12886.~~May 1906~~ π R
Class ~~II~~ R

Rather faint.

J 37295
19 PerseusJ 33878
obj. 6014 = var. 120266
Faint.B 12261
 π Lyr.

November 15, 1911

Objects looked up for
the letter of Harlow Shapley, Nov. 6, 1911

(1)

+13°670 Miss Wells considers this star
much fainter than other 9.5 class in the plates.
I 31161 Star with not very faint
in the plates. About 0.5 magn.
fainter +12°596 9.5, +13°673,
9.5.
Sp. on I 32532 not very distinct,
but probably Class K.

21 plates examined by L. D. N.
No variation found.
See Bk 3, 40. L. D. N.

This star should not be included in Circ. 128.

+12°595

Very faint on I 31161, barely glimpsed.
Certainly if present, 2 magn.
fainter than other 9.5. Am not
sure whether this object on I 31161

is the star or not.
Examined on 4 plates by L. D. N. See Bk 3, 13

This star should be included in Circ. 128.

I 719 1890 0.3
I 5295 1891 12.30
I 17259 1897 2.4
I 19028 1897 9.26
I 31161 1903 11.19
I 33592 1905, 19.29
Faint image
suspected on last
two plates

Nov. 5, 1911.

-15°4676.
L. D. N. took 4, 125

(3)

Var. of 4, or 5 suspected by L. D. N. on 19 plates.
On B 28578, this star is slightly
fainter than an obj. of 9.4
Sp. on B 40581 is K5 which
probably accounts for the faintness.
This should not have been included
in Circ. 128
Sup. by L. D. N.

(4) -17°05349 on B 25827¹⁸⁴³⁻¹⁷ n. 1912
Fairly bright star. Brighter than an
obj. star of 9.4 mag.

See Bk 2, 156, L. D. N.

+43°4563

(5)

marked
Bk 2, 77 (mills)

Sp. on I 31261 K5 or near 9.
Sp. of +43°4562 is Class 9.
8 clear plates showed no var. to L. D. N.

MC 1414

Metacarp's Asteroid marked
may 11.9. E. F. L.MC 1415
#5

MC 1423 71

may. asteroid 11.9 E. F. L.

Jan. 23, 1912

Specimen of *varicellus* for Miss Loret

B 40090

H 1228

sp #

B 21154

H 1216

B5

partly superposed on
another star

H 1272

B5

Light almost continuous

H 1273

B5

of page 63 - both plates re-examined Feb. 16, 1912.

H 1220

B5

B

H 1278

K

B 15611

H 1277

B5 Definition very poor - too near
edge of B 21154

Nov. 30, 1911

Plates of M3, which runs out for Prof. Bailey. Parker
broken to day

X	1482	X	8790	X	7469	X	10257
X	1941	X	8662	X	7499	X	10256
X	1444	X	8604	X	7601	X	10254
X	1690	X	6821	X	1756	X	10253
X	1586	X	6817	X	8599	X	10249
X	1728	X	6815	X	7603	a	1830
X	1530	X	6814	X	7661	a	1812
a	1791	X	6805	X	7789	a	1829
X	6784	X	6637	X	7857	a	1825
X	6785	X	6829	X	8358	a	1828
a	1781	X	6836	X	8452		
a	1787	X	6838	X	8453		
a	1789	X	6877	X	8467		
a	1788	X	6956	X	8515		
a	1790	X	6958	X	8538		
a	1782	X	6960	X	8540		
a	1784	X	6974	X	8542		
a	1785	X	6981	X	8544		
a	1786	X	6991	X	8556		
X	6786	X	7000	X	8564		
X	6806	X	7007	X	8571		
X	6763	X	7008	X	8576		
X	9916	X	7009	X	8578		
X	9940	X	7010	X	8583		
X	9790	X	7018	X	8586		
X	9869	X	7036	X	8591		
X	9501	X	7038	X	8594		
X	9157	X	7043	X	8596		

January 23, 1912

cont from p 59

B 21154

H 808 78

H 1276 75

B 40090

H 1224 80

H 1275 85

B 39965

H 1274 85 Difficult on account of partial
superposition on bright star

B 38547

H 1297 75 Faint and difficult

H 1295

January 23, 1912

B 38828 and B 38798

H 1286 G₀

B 37617

H 1304 md? H₀ very narrow indistinct
bright line.

