KG
11365
833

1886phae.proj..833F

HENRY DRAPER MEMORIAL

Reductions of
Photographic Observations
No. 8.

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1886phae.proj..834F

KG 11365.823

Spectra having v 21.0 and + or 3.0 and −
" 7.0 " − " 23.0 " +
to have measures of brightness underlined with red ink.

Spectra having v 22.5 and + or 2.5 and −
will have no measure of brightness recorded.

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Corrections to M.P.

M.P.

141 For dec. +9° read −9° ✓

181 For D.M.6.212 read 213 ✓

~~233 In M.P.~~ ~~For dec. −26° 53′ read −27° +′~~

458 In M.P. erase magn. 7.08; probably error ✓

~~555 — M.P. 781~~ For magn 7.90, read 5.90 ✓

1250 For Magn 4.67 read 5.67 ✓

~~+130~~ For Magn 2.09 residuals 3 212; read 7.04, 5 131. ✓

2331 ~~For H, read B.~~ Erase H ✓

2334 Erase H ✓

p 121. Zone +59° Interchange all values for 144 and 146 ✓
following the first column.

p. 193 +59° 144 ~~For~~ H.P. 2813, read ~~1142.~~ +59° 146 H.P. 1142. ✓

MP 458 Erase B ✓

MP 1743 Erase B ✓

137 Erase D ~~Where is the D?~~ ✓

2145 Erase D ✓

2805 Erase D ✓

p 202, 1106 Erase H ✓

p 202, 1889 Erase H ✓

M.P. 2889 In M.P. erase Magn 7.57. ✓

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Stars in H.P. not found in D.M.

No.	h.	m.					D.M. No.
1141	6	2.5	−29°	58′	Likely to be −21° 58	Probably SD −21° 1353	
1528	8	7.7	−5	25		Cum many stars in SD.	~~2435~~ ?
2839	16	52.8	−12	42		var.	4633 ent.
3011							SD −22° 45
3012	17	54.2?	−22	43		6.5 =	4516 ?
~~3449~~	~~21~~	~~19.8~~	~~−22~~	~~56~~			
3553	20	14.0	−15	10			SD −15° 5626

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Stars in D.M. not found in H.P.

Have observing sheets been written?

No.	h.	m.			Mag.
2856	9	24.9	−9°	44′	5.5

SD − 9° 2856 is H.P. 1713. SD magn. 5,8

SD − 9° 2858, magn. 5:5, follows 17ˢ, 11′ north; not in H.P.

155

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1960pnas..proj...83F

KG 11365.833

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"	796	"	22
"	799	"	22
"	140	"	24
"	422	"	26
"	657	"	48
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November 17 1886

Plate 756

	V.	H.	Type.	Lines.	K.	Focus	Other Lines	V.	H.	V.	H.
	18.9	11.7	I	5	N	1	—	9.4	23.4	3.6	27.1
	18.5	14.0	I	7	K=H	3	—	9.2	28.0	3.8	22.5
?	18.5	15.7	I?	7	K=H	2	—	9.2	31.4	3.8	19.1
	18.2	9.5	I	5	N	1	—	9.1	19.0	3.9	31.5
	18.0	15.0	III	6	K=H	3	—	9.0	30.0	4.0	20.5
	18.6	21.2	I	3	N	1	—	9.3	42.4	3.7	8.1
	16.0	17.3	I	2	N	1	—	8.0	34.6	5.0	15.9
	15.9	18.7	I	7	N	4	—	8.0	37.4	5.0	13.1
	14.5	17.6	I	4	N	1	—	7.2	35.2	5.8	15.3
	15.0	23.8	I	7	N	5	—	7.5	47.6	5.5	2.9
Recorded above.	~~14.5~~	~~17.6~~	~~I~~	~~5~~	~~N~~	~~1~~	~~—~~	~~7.2~~	~~35.2~~	~~5.8~~	~~15.3~~
	13.5	22.9	I	3	N	1	—	6.8	45.8	6.2	4.7
	11.5	21.6	I	5	N	2	—	5.8	43.2	7.2	7.3
	11.0	18.4	I	5	K=H	2	—	5.5	36.8	7.5	13.7
	10.4	20.8	I	6	?	2	—	5.2	41.6	7.8	8.9
	9.2	14.3	III	2?	N	1	—	4.6	28.6	8.4	21.9
	6.5	20.9	I	2	N	1	—	3.2	41.8	9.8	8.7
	5.9	8.2	I	8	N	5	—	3.0	16.4	10.0	34.1
	5.5	7.1	I	3	N	1	—	2.8	14.2	10.2	36.3
	4.1	10.6	I	5	N	2	—	2.0	21.2	11.0	29.3
	3.0	5.6	I	3	?	3	—	1.5	11.2	11.5	39.3
	3.1	18.0	I	8	N	3	—	1.6	36.0	11.4	14.5
	3.9	20.7	I	4	N	1	—	2.0	41.4	11.0	9.1

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No.	R.A.	Dec.	Mag.	H.	V.	
4730	22	27.2	+3 30	7.8	50.6	12.9	
4713	22	22.7	+3 41	6.3	50.7	12.9	?
4705	22	19.3	+3 39	6.0	50.7	12.9	
4745	22	31.5	+3 47	6.5	50.5	12.9	
4710	22	20.6	+3 59	48	50.6	13.0	
4689	22	8.3	+3 33	7.3	50.7	12.9	
4849	22	16.0	+4 55	8.2	50.6	12.9	
4998	22	13.2	+5 4	6.1	50.6	13.1	?
5008	22	15.3	+5 45	7.9	50.5	13.0	
4961	22	2.9	+5 29	3.4	50.5	13.0	
4981	22	4.7	+6 11	7.9	50.5	13.0	
4829	22	7.3	+7 16	7.5	50.5	13.1	
4853	22	13.7	+7 27	7.0	50.5	13.0	
4834	22	8.8	+7 50	7.0	50.4	13.0	
4874	22	21.9	+8 23	5.8	50.5	13.0	
5009	22	8.5	+9 45	8.2	50.3	13.0	
4797	22	34.3	+10 5	3.5	50.7	13.1	
4805	22	36.5	+10 12	7.3	50.7	13.0	
4781	22	29.4	+10 58	7.2	50.6	13.0	
4875	22	39.5	+11 26	48	50.7	12.9	
4784	22	14.4	+11 30	5.5	50.4	13.1	
4765	22	8.9	+11 2	7.4	50.3	13.0	

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November 17 1886

Plate 760

V.	H.	Type	Lines	K.	Focus	Other Lines	V.	H.	V.	H.
17.9	19.0	I	6	N	4	—	9.0	38.0	-1.0	27.9
17.6	22.2	I	5	K=H	3	—	8.8	44.4	-0.8	21.5
14.8	24.0	?	0	N	3	—	7.4	48.0	0.6	17.9
15.4	9.1	I	3	N	1	—	7.7	18.2	0.3	47.7
9.9	5.2	I	4	N	2	—	5.0	10.4	3.0	55.5
8.8	21.6	I	3	N	1	—	4.4	43.2	3.6	22.7

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No.	R.A.	Dec.	Mag.	H.	V.	
4384	22	27.9	−0 52	3.9	6.9	18.1
4365	22	21.4	−0 45	3.3	6.8	18.0
4872	22	17.9	+0 38	4.5	6.9	8.0
4939	22	47.6	+0 17	6.8	6.8	8.0
4718	22	22.7	+3 41	6.3	6.9	8.1

Look up on plate.

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1886phae.proj.0834F

December 15 1886.

Plate 209.

V	H	Type	No. Lines	K	Focus	other Lines		V.	H.	V.	H.	Correc.
22.3	7.0	I	5	N	1		—	11.2	14.0	31.8	75.2	+2.5
22.4	13.2	I	4	N	1		—	11.2	26.4	31.8	62.8	+0.9
21.5	14.5	I	5	N	2		—	10.8	29.0	32.2	60.2	+0.2
21.5	21.1	I	2	N	1		—	10.8	42.2	32.2	47.0	−1.9
19.1	17.9	I	3	N	1		—	9.6	35.8	33.4	53.4	−0.9
17.7	9.4	I	6	N	2		—	8.8	18.8	34.2	70.4	+1.9
18.1	16.7	I?	3?	N	1		—	9.0	33.4	34.0	55.8	−0.5
17.2	14.5	I	4	N	1		—	8.6	29.0	34.4	60.2	+0.2
16.5	10.9	I	4	N	1		—	8.2	21.8	34.8	67.4	+1.4
16.6	20.5	I?	4	N	1		—	8.3	41.0	34.7	48.2	−1.9
15.6	9.5	I	6	N	2		—	7.8	19.0	35.2	70.2	+2.0
14.6	19.2	I	7	N	2		—	7.3	38.4	35.7	50.8	−1.5
14.8	7.1	I	2	N	1		—	7.4	14.2	35.6	75.0	+3.0
14.5	7.4	I	5	N	1		—	7.2	14.8	35.8	74.4	+3.0
13.5	12.4	?	2	N	1		—	6.8	24.8	36.2	64.4	+1.0
13.1	19.4	I	4	K=H	2		—	6.6	38.8	36.4	50.4	−1.6
12.5	22.1	I?	3	N	1		—	6.2	44.2	36.8	45.0	−2.9
11.0	9.1	I	5	K=H	2		—	5.5	18.2	37.5	71.0	+2.4
11.5	24.1	I	3	N	1		—	5.8	48.2	37.2	41.0	−3.8
10.0	16.9	I	5	N	2		—	5.0	33.8	38.0	55.4	−0.7
9.7	13.8	I	5	N	1		—	4.8	27.6	38.2	61.6	+0.5
9.2	16.5	I	2	N	1		—	4.6	33.0	38.4	56.2	−0.6
8.9	18.2	I	5	N	2		—	4.4	36.4	38.6	52.8	−1.4
8.5	13.4	I	5	N	1		—	4.2	26.8	38.8	62.4	+0.6
8.5	7.1	I	5	N	1		—	4.2	14.2	38.8	75.0	+3.5
8.0	14.2	I?	2?	N	1		—	4.0	28.4	39.0	60.8	+0.3
7.5	12.2	I	4	N	1		—	3.8	24.4	39.2	64.8	+1.2
7.0	19.8	I	4	N	2		—	3.5	39.6	39.5	49.6	−2.2

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D.M	R.A.	Dec.	Mag	H.	V.	H'	
4904	23	17.8	+31 35	6.0	31.8	42.8	29.3	
4859	23	3.3	+31 42	7.2	29.7	42.9	28.8	
4587	23	0.5	+32 3	6.3	29.5	42.8	29.3	
4529	22	44.8	+32 4	6.5	87.0	42.9	88.9	
4621	22	52.2	+33 18	6.8	88.0	42.9	88.9	
4899	23	12.4	+34 0	6.4	31.2	42.8	29.3	
4632	22	55.0	+33 50	6.8	88.4	42.8	88.9	
4844	23	0.2	+34 16	7.3	29.2	42.9	29.0	or 4847?
4883	23	9.0	+34 37	6.6	30.8	42.8	29.4	
4781	22	45.8	+34 34	7.2	86.8	42.9	88.7	
5007	22	12.4	+35 2	6.7	31.4	42.8	29.4	
4920	22	49.0	+35 36	6.0	87.4	42.9	88.9	
5025	23	18.3	+35 22	7.0	32.5	42.8	29.5	
5024	23	17.7	+35 34	6.5	32.5	42.8	29.5	
5021	23	5.5	+36 11	6.9	30.3	43.0	29.3	
4956	22	48.3	+36 19	5.9	87.1	42.9	88.7	
4934	22	41.6	+36 38	6.0	85.8	42.8	88.7	
4817	23	13.9	+37 23	6.0	32.1	42.9	29.7	
4670	22	36.4	+37 3	6.5	84.6	42.8	88.4	
4744	22	54.2	+37 56	6.7	88.0	42.9	88.7	?
4940	23	2.2	+38 9	6.9	29.8	43.0	29.3	
? 4911	22	55.1	+38 19	8.5	88.1	42.9	88.7	
4904	22	51.0	+38 34	6.5	87.4	43.0	88.8	
4945	23	3.1	+38 40	6.8	29.9	42.9	29.3	
4999	23	19.0	+38 33	7.4	33.2	42.8	29.7	
5008	23	1.0	+39 0	7.5	29.4	43.0	29.1	
5033	23	6.3	+39 13	7.5	30.7	43.0	29.5	
4964	22	47.5	+39 36	5.8	87.1	43.1	89.3	

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December 15, 1886.

Plate 809.

V	H	Type	No. lines	K	Focus	other Lines	V.	H.	V.	H.	Correc
6.5	24.3	I	4	N	2	—	3.2	48.6	39.8	40.6	-4.3
5.0	7.9	I	3	N	1	—	2.5	15.8	40.5	73.4	+3.4
4.8	20.2	I	5	N	1	—	2.4	40.4	40.8	48.8	-2.5
4.3	18.5	I	6	N	2	—	2.2	37.0	40.8	52.2	-1.6
5.0	15.5	I	4	N	1	—	2.5	31.0	40.5	58.2	-0.2
3.9	10.2	I	4	N	1	—	2.0	20.4	41.0	68.8	+2.4
3.5	23.1	I	3	N	1	—	1.8	46.2	41.2	43.0	-4.1
3.5	20.7	I	4	N	1	—	1.8	41.4	41.2	47.8	-2.9
3.0	16.4	I	8	N	4	—	1.5	32.8	41.5	56.4	-0.6
2.0	16.1	I	3	N	2	—	1.0	32.2	42.0	57.0	-0.5
3.5	12.2	I	3	N	1	—	1.8	24.4	41.2	64.8	+1.4

Plate 807.

23.0	12.5	III	8	K=H	3	—	11.5	25.0	26.6	45.6	+0.5
22.4	13.5	I	5	N	2	—	11.2	27.0	26.9	43.6	+0.3
22.0	12.9	I	2	N	1	—	11.0	25.8	27.1	44.8	+0.5
21.9	14.5	I	6	K=H	1	—	11.0	29.0	27.1	41.6	+0.1
21.0	11.5	III	4	N	2	—	10.5	23.0	27.6	47.6	+0.9
21.5	17.4	I	4	N	1	—	10.8	34.8	27.3	35.8	-0.5
21.5	20.0	I	3	N	1	—	10.8	40.0	27.3	30.6	-1.1
21.0	22.3	I	3	N	1	—	10.5	44.6	27.6	26.0	-1.6
20.5	20.8	I	4	N	1	—	10.2	41.6	27.9	29.0	-1.4
20.5	12.9	II	4	K=H	2	—	10.2	25.8	27.9	44.8	+0.5
20.1	7.9	I	3	N	1	—	10.0	15.8	28.1	54.8	+1.7
20.0	11.6	I	5	N	2	—	10.0	23.2	28.1	47.4	+0.8
18.9	7.6	I?	2	N	1	—	9.4	15.2	28.7	55.4	+1.8
19.0	11.7	I	4	K=H?	1	—	9.5	23.4	28.6	47.2	+0.8
18.7	12.2	I	5	N	1	—	9.4	24.4	28.7	46.2	+0.7

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D.M.	R. A.	Dec.	MAG.	H.	V	H′	
5065	23 17.2	+40 50	6.5	33.0	43.3	29.6	Look up on Chart
4926?							?
4949	22 49.8	+40 51	6.2	86.8	43.0	88.4	Look up on Chart
4986	22 58.2	+40 39	8.0	89.2	43.1	89.4	
5043	23 11.5	+40 59	6.2	31.9	43.0	29.5	
4603	22 39.2	+41 8	8.0	85.4	42.9	89.5	
4624	22 44.2	+41 14	8.0	85.6	43.0	88.5	
4664	22 55.3	+41 33	3.7	88.1	43.1	88.7	
4665	22 56.0	+41 58	6.2	88.2	43.0	88.7	
4714	23 6.2	+41 16	7.0	30.6	43.1	29.2	
4017	20 45.9	+26 33	5.9	70.9	38.1	70.4	
4008	20 43.9	+26 50	7.5	70.9	38.0	70.6	
4013	20 45.2	+26 53	7.7	71.0	37.9	70.5	
3868	20 41.7	+27 4	7.0	70.7	38.1	70.6	
3911	20 48.4	+27 30	5.3	71.4	38.0	70.6	
3829	20 35.2	+27 8	8.4	70.0	37.9	70.5	
3800	20 29.4	+27 9	8.2	69.4	38.0	70.5	
3768	20 24.3	+27 21	7.3	68.9	37.9	70.5	
3787	20 27.7	+27 38	8.3	69.3	37.8	70.7	
3788	20 27.7	+27 23	7.8	69.3	37.6	70.7	Look up on Chart
3890	20 45.3	+27 42	6.1	71.1	37.9	70.6	
3953	20 56.6	+27 45	7.7	72.4	37.8	70.7	
3909	20 48.2	+27 58	7.0	71.4	38.0	70.6	
3974	20 57.3	+28 32	7.0	72.5	38.0	70.7	
3921	20 48.2	+28 26	8.0	71.6	37.9	70.8	
3916	20 47.0	+28 36	7.7	71.4	38.0	70.7	

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December 17, 1886.

Plate 807.

	V	H	Type	No. Lines	K	Focus	other Lines.	V.	H.	V.	H.	Correc.
12 15	18.4	12.3	I	5	N	1	—	9.2	24.6	28.9	46.0	+0.7
	18.8	16.1	I	4	N	1	—	9.4	32.2	28.7	38.4	−0.3
	18.4	17.4	I	2	N	1	—	9.2	34.8	28.9	35.8	−0.5
	18.0	11.8	I	5	N	1	—	9.0	23.6	29.1	47.0	+0.8
	17.9	12.2	III	4	K=H	1	—	9.0	24.4	29.1	46.2	+0.7
	17.8	8.4	I	3	N	1	—	8.9	16.8	29.2	53.8	+1.7
	17.6	9.9	I	4	?	1	—	8.8	19.8	29.3	50.8	+1.3
	17.5	17.6	I	7	K=2H	2	—	8.8	35.2	29.3	35.4	−0.6
	17.5	18.9	I	4	N	1	—	8.8	37.8	29.3	32.8	−1.0
	17.5	20.6	I	4	N	1	—	8.8	41.2	29.3	29.4	−1.5
	17.3	15.6	I	3	N	1	—	8.6	31.2	29.5	39.4	−0.2
	16.4	10.0	III	3	N	1	—	8.2	20.0	29.9	50.6	+1.3
	16.0	8.3	I	5	N	1	—	8.0	16.6	30.1	54.0	+1.8
	15.8	6.2	I	4	N	1	—	7.9	12.4	30.2	58.2	+2.5
	15.3	12.0	I	4	N	1	—	7.6	24.0	30.5	46.6	+0.8
	15.5	13.3	I	6	K=.5H	2	—	7.8	26.6	30.3	41.0	+0.5
	15.8	15.4	III	8	K=H	3	seen	7.9	30.8	30.2	39.5	−0.1
	16.5	18.3	II	3	K=H	2	—	8.2	36.6	29.9	34.0	−0.8
	16.0	18.1	I	5	K=H	1	—	8.0	36.2	30.1	34.4	−0.8
	15.9	18.7	I	5	N	1	—	8.0	37.4	30.1	33.2	−1.0
	16.5	20.0	I	5	N	1	—	8.2	40.0	29.9	30.6	−1.3
	16.0	22.5	I	7	K=H	5	—	8.0	45.0	30.1	25.6	−2.0
	16.0	23.5	I	4	N	1	—	8.0	47.0	30.1	23.6	−2.4
	15.5	22.2	I	4	N	1	—	7.8	44.4	30.3	26.2	−2.0
	14.6	6.5	I	6	K=H	2	—	7.3	13.0	30.8	57.6	+2.5
	13.9	9.8	I	5	N	1	—	7.0	19.6	31.1	51.0	+1.5
	14.0	12.0	I	5	K=H	1	—	7.0	24.0	31.1	46.6	+0.8
12 20	14.5	11.8	I	3	N	1	—	7.2	23.6	30.9	47.0	+0.8

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D.M.	R.A.	Dec.		Mag.	H.	V.	H'	
3915	20	46.8	+28	47	8.0	71.4	38.0	70.7	
3869	20	38.0	+28	37	8.1	70.2	38.0	70.5	
3849	20	35.3	+28	51	8.0	70.1	38.0	70.6	
3920	20	47.9	+28	57	7.5	71.5	37.9	70.7	
4221	20	47.0	+29	7	6.6	71.4	38.1	70.7	
4282	20	55.6	+29	4	7.8	72.4	38.0	70.7	
4254	20	52.3	+29	7	8.1	72.1	37.9	70.8	
4131	20	34.6	+29	18	6.5	69.8	38.1	70.4	
4112	20	31.8	+29	13	8.0	69.6	38.0	70.6	
4080	20	27.4	+29	2	7.5	68.6	37.8	70.1	
4164	20	39.2	+29	23	8.3	70.4	38.0	70.6	
4253	20	52.2	+29	50	6.7	72.2	38.0	70.9	
4284	20	56.2	+29	57	7.5	72.8	38.0	71.0	
4322	21	1.0	+30	1	7.0	13.4	37.9	10.9	
4218	20	47.5	+30	24	7.7	71.5	38.0	70.7	
4199	20	44.6	+30	22	7.0	71.2	38.2	70.7	
4167	20	39.7	+30	11	4.3	70.5	38.1	70.6	
4121	20	33.0	+29	50	6.5	69.6	38.0	70.4	
4126	20	33.7	+30	19	7.5	69.9	38.3	70.7	Look up on Chart
or 4124 +29°? 4108	20	32.2	+30	4	7.2	69.6	38.1	70.6	
4092	20	29.2	+29	46	7.8	69.2	38.0	70.5	
4057	20	23.5	+29	53	4.2	68.5	37.9	70.5	
4038	20	21.1	+29	54	7.5	68.1	37.9	70.5	
4055	20	24.0	+30	4	7.9	68.4	37.9	70.4	
4318	21	0.4	+30	36	5.6	13.4	37.9	10.9	
4292	20	52.7	+31	5	7.0	72.3	38.1	70.8	
4254	20	47.6	+31	5	6.7	71.6	38.1	70.8	
or 4219? 4219	20	47.6	+30	58	8.5	71.2	38.2	70.4	

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V	H	Type	Stc. Lines	K	Focus	after Lines	V.	H.	V.	H.	Correc.
14.5	13.3	I	4	N	1	—	7.2	26.6	30.9	44.0	+0.5
14.5	16.9	I	6	N	2	—	7.2	33.8	30.9	36.8	−0.5
14.4	17.5	I	5	N	1	—	7.2	35.0	30.9	35.6	−0.6
14.8	18.2	I	4	N	1	—	7.4	36.4	30.7	34.2	−0.8
14.9	18.9	I	4	N	1	—	7.4	37.8	30.7	32.8	−1.0
? 14.1	18.8	I	11	N	3	line above	7.0	37.6	31.1	33.0	−1.1
13.6	20.7	?	1?	N	1	—	6.8	41.4	31.3	29.2	−1.7
13.0	18.8	I	5	N	1	—	6.5	37.6	31.6	33.0	−1.1
12.5	19.0	I	6	K=5H?	2	—	6.2	38.0	31.9	32.6	−1.2
12.6	17.3	II	4	K=H	3	—	6.3	34.6	31.8	36.0	−0.6
12.5	14.8	I	6	N	2	—	6.2	29.6	31.9	41.0	+0.0
12.9	14.7	I	5	?	2	—	6.4	29.4	31.7	41.2	+0.1
13.4	14.4	I	3	N	1	—	6.7	28.8	31.4	41.8	+0.2
13.8	14.4	I	4	N	1	—	69	28.8	31.2	41.8	+0.2
12.9	11.0	I	5	N	1	—	6.4	22.0	31.7	48.6	+1.2
12.0	6.1	I	3	N	1	—	6.0	12.2	32.1	58.4	+2.8
11.9	11.2	?	2	N	1	—	6.0	22.4	32.1	48.2	+1.2
11.9	11.4	?	4	K=H	1	—	6.0	22.8	32.1	47.8	+1.1
11.5	12.6	I	7	N	3	—	5.8	25.2	32.3	45.4	+0.7
11.5	14.8	I	4	?	1	—	5.8	29.6	32.3	41.0	+0.1
11.1	20.4	I	6	N	2	—	5.6	40.8	32.5	29.8	−1.7
10.5	11.8	III	4	K=H	2	—	5.2	23.6	32.9	47.0	+1.0
9.9	19.7	I	4	N	1	—	5.0	39.4	33.1	31.2	−1.5
10.3	5.9	I	4	N	1	—	5.2	11.8	32.9	58.8	+3.0
10.0	7.0	I	4	N	1	—	5.0	14.0	33.1	56.6	+2.7
9.6	7.7	I	5	N	1	—	4.8	15.4	33.3	55.2	+2.5
9.6	8.3	I	3	N	1	—	4.8	16.6	33.3	54.0	+2.2
9.8	11.8	?	1	N	1	—	49	23.6	33.2	47.0	+1.0

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D.M.	R.A.		Dec.		MAG.	H.	V.	H'	
4197	20	44.4	+30	49	7.7	71.0	38.0	70.5	
4145	20	36.1	+30	48	6.8	69.9	38.0	70.4	
4138	20	35.4	+30	45	7.5	70.4	38.0	71.0	
4123	20	33.5	+30	36	8.1	69.9	38.0	70.7	
4160	20	31.6	+31	1	6.4	69.4	38.4	70.4	Looks up on chart.
4159	20	31.6	+31	4	6.2	69.2	38.1	70.3	
4126	20	27.2	+31	10	7.6	68.6	38.0	70.3	
4158	20	31.6	+31	33	7.5	69.2	38.1	70.3	
4154	20	31.1	+31	51	7.1	69.1	38.0	70.3	
4181	20	35.2	+31	48	6.0	69.8	38.1	70.4	
4217	20	40.9	+31	53	7.2	70.5	38.1	70.5	
4220	20	41.2	+31	38	7.7	70.6	38.0	70.5	?
4221	20	41.8	+31	23	7.8	70.6	38.1	70.4	
4222	20	41.9	+31	8	7.8	70.7	38.0	70.5	
4267	20	49.8	+31	37	7.8	71.8	38.0	70.6	
4268	20	49.9	+31	33	7.6	71.9	38.0	70.7	
4340	21	1.3	+31	55	7.5	13.5	37.9	10.7	
3989	20	49.5	+32	8	7.2	71.9	38.1	70.7	
3984	20	43.9	+32	9	7.3	71.7	38.2	70.6	
3974	20	46.1	+32	18	6.7	71.3	38.1	70.6	
3936	20	41.0	+32	20	8.4	70.6	38.1	70.5	
3862	20	27.7	+32	25	7.5	68.5	38.0	70.2	
3980	20	48.0	+32	53	6.0	71.6	38.1	70.6	
3958	20	29.3	+33	3	8.2	68.7	38.0	70.2	
4060	21	2.0	+32	49	7.5	13.8	38.0	10.8	
4046	20	59.4	+32	55	8.0	73.4	37.9	70.7	
4135	20	57.7	+33	9	8.0	73.1	38.0	70.6	
4125	20	56.4	+33	10	7.5	73.0	38.0	70.8	
4076	20	48.0	+33	3	8.3	71.6	37.9	70.6	

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Plate 807.

V	H	Type	No. Lines	K	Focus	other Lines	V.	H.	V.	H	Correc.
9.5	12.5	I	4	N	1	—	4.8	25.0	33.3	45.6	+0.8
9.5	15.0	III	13	K=H	5	recon	4.8	30.0	33.3	40.6	0.0
9.5	16.2	I	5	N	1	—	4.8	32.4	33.3	38.2	−0.4
9.5	16.3	I	5	N	1	—	4.8	32.6	33.3	38.0	−0.4
9.0	16.0	I	5	N	1	—	4.5	32.0	33.6	38.6	−0.3
9.1	17.7	I	3	N	1	—	4.6	35.4	33.5	35.2	−0.9
9.0	22.6	I	5	N	2	—	4.5	45.2	33.6	25.4	−2.6
8.5	21.1	I	6	K=H	2	—	4.2	42.2	33.9	28.4	−2.0
8.3	23.0	I	5	K=H	2	—	4.2	46.0	33.9	24.6	−2.8
7.8	20.0	I	6	N	2	—	3.9	40.0	34.2	30.6	−1.7
8.6	23.9	I	3	N	1	—	4.3	47.8	33.8	22.8	−3.1
6.8	19.4	I	4	N	1	—	3.4	38.8	34.7	31.8	−1.5
6.7	20.1	III	5	N	2	—	3.4	40.2	34.7	30.4	−1.8
8.5	17.2	I	3	N	1	—	4.2	34.4	33.9	36.2	−0.7
8.0	16.7	I	4	N	1	—	4.0	33.4	34.1	37.2	−0.5
9.1	14.7	I?	4	?	1	—	4.6	29.4	33.5	41.2	0.0
8.5	14.7	III	6	K=H	2	Recon.	4.2	29.4	33.9	41.2	0.0
8.5	11.5	I	3	N	1	—	4.2	23.0	33.9	47.6	+1.1
7.9	12.2	I	5	N	1	—	4.0	24.4	34.1	46.2	+1.0
7.9	12.6	I?	4	N	1	—	4.0	25.2	34.1	45.4	+0.8
7.8	13.1	II?	5	K=H	1	—	3.9	26.2	34.2	44.4	+0.6
8.9	6.5	I	4	N	1	—	4.4	13.0	33.7	57.6	+3.0
7.5	7.1	I	4	N	1	—	3.8	14.2	34.3	56.4	+2.9
6.4	7.3	I	4	N	1	—	3.2	14.6	34.9	56.0	+2.9
5.3	8.9	III?	4	K=H	2	—	2.6	17.8	35.5	52.8	+2.3
5.5	13.1	I	5	N	1	—	2.8	26.2	35.3	44.4	+0.6
4.5	9.6	I	3	N	1	—	2.2	19.2	35.9	51.4	+2.0
4.5	10.9	I	4	N	1	—	2.2	21.8	35.9	48.8	+1.5

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D.M	R.A.		Dec.		MAG.	H.	V.	H'
4065	20	46.4	+33	16	8.2	71.4	38.1	70.6
4018	20	40.4	+33	25	2.6	70.4	38.2	70.4
4004	20	37.6	+33	21	7.8	70.0	38.2	70.4
4003	20	37.5	+33	19	8.0	70.1	38.1	70.5
4009	20	38.1	+33	33	8.5	70.1	38.1	70.4
3981	20	34.0	+33	28	8.4	69.4	38.1	70.3
3914	20	22.4	+33	24	7.2	67.6	37.9	70.2
3938	20	25.9	+33	51	7.0	68.1	38.0	70.1
3910	20	21.5	+33	51	6.7	67.5	38.0	70.3
4081	20	28.4	+34	11	7.2	68.4	38.1	70.1
3894	20	19.3	+33	35	8.3	67.1	37.9	70.2
4091	20	29.9	+34	40	8.5	68.7	38.1	70.2
4079	20	28.3	+34	46	5.4	68.5	38.2	70.3
3987	20	35.3	+33	46	8.4	69.7	38.0	70.4
4124	20	36.5	+34	3	8.1	69.9	38.0	70.4
4027	20	41.3	+33	30	8.5	70.7	38.1	70.7
4028	20	41.4	+33	8	6.0	70.8	37.3	70.8
4080	20	48.6	+33	53	8.5	71.6	38.1	70.5
4196	20	47.3	+34	12	7.8	71.7	38.2	70.7
4184	20	46.3	+34	7	7.5	71.5	38.1	70.7
4180	20	45.2	+34	13	6.8	71.4	38.1	70.8
4162	21	0.9	+33	33	7.5	13.9	38.0	10.9
4274	20	59.6	+34	14	7.9	73.8	38.0	70.9
4267	20	59.1	+34	51	7.6	73.7	38.0	70.8
4357	20	55.5	+35	28	6.2	73.3	38.1	71.0
4291	20	45.2	+35	23	8.2	71.4	38.2	70.8
4344	20	53.7	+35	52	7.7	72.9	38.1	70.9
4332	20	50.7	+35	50	7.6	72.5	38.0	71.0

Look up on Chart

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x Plate 807.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
3.2	11.6	I	5	N	1	—	1.6	23.2	36.5	47.4	+1.3
4.5	13.5	I	3	N	1	—	2.2	27.0	35.9	43.6	+0.6
4.5	14.5	I	9	N	5	—	2.2	29.0	35.9	41.6	+0.2
7.1	17.2	I	4	N	1	—	3.6	34.4	34.5	36.2	-0.7
6.5	17.6	I?	4	K=H	1	—	3.2	35.2	34.9	35.4	-0.9
6.5	16.6	I	6	N	2	—	3.2	33.2	34.9	37.4	-0.5
5.7	16.9	I	3	N	1	—	2.8	33.8	35.3	36.8	-0.6
5.7	16.2	I	5	N	1	—	2.8	32.4	35.3	38.2	-0.4
4.0	18.6	I	5	N	2	—	2.0	37.2	36.1	33.4	-1.4
4.2	21.2	I	3	N	1	—	2.1	42.4	36.0	28.2	-2.4
4.1	21.8	I	4	N	2	—	2.0	43.6	36.1	27.0	-2.6
3.2	21.1	I	4	K=H?	1	—	1.6	42.2	36.5	28.4	-2.4

Plate 825.

21.0	10.4	I	5	N	1	—	10.5	20.8	7.5	67.2	
20.0	9.7	I	5	N	1	—	10.0	19.4	8.0	68.6	
18.0	13.9	I	4	N	1	—	9.0	27.8	9.0	60.2	
17.1	14.6	I	4	N	1	—	8.6	29.2	9.4	58.8	
15.5	16.6	I	6	N	2	—	7.8	33.2	10.2	54.8	
15.0	21.5	I	4	N	1	—	7.5	43.0	10.5	45.0	
14.5	15.9	I	7	N	2	—	7.2	31.8	10.8	56.2	
14.0	12.3	I	2	N	1	—	7.0	24.6	11.0	63.4	
13.7	9.7	I	4	N	1	—	6.8	19.4	11.2	68.6	
13.4	18.7	I	5	N	1	—	6.7	37.4	11.3	50.6	
13.1	19.1	I	7	N	3	—	6.6	38.2	11.4	49.8	
13.0	7.0	I	6	N	3	—	6.5	14.0	11.5	74.0	
12.5	14.3	I	4	N	1	—	6.2	28.6	11.8	59.4	
12.0	15.0	I	3	N	1	—	6.0	30.0	12.0	58.0	

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D.M.	R.A.		Dec.		MAG.	H.	V.	H'
4314	20	49.0	+36	32	6.5	72.2	38.1	70.9
4286	20	44.3	+35	48	8.5	71.3	38.0	70.8
4267	20	41.8	+35	58	4.7	70.8	38.2	70.6
4114	20	35.2	+34	31	7.5	69.6	38.1	70.3
4111	20	34.3	+34	53	7.2	69.5	38.1	70.4
4127	20	36.7	+34	56	7.5	69.9	38.1	70.4
4218	20	35.9	+35	24	7.5	69.7	38.2	70.3
~~4232~~	~~20~~	~~37.6~~	~~+35~~	~~13~~	~~8.5~~	~~70.0~~	~~38.0~~	~~70.4~~
4234	20	37.7	+35	4	6.4	70.1	37.9	70.5
4150	20	31.6	+36	5	7.4	68.8	38.1	70.2
4146	20	25.2	+35	55	8.0	67.6	38.0	70.0
4241	20	23.8	+35	58	6.2	67.4	38.0	70.0
4105	20	25.5	+36	27	6.5	67.7	38.0	70.1

4829	22	7.3	+7	16	7.5	28.1	17.8	
4834	22	8.8	+7	50	7.0	28.2	17.8	
4792	22	0.3	+8	58	7.1	28.1	18.0	
4984	21	59.0	+9	23	7.2	88.2	18.0	
4676	21	54.9	+10	16	6.5	88.1	18.1	
4645	21	44.8	+10	26	7.0	87.8	17.9	
4681	21	56.2	+10	42	6.2	88.0	17.9	
4701	22	3.5	+10	55	6.0	28.1	17.9	
4765	22	8.9	+11	2	7.4	28.3	17.8	
4700	21	50.6	+11	15	8.5	88.0	17.9	
4696	21	49.9	+11	25	6.0	88.1	18.0	
4784	22	1.4.4	+11	30	5.5	28.4	18.0	
4729	21	59.5	+11	46	7.3	88.1	18.0	
4724	21	58.1	+11	54	7.3	88.1	17.9	

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1886phae.proj..834F

December 29. 1886.

Plate 825.

V	H	Type	No. Lines	K	Focus	other Lines	V.	H.	V.	H.
11.8	20.3	I	5	N	1	—	5.9	40.6	12.1	47.4
12.0	21.9	I	4	N	1	—	6.0	43.8	12.0	44.2
11.1	17.0	I	6	K=H	2	—	5.6	34.0	12.4	54.0
10.1	15.3	I	4	K=H	1	—	5.0	30.6	13.0	57.4
8.1	12.4	I?	2	N	1	—	4.0	24.8	14.0	63.2
6.6	5.8	I	3	N	1	—	3.3	11.6	14.7	76.4
6.0	6.8	I	4	N	1	—	3.0	13.6	15.0	74.4
5.5	11.7	?	2	N	1	—	2.8	23.4	15.2	64.6
6.0	16.0	I	3	N	1	—	3.0	32.0	15.0	56.0
5.5	16.2	I	6	N	2	—	2.8	32.4	15.2	55.6
5.0	8.3	I	4	N	1	—	2.5	16.6	15.5	71.4
2.3	13.5	I	4	N	1	—	1.2	27.0	16.8	61.0
2.8	22.2	I	4	K=H	1	—	1.4	44.4	16.6	43.6
9.6	23.9	I	4	N	1	—	4.8	47.8	13.2	40.2

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1886phae.proj..834

D.M.	R.A.	Dec.	Mag.	H.	V.
4711	21	47.4	+12 4	6.8	88.0	18.0
4673	21	44.0	+11 57	7.7	87.8	18.0
4737	21	54.0	+12 26	6.0	88.0	18.0
4751	21	57.3	+12 57	6.8	87.9	18.0
4861	22	3.3	+13 54	6.2	28.1	17.9
4790	22	17.0	+14 32	7.0	28.6	17.9
4786	22	15.0	+14 55	7.0	28.6	17.9
4592	22	4.9	+15 20	6.3	28.3	18.1
4549	21	56.0	+15 5	7.5	88.0	18.1
4548	21	55.7	+15 13	6.8	88.1	18.1
4617	22	11.9	+15 32	7.5	38.5	18.0
4673	22	1.2	+16 51	7.3	28.2	18.0
4612	21	43.3	+16 38	5.5	87.7	18.0
4781	21	39.8	+13 3	7.0	87.6	17.8

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January 15, 1887.

Plate 797.

V	H	Type	Lines for K	K	Focus	Lines other	V	H	V	H	Correc.
18.2	19.5	I	3	N	1	—	9.1	39.0	24.0	29.7	-0.8
16.1	15.3	I	7	K=H	3	—	8.0	30.6	25.1	38.1	-0.1
16.1	14.5	I	5	N	1	—	8.0	29.0	25.1	39.7	+0.1
15.5	11.5	I	9	N	3	—	7.8	23.0	25.3	45.7	+0.6
12.0	22.7	I	5	N	2	—	6.0	45.4	27.1	23.3	-1.8
11.0	19.4	I	4	N	1	—	6.5	38.8	27.6	29.9	-1.0
10.0	15.5	I	8	K=H	3	—	6.0	31.0	28.1	37.7	-0.1
9.9	11.7	I	5	K=H	1	—	6.0	23.4	28.1	45.3	+0.8
9.3	6.0	I	5	N	1	—	4.6	12.0	28.5	56.7	+2.1
9.0	15.3	I	4	N	1	—	4.8	30.6	28.6	38.1	-0.1
7.2	12.9	I	7	N	3	—	3.6	26.8	29.5	42.9	+0.6

Plate 796.

16.9	21.5	I	7	K=1.4H	3	—	8.4	43.0	30.0	26.1	-1.8
18.0	16.6	I	5	N	1	—	9.0	33.2	29.4	34.9	-0.4
16.5	14.5	III	5	K=H	2	—	8.2	29.0	30.2	39.1	+0.1
14.7	17.8	I	7	N	1	—	7.4	35.6	31.0	32.5	-0.8
13.0	16.9	I	3	N	1	—	6.5	33.8	31.9	34.8	-0.6
12.9	14.0	I	4	N	1	—	6.4	28.0	32.0	40.1	+0.3
12.0	11.7	I	5	N	1	—	6.0	23.4	32.4	44.7	+1.0 +0.X
10.0	14.1	III	12	K=1.2H?	4	Recen.	5.0	28.2	33.4	39.9	+0.2
9.1	13.7	?	2	N	1	—	4.6	27.4	33.8	40.7	+0.4
8.4	19.2	I	5	N	1	—	4.2	38.4	34.2	29.7	-1.5
11.9	13.5	I	9	N	3	—	2.4	27.0	36.0	41.1	+0.6

Plate 799.

10.4	15.0	III	7	K=H	2	—	5.2	30.0	22.7	39.8	
8.2	13.5	III	7	K=H	3	Recen.	4.2	27.0	23.7	42.8	

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DM	R.A.	Dec.	Mag.	H	V	H'	
4346	21	28.9	+26	51	6.5	67.9	32.9	68.7	
4463	21	38.1	+24	59	4.1	68.7	33.0	68.8	
4476	21	39.8	+24	54	6.8	68.8	32.9	68.7	
4635	21	46.5	+26	14	6.5	69.5	33.0	68.9	
4164	21	21.3	+26	59	6.4	66.7	33.0	68.5	
4107	21	28.9	+27	34	6.7	67.7	33.1	68.7	
4169	21	37.7	+28	5	4.5	68.7	33.1	68.8	
4216	21	46.0	+28	7	6.9	69.4	33.1	68.6	
4284	21	59.0	+28	15	5.9	71.0	32.8	68.9	Look upon Chart
4178	21	38.0	+28	36	7.3	68.6	33.1	68.7	
4525	21	43.5	+29	30	6.3	69.3	33.1	68.7	
4057	20	26.5	+29	53	4.2	66.5	38.3	68.3	
4131	20	34.6	+29	18	6.5	67.8	38.3	68.3	
4167	20	39.7	+30	11	4.3	68.7	38.4	68.6	
4160	20	31.6	+31	1	6.4	67.2	38.4	68.0	
4169	20	31.6	+31	4	6.2	67.2	38.5	68.0	
4181	20	36.2	+31	48	6.0	69.0	38.3	69.6	
4217	20	40.9	+31	53	7.2	68.9	38.3	68.6	
3974	20	46.1	+32	18	6.7	69.5	38.3	68.5	
4018	20	40.4	+33	26	2.6	68.6	38.4	68.4	
4028	20	41.4	+33	51	6.0	68.8	38.4	68.4	
4081	20	28.4	+34	11	7.2	66.8	38.4	68.3	
4267	20	41.8	+35	58	4.7	68.8	38.4	68.3	
4709	22	39.6	+22	48	3.9	69.6	28.0		
4615	22	43.0	+23	51	3.9	70.0	28.0		

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Pole plate. — Stars on this plate have been entered in Catalogues A and C. of E. F. and G.

January 17, 1887. Stars —

Plate 140.