B 37624

H 1299 F? very faint and difficult.

Many object marked. Reject
B 37228

A 2213

H 1269 K very poor.

A 5768

H 1279

A 5794

H 1295 H

February 16, 1912

Spectra of Variables for Miss Leavitt

B 37592

H 1299 Ma

B 39267

H 1299 m

B 39186

H 1299 mb best plate

B 38749

H 1273 F₂ of spec 59 - both plates re-examined.H 1274 — probably class B, but superfluous,
and near edge

B 37591

H 1292 already classified

B 40423

H 1295 F₈ very good

March 6, 1912

87, 1911
Var. or hora announced by
C. R. D. Ealyne in A. N. 1911 163
Chart given. No star seen in
given position on J 23979. ^{Jan 5, 1897}
020356. ₁₃

Position on AC 12138.

h.s. < 12 on J 19670 ²⁴ hr. 30, 1897
h.s. < 12 on J 17279 ¹⁴ Feb 7, 1897
h.s. < 12 on J 29650 ¹³ Dec 8, 1902

J 28376 shows the star, Jan 28, 1902.
probably about 11 mag.

g D 19352
g D 19391

AC 12745 Mar. 18, 1911, "h.s. < 11
AC 12799 Dec 20, 1911 " < 10.5

March 12, 1912

23° 35'

Search for Enebo's hora near
Luminophum.
The last specimen plate of the region was taken Dec. 27, 1911.

AC plates.

J 19024
Feb 6, 1911 123129
19091 " 12345
23 " 12345
J 19096 " 12813
Dec 15, 1908
Feb 5, 1912 12880

AD plates

g D 19472
March 10, 1912 10735 Star s.p. 9, mag. 9.1, seen. Hora NS
March 11, 1912 10739 +22° 125' barely seen mag. 8.0

Hora probably < 9.1 on March 10,
and < 8.0 on March 11, 1912

at
Moon position given in first ^{cable} message.
The ^{second} cable message read
to Hemo. See next page.

March 13, 1912

A.I. 10

Search for Ender's Nova near
θ Keminorua

90 19473 A.I. 10729 taken March 11, 1912
 Nova seen about 9.7 magn. fainter
 than θ Gem 4.18 sp. #

90 19472 AC taken March 10, 1912
 N.S. 41

90 19473 AC 12989 taken March 11, 1912.

Nova seen about 9.7 magn.
 than preceding Nova marked as 26071.

Position of this star preceding Nova estimated
 by Miss Wells

$6^h 45.3 + 32 17$
 therefore position of Nova assumed to
 be $6^h 45.5 + 32 17$

March 13, 1912

21

30

Nova Gem. No. 2.

Spectrum F5 with strong metallic
 lines

March 14, 1912

22^h 15^mMeasure of dark line in spectrum
of Nova Gem. No. 2

I 37637

H γ 0.0 ^{dark} unbk. line 4.4H δ 6.8H ϵ 0.0 ^{dark} unbk. line 2.3H γ 6.1Dist. bet. H δ and H γ =

6.8

this line = $\frac{2.3}{6.8} = .34$

4340.7

4101.8

238.9

9556

7167

81226

4101.8

812

41830

41830

I 37636

H ϵ 0.0 unbk. line 2.3H γ 0.0 unbk. line 4.4this dark line may be 4173 strong in α CygniH γ 6.8H δ 6.1

I 37637

H δ 0.0 br. 2.8br. 4.8 H γ 5.9H γ 0.0 br. 2.1br. 3.0 H δ 5.7

4439.1

4616.7

I 37644

H δ 0.0 br. 1.2

br. 2.1 br. 6.0 br. 7.8

H γ 3.6 H δ 9.4H δ 0.0 br. 2.7br. 4.9 H γ 5.9br. 7.2 br. 8.0 H δ 9.5

March 23, 1912

Nova Gem. No. 2, Spectrum of.