	V	H	Type	No. Remarks	No. lines	K	Focus	other Lines
	20.5	15.6	I ?		5	K=.2H ?	1	—
	20.0	22.9	III b ?	1501	2	K=H ?	1	neen
	19.5	15.1	I		6	K=.5H ~~K=H~~	1	—
II^a G+h=.5 H+K	19.1	16.3	II^a ?	1502	2	K=H	1	neen
1 ft. line.	18.3	21.2	III b ?	1503	1	N	1	neen.
	16.8	9.0	II ?		8	K=H	1	—
	~~16.6~~	~~12.3~~	~~III~~		~~2~~	~~N~~	~~1~~	~~—~~
4? br. lines	16.3	15.0	III b.c.	1504	8	K=1.2H ?	2	Bright neen.
	16.1	11.5	I		4	N	1	—
	15.8	18.2	I		5	K=.7H ? ~~K=H~~	1	—
	15.1	18.2	I		8	K=H	1	—
	15.0	17.0	I		7	K=.25H ~~K=H~~	2	—
II ?	15.0	17.9	II ?		2	K=H	1	—
	14.5	20.5	I		9	K=.7H ~~K~~	3	—
	14.5	14.8	III		1	N	1	—
II^a G+h=.2 H+K	14.0	8.0	II^a ?	1505	2	K=H	1	neen
	~~14.0~~	~~10.6~~ 11.6	~~I~~		~~7~~	~~K=H~~	~~4~~	~~—~~
	14.3	16.7	I		4	N	1	—
	13.7	17.4	I		8	K=.8H ~~K=H~~	3	—
II^a G+h=.5 H+K	13.5	10.3	I	1506	2	K=H	2	neen
	~~13.4~~	~~15.4~~	~~I~~		~~6~~	~~N~~	~~4~~	~~—~~
	~~13.0~~	~~12.9~~	~~I~~		~~4~~	~~K=H~~	~~1~~	~~—~~
	~~12.5~~	~~10.8~~	~~I~~		~~3~~	~~N~~	~~1~~	~~—~~
	12.4	7.6	I		5	K=H	1	—
	11.8	7.0	I		5		2	—
	11.6	20.4	I		5	K=.25H ~~K~~	1	—
	11.5	17.9	I		5	K=.5H ~~N~~	1	—
	11.0	14.9	I		4	K=.25H ~~K=1.0H~~	2	—
	10.5	5.5	I		5	N	2	—

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Mean = _4

DM.	R.A.	Dec.	Mag.	Red. 6 1900		Obs.	Bv.	Diff.	
0 43 +82.9	20	0 41.6	+82 66	6.6	0 45.5	+83 10				spectrum scarc. Only a small portion of
22 44 +82.5	963	22 47.9	+82 26	6.0	22 47.9	+82 47		6.6 6.9		
0 49 +83.8	20	0 48.4	+83 49	7.0	0 52.8	+84 4		6.7		
0 25 +83.8	9	0 26.3	+83 53	7.8	0 29.8	+84 8		7.1		
22 55 +83.5	640	22 55.4	+83 64	6.0	22 55.2	+83 49		6.4 6.8		
2 59 +84.4	69	2 58.8	+84 33	6.0	~~3 8.8 +83 10~~	3 8.4 +84 34		6.6		
0 50 +85.5	19	0 49.7	+85 29	6.0	0 54.9	+85 43	5.2 5.6	5.8 6.3	6 7	
2 15 +85.2	45	2 14.2	+85 10	8.6	2 23.3	+85 22		7.5		
23 28 +85.4	403	23 29.7	+86 26	7.8	~~23 27.7 +86 45~~	23 30.3 +85 38		6.9		
23 22 +85.6	399	23 24.2	+85 37	7.5	23 24.2	+85 52		6.4		
23 52 +85.9	409	23 52.9	+85 84	8.0	23 54.7	+86 9	5.8	6.3	5	
23 22 +85.7	401	23 27.2	+85 46	8.0	23 27.5	+86 0	6.3	7.4	11	
~~399 23 23.4 +85 37 7.5~~										
22 23 +85.4	383	22 24.2	+85 26	6.0	22 21.3	+85 36	4.9	5.5	6	
0 50 +86.3	17	0 52.8	+86 22	7.5	0 58.6	+86 37	6.0 6.3	6.9 7.1	9 8	
3 51 +85.1	66	3 52.4	+85 10	6.5	4 0.1	+85 17		6.9		
~~3 20 +86.2~~	~~61~~	~~3 19.6 +86 11 6.0~~								
23 55 +86.3	647	23 55.3	+86 14	8.6	23 57.3	+86 29	6.6	7.6	10	
23 28 +86.5	644	23 27.8	+86 30	6.0	23 27.7	+86 45	5.3	5.8	5	
3 18 +86.2	51	3 19.5	+86 11	6.0	3 33.5	+86 16	5.6	6.2	6	
4 40 +85.7	74	4 41.0	+85 46	6.0	4 56.8	+85 50		6.7		
~~4 55 +85.5~~	~~48~~	~~4 55.1 +85 32 7.0~~			~~4 9.9 +85 36~~					
	~~63~~	~~3 52.4 +85 10 6.5~~			~~4 5.1 +85 17~~			6.4		
21 26 +86.5	319	21 27.7	+86 26	7.0	21 19.6	+86 37	6.4	6.8	4	
22 30 +87.3	205	22 30.8	+87 21	7.5	22 24.2	+87 35	6.1	6.8	7	
0 40 +88.3	4	0 45.5	+88 16	7.5	0 55.2	+88 32	6.7	6.0	3	
3 55 +85.5	104	3 55.1	+85 26	6.0				5.8		

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Pole plate.

January 17. 1887.

Plate 140.

	V	H	Type	No.	Remark.	K	Focus	Other Lines	V	H
IIa Gr h dbl = .2H K	10.4	14.6	II	150	13	K=1.5H?	5	7? Reen		1
	~~9.1~~	~~12.5~~	~~I~~	~~3~~	~~N~~		~~1~~			~~5~~
	~~8.8~~	~~10.8~~	~~I~~	~~4~~	~~N~~		~~2~~			—
IIIb 4 ft. lines	8.0	9.3	III	1508	1	N	2	Reen		6
	7.5	12.8	I	7	K=.5H		1	—		7
	~~6.6~~	~~14.9~~	~~I~~	~~4~~	~~N~~		~~2~~			~~15~~
	6.6	20.7	I	8	K=.2H		3	—		18
	6.5	21.4	I	10	K=.1H		4	7		18
	~~6.0~~	~~12.4~~	~~?~~	~~2~~	~~K=H~~		~~3~~	~~=~~		—
	4.9	13.1	I	5	N		1	—		10
	4.6	14.2	I	6	K=H		2	—		12
IIa Gr l = .5 H to K.	2.2	13.7	I	1509	2	K=H	1	Reen		12
	1.8	21.1	I	4	K=H		1	—		16
	~~0.0~~	~~14.7~~	~~I~~	~~7~~	~~K=.8H~~		~~4~~			—
	~~1.8~~	~~11.9~~	~~I~~	~~4~~	~~N~~		~~1~~			—
	~~1.4~~	~~9.6~~	~~I~~	~~4~~	~~N~~		~~1~~			~~10~~
	?-0.2	8.0	I	5	K=.8H		2	—		10

Plate 422.

12 5	22.5	6.4	I	4	N	2	—	11.2	12.8
	22.5	8.1	I	4	N	2	—	11.2	16.2
	22.1	7.4	I	4	N	2	—	11.0	14.8
	22.1	11.6	I	3	N	1	—	11.0	23.2
	22.2	14.4	I	6	K=H	2	—	11.1	28.8
	22.5	14.6	?	1?	N	5	F?	11.2	29.2
	21.5	6.5	I	5	N	2	—	10.8	13.0
	21.7	9.6	I	6	N	2	—	10.8	19.2
	21.0	4.8	I	4	N	1	—	10.5	15.6

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	DM.	R.A.	Dec.	Mag.	Red to 1900 h. m.			Br.	
1 5 +88.5	8	1	6.5	+88 62	2.0	1 22.0	+88 46		4.0	
~~5 3 +88.7~~										
6 30 +87.3	51	6	31.1	+87 16	6.0	6 53.9	+87 12	5.8 6.3	6.4 7.0	6 7
7 3 +89.0	13	7	3.7	+89 2	7.0	7 59.2	+88 56	5.9	6.5	6
~~18 26 +88.3~~	~~104~~	~~18~~	~~24.3~~	~~+88 14~~	~~8.0~~					
18 22 +86.9	272	18	24.4	+86 59	6.0	18 7.6	+87 0	5.6	6.0	4
18 17 +86.5	269	18	19.1	+86 36	4.5	18 4.5	+86 37	4.2	4.9	7
10 54 +88.5	64	10	53.0	+88 26	7.5	11 4.2	+88 11	6.0	6.8	8
12 20 +88.5	71	12	14.4	+88 30	6.5	12 15.0	+88 15	5.7	6.3	6
12 15 +87.2	107	12	12.6	+87 15	6.5	12 13.7	+87 0	5.8	—	
16 5 +85.6	269	16	6.6	+85 43	7.2	15 57.4	+85 36	6.0	—	
~~10 8 +84.9~~	~~234~~	~~10~~	~~7.8~~	~~+84 59~~	~~6.0~~					
10 8 +84.9	234	10	7.8	+84 59	5.0	10 15.2	8446	—	—	

$\frac{13}{20} = .66$

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January 17, 1887.

Plate 422.

V	H	Type	No. Lines	K	Focus	Other Lines.	V	H
21.4	13.7	I	4	N	2	—	10.7	27.4
21.0	14.2	I	5	N	2	—	10.5	28.4
20.9	13.0	I	5	N	1	—	10.4	26.0
20.8	10.7	I	4	N	1	—	10.4	21.4
20.5	10.4	I	3	N	1	—	10.2	20.8
20.4	10.7	I	3	N	1	—	10.2	21.4
20.5	11.1	I	5	N	2	reen.	10.2	22.2
20.5	7.7	I	4	N	1	—	10.2	16.4
20.1	6.7	III	3	N	2	reen.	10.0	16.4
20.5	12.6	I ?	3	N	1	—	10.2	26.2
20.4	13.3	III	7	K= H	4	Bright. reen.	10.2	26.6
20.0	13.4	I	5	N	1	—	10.0	26.8
20.0	14.3	I	5	N	2	—	10.0	28.6
20.0	14.0	I ?	3	N	2	—	10.0	28.0
19.8	13.9	I	4	N	1	—	9.9	27.8
19.7	13.5	?	?	N	2	—	9.8	27.0
19.6	15.1	I	6	N	3	—	9.8	30.2
19.4	8.5	I	5	N	3	—	9.7	17.0
19.0	8.0	I	6	N	3	F reen.	9.5	16.0
19.0	8.7	I	7	N	3	F ?	9.5	17.4
19.1	9.5	III	7	K=1.2 H	3	reen.	9.6	19.0
18.9	11.5	I	4	N	1	—	9.4	23.0
18.5	11.8	I	6	N	2	F reen.	9.2	23.6
19.2	12.3	I ?	3	N	1	—	9.6	24.6
18.4	12.3	I	2	N	1	—	9.2	24.6
18.5	12.5	I	2	N	1	—	9.2	25.0
18.8	13.4	I	6	N	3	—	9.4	26.8
18.1	13.6	I	4	N	1	—	9.0	27.2

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January 17. 1887.

Plate 422.

	V	H	Type	No. lines	K	Focus	Other lines	V	H
	18.1	13.7	I	4	N	1	—	9.0	27.4
	18.7	14.9	I	5	N	3	—	9.4	29.8
	18.5	7.5	III	3	N	2	—	9.2	16.0
	17.5	5.6	III	5	K=H	3	—	8.8	11.2
	17.9	6.1	I	6	N	3	—	9.0	12.2
	17.9	6.9	I	5	N	1	—	9.0	13.8
	18.0	7.5	?	2	N	5	—	9.0	15.0
?	17.1	7.7	?	3	N	5	Bright.	8.6	15.4
?	17.4	10.3	?	5	N	5	Bright.	8.7	20.6
	16.9	10.5	I	4	N	1	—	8.4	21.0
	17.6	11.0	I	5	N	3	—	8.8	22.0
	17.8	13.2	I	5	N	2	—	8.9	26.4
	17.5	13.9	I	4	N	1	—	8.8	27.8
	17.4	14.6	I	5	N	2	—	8.7	29.2
	17.1	13.2	I	5	N	1	—	8.6	26.4
	16.0	7.2	I	4	N	1	—	8.0	14.4
	16.3	8.6	I	7	N	5	Fresn.	8.2	17.2
	15.8	8.9	I	4	N	1	—	7.9	17.8
	16.1	9.2	I	6	N	1	—	8.0	18.4
	15.5	10.2	I	5	N	2	—	7.8	20.4
	15.5	10.8	I	6	N	2	—	7.8	21.6
	15.3	11.2	?	3	N	1	—	7.6	22.4
	15.0	10.6	I	3	N	2	—	7.5	21.2
	15.4	11.2	I ?	4	N	2	—	7.7	22.4
	16.5	14.2	I	2	N	1	—	8.2	28.4
	16.5	13.8	I	4	N	2	—	8.2	27.6
	16.4	13.6	III	6	K=H	2	—	8.2	27.2
	14.8	11.1	I	3	N	1	—	7.4	22.2

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V	H	Type	No. Lines	K	Focus	Other Lines.	V	H
15.6	12.4	I	7	N	2	F?	7.8	24.8
15.5	13.3	I	2	N	1	—	7.8	26.6
15.6	13.4	I	3	N	1	—	7.8	26.8
15.6	13.8	I	7	N	2	F?	7.8	27.6
14.6	6.5	I	4	N	2	—	7.3	13.0
15.0	7.5	I	5	N	2	—	7.5	15.0
14.8	9.7	I	8	N	5	F.	7.4	19.4
14.6	10.0	I	3	N	1	—	7.3	20.0
14.4	11.0	III	5	K=H	2	—	7.2	22.0
14.4	11.5	I	5	N	2	—	7.2	23.0
14.5	11.8	I	5	N	2	—	7.2	23.6
14.5	12.5	I	6	N	3	—	7.2	25.0
15.0	12.7	III ?	1	N	1	—	7.5	25.4
14.8	13.3	I	4	N	1	—	7.4	26.6
14.9	13.6	I	8	N	5	F.	7.4	27.2
14.3	14.8	I	9	N	5	F.	7.2	29.6
13.8	11.3	I	5	N	2	—	6.9	22.6
13.5	11.5	I	3	N	1	—	6.8	23.0
14.1	7.5	I ?	2	N	1	—	7.0	15.0
14.4	5.6	?	0	N	5	—	7.2	11.2
14.1	5.4	I	3	N	2	—	7.0	10.8
13.5	5.6	?	0	N	4	—	6.8	11.2
13.0	6.3	I	5	N	2	—	6.5	12.6
13.0	8.2	II	3	K=H	2	—	6.5	16.4
13.5	12.8	I	6	N	3	—	6.8	25.6
13.5	13.7	I	6	N	2	—	6.8	27.4
13.7	13.9	I	4	N	1	—	6.8	27.8
13.8	15.3	I	8	K=H	4	F.	6.9	30.6

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	V	H	Type	No. Lines	K	Focus	other Lines	V	H
	13.0	14.0	I	3	N	1	—	6.5	28.0
	13.0	12.8	?	3	N	1	—	6.5	25.6
	13.1	12.5	I	5	N	2	—	6.6	25.0
?	13.0	9.4	I	6	N	1	—	6.5	18.8
	13.3	10.0	I	3	N	1	—	6.6	20.0
	13.0	10.4	I	2	N	1	—	6.5	20.8
	12.6	10.3	I	5	N	2	—	6.3	20.6
	12.5	10.1	I	7	N	3	—	6.2	20.2
?	12.4	9.7	I	4	N	1	—	6.2	19.4
	12.1	10.8	I	7	N	5	—	6.0	21.6
	12.2	12.8	?	0	N	5	—	6.1	25.6
	11.5	13.2	III	4	K = H	1	—	5.8	26.4
	11.5	13.4	?	4	N	2	—	5.8	26.8
	11.4	13.3	I	6	N	2	—	5.7	26.6
	12.1	13.9	I	3	N	1	—	6.0	27.8
	12.2	14.1	I	5	N	1	—	6.1	28.2
	12.3	14.8	I	7	N	3	F.	6.2	29.6
	11.6	13.8	I	3	N	1	—	5.8	27.6
	11.5	15.2	I	4	N	1	—	5.8	30.4
	11.4	11.2	I	5	N	2	—	5.7	22.4
	11.0	11.4	I	3	N	1	—	5.5	22.8
	11.5	9.0	I	3	N	1	—	5.8	18.0
	12.0	6.5	I	5	N	2	—	6.0	13.0
	12.0	6.9	I	6	N	3	—	6.0	13.8
	11.8	7.7	III	1	N	1	—	5.9	15.4
	11.5	7.4	I	4	N	2	—	5.8	14.8
	11.0	6.5	I ?	5	N	3	—	5.5	13.0
	10.6	10.3	I	5	N	1	—	5.3	20.6

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V	H	Type	No. lines	K	Focus	Other lines.	V	H
10.5	10.2	I	3	N	1	—	5.2	20.4
10.5	11.2	I	2	N	1	—	5.2	22.4
10.6	13.4	I	5	N	1	F.	5.3	26.8
10.5	13.7	III ?	1	N	1	—	5.2	27.4
10.5	13.9	I	4	N	1	—	5.2	27.8
10.5	14.2	III	2	N	1	—	5.2	28.4
11.1	14.8	?	1	N	1	—	5.6	29.6
11.5	15.2	I	5	N	2	—	5.8	30.4
10.9	15.3	II	3	K=H	2	—	5.4	30.6
10.4	7.8	I	7	N	3	F.	5.2	15.6
9.8	8.0	III	2	N	2	—	4.9	16.0
10.0	9.9	I	3	N	1	—	5.0	19.8
9.9	10.1	I	3	N	1	—	5.0	20.2
9.5	9.9	I	4	N	1	—	4.8	19.8
10.2	10.3	I	2	N	1	—	5.1	20.6
10.2	10.4	I	3	N	1	—	5.1	20.8
9.5	12.6	?	2	N	1	—	4.8	25.2
9.8	14.0	III	1	N	1	—	4.9	28.0
10.0	14.2	I	4	N	1	—	5.0	28.4
10.0	14.5	I	3	N	1	—	5.0	29.0
10.0	15.1	I	3	N	1	—	5.0	30.2
9.5	14.8	I	3	N	1	—	4.8	29.6
9.1	13.8	II	2	N	1	—	4.6	27.6
9.1	5.7	?	1	N	1	—	4.6	11.4
8.8	8.5	I	3	N	1	—	4.4	17.0
8.5	11.1	III	?	N	2	—	4.2	22.2
8.6	12.0	III	5	K=H	2	—	4.3	24.0
8.0	8.9	I	4	N	3	—	4.0	17.8

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V	H	Type	No. lines	K	Focus	Other lines.	V	H
8.0	12.3	I	5	N	1	—	4.0	24.6
8.4	12.5	I?	4	N	1	—	4.2	26.0
8.5	12.9	III?	4	N	1	—	4.2	25.8
8.0	13.0	I	7	N	2	—	4.0	26.0
8.5	13.7	I	5	K=H	1	—	4.2	27.4
8.8	14.0	I	8	N	3	Freen.	4.4	28.0
8.3	15.0	I	3	N	1	—	4.2	30.0
8.5	15.2	I	3	K=N	1	—	4.2	30.4
7.6	11.0	I	4	N	2	—	3.8	22.0
7.5	11.8	III	5	K=H	2	—	3.8	23.6
7.5	12.2	I	4	K=H	2	—	3.8	24.4
7.5	12.9	I	2	N	1	—	3.8	25.8
7.8	14.3	I	9	N	4	Freen	3.9	28.6
7.4	14.5	I	4	N	1	—	3.7	29.0
7.0	12.2	I	5	K=H	2	—	3.5	24.4
6.5	7.2	I	3	N	1	—	3.2	14.4
6.4	8.7	I	7	N	5	Freen.	3.2	17.4
6.2	10.3	III	1	N	1	—	3.1	20.6
6.5	11.9	I	2	N	1	—	3.2	23.8
6.0	11.5	I	5	N	2	—	3.0	23.0
6.8	12.9	I	3	N	1	—	3.4	25.8
6.0	12.7	I	3	N	1	—	3.0	25.4
6.6	15.3	I	4	K=H	2	—	3.3	30.6
6.1	14.6	I	7	N	2	—	3.0	29.2
6.0	13.9	I	6	K=.2H	3	—	3.0	27.8
5.6	13.6	I	4	N	1	—	2.8	27.2
5.0	9.2	I	3	N	2	—	2.5	18.4
5.0	11.8	III	1	N	1	—	2.5	23.6

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V	H	Type	No. lines	K	Focus	other lines	V	H
4.6	6.8	I	3	N	1	—	2.3	13.6
4.5	7.3	I	3	N	2	—	2.2	14.6
4.1	13.0	I	5	K=H	1	—	2.0	26.0
4.4	13.9	I	3	N	1	—	2.2	27.8
4.1	14.1	III	3	K=H	1	—	2.0	28.2
4.9	14.1	I	8	N	3	—	2.4	28.2
3.6	8.5	I	3	N	1	—	1.8	17.0
3.6	9.5	I	4	N	1	—	1.8	19.0
3.5	13.8	I	6	N	3	—	1.8	27.6
3.2	14.8	I	3	N	1	—	1.6	29.6
3.0	13.5	I	2	N	1	—	1.5	27.0
3.0	9.4	I	3	?	1	—	1.5	18.8
2.5	7.5	I	3	N	1	—	1.2	15.0
2.4	9.4	I	2	N	1	—	1.4	19.4
2.0	9.4	?	0	N	3	—	1.0	18.8
22.3	16.2	I	3	N	1	—	11.2	62.4
22.6	21.5	I?	3	N	2	—	11.3	43.0
22.0	18.8	I	3	N	2	—	11.0	37.6
21.9	20.3	I	3	N	2	—	11.0	40.6
21.5	18.1	I	4	K=H	1	—	10.8	36.2
21.5	17.0	III	2	?	2	—	10.8	34.0
21.0	21.6	I	3	N	2	—	10.5	43.2
20.5	19.2	I	5	N	2	—	10.2	38.4
19.9	16.8	I	4	N	1	—	10.0	33.6
20.0	17.4	I	2	N	1	—	10.0	34.8
19.5	21.3	I	4	N	2	—	9.8	42.6
19.5	22.4	I	3	N	1	—	9.8	44.8
19.0	20.9	I	3	N	2	—	9.5	41.8

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V	H	Type	No. Lines	K	Focus	other Lines.	V	H
19.0	19.2	I	3	N	1	—	9.5	638.4
19.0	18.5	I	6	N	2	—	9.5	637.0
18.5	16.0	I	5	N	1	—	9.2	632.0
18.6	16.1	I	5	N	1	—	9.3	632.2
18.4	17.3	III	3	N	1	—	9.2	634.6
18.0	23.1	I	3	N	1	—	9.0	462.2
17.6	17.8	I	6	N	2	—	8.8	635.6
17.5	17.9	I	5	N	1	—	8.8	635.8
17.5	19.5	I	4	N	1	—	8.8	639.0
18.1	23.1	I	3	N	1	—	9.0	462.2
16.5	22.7	I	3	N	1	—	8.2	458.4
16.8	17.4	III	1	N	1	—	8.4	634.8
16.5	19.0	III	3	N	1	—	8.2	638.0
16.0	18.4	I	8	N	3	F?	8.0	636.8
15.8	17.8	I	3	N	1	—	7.9	635.6
15.5	16.0	I	6	K=H	2	—	7.8	632.0
15.3	18.0	I	4	N	1	—	7.6	636.0
15.7	19.8	I	5	N	2	—	7.8	639.6
15.6	21.4	III	0	N	2	—	7.8	428.8
15.8	22.1	I	4	N	1	—	7.9	442.2
15.2	20.4	I	3	N	1	—	7.6	408.8
14.7	16.7	I	2	N	1	—	7.4	633.4
14.5	18.7	I	4	N	1	—	7.2	637.4
14.5	19.7	I	5	N	2	—	7.2	639.4
13.8	16.1	I	5	N	1	—	6.9	632.2
14.2	16.5	I	3	N	1	—	7.1	636.0
13.9	16.4	I	5	N	2	—	7.0	632.8
13.5	15.5	I	3	N	1	—	6.8	631.0