JD 19475 - March 13, 1912 (JD 19475)

I 37637

Class F₅ with a ^{dark} line at about
4173 strong and one of "greater λ than
H δ Two bright spaces bet. H γ and H β .
Magnitude up with those in Class K.
The me of fr. λ is apparently the same as in Class K. Bet λ .

JD 19467

as 12978. March 5, (JD 19467)
No trace of the Nova.

90 19476
Monday, March 24, 1912

22

Description of the changes in spectrum of
Nova Gem, No. 2

90 19475- ~~March~~
March 13 ~~Fr~~

90 19476, 14
March 14 Bright lines & red of hydrogen and K.

90 19477
March 15 Very poor. H β brighter than at other times.

90 19478
March 16 Typical Nova. Differs from Nova
Persei in having K very bright.

90 19479 137560.
March 17 Little or no change from March 16.

90 19480
March 18 Bright hydrogen split in two portions.

90 19481
March 19 No plate?

90 19482
March 20 137671 very poor. H γ appears brightest.

90 19483
March 21 No plate.

90 19484
March 22 Bright column some. Dark band K appears
as a narrow line.

March 24, 1912

90 19484 (Nova Gem No. 2)

March 22 (cont.)
strong

The bright hydrogen line has
dark bands on edge of short

June 5, 1912.

Nova Gem 2. Spectrum.

I 37641 rather dense
 Per. bands to red of H β , H γ , H δ , H ϵ ,
 also R but not quite so strong as H ϵ .

JD. 19476
 March 14

I 37645 thinner plate.
 Spectrum appears equally strong at
 B, F, D, E, but very faint at R.
 3 bright lines or spaces bet. H γ and H δ .

I 37663 good plate.

I 37644 perhaps best for decreasing

I 37646 Iso.

JD. 19477
 March 15

I 37650
 Very poor.
 H β , brightest H γ , H δ , H ϵ in decreasing
 brightness. Very little in red.

June 5, 1912

JD. 19478
 March 16

I 37651 Best. Dark H γ seen as a narrow line.
 53 Iso. but not very good. ^{other dark by d. n.s. alone}
 57 are very strong, equally intense, bright
 & fainter than bright H ϵ .

Order of the lines H β , H γ , H δ , H ϵ and R.
 2 bright lines bet. H γ & H δ , being the same
 as the two of shorter & in I 37645, the
 ones greater & having disappeared.
 2 strong dark bands bet. H δ & H ϵ & H ϵ
 4922 and 5014 bright. ^{seen very faintly}
 in the 14th. as bright lines.

JD. 19479
 March 17

I 37660
 61 Iso. Enlarged.
 Dark by d. not seen. H γ has dark
 line on edge of greater &
 H β shows a dark line of vertical. Dark H ϵ
 R are distinctly fainter than on March 16.
 I 37664
 66 Thin

JD. 19480
 March 18

H β , H γ , H δ have dark lines of reversal.

April 27, 1912

Search for objects suggested by van
 der Waerden 20^h 40 +66

J 34786 n.s.

J 29554 n.s.

J 19420 "

J 11679 "

J 26536 "

J 1167

J 27264 "

J 23518 "

J 16445

Can not confirm. No star
 seen in position.

June 5, 1912

vrr Ben cont. fr p. 73.

92 19481
Inch. 192

I 37670 poor.

Bright H₃, H₄, H₅, H₆ & K seem to
be divided into 2 lines.
H₆ probably poor but the
appearance seems the real.

19482 G.D.
Inch. 70.

I 37672

Dark H₃, H₄ and K seem distinct.
Changes very slight since Inch. 17,
as seen by comparing this w. 37660.

Dark line 4387? stronger in 37665
Dark H₄ & K stronger " "

19484 G.D.
March 12I 37674
75

Dark H₃, H₄, H₅ are much narrower than
in March 20, H₃, H₄ & H₅ are distinctly split
into two lines. Bright H₆ is fainter, and H₇ & K
has disappeared. Most of the
K has also gone, only a narrow line left.

June 5, 1912

19485 G.D.
Inch. 23

I 37684 poor.
Dark hyd. conspic.

19487 G.D.
Inch. 25

I 37685 very poor.
I 37686 poor.
Probably like I 37675 (Inch. 22)

19488 G.D.
Inch. 26

I 37690 very poor.
Nothing seen except bright bands.
The br. band bet. B and F is more
intense than on 23 or 25. This band
is not seen on the 22nd.

19489 G.D.
Inch. 27

I 37691 very poor.
37693 poor, only br. bands.
37692 " "

19491 G.D.
Inch. 29

I 37694
I 37695
A few days later, one having shorter &
than H₃ looks the same as in Nova Per.

June 5, 1912

19490 J.D.
March 30

J 37698

No change in sp.

237666 faint

J 37697 best

Very nearly like 37675 March 22,
except that the band near 4849 is
stronger. As this is the first good
plate since the 22. It is probable
that no great change occurred

19496 J.D.
Apr. 3

J 37702 poor

Same as March 30

19497 J.D.
Apr. 4

J 37707

Flare poor. the dark hyd. are not
seen as on J 37697, but I am not
sure whether this may be due to poor
plate.

June 10, 1912

19498 J.D.
Apr. 5

Nova Gem. No. 2

J 37710

Poor narrow.

Lines seen H β , 4649, H γ , H δ and H ϵ .
Two dark lines or spaces bet. H β and H γ .

19498 J.D.
Apr. 5

J 37709 best

Lines seen 5016, 4922, H β , 4649,
two dark lines of shorter & than 4649,
one dark line near 4471, H γ br,
two faint bright streaks bet. H γ and
H δ , H δ br, a dark line on edge
of shorter & of H δ , H γ br, H η br.

J 37740

J.D. 19513
Apr. 20

Probably exactly like Apr. 5

June 10, 1914
Horse Gen. 2

June 1955990. I 37790

very poor, but 4922 seems
faint or missing
Lines seen 5016, 43, 2049,
44, 45, all bright
2016, or the albedula line

43 narrow and probably
fainter than 44.

July 27, 1912

Search for J. E. Stern's stars in
ac plates. Not seen on the following
(see p. 64). ac plates. See also Miss Mackie's
observing book II, 8.

Alc 12745	Alc 2938
5597	2913
4367	2743
4317	2135
3118	3376
5709	3183
5990	4395
5979	4093
5933	3959
5781	3945
5773	3937
5737	3932
5825	3924
5377	3917
5331	3913
5232	3881
4551	3849
2987	3790
3747	2273
3746	2219
2221	2261
	2235

August 5, 1912

Progress of zone with vol. 54,

C.D. & C.Dm

-34, -35, -36, -37
-44, -45 (part)

C.P.D.
all?

-18 Dm & C.P.D. on

-19

-20 B.Dm and C.P.D. magn. entered

-21

-22 B.Dm C.Dm and C.P.D. magn. entered

-23 C.Dm and C.P.D. magn. entered

-24

-25

-26 Cape entered.

-27 If from 45, Cordoba also entered.

-28

-29

Miss O' Reilly.
All the months

Nov. 26, 1912

A. N. 190, 377

Zinn's article

Nov. 26, 1912 See A. N. 187, 9.

Sept. 13, 1907.

Announced as known Sept. 13, 1907

Ac 8479¹⁺¹⁵ Sept. 16, 1907
is known to show stars as
faint as this.

Ac 8476¹⁺¹⁵ does not show it.
Requ. marked

Am 5139 0.0 - 1.5 Sept. 13
5145 0.0 - 1.1 " 15
5167 " " " 18

Am 5167 n.s. less than fainter than Enots 3
Am 5139 3 images of the stars + 9°64 very
cloudy seen
5145 n.s. Star 2 (+9°64) very well seen

Am 5139 I. D. 2417832. 791 Sept. 13, 1907 18°59'
apparent, very much fainter than +9°64

Nov. 26, 1912

A. N. 190, 377

I Capricorn. - 19°5890, 5892, 5893.
Zinn states that bet. July 5 and Dec. 10, 1911
he observed these 3 stars 7 times, that the
brightness of - 19°5892 increased from 9.8
to 8.4 on Aug. 11, and again after that,
undoubtedly with small changes.
The foll. star, - 19°5893, also proved to
be var. being 10.7 on July 5 and
9.8 on Oct. 7 and again 10.7 on
Dec. 10.