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V	H	Type	No. lines	K	Focus	Other lines.	V	H
13.5	16.9	I	7	N	3	–	6.8	63.8
13.7	17.2	I	7	N	3	–	6.8	64.4
13.1	17.0	I	2	N	1	–	6.6	64.0
12.9	16.9	I	6	K=H	2	–	6.4	63.8
12.9	16.8	III	6	K=H	3	bright.	6.4	63.6
12.5	17.1	I	5	N	1	–	6.2	64.2
12.8	17.2	I	4	N	3	neen.	6.4	64.4
? 12.4	16.8	?	8	?	3	Bright.	6.2	63.6
12.0	15.5	I	4	K=H	1	–	6.0	61.0
12.0	17.9	I	7	N	2	Fneu.	6.0	63.8
12.5	18.8	I	6	N	3	–	6.2	67.6
12.7	18.9	I	6	N	2	–	6.4	67.8
12.7	20.3	I	5	N	1	–	6.4	70.6
12.7	20.7	I	5	N	1	–	6.4	71.4
13.0	22.6	I	3	N	1	–	6.5	75.2
12.2	23.3	I	5	N	1	–	6.1	76.6
12.0	23.3	I	4	N	1	–	6.0	76.6
12.0	23.5	I	7	N	3	–	6.0	77.0
11.6	24.1	I	4	N	1	–	5.8	78.2
11.5	16.3	I	3	N	1	–	5.8	62.6
? 11.5	20.8	III	6	K=H	2	Bright	5.8	71.6
11.0	19.3	I ?	5	N	2	–	5.5	68.6
11.0	20.4	I	5	N	2	–	5.5	70.8
11.0	22.2	I	5	N	3	–	5.5	74.4
10.5	16.0	I	9	N	5	F.	5.2	62.0
10.4	16.4	I	4	N	1	–	5.2	62.8
10.5	16.7	I	4	N	1	–	5.2	63.4
10.6	17.4	I	6	N	2	–	5.3	64.8

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V	H	Type	No. Lines	K	Focus	other Lines.	V	H
11.0	19.3	I	5	?	2	—	5.5	38.6
11.0	20.6	I	5	N	1	—	5.5	40.8
9.9	15.7	III?	4	?	2	—	5.0	31.4
10.0	20.1	I	4	N	1	—	5.0	40.2
9.5	18.8	I	3	N	1	—	4.8	37.6
9.5	22.1	I	6	N	3	—	4.8	44.2
9.2	22.3	I	4	N	1	—	4.6	44.6
9.0	19.8	I	5	N	1	—	4.5	39.6
9.0	15.4	I	7	N	3	—	4.5	30.8
8.7	16.2	I	7	N	3	Fibers	4.4	32.4
8.6	17.1	I	4	N	1	—	4.3	34.2
8.4	16.9	I	5	K=.2H	1	—	4.2	33.8
8.3	16.5	I	3	N	1	—	4.2	33.0
8.3	16.3	I	4	N	1	—	4.2	32.6
8.4	21.9	I	6	N	3	—	4.2	43.8
8.1	23.6	I	4	N	1	—	4.0	47.2
7.5	15.9	I	3	N	1	—	3.8	31.8
7.9	20.1	I	4	N	1	—	4.0	40.2
7.6	19.7	I	3	N	1	—	3.8	39.4
7.5	23.2	I	3	N	2	—	3.8	46.4
7.1	21.3	I	3	N	1	—	3.6	42.6
6.8	15.5	I	6	N	2	—	3.4	31.0
7.0	17.5	I	7	N	2	—	3.5	35.0
7.0	19.0	I	4	N	1	—	3.5	38.0
6.5	18.4	I	5	N	3	—	3.2	36.8
6.4	18.5	I	7	N	2	—	3.2	37.0
6.8	20.2	I	4	N	4	—	3.4	40.4
6.1	20.5	?	5	N	1	—	3.0	41.0

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V	H	Type	No. lines	K	Focus	other lines	V	H	V	H	Correc.
6.5	20.7	I	4	N	1	–	6.2	H1.4			
6.4	20.9	I	4	N	1	–	6.2	H1.8			
6.0	20.9	I	5	N	2	–	6.0	H1.8			
6.0	20.8	I	4	N	2	–	6.0	H1.6			
5.4	22.8	III	3	K=H	1	–	2.7	H5.6			
5.2	22.6	III	1	N	1	–	2.6	H5.2			
5.5	16.4	I	9	?	4	Fraun	2.8	G2.8			
5.0	16.2	I	9	K=H	5	Fraun	2.5	G2.4			
5.1	17.1	I	8	N	5	Fraun.	2.6	G4.2			
4.6	19.6	I	5	N	1	–	2.3	G9.2			
4.5	20.5	III	3	K=H	1	–	2.2	H1.0			
4.0	21.4	I	5	N	1	–	2.0	H2.8			
3.7	19.5	I	3	N	1	–	1.8	G9.0			
3.5	20.7	I	3	N	1	–	1.8	H1.4			
3.4	17.2	I	4	N	1	–	1.7	G4.4			
3.5	15.5	I	5	K=H	2	–	1.8	G1.0			
2.8	17.3	I	9	?	4	F ?	1.4	G4.6			
2.7	18.3	I	7	K=.5H	2	–	1.4	G6.6			
2.8	21.4	I	5	N	2	–	1.4	H2.8			
1.9	21.3	I	1	N	2	–	1.0	H2.6			

Plate 657.

22.9	14.2	I	5	N	2	–	11.4	28.4	G2.6	68.7	+0.2
22.5	6.3	I	2	N	1	–	11.2	12.6	G2.5	84.5	+2.8
22.0	12.9	I	4	N	2	–	11.0	25.8	G2.7	71.3	+0.7
21.9	12.5	I	4	N	1	–	11.0	25.0	G2.7	72.1	+0.8
21.1	13.9	III	5	K=H	2	–	10.6	27.8	G6.1	69.3	+0.3
20.5	13.4	I	4	N	1	–	10.2	26.8	G3.5	70.3	+0.5

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Dm.	R.A.	Dec.	Mag.	H	V	H′
68.9	3767	20	9.2	+62	26	6.8	37.6	43.8	37.4
87.3	3862	20	27.7	+62	26	7.5	40.3	43.6	37.5
72.0	? 3773	20	12.3	+62	46	8.0	38.1	43.8	37.4	hooks off on chart
72.9	3779	20	13.0	+62	48	8.0	38.0	43.8	37.2
69.6	3827	20	9.8	+66	18	6.2	37.6	43.9	37.3
70.8	3835	20	11.1	+66	30	8.1	37.9	43.7	37.4

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Plate 657.

V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H	Correc.
20.1	13.3	I	5	N	1	–	10.0	26.6	63.7	70.6	+0.6
20.5	8.7	I	5	N	2	–	10.2	17.4	63.5	79.7	+2.1
20.1	10.0	I	3	N	1	–	10.0	20.0	63.7	77.1	+1.7
20.0	11.4	I	3	N	1	–	10.0	22.8	63.7	74.3	+1.2
20.0	14.9	I	3	N	1	–	10.0	29.8	63.7	67.3	+0.1
19.7	7.2	?	2	?	2	–	9.8	14.4	63.9	82.7	+2.7
19.8	9.1	I	6	K=H	2	–	9.9	18.2	63.8	78.9	+2.0
19.5	15.0	I	3	N	1	–	9.8	30.0	63.9	67.1	0
19.0	6.2	I	4	N	2	–	9.5	12.4	64.2	84.7	+3.2
18.5	11.0	I	5	N	2	–	9.2	22.0	64.5	75.1	+1.4
18.6	12.6	II?	7	K=H	4	–	9.3	26.2	64.4	71.9	+0.8
18.0	5.6	I	3	N	1	–	9.0	11.2	64.7	85.9	+3.5
18.0	6.3	III	2	N	3	–	9.0	12.6	64.7	84.5	+3.2
17.8	7.7	I	2	N	1	–	8.9	15.4	64.8	81.7	+2.7
18.0	11.8	I	4	N	2	–	9.0	23.6	64.7	73.5	+1.2
17.7	13.4	I	6	N	2	Freem.	8.8	26.8	64.9	70.3	+0.6
17.6	10.9	I	3	N	1	–	8.8	21.8	64.9	75.3	+1.5
17.9	14.4	II?	3	K=H	1	–	9.0	28.8	64.7	67.3	+0.2
17.5	14.7	III	1	N	1	–	8.8	29.4	64.9	67.7	+0.1
17.5	14.3	III	1	N	1	–	8.8	28.6	64.9	68.5	+0.2
16.7	13.2	I	5	N	2	–	8.4	26.4	65.3	70.7	+0.6
16.0	12.0	I	4	K=H	1	–	8.0	24.0	65.7	73.1	+1.1
16.1	12.6	I	5	N	2	–	8.0	25.2	65.7	71.9	+0.9
16.0	13.4	III	1	N	1	–	8.0	26.8	65.7	70.3	+0.6
16.0	14.6	I	3	N	2	–	8.0	29.2	65.7	67.9	+0.1
15.5	14.4	I	7	N	3	–	7.8	28.8	65.9	68.3	+0.2
15.4	15.0	I	3	N	1	–	7.7	30.0	66.0	67.1	0
15.1	14.8	I	2	N	1	–	7.6	29.6	66.1	67.5	+0.1

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	DM.	R.A.	Dec.	Mag.	H	V	H'
71.1	3883	20 11.3	+ 33 41	7.8	37.9	43.7	37.3
81.8	3914	20 22.4	+ 33 24	7.2			
?	~~3910~~	~~20 24.5~~	~~+ 33 51~~	~~6.7~~	39.8	43.6	37.7
78.8	3890	20 18.7	+ 33 45	8.3	38.7	43.8	37.0
75.5	3873	20 15.8	+ 33 44	8.6	39.6	43.7	38.4
67.4	3807	20 7.5	+ 33 45	8.3	37.3	43.8	37.2
85.4	3938	20 25.9	+ 33 51	7.0	40.3	43.6	37.6
80.9	3910	20 24.5	+ 33 51	6.7	39.7	43.7	37.7
67.1	3916	20 7.3	+ 34 2	8.1	37.3	43.8	37.3
87.9	4081	20 28.4	+ 34 11	7.2	40.8	43.7	37.6
76.5	6995	20 16.9	+ 34 32	7.2	38.9	43.7	37.5
72.7	6967	20 16.1	+ 34 32	6.4	38.3	43.8	37.5
89.5	4091	20 29.9	+ 34 40	8.5	41.1	43.7	37.6
87.7	4079	20 28.3	+ 34 46	6.4	40.9	43.8	37.7
84.4	4056	20 26.1	+ 34 52	8.6	40.5	43.8	37.8
74.7	3978	20 15.1	+ 34 48	8.5	38.7	43.8	37.5
70.9	4047	20 11.1	+ 35 1	7.4	37.9	43.8	37.3
76.8	4086	20 17.0	+ 35 2	8.4	38.8	43.8	37.3
67.5	3915	20 7.2	+ 34 45	7.8	36.0	43.8	35.8
	~~3919~~	~~20 7.5~~	~~+ 34 28~~	~~8.0~~	~~36.3~~	~~—~~	~~—~~
67.8	4023	20 7.8	+ 35 10	7.3	37.2	44.0	37.1
68.7	6930	20 8.7	+ 34 55	7.6	37.3	43.7	37.1
71.3	4048	20 11.5	+ 35 30	7.5	37.9	43.9	37.3
74.2	4069	20 14.5	+ 35 49	8.4	38.5	43.8	37.4
72.8	4059	20 13.0	+ 35 48	8.0	38.2	43.8	37.3
70.9	4044	20 11.1	+ 35 50	7.5	37.9	43.8	37.3
68.0	4026	20 8.1	+ 35 54	7.0	37.3	43.8	37.2
68.5	6949	20 8.6	+ 36 10	7.0	37.4	44.0	37.2
67.1	6936	20 7.3	+ 36 13	8.2	37.3	43.9	37.3
67.6	3937	20 7.8	+ 36 18	8.6	37.4	43.9	37.3

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V	H	Type	No. lines	K.	Focus	other lines	V	H	V	H	Correc.
15.1	14.2	I	10	N	5	Freen.	7.6	28.4	36.1	68.7	+0.3
15.4	12.8	I	2	N	1	–	7.7	25.6	36.0	71.5	+0.7
15.1	12.4	I	4	K=H	2	–	7.6	24.8	36.1	72.3	+1.0
15.6	8.3	I	6	N	3	–	7.8	16.6	36.9	80.5	+2.6
15.6	7.7	I	2	N	1	–	7.8	15.4	36.9	81.7	+2.8
14.6	7.6	?	2	N	2	–	7.3	15.2	36.4	81.9	+3.0
14.5	8.1	I	3	N	1	–	7.2	16.2	36.5	80.9	+2.8
14.5	10.5	I	6	N	2	–	7.2	21.0	36.5	76.1	+1.7
14.5	12.1	I	6	N	3	–	7.2	24.2	36.5	72.9	+1.1
14.6	12.6	I	9	K=2 H	4	Freen.	7.3	26.2	36.4	71.9	+0.9
14.4	12.8	I?	1	N	1	–	7.2	25.6	36.5	71.5	+0.8
14.5	13.4	I	6	N	3	–	7.2	26.8	36.5	70.3	+0.6
14.0	14.2	?	2	N	2	–	7.0	28.4	36.7	68.7	+0.3
13.9	14.0	I	4	N	1	–	7.0	28.0	36.7	69.1	+0.4
13.7	13.4	I	3	N	1	–	6.8	26.8	36.9	70.3	+0.6
13.7	10.6	I	7	N	4	–	6.8	21.2	36.9	75.9	+1.7
13.5	10.3	I	5	N	1	–	6.8	20.6	36.9	76.5	+1.8
13.7	7.2	?	1	N	1	–	6.8	14.4	36.9	82.7	+3.2
13.2	8.0	?	2	N	1	–	6.6	16.0	37.1	81.1	+2.9
13.6	12.0	I	2	N	1	–	6.8	24.0	36.9	73.1	+1.2
13.2	14.0	?	5	K=H	1	–	6.6	28.0	37.1	69.1	+0.4
13.3	12.3	I	3	N	1	–	6.6	24.6	37.1	72.5	+1.1
12.6	10.5	I	2	N	1	–	6.3	21.0	37.4	76.1	+1.8
12.5	11.1	III?	1	N	1	–	6.2	22.2	37.5	74.9	+1.6
?	12.8	12.9	?	5	N	4	Bright, Freen.	6.4	25.8	37.3	71.3	+0.9
	12.4	8.2	I	4	N	2	–	6.2	16.4	37.5	80.7	+2.8
	11.9	8.8	I	4	N	1	–	6.0	17.6	37.7	79.5	+2.6
	11.9	9.0	I	7	N	4	–	6.0	18.0	37.7	79.1	+2.6

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	Dm.	R.A.	Dec.	Mag.	H	V	Th'
69.0	3955	20 9.1	+36 22	6.4	37.5	44.0	37.2
72.2	3995	20 12.7	+36 7	8.3	38.3	43.8	37.6
73.3	4005	20 13.7	+36 18	7.6	38.5	43.9	37.5
83.1	4141	20 23.8	+35 58	6.2	40.4	43.8	37.8
84.5	4146	20 25.2	+35 55	8.0	40.6	43.7	37.8
84.9	4105	20 25.5	+36 27	6.5	40.7	43.9	37.7
83.7	4095	20 24.3	+36 30	7.5	40.5	43.9	37.7
77.8	4051	20 18.4	+36 34	6.8	39.4	43.8	37.7
74.0	4008	20 14.4	+36 40	7.0	38.6	43.9	37.5
72.8	3998	20 13.0	+36 36	6.1	38.2	43.9	37.3
72.3	3994	20 12.6	+36 43	7.7	38.2	43.9	37.4
70.9	3978	20 11.1	+36 37	6.6	37.9	43.8	37.3
69.0 ?	3958	20 9.2	+36 55	7.5	37.6	43.9	37.3
69.5	3962	20 9.7	+36 57	8.1	37.7	44.0	37.3
70.9	3866	20 11.3	+37 0	8.0	38.1	43.8	37.5
77.6	3916	20 18.3	+37 1	6.0	39.5	43.8	37.8
78.3	3922	20 18.9	+37 6	8.2	39.5	43.9	37.7
85.9	4113	20 26.6	+36 53	8.1	41.0	43.7	37.8
84.0	3950	20 23.8	+37 2	7.7	39.8	43.6	36.9
74.3	4009	20 14.5	+36 57	8.5	38.5	43.8	37.3
69.5	3845	20 9.7	+37 15	7.4	37.7	43.8	37.3
73.6	3881	20 13.8	+37 20	8.7	38.4	43.9	37.3
77.9	3918	20 18.4	+37 31	8.6	39.4	43.8	37.6
76.5	3908	20 16.9	+37 38	7.8	39.1	43.8	37.5
72.2	3871	20 12.4	+37 35	5.3	38.2	44.0	37.3
83.5	3962	20 24.3	+37 39	8.4	40.7	43.8	37.9
82.1	3944	20 22.7	+37 54	8.7	40.3	43.9	37.7
81.7	3941	20 22.2	+37 58	6.0	40.2	44.0	37.6

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V	H	Type	No. lines	K	Focus	other lines.	V	H	V	H	Correc.
12.1	11.7	I	5	N	2	—	6.0	26.4	37.7	73.7	+1.3
12.0	12.1	I	3	N	1	—	6.0	24.2	37.7	72.9	+1.2
11.5	13.9	I	4	N	1	—	5.8	27.8	37.9	69.3	+0.4
11.1	14.6	?	2	N	1	—	5.6	29.2	38.1	67.9	+0.1
11.3	8.3	I	3	N	1	—	5.6	16.6	38.1	80.5	+2.9
11.5	7.9	I	3	N	1	—	5.8	15.8	37.9	81.3	+2.8
11.4	6.6	I	3	N	2	—	5.7	13.2	38.0	83.9	+3.7
10.7	6.7	I	2	N	1	—	5.4	13.4	38.3	83.7	+3.7
10.7	8.3	?	2	N	1	—	5.4	16.6	38.3	80.5	+3.0
11.0	9.6	I	5	N	1	—	5.5	19.2	38.2	77.9	+2.3
10.7	10.3	I	5	N	2	—	5.4	20.6	38.3	76.5	+2.0
11.1	10.8	I	3	N	1	—	5.6	21.6	38.1	75.5	+1.8
10.3	10.9	I	6	N	3	—	5.2	21.8	38.6	75.3	+1.8
11.0	11.9	I	4	N	1	—	5.5	23.8	38.2	73.3	+1.3
10.7	12.4	III	1	N	1	—	5.4	24.8	38.3	72.3	+1.1
11.0	13.5	I	6	N	3	—	5.5	27.0	38.2	70.1	+0.6
10.5	11.6	I	3	N	1	—	5.2	23.2	38.6	73.9	+1.5
10.5	14.4	I	6	K=.8H	2	—	5.2	28.8	38.6	68.3	+0.2
10.0	7.1	I	3	N	1	—	5.0	14.2	38.7	82.9	+3.6
10.0	8.7	?	1	N	1	—	5.0	17.4	38.7	79.7	+2.8
9.7	9.4	I	6	N	3	—	4.8	18.8	38.9	78.3	+2.6
9.6	10.4	I	5	N	1	—	4.8	20.8	38.9	76.3	+2.0
9.1	9.2	?	2	K=H	1	—	4.6	18.4	39.1	78.7	+2.6
9.1	9.9	I	5	N	2	—	4.6	19.8	39.1	77.3	+2.3
10.0	11.9	I	8	N	4	Green.	5.0	23.8	38.7	73.3	+1.4
9.5	12.7	I	3	N	1	—	4.8	25.4	38.9	71.7	+1.0
9.5	13.0	I	8	N	3	—	4.8	26.0	38.9	71.1	+0.9
9.3	13.2	I	5	N	1	—	4.6	26.4	39.1	70.7	+0.8

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	DM.	R.A.	Dec.	Mag.	H	V	H'
75.0	3897	20 15.5	+37 48	7.9	38.9	43.8	37.6
74.1	3892	20 14.5	+37 53	7.6	38.7	43.9	37.5
69.7	3971	20 9.9	+38 10	7.9	37.7	44.0	37.3
68.0	3956	20 8.1	+38 20	7.2	37.3	43.9	37.3
83.4	4114	20 24.2	+38 8	8.3	40.8	43.7	37.9
84.1	4121	20 25.0	+38 4	8.4	40.8	43.9	38.0
87.6	4150	20 28.5	+38 12	8.0	41.7	43.9	38.1
87.4	4148	20 25.3	+38 5	8.0	38.7	43.5	33.0
83.5	4111	20 24.1	+38 28	8.5	40.7	43.9	43.7
80.2	4080	20 20.8	+38 26	7.9	40.0	43.9	37.7
78.5	4074	20 19.1	+38 30	8.1	39.7	43.9	37.9
77.3	4052	20 17.7	+38 17	8.9	39.3	43.9	37.5
77.1	4051	20 17.7	+38 45	7.0	39.5	44.0	37.7
74.6	4019	20 14.9	+38 26	8.5	38.7	43.9	37.5
73.4	4003	20 13.7	+38 36	6.8	38.5	44.0	37.4
70.7	3977	20 10.8	+38 27	6.5	37.8	44.0	37.0
75.4	4062	20 15.8	+38 34	8.0	39.0	43.8	37.5
68.5	3963	20 8.7	+38 43	7.5	37.5	43.9	37.3
86.5	4138	20 27.4	+38 47	8.2	41.6	43.8	38.0
82.5	4102	20 23.1	+38 51	7.4	40.5	43.9	37.7
80.9	4192	20 21.4	+39 1	7.2	40.2	43.8	37.6
78.3	4166	20 18.8	+39 4	8.1	39.6	43.9	37.6
81.3	4196	20 22.1	+39 15	7.7	40.5	43.8	37.9
79.6	4178	20 20.2	+39 19	7.5	40.0	43.9	37.7
74.7	4021	20 15.0	+38 57	6.8	38.8	44.0	37.4
72.7	4129	20 13.3	+39 9	8.6	38.7	44.0	37.7
72.0	4115	20 12.2	+39 8	6.9	38.2	43.9	37.3
71.5	4113	20 11.6	+39 15	7.5	38.0	43.8	37.2

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V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H	Correc.
9.1	14.9	I	4	N	1	—	4.6	29.8	39.1	67.3	0
9.0	12.6	I	3	N	1	—	4.5	26.2	39.2	71.9	+1.0
8.9	12.8	I	4	N	1	—	4.4	26.6	39.3	71.5	+1.0
8.5	12.7	I	3	N	1	—	4.2	26.4	39.5	71.7	+1.0
9.3	10.6	I	3	N	1	—	4.6	21.2	39.1	75.9	+1.9
8.8	6.9	I	3	N	1	—	4.4	13.8	39.3	83.3	+3.7
8.8	7.6	I	4	N	2	—	4.4	15.2	39.3	81.9	+3.4
8.5	8.4	I	4	N	1	—	4.2	16.8	39.5	80.3	+3.1
8.5	9.8	I	2	N	1	—	4.2	19.6	39.5	77.5	+2.4
8.5	10.0	I	3	N	1	—	4.2	20.0	39.5	77.1	+2.3
8.5	11.2	I?	4	K=H	5	Freew.	4.2	22.4	39.5	74.7	+1.7
8.0	13.2	III	5	K=H	2	Freew.	4.0	26.4	39.7	70.7	+0.9
8.1	14.9	I?	3	N	1	—	4.0	29.8	39.7	67.3	0
7.4	7.0	I	3	N	1	—	3.7	14.0	40.0	86.1	+3.8
7.8	7.8	I	5	N	1	—	3.9	15.6	39.8	81.5	+3.4
7.3	8.1	I?	2	N	1	—	3.6	16.2	40.1	80.9	+3.3
7.5	8.9	I	5	N	1	—	3.8	17.8	39.9	79.3	+2.9
8.0	9.4	I	5	N	1	—	4.0	18.8	39.7	78.3	+2.6
8.0	9.7	I	6	N	2	—	4.0	19.4	39.7	77.7	+2.5
7.3	8.1	?	4	N	1	—	3.6	16.2	40.1	80.9	+3.3
7.0	8.8	I	4	N	1	—	3.5	17.6	40.2	79.5	+3.0
7.6	13.1	I	5	N	2	—	3.8	26.2	39.9	70.9	+0.8
7.7	13.7	I	4	N	1	—	3.8	27.4	39.9	69.7	+0.6
7.3	14.7	I	5	N	1	—	3.6	29.4	40.1	67.7	+0.1
7.4	12.7	I	5	N	3	—	3.7	26.4	40.0	71.7	+1.0
6.8	13.4	I	3	N	1	—	3.4	26.8	40.3	70.3	+0.8
7.1	11.5	I	4	N	1	—	3.6	23.0	40.1	74.1	+1.6
6.7	11.0	III	1	N	1	—	3.4	22.0	40.3	75.1	+1.9

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	DM.	R.A.	Dec.	Mag.	H	V	H'
67.3	4080	20 7.2	+39 18	8.3	37.0	43.9	37.0
72.9	4129	20 13.3	+39 9	8.6	38.5	43.7	37.5
72.5	4117	20 12.6	+39 28	8.7	38.2	43.9	37.3
72.7	4125	20 13.0	+39 40	8.5	38.4	43.9	37.4
77.8 ?	4166	20 18.8	+39 5	8.1	40.0	43.7	38.1
87.0	4232	20 27.8	+39 22	7.9	41.6	43.8	37.9
85.3	4221	20 26.1	+39 27	7.4	41.3	43.8	37.9
83.4	4210	20 24.1	+39 37	8.0	40.9	43.8	37.8
79.9	4178	20 20.2	+39 19	7.5	39.8	43.5	37.4
79.4	4172	20 19.6	+39 41	7.5	39.6	43.9	37.3
76.4	4159	20 17.0	+39 48	2.8	39.4	44.0	37.7
71.6	4116	20 11.8	+39 55	5.4	38.2	43.9	37.3
67.3	4082	20 7.4	+39 50	7.5	37.2	43.8	37.2
86.9 ?	4226	20 28.0	+40 7	8.0	42.0	43.8	38.2
84.9	4219	20 25.8	+39 56	7.2	41.4	43.8	38.0
84.2	4205	20 25.2	+40 11	7.7	41.4	43.8	38.1
82.2	4183	20 22.9	+40 8	8.2	40.7	43.9	37.8
80.9	4193	20 21.5	+39 52	7.7	40.3	43.9	37.7
80.2	4186	20 20.9	+39 56	7.3	40.3	43.9	37.8
84.2	4206	20 25.3	+40 1	7.1	41.5	43.6	38.2
82.5	4188	20 23.4	+40 25	8.0	41.0	43.9	38.0
71.7	4093	20 12.1	+40 9	7.0	38.3	44.0	37.5
70.3	4080	20 10.3	+40 3	8.4	37.7	43.8	37.1
67.8	4060	20 7.9	+40 17	7.5	37.3	43.9	37.0
72.7	4103	20 13.0	+40 17	6.3	38.4	44.0	37.4
71.1	4086	20 11.1	+40 31	7.8	37.9	43.9	37.1
75.7	4129	20 16.1	+40 21	8.0	39.1	44.0	37.5
77.0	4141	20 17.6	+40 34	6.0	39.6	44.0	37.7

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Plate 657.

V	H	Type	lines	K	Focus	Other Lines.	V	H	V	H	Correc.
6.5	12.1	I	5	N	2	—	6.2	24.2	40.5	72.9	+1.4
6.5	11.2	III?	3	K=H	2	—	6.2	22.4	40.5	74.7	+1.8
6.1	13.8	I	4	N	1	—	6.0	27.6	40.7	69.5	+0.6
6.1	13.2	I	3	N	1	—	6.0	26.4	40.7	70.7	+0.8
6.0	12.2	I	4	N	1	—	6.0	24.4	40.7	72.7	+1.3
5.5	12.1	I	4	N	1	—	2.8	24.2	40.9	72.9	+1.4
5.1	6.4	I	2	N	2	—	2.6	12.8	41.1	84.3	+4.2
5.0	6.8	III	1	N	1	—	2.5	13.6	41.2	83.5	+4.1
5.0	10.0	I	5	K=H	2	—	2.5	20.0	41.2	77.1	+2.5
4.7	9.2	I?	3?	N	2	—	2.4	18.4	41.3	78.7	+2.9
4.2	11.4	I	4	N	1	—	2.1	22.8	41.6	74.3	+1.7
4.5	14.1	I	4	N	3	—	2.2	28.2	41.5	68.9	+0.5
3.5	10.0	I	3	N	2	—	1.8	20.0	41.9	77.1	+2.5
2.3	7.3	I	3	N	2	—	1.1	14.6	42.6	82.5	+4.1
2.5	9.4	I	4	N	1	—	1.2	18.8	42.5	78.3	+3.0
2.9	10.9	I	3	N	1	—	1.4	21.8	42.3	75.3	+2.0
3.0	13.9	I	5	N	1	—	1.5	27.8	42.2	69.3	+0.6
3.0	14.6	I	4	N	1	—	1.5	29.2	42.2	67.9	+0.2
2.0	14.3	III	3	N	1	—	1.0	28.6	42.7	68.5	+0.3
23.0	15.3	I	2	N	1	—	11.5	30.6	32.2	66.5	−0.1
22.5	20.6	I	3	N	1	—	11.2	41.2	32.5	55.9	−1.7
22.1	19.9	I	3	N	1	—	11.0	39.8	32.7	57.3	−1.5
22.4	20.8	I	3	N	1	—	11.2	41.6	32.5	55.5	−1.8
22.0	22.3	I	5	N	1	—	11.0	44.6	32.7	52.5	−2.3
21.5	15.3	I	3	N	1	—	10.8	30.6	32.9	66.5	−0.1
21.4	22.2	I	3	N	1	—	10.7	44.4	33.0	52.7	−2.4
21.2	16.2	I	2?	N	1	—	10.6	32.4	33.1	64.7	−0.4
21.0	16.1	I	4?	N	2	—	10.5	32.2	33.2	64.9	−0.4

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	Dm.	R.A.	Dec.	Mag.	H	V	H.
74.3	4121	20 14.6	+40 41	7.4	68.8	43.9	37.4
76.5	4136	20 16.9	+40 40	6.5	69.3	43.9	37.5
70.1	4079	20 10.2	+40 31	7.2	67.8	43.5	37.2
71.5	4089	20 11.7	+40 52	8.6	68.1	43.9	37.3
74.0	4121	20 14.6	+40 41	7.4	69.0	43.7	37.7
74.3	3703	20 14.8	+41 8	7.3	69.0	43.9	37.6
88.5	3814	20 29.8	+41 13	7.2	42.6	43.8	38.4
?	3818	20 30.2	+41 24	6.7	43.0	44.0	38.8
84.6	3805	20 28.6	+41 16	6.2	42.2	43.8	38.1
79.6	3741	20 20.3	+41 26	6.9	40.3	43.9	37.8
81.6	3758	20 22.5	+41 36	7.0	40.9	44.0	38.0
76.0	3712	20 16.6	+41 46	7.9	39.4	43.9	37.7
69.4	3668	20 9.4	+41 40	6.2	37.6	43.9	37.1
79.6	3740	20 20.4	+42 8	6.9	40.4	43.9	37.7
86.6	3778	20 27.8	+42 42	6.5	42.4	43.8	38.3
81.3	3752	20 22.3	+42 41	7.3	41.1	43.9	38.1
77.3	3721	20 17.9	+42 31	6.3	39.7	43.9	37.7
69.9	3667	20 10.1	+42 28	7.3	37.9	43.9	37.3
68.1	3638	20 8.1	+42 24	7.7	37.3	43.9	37.1
68.8	3642	20 8.8	+42 56	6.4	37.4	43.9	37.1
66.4	3744	20 7.0	+32 18	8.7			
?	~~3980~~	~~20 54~~	~~+31 52~~	~~7.5~~	37.6	43.8	37.7
54.2	3662	19 54.5	+32 24	7.0	95.7	43.6	97.4
55.8	3679	19 56.1	+32 40	8.2	95.9	43.7	97.4
53.7	3678	19 54.0	+32 30	7.6	95.6	43.7	97.4
50.2	3634	19 50.5	+32 41	7.4	95.1	43.7	97.4
66.4	3745	20 7.2	+32 49	8.2	37.8	43.6	97.9
50.3	3647	19 50.9	+32 44	8.5	95.3	43.4	97.7
64.3	3724	20 4.0	+32 59	7.8	38.4	43.6	36.8
64.5	3746	20 3.9	+33 15	7.3	36.1	43.7	36.5

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Plate 657.

V	H	Type	No. Lines	K	Prevs	Other Lines.	V	H	V	H	Correc.
20.7	16.7	I	3	N	1	—	10.4	63.4	63.6	63.7	-0.6
20.1	15.1	I	4	N	1	—	10.0	60.2	63.7	66.9	0
19.5	15.2	I	3	N	1	—	9.8	60.4	63.9	66.7	-0.1
19.5	15.5	I	4	K=H	2	-	9.8	61.0	63.9	66.1	-0.2
19.6	17.3	I	4	N	3	—	9.8	54.6	63.9	62.5	-0.8
20.0	21.5	I	3	N	1	—	10.0	43.0	63.7	54.1	-2.2
19.5	21.3	I	4	N	1	—	9.8	42.6	63.9	54.5	-2.1
19.5	20.4	I	3	N	1	—	9.8	40.8	63.9	56.3	-1.8
19.0	23.1	I	3	N	2	-	9.5	46.2	34.2	50.9	-2.9
18.5	18.3	I	4	N	1	—	9.2	36.6	34.5	60.5	-1.2
18.3	17.2	I	3	N	1	—	9.2	34.4	34.5	62.7	-0.7
18.4	22.0	III	4	K=H	3	-	9.2	44.0	34.5	53.1	-2.6
18.0	19.6	I	5	N	2	-	9.0	38.2	34.7	58.9	-1.5
17.5	16.7	I	4	N	2	-	8.8	33.4	34.9	63.7	-0.7
17.1	17.4	I	4	K=H	2	-	8.6	34.8	36.1	62.3	-0.8
17.2	20.8	I	4	N	1	—	8.6	41.6	36.1	55.5	-2.1
17.5	20.9	I	6	N	2	—	8.8	41.8	34.9	55.3	-2.1
17.0	18.0	?	0	N	3	—	8.5	36.0	36.2	61.1	-1.1
16.5	17.8	III	6	K=H	3	—	8.2	35.6	36.5	61.5	-1.0
16.6	15.9	?	2	N	1	—	8.3	31.8	36.4	65.3	-0.3
?	16.1	15.6	I?	3	N	1	Bright	8.0	31.2	35.7	65.9	-0.2
?	16.1	16.2	?	3	N	1	Bright	8.0	32.4	35.7	64.7	-0.6
16.5	19.0	?	0	N	3	—	8.2	38.0	35.5	59.1	-1.5
16.0	21.7	I	7	N	4	—	8.0	43.4	35.7	53.7	-2.6
15.7	21.2	I	5	N	2	—	7.8	42.4	35.9	54.7	-2.4
15.5	20.2	III	1	N	1	—	7.8	40.4	35.9	56.7	-1.9
15.4	23.5	III	1	N	1	—	7.7	47.0	36.0	50.1	-3.4
15.4	20.0	I	5	N	3	—	7.7	40.0	36.0	57.1	-1.9

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	DM.	R.A.	Dec.	Mag.	H	V	H'
63.1	3765	20	3.6	+ 33	60	7.5	37.0	43.9	37.6
66.9	? 3806	20	7.5	+ 33	24	8.5	37.7	43.4	37.7
	3916	20	7.3	+ 34	2	8.1	37.7	43.8	
66.6	~~3908~~	~~20~~	~~6.5~~	~~+ 34~~	~~3~~	~~7.4~~	~~36.9~~	~~43.8~~	37.8
	3908	20	6.5	+ 34	3	7.4	37.5	43.8	37.7
65.9	~~3793~~	~~20~~	~~6.0~~	~~+ 33~~	~~32~~	~~7.8~~	~~37.0~~		
61.7	3881	20	2.1	+ 34	0	6.0	36.7	43.8	37.5
51.9	3665	19	52.3	+ 33	51	7.9	95.3	43.8	97.5
52.4	3816	19	52.7	+ 34	2	8.1	95.3	43.8	97.4
54.5	3863	19	54.9	+ 34	4	8.4	95.7	43.9	97.5
48.0	3778	19	48.3	+ 34	12	6.8	94.5	43.7	97.4
59.3	3866	19	59.9	+ 34	34	8.3	96.5	43.8	97.7
62.0	3882	20	2.4	+ 34	41	7.9	36.8	43.9	37.6
50.5	3798	19	50.9	+ 34	42	4.2	94.9	43.9	97.5
57.4	3847	19	56.6	+ 34	56	7.6	94.8	43.9	96.3
63.5	3994	20	3.8	+ 35	4	7.5	37.2	43.9	37.9
61.5	3970	20	1.9	+ 35	18	7.7	36.7	43.9	37.5
53.4	3898	19	53.7	+ 35	9	8.2	95.3	43.8	97.4
53.2	3895	19	53.4	+ 35	6	7.4	95.2	43.9	97.3
60.0	3953	20	0.5	+ 35	23	7.0	36.5	43.9	37.6
60.5	3959	20	1.0	+ 35	34	5.5	36.6	43.8	37.6
65.0	4006	20	5.5	+ 35	31	7.8	37.3	43.8	37.6
65.7	4013	20	6.5	+ 35	46	8.0	37.7	43.8	37.9
64.2	4001	20	4.8	+ 35	45	8.5	37.2	43.8	37.7
57.6	3960	19	58.1	+ 35	36	7.0	96.1	43.8	97.6
51.1	3878	19	51.4	+ 35	52	6.4	94.8	43.9	97.4
52.3	3889	19	52.6	+ 35	57	8.1	95.0	43.8	97.4
54.8	3807	19	54.8	+ 36	1	7.0	95.2	43.8	97.1
46.7	3744	19	47.0	+ 36	4	6.3	94.0	43.8	97.4
55.2	3816	19	55.4	+ 36	12	7.0	95.4	43.9	97.3

same as 3807 page 50?

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Plate 65 F. no.

V	H	Type	lines	K	Focus	other Lines.	V	H	V	H	Correc.
15.7	21.0	I	4	N	2	—	7.8	42.0	65.9	65.1	-2.3
16.0	21.5	I	7	N	4	-	8.0	43.0	65.7	64.1	-2.5
15.8	24.2	I	4	N	2	—	7.9	48.4	65.8	48.7	-3.7
15.4	15.0	I	3	N	1	-	7.7	60.0	66.0	67.1	0
15.3	16.7	?	1	N	1	-	7.6	63.4	66.1	63.7	-0.6
15.0	16.4	I	9	N	5	Freem.	7.5	62.8	66.2	64.3	-0.6
15.0	17.3	I	5	N	2	—	7.5	64.6	66.2	62.5	-0.8
14.5	16.1	I	5	N	1	—	7.2	62.2	66.5	64.9	-0.4
14.1	18.5	I	4	N	1	—	7.0	67.0	66.7	60.1	-1.4
14.4	19.6	III	3	K=H	2	-	7.2	69.2	66.5	57.9	-1.8
14.5	20.2	I	9	N	5	Freem.	7.2	70.4	66.5	56.7	-2.0
14.4	22.2	III	3	K=H	2	—	7.2	74.4	66.5	52.7	-2.9
13.5	15.9	I	2	N	1	—	6.8	61.8	66.9	65.3	-0.3
13.2	17.1	I	4	N	1	—	6.6	64.2	67.1	62.9	-0.8
13.0	17.2	I	4	N	1	—	6.5	64.4	67.2	62.7	-0.9
13.0	19.0	I	4	K=H	2	-	6.5	68.0	67.2	59.1	-1.6
13.0	19.7	I	3	N	1	-	6.5	69.4	67.2	57.7	-1.9
13.5	23.3	I	2	N	1	-	6.8	76.6	66.9	50.5	-3.4
12.5	19.5	I	4	N	1	-	6.2	69.0	67.5	58.1	-1.8
12.4	16.7	I	3	N	2	—	6.2	63.4	67.5	63.7	-0.7
12.5	19.5	I	5	N	2	-	6.2	69.0	67.5	58.1	-1.8
12.3	20.6	I	7	N	3	-	6.2	71.2	67.5	55.9	-2.3
? 12.0	15.2	?	5	?	1	Bright	6.0	60.4	67.7	66.7	-0.1
11.3	15.4	I	4	N	1	—	5.6	60.8	68.1	66.3	-0.2
11.9	18.3	I	3	N	1	—	6.0	66.6	67.7	60.5	-1.3
11.7	18.0	II	5	K=H	3	—	5.8	66.0	67.9	61.1	-1.2
11.4	14.5	I	4	N	1	—	5.7	65.0	68.0	62.1	-1.0
11.3	14.0	I	3	N	1	—	5.6	64.0	68.1	63.1	-0.8

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	DM.	R.A.	Dec.	Mag.	H	V	H'
52.8	3889	19 52.6	+35 57	8.1	94.6	43.8	96.9
51.6	3878	19 51.4	+35 52	6.4	94.4	43.9	96.9
45.0	3826	19 45.0	+35 44	7.5	93.4	43.6	97.1
67.1							
63.1	3896	19 3.2	+36 15	8.4	36.6	43.8	37.2
63.7	3907	20 4.3	+36 25	5.5	37.1	43.9	37.7
61.7	3880	20 1.7	+36 25	7.0	36.3	43.9	37.1
64.5	3916	20 4.6	+36 36	8.0	36.8	43.8	37.2
58.7	3848	19 58.8	+36 47	8.1	95.8	43.8	97.2
56.1	3820	19 55.9	+36 42	6.7	95.1	43.9	96.9
54.7	3806	19 54.6	+36 39	6.8	95.0	43.8	97.0
49.8	3766	19 49.5	+36 37	6.0	93.9	43.8	96.8
65.0	3804	20 5.3	+37 2	8.5	37.1	43.8	37.4
62.1	3774	20 2.1	+37 14	8.3	36.3	43.8	37.1
61.8	3772	20 1.9	+37 18	8.2	36.3	43.8	37.2
57.5	3735	19 57.5	+37 25	7.0	95.5	43.9	97.1
57.8	3726	19 57.7	+37 18	8.5	95.1	43.8	97.0
47.1	3649	19 46.7	+37 1	8.1	93.3	43.8	96.7
46.3	~~3727~~	~~19 56.1~~	~~+37 35~~	~~7.5~~			
63.0	3781	20 3.0	+37 32	7.8	36.4	43.7	37.1
56.3	3727	19 56.1	+37 35	7.5	95.1	43.8	96.9
52.6	3703	19 53.3	+37 43	6.7	94.6	43.9	96.8
66.6	3946	20 6.9	+38 1	6.9	97.3	44.0	97.4
	3821	20 6.8	+37 55	7.1	97.2	43.9	97.3
66.1	3940	20 6.4	+38 27	7.4	37.2	44.0	37.4
58.8	3744	19 58.4	+37 55	7.2	95.0	43.9	96.3
59.9	3896	19 59.9	+38 4	6.8	95.9	43.9	97.1
61.1	3906	20 1.1	+38 10	8.3	36.1	43.9	37.1
62.5	3913	20 2.3	+38 13	7.9	36.3	43.8	37.1

DM. 3933. Recorded on page 50?

Same as 3727?

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January 19. 1887.

Plate 657.

V	H	Type	No. Lines	K	Focus	Other Lines	T	H	V	H	Correc
11.5	21.0	I	6	N	2	—	58	42.0	37.9	65.1	-2.6
11.5	21.6	I	9	N	5	Freem	58	46.2	37.9	63.9	-2.9
10.8	17.2	I	4	N	1	—	54	64.4	38.3	62.9	-0.9
11.1	19.1	I	3	N	1	—	56	68.2	38.1	58.9	-1.7
11.0	19.3	I	4	N	1	—	55	68.6	38.2	58.5	-1.8
11.0	19.5	?	2	N	1	—	55	69.0	38.2	58.1	-1.9
10.7	20.2	I	4	N	1	—	54	70.4	68.3	56.7	-2.2
10.9	23.6	III	4	K=H?	2	—	54	47.2	68.3	49.9	-3.8
10.0	22.3	?	2	N	1	—	50	44.6	68.7	52.5	-3.2
10.0	19.7	I	6	N	2	—	50	69.4	68.7	57.7	-2.0
10.4	16.1	I	5	K=H	2	—	52	62.2	68.5	64.9	-0.5
9.4	19.4	I	3	N	1	—	47	68.8	69.0	58.3	-1.9
9.4	19.9	I	5	N	1	—	47	69.8	69.0	57.3	-2.2
9.5	21.8	I	3	N	1	—	48	43.6	68.9	53.5	-3.0
9.0	23.3	I	2	N	1	—	45	46.6	69.2	50.5	-3.8
9.1	15.0	I	4	N	1	—	46	60.0	69.1	67.1	0
9.0	16.4	I	6	N	2	—	45	62.8	69.2	64.3	-0.7
9.0	16.7	I	2	N	1	—	45	63.4	69.2	63.7	-0.8
8.2	17.8	I	2	N	1	—	41	66.6	69.6	61.5	-1.2
8.2	15.0	I	2	N	2	—	41	60.0	69.6	67.1	0
8.0	15.3	I	4	N	3	—	40	60.6	69.7	66.5	-0.1
7.8	15.8	I	4	N	1	—	39	61.6	69.8	65.5	-0.3
8.3	18.6	I	6	K=H	2	—	42	67.2	69.5	59.9	-1.6
8.0	19.2	I	4	N	1	—	40	68.4	69.7	58.7	-1.9
7.9	20.8	I	9	N	4	—	40	41.6	69.7	55.5	-2.7
7.6	21.4	I	4	N	2	—	38	42.8	69.9	54.3	-3.0
8.4	24.2	I	2	N	1	—	42	48.4	69.5	48.7	-4.3
7.4	18.2	I	5	N	1	—	37	66.4	70.0	60.7	-1.5

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	DM.	R.A.	Dec.	Mag.	H	V	H'	
52.5	3832	19 52.3	+38	4 6.8	94.3	43.9	96.9	
51.0	3817	19 50.7	+38	6 6.5	93.9	43.9	96.8	
61.8	? 3909	20 1.7	+38	26 8.5	36.1	43.8	37.0	
57.2	3871	19 56.8	+38	16 8.5	95.0	43.9	96.7	
56.7	3869	19 56.6	+38	20 7.7	95.2	43.8	97.0	
56.2	3865	19 55.9	+38	19 8.3	94.9	43.8	96.8	
54.5	3850	19 54.0	+38	29 7.6	94.4	43.9	96.6	
46.1	3780	19 45.4	+38	21 6.5	92.6	43.8	96.4	
49.3	3809	19 48.8	+38	44 8.2	93.4	43.7	96.6	
55.7	3862	19 55.4	+38	48 7.2	94.8	43.8	96.8	
64.4	3927	20 4.6	+38	43 6.8	36.8	43.9	37.3	
56.4	4003	19 56.0	+39	8 8.5	94.8	43.9	96.7	
55.1	3990	19 54.8	+39	8 8.5	94.6	43.8	96.8	
50.6	3952	19 49.9	+39	1 8.6	93.5	43.8	96.5	
46.7	3934	19 46.5	+39	10 8.1	93.1	43.7	96.9	
67.1	4080							Recorded on page 56?
63.6	4054	20 3.7	+39	22 7.0	36.5	43.9	37.2	
62.9	4049	20 3.0	+39	28 8.3	36.4	44.0	37.2	
60.3	4028	20 0.2	+39	47 8.7	35.8	43.9	37.0	
67.1								Dm. 4082 Recorded on page 56?
66.4	4075	20 6.7	+39	54 6.8	37.3	43.9	37.4	
65.2	4043	20 5.4	+40	3 8.0	37.0	43.9	37.3	
58.3	4017	19 57.9	+39	46 7.5	95.1	44.0	96.7	
56.8	4007	19 56.4	+39	54 7.8	94.8	43.9	96.7	
52.8	3968	19 52.2	+39	59 5.8	93.8	44.0	96.5	
51.3	3948	19 50.7	+40	1 7.5	93.5	43.8	96.5	
44.4	3923	19 43.7	+39	36 7.2	92.1	43.8	96.4	
59.2	3998	19 59.0	+40	14 7.7	95.4	43.9	96.9	

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Plate 657.