No change in these stars
has occurred on the following
dates. See also Miss Seawell's obs.
book, where she states that she sees
no change in either object.

AM 7526 July 6, 1911, earliest

7551

7593

7642

7653

7753

7793

7857

7887

7913

7711?

Oct. 24, 1911 latest

Ab 12509

12555

12572

12591

The three stars
are marked in
B 23078,

Nov. 26, 1912

Notes on Zinn's article

Star No. 30. -1705349.

11.1912

18 480 -17 2

See p. 57 where this star was looked
up for Chapley. This star must
have been mislabeled in Circ. 128 by error,
because it is fairly bright, brighter
on M 25-27 than adj. star of 9.4
Get sp.

No. 33. +40°413. 20 16.2 +40 5

12.1912 Zinn says it is 9.5 mag!

Nov. 26, 1912
Zuni's article

No. 40. $+23^{\circ}41'57''$ $70^{\circ}42.0' + 23^{\circ}31'$

14. 1912. Zuni finds two stars
 $9.4 + 10.6$ although which one is
variable, he does not state.
He says, however that it is near
my Harvard plates. See circ. 128.
is it?

Mar. 26, 1912

Mar. Saf. No. 1

B21258, Apr. 21, 1898,

Lines seen

H β 9
 4640 9 wider than (B or V)
 H γ 10
 H δ 5
 H ϵ 3
 H ζ 2

No lines of 5007, 4959 or 3724

This is like Nova Gen Nov 12 before
 May, 1912.

B23023 June 9, 1899,

Sp. narrow. Lines seen

H β 1
 4640 12
 H γ 10, probably including ~~4640~~ 4363
 H δ 1
 H ϵ 1

Nebular lines Lick. Bul. No. 19 (Vol. 1)

Orion neb.	G. C. 4380	G. C. 4964	⁺⁴¹⁰⁴⁰⁰⁸ h. G. C. 7027 ⁺⁴¹⁵⁰
3726.35 4			Lick.
3728.98 3			
3835.8 1			
3868.87 4	3868.94 5	3868.88 4	3868.97 7
3889.13 4	3889.16 2		
3968.1 1-			
3967.69 3	3967.64 5	3967.57 4	3967.61 7
3970.24 5	3970.25 4	3970.08 2	3970.33 3
4026.7 1	4026.8 1-		
4068.7 1			4068.81 2
4101.95 6	4101.90 6	4101.88 4	4101.88 7
4340.66 10	4340.64 7	4340.67 6	4340.60 9
L	4363.30 2	4363.5 2	4363.37 8
4471.77 2	4471.66 2		4471.7 1-
		4685.72 6	4685.75 9
			4746.0 1
4861.57 7	4861.47 6	4861.7 4	4861.44 8
4959.01 5	4959.13 8	4959.16 8	4959.97 20
5006.82 7	5006.94 25	5007.06 20	5006.83 80

Nebular lines Lick. Bul. 183.

In Orion neb.
 > 3734 faint
 3722 " "
 3712 " "
 3704 " "
 Line susp. near > 4137.

h. G. C. 7027.

> 6301 ft.
 6548 bright then 6307
 6583 fairly bright

It is very bright in all the nebulae
 that have been observed.
 Obs. by W. H. Wright.

Dec. 20, 1912.

H 329
332
333
334
342
343
344

Lyman one by Mrs. Knapp
Spectra with 24 appts.
not any.

March 6, 1913

+53° 2486

Examined for proper motion
See photo card of Palisa

J 4073 Aug. 20, 1891

J 33470 Oct. 6, 1905

No change in position seen.
Also examined by Prof. Pickering.

Nebular Line	Identification	Kayser
3726.4	Nw +	
3729.0	...	
3835.8	H γ , Nw-, Nw++, (?)	
3868.88	Nw-	
3889.14	H δ	
3965.1	Helium	
3967.65	Nw++	
3970.28	He	
4026.7	Helium?, Nw+	
4065.8	Nw--	
4101.91	H δ	
4340.62	H γ	
4363.37	Nw	
4471.71	Helium	
4685.73	...	
4740.0	Nw--	
4861.54	H β	
4959.06	Nw--	
5006.89	Nw	5007.22
...	...	

$$n' = 5007$$

$$n'' = 4959$$

See L.B. 7, 6, 9

Plates for enlargement.