V	H	Type	No. Lines	K	Focus	Other Lines	V	H	V	H	Corrn.
7.1	17.8	I	5	K=H	2	—	6.6	35.6	40.1	61.5	-1.3
7.0	19.0	I	6	N	2	—	6.5	38.0	40.2	59.1	-1.8
7.1	23.3	I	4	N	3	—	6.6	46.6	40.1	50.5	-3.9
6.5	16.2	I	3	N	1	—	6.2	32.4	40.5	64.7	-0.6
6.3	15.6	I	6	K=2H	2	—	6.2	31.2	40.5	65.9	-0.3
6.0	15.3	I	5	N	2	—	6.0	30.6	40.7	66.5	-0.1
6.1	17.5	I	3	N	1	—	6.0	35.0	40.7	62.1	-1.2
6.0	18.6	I	4	K=H	1	—	6.0	37.2	40.7	59.9	-1.7
5.8	18.5	I	4	K=H	2	—	2.9	37.0	40.8	60.1	-1.7
6.0	22.0	I	3	N	1	—	6.0	44.0	40.7	53.1	-3.5
5.5	22.7	I	4	N	1	—	2.8	45.4	40.9	51.7	-3.8
5.6	22.1	?	3	N	2	—	2.8	44.2	40.9	52.9	-3.5
5.0	19.0	I	6	N	2	—	2.6	38.0	41.2	59.1	-1.9
4.2	16.2	I	5	N	1	—	2.1	32.4	41.6	64.7	-0.6
4.2	17.9	I	2	N	1	—	2.1	35.8	41.6	61.3	-1.4
4.5	20.8	I	3	N	1	—	2.2	41.6	41.5	55.5	-2.9
4.0	20.3	I	6	N	2	—	2.0	40.6	41.7	56.5	-2.7
3.6	15.9	I	3	N	1	—	1.8	31.8	41.9	65.3	-0.5
2.5	15.5	I	5	N	1	—	1.2	31.0	42.5	66.1	-0.3
2.5	17.1	I	2	N	1	—	1.2	34.2	42.5	62.9	-1.1
2.6	19.0	I	5	N	2	—	1.3	38.0	42.4	59.1	-2.0

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Plate 810

6.7	20.6	I?	3	N	1	—	6.4	41.2	39.6	29.9	-2.6
6.8	22.1	I	3	N	1	—	6.4	44.2	39.6	26.9	-3.3
6.5	17.2	I	4	N	1	—	6.2	34.4	39.8	36.7	-1.0
6.3	18.1	?	1	N	1	—	6.2	36.2	39.8	34.9	-1.4
6.0	17.3	I	8	K=2H	3	—	6.0	34.6	40.0	36.6	-1.1

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	Dm.	Ra.	Dec.	Mag.	H	V	H'
60.2	4010	20 0.1	+40 24	7.2	65.7	44.0	37.0
57.3	3982	19 56.8	+40 27	7.0	94.8	43.9	96.6
46.6	3902	19 45.6	+40 14	8.5	92.2	43.8	96.1
64.1	4036	20 4.3	+40 41	8.3	36.7	43.9	37.3
65.6	4046	20 6.7	+40 49	6.9	36.9	44.0	37.2
66.4	4056	20 6.6	+40 58	7.9	37.2	44.0	37.3
60.9	4015	20 0.6	+40 52	7.4	35.6	43.9	36.8
58.2	3992	19 58.1	+40 52	8.0	95.3	43.9	97.0
58.4	3589	19 58.2	+41 4	6.8	95.2	44.0	96.9
49.6	3963	19 48.9	+40 51	7.9	92.9	43.8	96.4
47.9	3912	19 46.9	+40 59	7.7	92.3	43.8	96.1
48.4	3931	19 48.7	+40 59	6.8	92.9	43.8	96.4
57.2	3575	19 56.8	+41 25	7.0	94.8	43.9	96.7
64.1	3630	20 4.3	+41 48	7.8	36.7	43.9	37.3
59.9	3599	19 59.5	+41 48	7.7	95.3	43.9	96.7
52.6	3543	19 52.0	+41 39	8.2	93.6	43.8	96.5
53.8	3549	19 53.4	+41 52	6.6	93.7	43.9	96.4
64.8	3626	20 4.9	+42 7	7.5	36.7	43.9	37.2
65.8	3624	20 6.0	+42 39	7.3	37.0	43.8	37.3
61.8	3590	20 1.6	+42 40	8.0	35.8	43.9	36.9
57.1	3562	59 56.4	+42 39	7.2	94.4	43.9	96.4
27.3	4589	21 27.1	+39 47	7.7	68.3	43.2	70.9
23.6	4570	21 23.3	+39 40	7.6	67.5	43.1	70.8
35.7	4641	21 36.0	+39 52	7.8	70.4	43.1	71.4
33.5	4627	21 33.6	+39 59	8.0	69.8	43.2	71.2
35.4	4611	21 35.8	+40 9	6.3	70.4	43.2	71.5

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Plate 8 & 10.

V	H	Type	No. Lines	K	Focus	Other Lines.	T	H	V	H	Correc.
5.6	18.5	I	2	N	1	—	2.8	37.0	40.2	34.1	− 1.7
5.5	17.0	I	7	N	4	—	2.8	34.0	40.2	37.1	− 1.0
5.5	16.7	III	2	N	2	—	2.8	33.4	40.2	37.7	− 0.8
5.5	13.9	I	5	N	1	—	2.8	27.8	40.2	43.3	+ 0.5
5.5	14.3	I	3	N	1	—	2.8	28.6	40.2	42.5	+ 0.3
5.4	14.2	I	4	N	2	—	2.7	28.4	40.3	42.7	+ 0.4
5.0	17.3	I	2	N	1	—	2.6	34.6	40.5	36.5	− 1.1
4.6	8.1	I	3	N	1	—	2.3	16.2	40.7	54.9	+ 3.4
4.5	11.2	I	3	N	1	—	2.2	22.4	40.8	48.7	+ 1.8
4.1	10.7	I	4	N	2	—	2.0	21.4	41.0	49.7	+ 2.1
2.2	10.3	I	3	N	1	—	1.1	20.6	41.9	50.5	+ 2.3
2.3	11.4	I	3	N	1	—	1.2	22.8	41.8	48.3	+ 1.8
4.4	12.9	I	5	N	1	—	2.2	26.8	40.8	45.3	+ 1.0
4.4	14.1	I	4	K=H	1	—	2.2	28.2	40.8	42.9	+ 0.4
2.7	16.8	I	5	N	1	—	1.4	66.6	41.6	37.5	− 0.9
4.3	21.6	I	4	N	1	—	2.2	43.2	40.8	27.9	− 3.2
2.6	19.8	I	3	N	1	—	1.3	69.6	41.7	31.5	− 2.4
2.0	20.9	?	1	N	1	—	1.0	41.8	42.0	29.3	− 3.0
16.6	5.8	I	4	N	1	—	8.3	11.6	34.7	59.5	+ 3.3
16.6	9.6	I	3	N	1	—	8.3	19.2	34.7	51.9	+ 1.8
16.2	22.2	I	4	N	1	—	8.1	44.4	34.9	26.7	− 2.7
16.4	23.0	I	5	N	1	—	8.2	46.0	34.8	25.1	− 3.0
15.8	15.8	III	4	K=H	2	—	7.9	31.6	35.1	39.5	− 0.3
15.8	20.4	I	3	N	1	—	7.9	40.8	35.1	30.3	− 1.9
14.9	7.1	I	3	N	1	—	7.4	14.2	35.6	56.9	+ 3.0
14.4	7.7	I	4	N	1	—	7.2	16.4	35.8	55.7	+ 2.8
14.5	9.5	I	4	N	1	—	7.2	19.0	35.8	52.1	+ 2.0
15.0	11.3	I	3	N	1	—	7.5	22.6	35.5	48.5	+ 1.3

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	DM.	R.A.	Dec.	Mag.	H	r	H.
32.7	4689	21 32.2	+40 26	7.6	69.2	46.2	70.9
36.1	4615	21 36.6	+40 25	6.9	70.6	46.2	71.6
36.9	4623	21 37.3	+40 30	6.1	70.7	46.3	71.5
43.8	4653	21 44.5	+40 23	7.8	72.3	46.2	71.8
42.8	4646	21 43.4	+40 21	8.2	72.0	46.2	71.7
43.1	4648	21 43.8	+40 28	6.2	72.2	46.2	71.8
35.4	4608	21 36.4	+40 37	8.6	70.0	46.1	71.1
58.3	4722	21 59.7	+40 39	7.8	75.9	42.9	73.5
50.5	4683	21 51.6	+40 46	8.0	74.0	46.0	72.2
51.8	4363	21 53.0	+41 0	7.3	74.4	46.0	72.3
52.8	4344	21 54.2	+41 53	7.1	74.8	46.0	72.5
50.1	4324	21 51.2	+41 56	7.5	74.0	46.1	72.2
46.3	4662	21 47.2	+40 54	7.3	73.0	46.1	72.0
43.3 ?	4649	21 43.9	+40 55	8.5	72.1	46.1	71.7
36.6	4243	21 36.8	+41 47	7.0	70.4	46.2	71.3
24.7	4649	21 24.3	+40 53	7.4	67.5	46.1	70.7
29.1	4199	21 29.0	+41 46	7.2	68.6	46.1	71.0
26.3	4263	21 26.0	+42 4	7.1	67.8	46.1	70.8
62.8	4614	22 3.8	+34 30	6.8	15.4	42.8	12.1
63.7	4684	21 64.7	+34 36	8.3	76.9	42.9	72.1
24.0	4436	21 24.1	+34 50	7.0	68.5	42.9	71.2
22.1	4422	21 21.9	+34 47	6.8	67.9	46.0	70.9
39.2	4626	21 39.6	+34 12	6.6	71.2	46.1	71.5
28.4	4673	21 28.2	+35 7	7.8	69.0	46.0	70.9
59.9	4712	22 0.8	+35 24	7.0	15.0	42.8	12.0
58.5	4706	21 59.6	+35 42	7.3	74.7	42.9	71.9
54.1	4692	21 55.1	+36 46	7.8	74.1	46.0	72.1
49.8	4680	21 50.7	+35 28	8.3	73.5	46.0	72.2

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Plate 10.

V	H	Type	No. Lines	K	Focus	Other Lines	V	H	V	H	Correc.
15.1	11.9	III	2	N	1	—	7.6	23.8	35.4	47.3	+1.1
14.4	14.8	III	2	N	1	—	7.2	29.6	35.8	41.6	+0.1
13.8	23.8	?	0	N	3	—	6.9	27.6	36.1	43.5	+0.5
13.6	11.5	I	4	N	1	—	6.8	23.0	36.2	48.1	+1.3
12.8	15.5	I	3	N	1	—	6.4	31.0	36.6	40.1	−0.2
12.7	15.8	I	4	N	1	—	6.4	31.6	36.6	39.5	−0.3
13.0	23.1	I	8	N	4	Green	6.5	46.2	36.5	24.9	−3.3
11.5	10.5	I	3	N	1	—	5.8	21.0	37.2	50.1	+1.8
12.0	14.0	I ?	2	N	1	—	6.0	28.0	37.0	43.1	+0.4
11.7	16.8	I	5	N	1	—	5.8	33.6	37.2	37.5	−0.7
11.7	19.5	I	4	N	1	—	5.8	39.0	37.2	32.1	−1.8
11.0	16.6	I	8	N	4	—	6.5	33.2	37.5	37.9	−0.7
10.9	16.5	I	5	N	1	—	6.4	33.0	37.6	38.1	−0.6
11.4	21.6	I	4	N	1	—	6.7	43.2	37.3	27.9	−2.8
10.4	14.6	I	7	N	3	—	6.7	29.2	37.3	41.9	+0.1
10.5	20.0	III	6	K=H	3	Green	6.2	40.0	37.8	31.1	−2.0
10.4	20.5	I	4	N	1	—	6.2	41.0	37.8	30.1	−2.3
9.9	13.0	III	2	K=H	1	—	6.0	26.0	38.0	46.1	+0.9
9.5	10.9	I	5	N	1	—	4.8	21.8	38.2	49.3	+1.8
9.5	14.7	I	4	K=H	1	—	4.8	29.4	38.2	41.7	+0.1
9.0	9.5	I	2	N	1	—	4.5	19.0	38.5	52.1	+2.4
9.0	9.7	I	5	N	2	—	4.5	19.4	38.5	51.7	+2.3
8.5	6.9	I	4	N	1	—	4.2	13.8	38.8	57.3	+3.7
8.0	7.7	I	2	N	1	—	4.0	15.4	39.0	55.7	+3.3
8.5	8.2	I	2	N	1	—	4.2	16.4	38.8	54.7	+3.0
8.5	9.1	I	4	N	1	—	4.2	18.2	38.8	52.9	+2.6
8.5	13.6	I	8	N	3	—	4.2	27.2	38.8	43.9	+0.6
8.7	13.9	I	4	N	1	—	4.4	27.8	38.6	43.3	+0.5

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	Dm.	R.A.	Dec.	Mag.	H	V	H'
48.4	4676	21 49.2	+36 28	6.5	76.0	43.1	71.9
41.6	4643	21 42.0	+35 54	6.7	71.6	43.1	71.5
44.0							
49.4	4712	21 50.2	+36 10	8.2	76.2	43.0	71.9
39.9	4675	21 40.2	+36 44	8.0	71.2	43.1	71.4
39.2	4674	21 39.5	+36 44	8.0	71.2	43.1	71.3
21.6	4568	21 21.4	+36 30	6.0	67.6	43.1	70.9
51.9	4462	21 52.6	+37 14	8.5	76.8	43.0	71.0
43.5	4438	21 43.9	+37 6	8.3	71.9	43.1	71.5
36.8	4407	21 37.3	+37 21	7.8	70.9	43.2	71.6
30.3	4367	21 30.2	+37 13	7.6	69.2	43.0	71.0
37.2	4408	21 37.4	+37 38	6.0	70.6	43.1	71.3
37.5	4410	21 37.6	+37 39	7.2	70.6	43.0	71.2
25.1	4360	21 24.9	+37 20	7.3	68.1	43.0	70.9
42.0	4428	21 42.8	+37 19	8.3	72.0	43.0	71.9
29.1	4359	21 28.9	+37 53	6.0	68.9	43.1	70.9
27.8	4346	21 27.7	+37 53	8.0	68.7	43.1	71.0
46.0	4630	21 46.8	+38 9	7.2	72.8	43.2	71.9
51.1	4643	21 52.0	+38 14	7.6	73.8	43.0	72.0
41.8	4611	21 42.3	+38 17	7.7	71.7	43.1	71.6
54.5	4654	21 55.6	+38 30	8.3	74.6	43.0	72.2
54.0	4654	21 55.0	+38 36	6.8	74.4	43.1	72.1
61.0	4693	22 2.4	+38 40	7.7	16.2	42.9	12.3
59.0	4681	22 0.1	+38 56	8.3	15.5	42.9	12.2
57.7	4678	21 59.1	+38 58	7.5	75.5	43.2	72.3
55.5	4668	21 56.8	+38 52	7.5	75.0	43.1	72.4
44.5	4621	21 45.1	+38 52	6.6	72.3	43.1	71.7
43.8	4618	21 44.5	+38 45	8.0	72.3	43.2	71.8

look up on Chart

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Plate 8 10.

V	H	Type	Stre. Lines	K	Focus	other Lines	V	H	V	H	Correc.
8.5	18.0	I	4	K=.8H	2	—	4.2	36.0	38.8	35.1	−1.3
8.9	18.8	I	6	N	2	—	4.4	37.6	38.6	33.5	−1.7
7.6	12.2	I	3	N	1	—	3.8	24.4	39.2	46.7	+1.3
8.0	15.4	I	4	N	1	—	4.0	30.8	39.0	40.3	−0.2
6.8	19.0	I	9	K=.8H	4	Green	3.4	38.0	39.6	33.1	−1.8
22.5	23.2	I	3	N	2	—	11.2	46.4	31.8	24.7	−2.3
21.6	11.9	I	3	N	1	—	10.8	23.8	32.2	47.3	+0.9
21.9	10.2	I	2	N	1	—	11.0	20.4	32.0	50.7	+1.4
21.5	14.6	I	6	N	2	—	10.8	29.2	32.2	41.9	+0.1
21.5	15.9	I	3	N	1	—	10.8	31.8	32.2	39.3	−0.3
21.5	21.2	I	3	N	1	—	10.8	42.4	32.2	28.7	−1.8
21.0	9.6	I	3	N	2	—	10.5	19.2	32.5	51.9	+1.7
20.5	5.5	I	4	K=H	3	—	10.2	11.0	32.8	60.1	+3.1
20.5	5.9	I?	3	N	1	—	10.2	11.8	32.8	59.3	+3.0
20.4	8.7	I	3	N	1	—	10.2	17.4	32.8	53.7	+2.0
20.8	20.8	I	3	N	1	—	10.4	41.6	32.6	29.5	−1.8
19.9	10.2	I	3	N	1	—	10.0	20.4	33.0	50.7	+1.6
19.8	19.4	I	3	N	1	—	9.9	38.8	33.1	32.3	−1.4
19.5	21.6	I	4	K=H	1	—	9.8	43.2	33.2	27.9	−2.1
18.9	10.1	I	3	N	1	—	9.4	20.2	33.6	50.9	+1.7
18.7	12.6	I	4	N	1	—	9.4	25.2	33.6	45.9	+0.8
18.6	13.0	I?	2	N	1	—	9.3	26.0	33.7	45.1	+0.7
18.6	9.8	III	1	N	1	—	9.0	19.6	34.0	51.5	+1.8
17.8	12.0	I	6	K=H	2	—	8.9	24.0	34.1	47.1	+1.0
17.5	11.7	I	6	N	2	—	8.8	23.4	34.2	47.7	+1.1
17.5	14.1	I	4	N	1	—	8.8	28.2	34.2	42.9	+0.3
17.8	20.0	I	3	N	1	—	8.9	40.0	34.1	31.1	−1.7

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	DM.	R.A.	Dec.	Mag.	H	V	H'
33.8	4576	21 38.4	+38 49	7.8	71.4	43.0	72.7
31.8	4668	21 39.9	+38 40	6.4	69.5	43.1	71.2
48.0	4706	21 48.7	+39 14	8.2	76.1	43.0	71.8
40.1	4667	21 40.5	+39 11	8.1	71.3	43.2	71.5
31.3	4612	21 31.1	+39 46	6.0	69.1	43.2	70.9
22.4	4462	21 22.0	+31 35	6.8	68.4	42.8	70.7
48.2	4575	21 48.4	+31 60	7.2	72.2	42.8	71.3
52.1	4697	21 52.6	+31 46	7.5	73.0	42.8	71.6
42.0	4263	21 42.1	+32 8	6.5	71.3	42.9	71.2
39.0	4249	21 39.1	+32 7	7.3	70.9	42.9	71.2
26.9	4186	21 26.7	+32 8	7.0	69.1	42.9	70.9
53.6	4316	21 54.1	+32 20	7.0	76.3	42.8	71.6
63.1	4352	22 3.6	+32 28	6.8	14.6	42.7	11.5
62.3	4349	22 2.8	+32 28	6.7	14.6	42.7	11.6
56.7	4324	21 56.3	+32 41	6.8	73.7	42.9	71.7
27.7	4191	21 27.6	+32 34	7.7	69.2	43.0	71.0
52.3	4310	21 52.9	+32 56	7.8	76.3	42.9	71.7
30.9	4307	21 30.7	+33 5	8.0	69.5	43.0	70.9
25.8	4285	21 25.7	+33 11	7.7	68.9	43.0	71.1
52.6	4399	21 53.1	+33 28	7.8	76.3	42.9	71.6
46.7	4375	21 47.1	+33 35	8.0	72.3	43.0	71.5
45.8	4371	21 46.1	+33 43	7.0	72.1	43.0	71.4
53.3	4406	21 54.0	+33 55	6.8	73.6	42.9	71.8
48.1	4663	21 48.7	+34 6	6.5	72.7	43.0	71.7
48.8	4666	21 49.3	+34 16	7.0	72.7	43.1	71.6
43.2	4640	21 43.6	+34 15	7.5	71.8	43.0	71.5
29.4	4462	21 29.2	+34 11	7.7	69.2	43.1	71.9

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V	H	Type	No. lines	K	Focus	After Lines	V	H	V	H	Correc.
22.5	12.5	I	2	N	1	—	11.2	26.0	26.5	66.1	+0.5
21.6	9.9	I	2	N	1	—	10.8	19.8	26.9	71.3	+1.1
21.5	11.0	?	1	N	1	—	10.8	22.0	26.9	69.1	+0.9
21.5	13.4	I	4	N	1	—	10.8	26.8	26.9	64.3	+0.4
20.5	8.9	I	4	N	3	—	10.2	17.8	27.5	76.3	+1.4
20.5	21.0	I	5	N	1	—	10.2	42.0	27.5	49.1	-1.4
20.0	12.3	III	3	K=H	1	—	10.0	24.6	27.7	66.5	+0.6
19.3	15.9	I	7	N	3	—	9.6	31.8	28.1	59.3	-0.2
19.5	19.4	I	4	N	1	—	9.8	38.8	27.9	52.3	-1.0
19.5	21.6	I	6	K=H	2	—	9.8	43.2	27.9	47.9	-1.6
18.8	12.1	I	3	N	1	—	9.4	24.2	28.3	66.9	+0.7
18.9	13.3	I	4	N	1	—	9.4	26.6	28.3	64.5	+0.4
18.1	11.9	?	2	N	1	—	9.0	23.8	28.7	67.3	+0.8
18.0	14.7	I	3	N	1	—	9.0	29.4	28.7	61.7	+0.1
17.5	18.8	I	4	K=H	1	—	8.8	37.6	28.9	53.5	-0.9
17.4	16.8	I	5	N	1	—	8.7	33.6	29.0	57.5	-0.5
16.9	16.8	I	5	N	1	—	8.4	33.6	29.3	57.5	-0.5
17.1	10.9	I	4	N	1	—	8.6	21.8	29.1	69.3	+1.0
16.4	13.5	I	7	K=H	2	—	8.2	27.0	29.5	64.1	+0.4
16.6	21.7	I	3	N	1	—	8.3	43.4	29.4	47.7	-1.7
16.7	22.6	I	6	N	3	—	8.4	45.2	29.3	45.9	-2.0
15.7	13.7	I	2	N	1	—	7.8	27.4	29.9	63.7	+0.3
15.7	17.0	I	4	N	1	—	7.8	34.0	29.9	57.1	-0.6
15.4	16.7	I	4	N	1	—	7.7	33.4	30.0	57.7	-0.5
14.5	11.4	I	4	N	1	—	7.2	22.8	30.5	68.3	+1.0
14.5	17.9	I	5	K=H	1	—	7.2	35.8	30.5	55.3	-0.8
14.0	17.7	I	4	N	1	—	7.0	35.4	30.7	55.7	-0.8
13.5	6.2	III	2	N	1	—	6.8	12.4	30.9	78.7	+2.5

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	DM.	R.A.	Dec.	Mag.	H	V	H'
66.6	4379	22 6.6	+26 36	7.5	31.6	37.8	31.1
72.4	4404	22 12.4	+26 57	7.9	32.2	37.8	31.1
70.0	4288	22 9.8	+27 5	6.6	31.8	37.9	30.9
64.7	4276	22 4.6	+27 1	7.2	31.4	37.8	31.0
74.7	4299	22 14.6	+27 37	6.0	32.4	37.8	31.0
47.7	4191	22 47.4	+27 40	6.8	89.4	37.9	91.8
67.1	4280	22 7.0	+27 54	6.4	31.6	37.9	31.0
59.1	4284	21 59.0	+28 16	6.9	90.8	37.9	91.0
51.3	4261	21 51.1	+28 6	7.9	89.9	37.9	90.9
46.3	4215	21 46.0	+28 7	5.9	89.2	37.9	90.8
67.6	4325	22 7.6	+28 31	8.3	31.8	37.9	31.1
64.9	4309	22 4.8	+28 32	7.2	31.4	37.9	31.0
68.1	4327	22 8.0	+28 51	7.3	31.8	37.8	31.0
61.8	4295	22 1.5	+28 59	7.9	30.9	38.0	30.8
52.3	4550	21 52.3	+29 8	7.4	89.9	37.9	90.8
57.0	4570	21 56.9	+29 20	7.5	90.5	38.0	91.0
57.0	4568	21 56.7	+29 31	7.0	90.3	37.9	90.8
10.3	4625	21 10.2	+29 22	7.2	32.0	38.0	31.0
04.5	4604	22 4.3	+29 51	6.5	31.3	38.0	30.9
46.0	4535	21 45.7	+29 31	8.3	89.1	37.8	90.8
43.9	4525	21 43.5	+29 30	5.3	88.9	37.9	90.7
64.0	4623	22 4.0	+30 6	8.2	31.4	37.9	31.1
56.5	4591	21 56.3	+30 4	7.7	90.3	37.9	90.9
57.2	4594	21 56.9	+30 17	8.2	90.3	38.0	90.8
69.3	4662	22 9.3	+30 35	7.8	32.1	37.8	31.1
54.5	4584	21 54.3	+30 44	7.2	80.1	37.9	90.9
54.9	4586	21 54.5	+30 50	7.0	89.9	37.8	90.7
81.2	4701	22 21.2	+31 6	6.2	33.6	37.9	31.1

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V	H	Type	No. Lines	K	Focus	Other Lines.	V	H	V	H	Corrc.
13.1	13.2	I	6	K=H	1	—	6.6	26.4	31.1	64.7	+0.5
12.7	13.7	I?	2	N	1	—	6.4	27.4	31.3	63.7	+0.4
12.2	18.5	I	4	N	1	—	6.1	37.0	31.6	54.1	-1.0
11.8	7.5	I	5	K=H	1	—	6.9	16.0	31.8	76.1	+2.2
11.1	13.8	I	10	K=H	4	Reen.	6.6	27.6	32.1	63.5	+0.5
11.0	14.2	III	3	K=H	2	—	6.5	28.4	32.2	62.7	+0.2
11.5	16.1	III	3	K=H	1	—	6.8	32.2	31.9	58.9	-0.3
11.4	17.9	I	6	K=H	2	—	6.7	35.8	32.0	55.3	-0.9
11.9	20.3	I	4	N	1	—	6.0	40.6	31.7	50.5	-1.6
11.7	21.9	I	3	N	1	—	6.8	43.8	31.9	47.3	-2.1
11.7	22.1	?	2	N	1	—	6.8	44.2	31.9	46.9	-2.2
11.4	23.0	I	7	N	2	—	6.7	46.0	32.0	45.1	-2.6
10.9	17.5	I	3	N	1	—	6.4	36.0	32.3	56.1	-0.8
10.6	16.9	I	6	K=H	2	—	6.3	36.8	32.4	57.3	-0.6
10.5	18.0	I	2	N	1	—	6.2	36.0	32.5	55.1	-0.9
10.0	18.3	I	4	N	1	—	6.0	36.6	32.7	54.5	-1.0
10.3	12.5	I	4	K=H	1	—	6.2	26.0	32.5	66.1	+0.8
11.4	10.8	I?	2	N	1	—	6.7	21.6	32.0	69.5	+1.2
10.2	6.6	I	2	N	1	—	6.1	13.2	32.6	77.9	+2.7
10.0	11.2	I	4	K=H	1	—	6.0	22.4	32.7	68.7	+1.2
8.5	11.1	I	3	N	1	—	4.2	22.2	33.5	68.9	+1.2
8.4	12.7	III	6	K=H	2	—	4.2	25.4	33.5	65.7	+0.8
8.5	15.1	I	4	K=H	1	—	4.2	30.2	33.5	60.9	0
7.8	20.0	I	4	N	1	—	3.9	40.0	33.8	51.1	-1.7
7.4	19.7	I	4	N	1	—	3.7	39.4	34.0	51.7	-1.6
7.3	22.1	I	5	N	1	—	3.6	44.2	34.1	46.9	-2.5
6.8	17.5	I	3	N	1	—	3.4	35.0	34.3	56.1	-0.9
7.1	14.1	?	2	K=H	1	—	3.6	28.2	34.1	62.9	+0.3

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	DM.	R.A.	Dec.	Mag.	H	V	H.
65.2	4647	22 6.0	+31 22	7.7	31.4	38.0	30.9
64.1	4645	22 3.8	+31 35	7.1	31.2	38.0	30.8
53.1	4597	21 52.6	+31 46	7.5	89.6	37.9	90.6
78.3	4416	22 18.5	+32 4	6.9	32.5	38.0	31.3
64.0	4352	22 3.6	+32 28	3.8	31.2	38.1	30.7
62.9	4349	22 2.8	+32 28	5.7	31.2	38.0	31.0
58.6	4329	21 58.2	+32 14	7.0	90.4	38.0	90.7
54.4	4316	21 54.1	+32 20	7.0	89.9	38.0	90.8
48.9 ?	4577	21 48.6	+31 39	6.8	89.2	37.6	90.8
45.2	4560	21 44.6	+31 59	8.4	88.4	37.8	90.3
44.7	4558	21 44.2	+31 59	6.7	88.4	37.8	90.6
42.5	4263	21 42.1	+32 8	6.5	88.1	37.8	90.7
55.3	4318	21 55.0	+32 29	8.0	90.0	37.9	90.8
56.7	4324	21 56.3	+32 41	6.8	90.1	38.0	90.7
54.2 ?	4316	21 54.1	+32 20	7.0	90.1	37.5	91.0
53.5	4310	21 52.9	+32 56	7.8	89.5	37.9	90.3
66.9 ?	4368	22 6.6	+32 53	7.2	31.6	38.1	30.8
70.7	4658	22 10.0	+31 54	7.3	31.6	37.6	30.4
80.6	4428	22 20.8	+32 47	7.5	34.0	37.9	31.3
69.9	4380	22 10.4	+32 51	7.9	32.8	37.8	31.6
70.1	4471	22 10.1	+33 48	8.0	32.3	38.0	31.1
66.5	4456	22 6.4	+33 54	5.8	31.8	38.1	31.0
60.9	4428	22 0.7	+33 49	7.5	30.9	38.0	30.9
49.4	4379	21 48.4	+33 49	8.0	88.4	37.7	90.1
	~~4384~~	~~21 49.9~~	~~+33 52~~	~~7.8~~			
50.1	4384	21 49.9	+33 52	7.8	89.3	37.6	90.7
44.4	4540	21 43.6	+34 15	7.5	87.8	37.9	90.3
55.2	4584	21 54.7	+34 36	8.3	89.7	38.0	90.6
63.2	4614	22 3.0	+34 24	7.5	31.2	38.0	30.9

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V	H	Type	No. Lines	K	Focus	other Lines.	V	H	V	H	Corrn.
7.0	13.8	I	7	K=H	1	—	6.5	27.6	64.2	63.5	+0.4
7.2	9.5	I	4	K=H	1	—	6.6	19.0	64.1	72.1	+1.8
7.1	8.1	I	4	N	1	—	6.6	16.2	64.1	74.9	+2.4
5.7	5.7	I	4	N	2	—	2.8	11.4	64.9	79.7	+3.5
5.4	15.0	I	4	N	1	—	2.7	30.0	65.0	61.1	0
4.6	15.6	I	4	N	1	—	2.3	31.2	65.4	59.9	-0.2
4.5	17.3	I	4	N	1	—	2.2	34.6	65.5	56.5	-0.8
3.8	12.0	I	4	N	1	—	1.9	24.0	65.8	67.1	+1.1
2.5	7.1	I	3	N	2	—	1.2	14.2	66.5	76.9	+3.2
2.0	10.2	I	2	N	2	—	1.0	20.4	66.7	70.7	+1.8
2.0	11.4	?	3	N	2	—	1.0	22.8	66.7	68.3	+1.4

Plate 811.

20.5	16.9	I	4	N	1	—	10.2	63.8	22.5	65.7	-0.3
20.4	6.3	I	4	?	1	—	10.2	12.6	22.5	76.9	+1.3
19.9	8.5	I	7	K=.5H	3	—	10.0	17.0	22.7	72.5	+1.0
18.1	15.4	I	4	N	1	—	9.0	30.8	23.7	58.7	-0.1
18.0	22.5	III	4	K=H	3	—	9.0	46.0	23.7	44.5	-1.2
16.5	14.7	III	3	K=H	2	—	8.2	29.4	24.5	60.1	+0.1
14.4	13.6	I	3	N	1	—	7.2	26.0	25.5	63.5	+0.4
14.5	21.7	I	3	N	1	—	7.2	43.4	25.5	46.1	-1.3
11.4	11.1	I	5	K=H	1	—	6.7	22.2	27.0	67.3	+0.9
11.1	7.8	III	1	N	1	—	5.6	15.6	27.1	73.9	+1.6
11.5	16.1	III	4	K=H	4	Rem	5.8	32.2	26.9	57.3	-0.2
10.0	8.0	I	4	K=H	1	—	5.0	16.0	27.7	73.5	+1.6
9.1	14.0	I	3	N	1	—	4.6	28.0	28.1	61.5	+0.2
8.0	7.2	I	3	N	1	—	4.0	14.4	28.7	75.1	+1.9
8.0	11.4	I	4	K=H	1	—	4.0	22.8	28.7	66.7	+0.9

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	Dm.	R.A.	Dec.	Mag.	H	V	H.
63.9	4614	22 6.8	+ 34 30	6.8	31.4	38.0	31.0
73.9	4657	22 14.1	+ 34 25	7.4	36.1	38.0	31.3
77.3	4672	22 17.5	+ 34 26	7.8	33.7	38.0	31.3
83.2	4700	22 23.2	+ 34 59	6.5	34.6	38.0	31.1
61.1	4712	22 0.8	+ 35 24	7.0	30.8	38.1	30.8
59.7	4706	21 59.3	+ 35 42	7.3	90.5	38.0	90.7
55.7	4692	21 55.1	+ 35 45	7.8	89.7	38.0	90.5
65.2	4789	22 8.0	+ 36 7	7.2	32.0	38.0	30.9
80.1	4835	22 20.4	+ 36 43	6.5	34.6	37.9	31.2
72.5	4537	22 12.6	+ 37 2	6.5	36.0	38.0	31.2
69.7	4526	22 9.7	+ 37 1	4.8	32.5	38.0	31.1
55.4	4762	22 55.3	+ 22 32	6.0	89.1	32.7	89.4
78.2	4833	23 18.1	+ 22 37	4.5	30.7	32.8	29.4
73.5	4810	23 13.5	+ 22 57	6.0	30.5	33.0	29.5
58.6	4673	22 58.0	+ 23 46	6.7	88.8	32.8	88.9
43.3	4615	22 46.0	+ 23 51	6.9	88.0	32.8	89.2
60.2	4716	23 0.1	+ 24 41	6.3	29.5	32.9	29.4
63.7	4890	23 3.6	+ 25 45	7.2	29.6	33.0	29.2
44.8	4828	22 44.5	+ 25 37	6.7	87.9	32.8	89.2
68.2	4517	23 7.9	+ 27 17	7.0	30.1	33.0	29.2
	~~4521~~	~~23 8.7~~	~~+ 27 25~~	~~6.5~~			
75.5	4540	23 15.3	+ 27 20	8.5	30.9	32.9	29.3
59.1	4480	22 56.7	+ 27 18	var.	88.9	33.1	89.1
75.1	4538	23 15.0	+ 27 54	6.6	31.0	32.9	29.4
61.7	4533	23 1.5	+ 27 24	7.2	29.5	33.0	29.3
79.2	4577	23 16.9	+ 28 53	7.0	31.3	32.9	29.4
67.6	4558	23 7.4	+ 28 58	7.0	30.2	33.0	29.3

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Plate 811.

V	H	Type	Lines H.	K	Focus	other lines	V	H	V	H	Correc
7.4	14.3	I	3	N	1	—	3.7	28.6	29.0	60.9	+0.2
7.0	16.9	II	3	K=H	1	—	3.5	63.8	29.2	55.7	-0.5
5.2	17.4	I	5	N	2	—	2.6	34.8	30.1	54.9	-0.7
5.9	20.4	I	3	N	1	—	3.0	40.8	29.7	48.7	-1.4
5.4	10.0	I	4	K=H	1	—	2.7	20.0	30.0	69.5	+1.3
4.9	15.6	I	3	N	1	—	2.4	31.2	30.3	58.3	-0.2
4.5	14.2	I	3	N	1	—	2.2	28.4	30.5	61.1	+0.2
4.0	16.5	I	4	K=H	1	—	2.0	33.0	30.7	56.5	-0.4
3.8	8.2	I	6	N	2	—	1.9	16.4	30.8	73.1	+1.9
2.5	7.0	I	5	N	2	—	1.2	14.0	31.5	75.5	+2.4
2.5	13.2	I	4	K=H	1	—	1.2	26.4	31.5	63.1	+0.5
1.9	14.4	I?	1	N	1	—	1.0	28.8	31.7	60.7	+0.1

Plate 806.

19.9	13.6	I	6	N	2	—	10.0	27.2	27.9	42.0	+0.3
20.5	21.5	I	3	N	1	—	10.2	43.0	27.7	26.2	-1.5
19.1	5.4	I	7	N	5	Freem	9.6	10.8	28.3	58.4	+2.1
18.5	11.3	I	4	N	1	—	9.2	22.6	28.7	46.6	+0.9
19.0	16.1	II	3	K=H	2	—	9.5	32.2	28.4	37.0	-0.3
14.8	20.3	III	1	N	2	—	7.4	40.6	30.5	28.6	-1.5
14.0	13.9	I	2	N	1	—	7.0	27.8	30.9	41.4	+0.3
13.7	19.8	I	4	N	1	—	6.8	39.6	31.1	29.6	-1.3
13.0	19.6	?	1	N	1	—	6.5	39.2	31.4	30.0	-1.3
12.8	9.7	I	5	N	2	—	6.4	19.4	31.5	49.8	+1.6
12.5	24.1	I	6	N	3	—	6.2	48.2	31.7	21.0	-2.8
12.5	17.1	I	4	N	1	—	6.2	34.2	31.7	35.0	-0.7
11.7	19.1	I	4	K=H	2	—	5.8	38.2	32.1	31.0	-1.2
11.0	15.2	I	4	N	1	—	5.5	30.4	32.4	38.8	0

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	DM.	R.A.	Dec.	Mag.	H	V	H'
61.1	4862	23 0.7	+ 29 16	7.0	29.3	63.0	29.1
55.2	4841	22 55.7	+ 29 2	8.4	89.5	32.5	90.0
54.0	4859	22 53.8	+ 30 19	6.0	88.6	32.9	89.3
47.3	4797	22 46.7	+ 29 60	7.4	89.5	63.0	88.9
70.8	4928	23 10.6	+ 30 14	7.5	30.6	32.9	29.3
58.1	4869	22 57.7	+ 30 31	6.5	88.9	32.9	89.1
61.3	4881	23 1.0	+ 30 40	7.0	29.4	32.9	29.4
56.1	4866	22 56.4	+ 30 53	7.1	89.4	32.9	89.8
75.0	4897	23 14.9	+ 31 1	5.8	31.3	32.9	29.4
77.9	4904	23 17.8	+ 31 35	6.0	31.8	32.8	29.4
63.0	4859	23 3.3	+ 31 42	7.2	29.7	32.9	29.2
60.2	4587	23 0.5	+ 32 0	6.3	29.3	63.0	29.2
42.3	4461	23 42.9	+ 28 11	7.8	70.1	38.2	69.8
24.7	4566	23 24.3	+ 27 52	6.0	67.3	38.1	68.8
~~4389~~	~~23~~	~~24.9~~	~~+ 28 48~~	~~6.7~~			
60.5	4	0 0.9	+ 28 18	2.0	11.7	37.9	9.6
47.5	4666	23 47.6	+ 28 41	7.2	70.2	37.9	69.3
36.7	4627	23 36.7	+ 28 35	6.2	68.9	38.1	69.2
27.1	4978	23 26.8	+ 30 32	6.0	67.4	37.9	68.7
41.7	5028	23 41.5	+ 30 54	7.7	69.3	37.9	69.0
	4931	23 27.8	+ 31 2	7.7	67.4	37.8	68.7
28.3	~~4935~~	~~23~~	~~28.3~~	~~+ 31 24~~	~~6.8~~		
28.7	4935	23 28.3	+ 31 24	6.8	67.5	37.9	68.8
51.4	5012	23 51.4	+ 31 33	6.2	70.8	38.0	69.2
18.2	4904	23 17.8	+ 31 35	6.0	66.0	37.8	68.8
34.3	4952	23 34.1	+ 31 45	7.0	68.3	38.0	69.1
29.8	4671	23 29.3	+ 32 6	6.8	67.5	37.9	68.7
38.8	4906	23 38.6	+ 32 29	7.5	69.0	38.0	69.0

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Plate 206.

V	H	Type	Nro. lines	K	Focus	other lines	V	H	V	H	Correc.
10.6	10.9	I	4	N	2	—	5.3	21.8	32.6	47.4	+1.3
10.5	11.6	I	3	N	1	—	5.2	26.2	32.9	46.0	+1.0
10.1	9.5	II	4	K=H	2	—	6.0	19.0	32.9	50.2	+1.7
10.0	19.9	III	2	?	2	—	6.0	39.8	32.9	29.4	-1.6
10.0	21.1	I	3	N	1	—	6.0	42.2	32.9	27.0	-1.9
8.6	14.4	I	3	N	1	—	4.3	28.8	33.6	40.4	+0.2
7.5	10.0	I	4	N	1	—	3.8	20.0	34.1	49.2	+1.7
7.7	17.6	I	3	N	1	—	3.8	35.2	34.1	34.0	-0.9
7.6	18.1	I	4	N	1	—	3.8	36.2	34.1	33.0	-1.0
7.6	20.7	I	5	N	2	—	3.8	41.4	34.1	27.8	-1.9
8.1	7.3	I	3	N	1	—	4.0	14.6	33.9	54.6	+2.7
5.6	17.1	I	3	N	1	—	2.8	34.2	35.1	35.0	-0.8
6.1	7.2	I	3	N	1	—	3.0	14.4	34.9	54.8	+2.8
4.9	13.6	II	3	K=H	1	—	2.4	27.2	35.5	42.0	+0.5
4.2	17.2	I	4	K=H	2	—	2.1	34.4	35.8	34.8	-0.8
3.6	12.2	I	2	N	1	—	1.8	24.4	36.1	44.8	+1.0
2.4	17.4	I	3	N	1	—	1.2	34.8	36.7	34.4	-0.9

Plate 236.