J 13117.

neb. 4997

H₂ or 4363 strong.

Found by W. P. F.

H₂ has been obs. as a neb.

May have been a nova.

Fairly good but lines not very
straight & perhaps high for
enlarging.

H 363 → 5007

May 12, 1913

Search for Meteors near Astoria

Found on plates from May
Dec⁹¹² - April 1913

Plates taken by Mr. Miteaef.

Ac 13480	1912, Nov. 16	J.D. 9723.929
" 13738	1913 Feb. 5	9804.738
" 13845	" Mar. 6	9833.766
" 13932	" Apr. 6	9863.628
" 13640	" Jan. 12	9780.877
" 13704	" " 30	9798.843

May 24, 1913

Plates to be returned to Jucker

in duplicates	I B2 667
2 Aurites	I B2 1358
2 Pueri	I B2 2102
41 Cygn	B2 456 Stained on edge
2 Leonis	I B2 1290
Mura	I B2 942
K Cass	I B2 1727
2 Mortis	I B2 1468
2 Mort	I B2 1490
2 Peg.	I B2 1158
" "	I B2 1108
2 Aurites	I B2 1178
2 Puppis	I B2 691
2 Aurites	B2 730
Mura	I B2 952
2 Leonis	I B2 693
2 Leonis	I B2 754
- Can	I B2 108
2 Puppis	I B2 703
K Cass.	I B2 1772
K Cass	I B2 1718
2 Cass	I B2 390
2 Aurites	I B2 245
	I B2 464
2 Cass	I B2 1192
29 Quil	I B2 1348

May 24, 1913.

79 Erid.	I B21301
40 Can. May	I B21209
2 Her. Can.	I B21233
40 Can. May	I B21251
40 Serpente	I B21718
14 Cornae	I B521
10 Lacertae	I B1150
7 Loris	I B472
10 Lacertae	I B1128

37 plates sent
x Cornae Illumed

Friday, Jan. 30, 1914

I 38601

Gork B3 star for enlargement.

B 36576. $17^{\circ} 8' - 44.6$ $17^{\circ} 12.1 - 45.32 - 45^{\circ} 11393$ T.T. fairly good
for Oa. Linc's broad horizon.

I 37600 No. 38

Gork Composite type

Jan. 31, 1914

Novae which have changed into nebulae.
There are given in 56, 172 as follows.

✓ Nova Persei, No. 2.

Nova Aurigae

✓ Nova Gem, 1 063730

✓ Nova Gem 2 6

✓ Nova Del.

✓ Nova Norma

✓ Nova Drae

✓ Nova Lyr. 1 Nov 1258, Apr 21, 1886. Remains of Cn. Aurigae? + 30° 56' 51"
Nov 3042, June 15, 1898. Hydrangeablu class Pe?

✓ Nova Cyg. 1

✓ Nova Cygni, 2.

✓ Nova Lacertae? 223152

Class R.

Nov 84 on B21155
Is this normal Class R.
Perhaps it should be measured.

Monday, May 18, 1914

List of stars for Stromgren
pp. 1 & 45 incl. about 1800 stars
of classes B and M.

Monday, July 13, 1914

Erythraei plates. (list of)

J	26159	
g	26162	
g	26273	Pleiades
g	26274	Pole
g	26301	neb. Orion.
g	26302	H.P. 1311
g	26336	Pole
g	26342	
g	26343	
g	26363	Pole
g	26496	Pole
g	26502	Pole
g	26523	Pole
g	26524	Pole
g	26527	Pole
g	26530	Pole
g	26851	Nova Persei
g	26906	Nova Persei
g	27073	Nova Persei
g	27074	Nova Persei
g	29053	Nova Persei
g	31277	Ampella
g	31278	
g	31298	Ampella
g	31307	Ampella

Spectrum of short diffusion

I 26159	26851
61	26906
62	29
26273	27073
74	74
26301	29053
02	
36	31277
42	31278
43	31288
63	98
26496	31307
26502	
23	
24	
27	
30	

March 24, 1911

A plates with prism

H ¹⁸⁹ 180 - 219 Dec. 1907 - Feb. 1908 -
Myson

H 327 - 352 1910

H 348 Pleiades, shows more stars than
others

March 24, 1915

Moon plates

X ~~6098~~ 6098 10rd first quarter

6094

6100

April 20, 1915

Moon plates

taken out for Mr. F. W. W. W. W.
but none called forC 14930 - 14949 enlarging cres-
15083 -

Sun spots

D 11731 D 12552

11466 11733

11120

11122

11124

11123

11730

11125

12552

11465

11467

11468

11119

11118

11121

11464

11729

11728

11727

12551

C 9220 full, small

C 14938 " enlarging
pen

C 14799 excellent, half

X 4306 - 4320 (4x5)
Look of craters.

Moon Plates

X 6015 to

6097 to

6129 inc.

X 6079 first quarter, fork def, next prop

6084

6085

6086

6093 $\frac{3}{4}$

6097

6116 $\frac{3}{4}$

6126 nearly full

6129 small $\frac{3}{4}$ forkX 11408 New Moon slender crescent
fork

R697

R2115 enlarged crater, coarse

November 24, 1915

+43°53

8.2

. Moon stain was marked on J31197,
stain north being marked+43°53 is visible but extremely faint in this
plateMag. 12.9 { 45.2
" 7.5 {
Color index
= 5.4

MC 9353 blue

12.9

14.85

MC 9407 yellow, +43°53 about

5 magnitudes fainter than MC 9353

OC 15622 yellow.

-44°05'39 (true. F.6 per star)

Am 16730 yellow

4167 blue

Color index 2.5-?

Thursday, May 10, 1917.

Examination of Pinacian and Spectra, taken
with 24-inch Reflector.

H 1630 X Aquarii

1631 " "

1632 " " best

1633 " "

1634 β Ceti

1635 Pleiades

1636 S Cephei D

1638 P Cygni

1639 Pleiades Blue light.

1640 " yellow. "

1641 Cygni sp.

1642 X Cass

1643 η Persei1644 $+43^{\circ}5'3'' = \gamma + C = +42^{\circ}16'$

1645 Cygni sp. C

1646 N.G.C. 7007 C = $+41^{\circ}39'1''$ 1647 $E = +58^{\circ}23'2''$ C = $+58^{\circ}23'9''$ - $E?$

1677 R. Leporis Carr.

1678 R. Corvina

1679 R. Leporis

1680 R. Leporis

1681 R. Corvina

May 10, 1917

H 1682 X Botes

1683 T. Lynce

1684 R. Leporis

1685 R. "

1686 R. Leporis

1687 Polaris

1688 X Lynce

book of Class A for enlargement.

1772 Pleiades

1773 $+37^{\circ}7'2''$

1774 X Lani

1775

1776 ?

1777 $+63^{\circ}56'$ 1778 $+50^{\circ}9'20''$ 1779 $+46^{\circ}1'12''$

1780

1781

1782 $+27^{\circ}10'24''$

1783

84

85

86

87

3, 6, 10 B. Enlarge.

Typical Class C.

Class E.

Class D

D

D?

Rec.

May 10, 1917

1788 -12 1172 m.f.

1803 -29 6735 Incl. 1.
 1816 +66 1066 " "
 1819 -23 4553 " "
 1835 J. No. Maj. " "

Friday, May 11, 1917
Punayana / Spectra

1850

x Can. Min

1851 7 03 +30

1853 +14° 1588

H

1854

1 = C = +3° 12' 14". 2 = +3° 12' 19". 3 = +3° 12' 05". 2

1855

-7° 17' 42"

1856

D

1857

-10° 21' 71"

C

1858

+22° 20' 11"

n.s.

1859

6.33 +22

1860

-12° 22' 89"

C

1861

+14° 20' 48"

B

1862

Mr Monroe

E

1863

C and R.

1864

9 43 +55

No red star

1865

1866

+25° 1580

A

1867

x No. Maj

A with H γ and H δ bright.

1868

10 38 +17

Class R.

1869

+0° 16' 00"

E?

1870

8 20 +11.8

No red star

1871

10 14 +20

C

1872

E?

1873

1874

8 56 +50

B

1875

10 16 +69

1877	7	07 + 14	Repeat.	C?
1878	10	16 + 69		
1879	9	0. + 22	Por.	

Saturday, Nov. 29, 1919.

Set of Plate Nos. for popular prints.

Look to
Country Life Moon (nearly full) $\times 6124$ $\times 10$.

η Carinae D 16147

Milky Way D 12891

M. Chicago.

Milky Way D 12891

η Car. D 16147
(depleted)

Orion belt A 5731

Typical Spectra D 16162

R Cygni regni D 15975.

June 3, 1917

Lists

See also 136, 13

Peculiar stars

Plate 337912 No. 14. Star 20 37.0 + 31 57
 97 85.10 + 31° 41' 81 K5, hydrogen strong.

This is 48 Cygni, Bv 10427. The hydrogen lines may be due to fainter component.

-62° 6147 20 5.7 -62 35-

In H.D. 1342680, no. 57.
 Classified with Remin. This sp. is pec. and may be intermediate between M & S.
 1340422 No. 157
 Spectrum may be intermediate between Classes M and K.
 1340575 No. 8.
 Very peculiar K5p.

Has broad absorption band at 4227. This may be intermediate between Class M and R.

Plate 338140 No. 141 +45° 4321 23 41.1 +45 52
~~28.4 +45 57~~
 K5 with H β and H γ strong.

July 6, 1917.

Peculiar spectra

SV Draconis +64° 1176 17 7.8 +64 28
 135910 rochem. deep. Portia
 between HD and H ϵ very bright

130219 11 30.2 +35 25
 35° 2265 has sp. similar to SV Draconis.

Core of 135150 plate no. from which slight change was found in +35° 2265

July 21, 1911.

Enlargements.

Place

B10366 Object 4060. - 8° 10' 9" 5 15.4 - 8 48 (500)

Mar. Rec?

A 32399

Object 4952.

Type K. N. G. C. 40.

B40294 - 12° 36' 34" 12 58 - 12 16 (1000)

Rec. a. g. c. Absorption band
bet. #5 and #8 very strong.

B8888

Spiral spectra

A 3

A 5

B8898

Spiral spectra

A 2

B 3

F 10

341903 Rec. red star. - 4408539 13 10.7 - 4410

A 5860

Object near Deneb Sag. No. 3. bright

A 2405

" " " " faint.

Aug. 8, 1911

Enlargements

I 7919

R Androm Med 2

I 1057 R Lyrae Med 1.

I 3720 U Orion Med 9

I 2988 " " Med 9.

I 538 R Loris Med 10.

B 3770

B 15517

{ R Car. Med 5 }

B 31791 S Car. Med 3

from the bright.

B 3149 R Hyd. Med 9?

I 14588 R Hyd. Med 6.

D 37223

A 0

A 0

A 5

A 3

On two stars together.

Aug. 9.

Enlargements

J 27918

Enlargement to send to
Schwarzschild to show sp. of

+11°39'54"

H.R. 7544 = sp. A₃

+11°39'56"

= sp. G.

To send to Schwarzschild

B3 = D15288

A₀ = D15298A₃ = D15287F₀ = D15284F₅

Aug. 11, 1911

Plates sent for Enlargements

J 26983 A Cor. B₀

B20242 Obj. 828 Oa

B 6664 m L₁ L₂J 33486 Obj. 5268 R₂

B 10105 Obj. 1 B.

J 37211 R₅

B 15186 Mc

B 38112 R -10°50'57"

N2234

2275

throm arm.

D 15612

M 1299

N 228

M 6711

M 6894

M 6896

M 6883

M 6889

N 2263

N 3437

M 6718

M 6710

N 2241

M or M 4924

967a16

~~ac 7185~~ ✓

Ac 11684

C 16770

Am 3680, only hit or
three small pieces found
of this plate. throm arm.~~D 6421~~ ✓~~21555~~ ✓~~D 10921~~ ✓

D 10928? ho. in top.

~~* I 50534~~

I 3135? 7009

E 7590

~~M 9114~~ ✓

Am 4982

N 6246

N 6234

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