21.5	20.9	I?	2?	N	1	—	10.8	41.8	12.2	28.3	
21.5	23.9	III?	0	N	2	—	10.8	47.8	12.2	22.3	
14.6	7.7	I	2	N	1	—	7.3	15.4	15.7	54.9	
14.5	17.2	III?	0	N	1	—	7.2	34.4	15.8	35.7	
13.5	19.7	I	4	N	2	—	6.8	39.4	16.2	30.7	
12.4	22.2	?	2?	N	1	—	6.2	44.4	16.8	26.7	
10.5	19.5	I	6	N	3	—	5.2	39.0	17.8	31.1	
9.1	12.5	III	1	N	2	—	4.6	25.0	18.4	45.1	
6.2	19.3	I	2	N	1	—	3.1	38.6	19.9	31.5	

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	DM.	R.A.	Dec.	Mag.	H	V	H'
48.7	+7637	2h 48.8	+62 40	7.0	70.6	38.0	69.3
47.0	4763	2h 47.0	+62 47	7.9	70.2	38.0	69.2
51.9	4747	2h 51.1	+62 66	5.8	71.1	37.9	69.4
27.8	4667	2h 27.5	+62 42	6.0	67.3	37.7	68.9
25.1	4655	2h 24.4	+62 53	7.7	68.8	37.9	70.7
40.6	4776	2h 40.3	+63 44	7.5	69.1	38.0	68.9
50.9	5063	2h 51.0	+64 11	6.6	71.0	38.0	69.3
33.1	4979	2h 32.6	+64 9	7.2	67.8	38.0	68.7
32.0	4972	2h 31.4	+64 13	6.5	67.6	38.0	68.6
25.9	4948	2h 25.3	+64 10	6.5	66.7	38.0	68.6
57.3	4828	2h 57.6	+63 62	6.3	71.9	37.9	69.2
34.2	5076	2h 33.8	+65 10	7.8	68.0	38.0	68.8
57.6	5061	2h 57.8	+65 46	7.0	72.2	37.8	69.4
42.5	5110	2h 42.4	+66 38	6.9	69.6	38.0	69.1
34.0	5074	2h 33.4	+65 54	6.0	67.8	38.0	68.6
45.8	5126	2h 46.7	+66 8	6.5	70.1	37.9	69.1
33.5	5098	2h 32.9	+66 51	6.6	67.7	38.0	68.6

	5026	2h 27.9	+11 62	7.7	69.7	22.7	
	5009	2h 21.8	+11 67	4.8	69.6	22.8	
	4963	2h 58.6	+15 39	7.9	74.0	22.9	
	4872	2h 36.4	+15 32	6.3	69.8	22.7	
	4954	2h 30.3	+16 2	6.4	69.7	22.8	
	4944	2h 26.1	+16 37	6.2	69.5	22.8	
	4952	2h 30.7	+17 37	6.8	69.7	22.8	
	5263	2h 45.1	+18 19	6.0	70.1	22.9	
	5129	2h 30.9	+19 47	6.8	69.5	22.9	

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Plate #36.

V	H	Type	No. Lines	K	Focus	other Lines	V	H	V	H
5.0	11.0	I	2	N	2	—	21.5	22.0	20.6	48.1
4.1	23.1	I	3	N	1	—	2.0	46.2	21.0	26.9
2.4	21.5	I	3	N	2	—	1.2	46.0	20.8	27.1

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DM.	R.A.	Dec.	Mag.	H	V
6396	23 48.6	+ 20 22	7.0	70.6	22.9
6342	23 22.8	+ 20 46	7.0	69.0	22.8
4962	23 26.2	+ 21 43	6.0	69.2	22.9

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Plate 854.

V	H	Type	No. lines	K	Focus	other lines	V	H	V	H	Correc.
22.5	13.2	I	4	N	1	—	11.2	26.4	44.2	45.8	+1.0
21.4	10.9	I	3	N	1	—	10.7	21.8	44.7	60.4	+2.3
20.0	8.5	I	2	N	1	—	10.0	17.0	45.4	65.2	+4.4
19.0	8.4	III	0	N	1	—	9.5	16.8	45.9	65.4	+4.0
19.0	13.6	I	5	N	1	—	9.5	27.2	45.9	46.0	+0.8
18.8	5.9	I	2	N	1	—	9.4	11.8	46.0	60.4	+5.6
19.0	24.6	I	5	N	3	—	9.5	49.2	45.9	26.0	-5.9
17.9	17.0	I	3	N	1	—	9.0	34.0	46.4	38.2	-1.2
18.6	21.5	III	2	N	1	—	8.8	43.0	47.1	29.2	-4.0
16.4	14.9	I	2	N	1	—	8.2	29.8	47.2	42.4	+0.1
16.0	10.6	I	4	N	1	—	8.0	21.2	47.4	51.0	+2.8
15.0	12.3	I	8	N	3	—	7.5	24.6	47.9	47.6	+1.7
14.7	14.2	I	5	N	1	—	7.4	28.4	48.0	43.8	+0.5
13.5	8.8	I	6	K=H	2	—	6.8	17.6	48.6	54.6	+4.1
13.3	9.8	I	3	N	1	—	6.6	19.6	48.8	52.6	+3.6
13.5	7.4	I	2	N	1	—	6.8	14.8	48.6	57.4	+5.1
13.1	7.3	I	8	K=H	3	—	6.6	14.6	48.8	57.6	+5.2
12.7	8.4	I	4	N	1	—	6.4	16.8	49.0	55.4	+4.5
13.0	14.9	I	4	N	1	—	6.5	29.8	48.9	42.4	+0.1
13.0	22.9	I	7	N	3	—	6.5	45.8	48.9	26.4	-5.4
12.5	12.5	III	3	N	1	—	6.2	25.0	49.2	47.2	+1.7
12.0	10.4	I	6	K=H	3	—	6.0	20.8	49.4	51.4	+3.2
10.7	6.9	I	4	N	2	—	5.4	13.8	50.0	58.4	+5.7
11.4	13.7	I	5	N	2	—	5.7	27.4	49.7	44.8	+0.9
10.7	14.6	I?	2	N	1	—	5.4	29.2	50.0	43.0	+0.3
12.0	19.7	I	6	N	2	Focus 6.0	6.4	39.4	49.4	32.8	-3.3
11.5	20.6	I	11	?	5	—	5.8	41.2	49.6	31.0	-3.8
11.1	22.5	I	4	N	1	—	5.6	45.0	49.8	27.2	-5.3

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	Dm.	R.A.	Dec.	Mag.	H	V	H.
48.8	4631	22 47.2	+ 46 59	6.0	73.6	55.2	72.6
52.7	4202	22 54.0	+ 44 36	6.5	75.8	55.3	73.5
59.6	4147	23 0.7	+ 45 18	6.5	17.7	55.3	13.3
69.4	4157	23 1.0	+ 45 36	5.5	17.8	55.1	13.8
45.8	4078	22 46.4	+ 45 49	6.5	73.6	55.3	72.8
66.0	4174	23 7.2	+ 45 54	8.2	19.0	55.3	13.4
17.1	3894	22 15.0	+ 45 48	6.0	64.0	55.3	69.7
37.0	3803	22 36.8	+ 46 24	6.5	70.8	55.4	72.0
25.4	3719	22 26.5	+ 46 58	4.8	66.5	55.3	70.5
42.5	3924	22 41.5	+ 47 6	7.7	71.3	55.2	71.2
53.8	4016	22 55.4	+ 47 10	7.0	76.6	55.2	73.8
49.3	3986	22 50.7	+ 47 54	6.3	75.3	55.4	73.6
44.3	3944	22 44.9	+ 47 58	7.0	73.3	55.4	72.8
58.7	3944	23 1.2	+ 48 31	6.0	18.8	55.3	14.7
56.2	3924	22 58.2	+ 48 36	7.9	77.8	55.2	74.2
62.5	3960	23 5.4	+ 48 26	7.5	20.2	55.2	15.1
62.6	3964	23 6.0	+ 48 36	6.0	20.6	55.2	15.4
59.9	3950	23 2.8	+ 48 52	7.4	19.6	55.3	13.1
42.5	3844	22 41.9	+ 48 49	6.8	71.7	55.3	71.6
21.0	3715	22 18.6	+ 48 44	6.0	64.4	55.2	69.8
48.9	3887	22 50.1	+ 48 58	4.6	75.1	55.2	73.4
54.6	4028	22 57.7	+ 49 16	4.8	78.5	55.3	73.3
64.1	4071	23 7.6	+ 49 50	6.5	21.4	55.2	15.7
45.7	3962	22 46.6	+ 49 39	6.7	74.0	55.3	73.1
43.3	3954	22 44.0	+ 49 55	6.7	73.2	55.3	72.9
29.5	3903	22 29.9	+ 49 19	6.3	69.3	55.3	72.6
27.2	3875	22 25.3	+ 49 32	4.0	66.5	55.3	70.3
21.9	3841	22 19.5	+ 49 40	7.6	64.5	55.3	69.8

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Plate 854.

V	H	Type	No. lines	K	Focus	other lines	V	H	V	H	Brothers
10.2	20.5	I	3	N	1	—	65.1	41.0	60.3	31.2	-3.8
10.2	14.9	I ?	2	K=H	1	—	65.1	29.8	60.3	42.4	+0.1
9.9	17.9	I.	2	K=H	1	—	65.0	35.8	60.4	36.4	-2.0
9.5	20.4	I	2	N	1	—	4.8	40.8	60.1	31.4	-3.8
9.0	11.6	I	2	N	1	—	4.5	23.2	60.9	49.0	+2.6
9.1	11.8	I	2	N	1	—	4.6	23.6	60.8	48.6	+2.4
9.0	12.0	I	3	N	1	—	4.5	24.0	60.9	48.2	+2.2
9.0	17.7	I	3	N	1	—	4.5	35.4	60.9	36.8	-1.9
9.1	18.6	I	8	K=.8H	4	—	4.6	37.2	60.8	35.0	-2.7
9.4	21.4	I	2	N	1	—	4.7	42.8	60.7	29.4	-4.7
9.0	21.2	I	2	N	1	—	4.5	42.4	60.9	29.8	-4.5
9.0	21.5	I	3	N	1	—	4.5	43.0	60.9	29.2	-4.8
8.3	15.3	I	4	N	1	—	4.2	30.6	61.2	41.6	-0.2
8.0	15.8	I	3	N	1	—	4.0	31.6	61.4	40.6	-0.6
7.8	14.3	I	3	N	1	—	3.9	28.6	61.5	43.6	+0.5
7.7	11.8	I	5	N	1	—	3.8	23.6	61.6	48.6	+2.5
7.5	22.8	III	3	K=H	2	—	3.8	45.6	61.6	26.6	-5.8
6.1	14.1	I	4	N	1	—	3.0	28.2	62.4	44.0	+0.7
5.5	15.5	I	4	N	1	—	2.8	31.0	62.6	41.2	-0.4
4.5	17.5	?	3	K=H	1	—	2.2	35.0	63.2	37.2	-1.9
3.8	20.7	I	4	N	1	—	1.9	41.4	63.5	30.8	-4.6
3.5	18.5	I	3	N	1	—	1.8	37.0	63.6	35.2	-2.8
3.9	16.9	I	3	N	1	—	2.0	33.8	63.4	38.4	-1.6
3.7	15.0	I	7	N	2	—	1.8	30.0	63.6	42.2	0
2.7	15.7	I	5	N	1	—	1.4	31.4	64.0	40.8	-0.6
1.9	11.0	I	3	N	1	—	1.0	22.0	64.4	50.2	+3.6
3.9	17.1	I	3	N	1	—	2.0	34.2	63.4	38.0	-1.7

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	DM.	R.A.	Dec.	Mag.	H.	V.	H'
27.4	3741	22 25.4	+ 60 8	7.6	66.4	55.2	70.2
42.5	3836	22 46.1	+ 60 16	7.0	73.9	55.3	73.8
34.4	3780	22 36.5	+ 60 24	7.5	69.3	55.4	71.3
27.6	3743	22 25.8	+ 60 30	8.0	66.6	55.3	70.4
53.5	? 3917	22 55.9	+ 60 48	8.7	79.1	55.3	76.5
51.0	3897	22 52.7	+ 60 38	8.0	76.3	55.2	73.9
50.4	3894	22 52.3	+ 60 60	8.0	76.3	55.3	74.1
34.9	3789	22 34.3	+ 60 48	7.8	69.7	55.3	71.6
32.7	3770	22 31.4	+ 60 48	6.5	68.6	55.4	71.3
24.9	3730	22 22.6	+ 60 34	7.7	65.4	55.3	70.1
25.3	3734	22 23.2	+ 60 46	7.5	65.6	55.3	70.1
24.4	3727	22 22.1	+ 60 50	7.0	65.1	55.3	69.7
41.4	3471	22 41.8	+ 61 12	7.8	72.4	55.4	72.6
40.0	3464	22 40.0	+ 61 20	8.0	71.6	55.3	72.2
44.1	3485	22 44.6	+ 61 17	7.2	73.2	55.2	72.7
51.1	? 3514	22 52.9	+ 61 52	6.0	76.5	55.7	74.0
20.8	? 3658	22 17.9	+ 61 30	4.7	63.5	55.3	69.3
44.7	3611	22 45.6	+ 62 16	7.0	73.8	55.3	73.1
40.8	3295	22 41.3	+ 62 37	7.0	71.3	55.4	71.7
35.3	2950	22 34.4	+ 63 6	6.0	69.4	55.3	71.3
26.2	2897	22 26.7	+ 63 30	6.5	65.1	55.4	69.7
32.4	2932	22 31.0	+ 63 40	7.3	68.0	55.5	70.8
36.8	2960	22 36.4	+ 63 9	6.0	70.2	55.2	71.8
42.2	2993	22 42.8	+ 63 39	6.0	72.8	55.4	72.8
40.2	2987	22 41.2	+ 63 59	7.6	72.6	55.4	73.2
53.5	2900	22 56.5	+ 64 28	6.5	78.5	55.5	75.2
36.3	? 2961	22 36.5	+ 63 25	7.3	70.7	55.4	72.4

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January 19. 1887.

Plate 854

X	Y	Type	No. lines	K	Focus	Other Lines	V	H	V	H	Correc.
5.0	16.2	I	5	N	1	–					
4.9	21.4	III	2	N	1	–					
4.0	21.3	I	3	N	1	–					
2.6	19.0	I	3	N	1	–					
1.4	16.6	I	4	N	1	–					

Plate 855.

22.1	16.0	I	5	N	1	–	11.0	32.0	19.5	18.6	+0.2
21.8	12.9	?	2	N	1	–	10.9	26.8	19.6	24.8	+0.3
19.4	9.5	III	0	N	1	–	9.7	19.0	20.8	31.6	+0.7
18.0	21.2	I	5	N	1	–	9.0	42.4	21.5	8.2	-0.9
15.0	7.2	I	4	N	1	–	7.5	14.4	26.0	36.2	+1.2
14.1	9.5	I	4	N	1	–	7.0	19.0	26.5	31.6	+0.9
13.6	6.2	III	2	N	2	–	6.8	12.4	26.7	38.2	+1.5
13.0	8.9	I	5	N	2	–	6.5	17.8	24.0	32.8	+1.0
12.9	17.7	I	3	N	1	–	6.4	35.4	24.1	15.2	-0.5
12.4	15.5	I	3	N	1	–	6.2	31.0	24.3	19.6	-0.1
10.1	19.4	I	4	N	1	–	5.0	38.8	25.5	11.8	-0.9
9.8	21.3	I	2	N	1	–	4.9	42.6	25.6	8.0	-1.2
8.0	20.8	I	5	N	2	–	4.0	41.6	26.5	9.0	-1.2
8.0	11.4	I	5	N	2	–	4.0	22.8	26.5	27.8	+0.8
7.5	13.1	I	5	N	1	–	3.8	26.2	26.7	24.4	+0.4
6.0	23.5	?	2	N	1	–	6.0	47.0	27.5	3.6	-2.0
6.0	13.0	III	1	N	1	–	3.0	26.0	27.5	24.6	+0.5
4.8	23.8	I	10	N	5	Freew.	2.4	47.6	28.1	3.0	-2.1
4.0	10.5	III	4	K=H	2	–	2.0	21.0	28.5	29.6	+1.1
3.3	14.2	I	4	K=.8H	2	–	1.6	28.4	28.9	22.2	+0.2

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Dm.	R.A.	Dec.	Mag.	H	V	H'
18.8	64	0 18.5 + 19 22	6.5	50.5	30.4	50.3
25.1	79	0 25.0 + 19 30	6.5	50.8	30.4	50.5
32.3	87	0 32.3 + 20 40	6.5	51.3	30.4	50.6
7.3	16	0 7.4 + 21 28	6.0	49.8	30.5	50.7
37.4	113	0 37.6 + 22 48	7.0	52.0	30.3	50.8
32.5	92	0 32.7 + 23 15	6.5	51.7	30.2	50.8
39.7	106	0 39.7 + 23 28	6.9	52.1	30.3	50.6
33.8	94	0 33.9 + 23 51	6.0	51.7	30.3	50.7
14.7	43	0 14.8 + 23 53	7.3	50.2	30.3	50.7
19.5	52	0 19.5 + 24 14	6.5	50.5	30.4	50.6
10.9	29	0 11.0 + 25 21	7.0	49.8	30.4	50.7
6.2	18	0 6.6 + 25 27	7.4	49.2	30.3	50.4
7.8	23	0 7.7 + 26 28	6.5	49.3	30.5	50.3
28.0	91	0 28.7 + 26 27	6.5	51.5	30.4	50.7
24.8	76	0 25.0 + 26 46	6.8	51.2	30.6	50.8
1.6	3	0 1.5 + 27 26	7.0	48.5	30.4	50.3
25.1	84	0 25.2 + 27 29	7.0	51.2	30.5	50.7
0.9	4	0 0.9 + 28 18	2.0	48.5	30.7	50.6
30.7	103	0 30.9 + 28 31	4.5	51.9	30.5	50.8
22.4	76	0 22.5 + 28 57	5.9	51.9	30.6	50.7

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Errata in H.P.

H.P. 2460	14h 39.0m	+61° 46'	6.2 magn.	= Dm. +61° ~~2454.~~	1451 ?
Dm. 2451	23 20 15	+61 18	9.2		
" 1451	14 38 25	+61 52	6.0		
H.P. 3250	18 57.4	+33 27	6.1	= Dm. +33° ~~3285.~~	3295 ?
Dm. 3285	18 55.1	+33 33	7.0		
" 3295	18 56.4	+33 25	7.1		
H.P. 3098	18 16.5	− 12 ~~48~~	5.9		− 12 4 ?
Dm. 5024	18 15m6s	− 12	4.7	5.5	
Sentum. Nd. 2	18 16 13	− 12	4.4	6.0	
H.P. 2792	16 32.4	+79 13	5.5	=	
Dm 498	16 33 56	+79 16.0	5.5	Ent. in H.P. ~~6.0~~ magn	Read 5.5
H.P. 3012	17 ~~54.2~~	− 22 43	6.5	n.a. 7.0	~~54.2~~ m ? prob 55.8
Sagittarius Nd. 22	17 55 28	− 22 43	0	7.0	
H.P. 1258	6 34.9	+0 36	5.7	= Dm. +0° ~~1646.~~	6.5 magn. 1546 ?
Dm. 1646	6 43 41.5	+0 13.4	9.4		
Dm. 1546	6 33 38.4	+0 37.4	6.5		
H.P. 3132	18 28.3	+30 28	5.4	= Dm. +30° 3223	6.5 ~~!!~~ 5.5 ?
Dm. 3223	18 27 18.6	+30 27	5.5		
H.P. 1141	6 21.5	− 20 ~~!!~~ 58	7	= probably Dm. − 21° 1353	− 21° ? Likely
Dm 1353	6 0 49.3	− 21 47.9	6.1		

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H.P. 112 0h 39.4m − 13° 32′ 62 = W.A. Magn. 66 11 63?

Cetus W.A. 75 0 39.2 − 13 33.4 63
W.A. 74 0 39.2 − 5 18.9 66
W.A. 76 0 39.4 − 17 64 66

H.P. 693 3 58.0 11 + 62 0 cumu. =? Dm + 61° 676? 57.6m?
Dm. 676 3 55.2 + 61 56 6.5 Red. to 1900 3h 59.1m + 62° 4′
Probably, as the Dm. number is not given, the cumulus was assumed to be composed of previous Dm stars.

H.P. 737 4 13.0 + 15 20 39 = Dm. +25° 11 612 3.8 +15°?
Dm. +25° 612 3 37.3 + 25 31 8.5
Dm. +15° 612 4 11.5 + 15 17 3.8

H.P. 1581 8 29.4 + 53 49 5.6 = Dm. +53° 1268 6.6 11 6.8?
Dm. +53° 1268 8 27.5 + 53 53 6.8
Dm. +53° 1269 8 28.2 + 53 25 6.6

H.P. 2084 12 11.5 11 + 75 51 5.4 = B.A.C. 4143 13.5m?
B.A.C. 4143 12 12.1 + 75 59 39 5½

H.P. 2644 15 44.8 + 62 58 5.2 = Dm. +62° 11 1225 5.8 63°?
Dm. +62° 1225 12 13.9 + 62 27 9.5
Dm. +63° 1225 15 44.5 + 63 3 5.8

H.P. 3932 22 8.1 + 60 10 5.4 = Dm. +60° 2358 5.0 11 5.4?
Dm. +60° 2358 22 7.3 + 60 2 5.4

H.P. 4168 23 29.7 + 70 58 6.2 = Dm. +70° 1227 11 1327?
Dm. +70° 1227 22 12.8 + 70 57 8.8
Dm. +70° 1327 23 28.7 + 70 50 6.0

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Errata ccc H.P.

	h	m	s		°	′	″	Magn.	
H.P. 684	4	04		+ 83	31	54	= Dm. + 83° 43′ 11″	10.4	?
Dm. 113	4	4	13	+ 83	44	8	9.5		
Dm. 104	3	55	4	+ 83	26	4	5.0		

H.P. 1225	6	25.7		+ 79	41	55	= Dm. + 79° 41′ 21″2	+ 79°	?

H.P. 3445	19	48.5		0	3	5.6	should be − 0 3	
Aquilæ N.A. 95	19	48.3		− 0	3	5.9	or − 0 2	
B.a.c. 6826				− 0	7			

H.P. 2724	16	7.6		+ 77	7	5.7	= Dm. 516 11′ + 77° 61.6		?
Dm. 516	13	32	50	+ 77	17	7	6.0 =		
H.P. 2305	13	33.1		+ 77	10	6.8			
Dm. 616	16	8	30	+ 77	10.8	6.0	= H.P. 2724		

H.P. 3067	18	8.9		+ 41	7	6.6	= 8.9″ ? 7′ ?	
Dm. 3011	18	8.1		+ 41	7	5.8		

H.P. 1787	9	58.2		− 24	3	6.6	= 58.2″ ? 44′	
Hydræ N.A. 191	9	57.9		− 24	42	6.8	= ?	
St 5448	9	58.2		− 24	44	7.6		

H.P. 3266	19	1.6		+ 16	41	5.9	= Dm + 16 3752	
Dm 3752	19	1	27.3	+ 16	38.6	5.5		

H.P. 3313	19	13.5		+ 76	21	4.9	= Dm + 76° 81 7′	7.1 7 ?
Dm. 817	20	48	12	+ 76	38.1	9.5		
Dm. 717	19	14	26	+ 76	18.9	5.5		

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Errata in H.P.

H.P. 684	For Dm. +83° 113	Read Dm. +83° 104	✓
" 1225	" +19° 2112	" " +79° 2112	✓
" 1256	" Nd. magn. Var. ° '	" N.A. Magn — '	✓
" 1787	" 9 58.7 − 24 31	" 9 58.2 − 24°44	✓
" 2460	" Dm +61°2451	" Dm +61° 1451	✓
" 2724	" Dm +77° 516	" Dm. +77° 616	✓
" 3067	" 18 8.1 +41° 8'	" 18 8.9 +41° 7'	✓
" 3266	" 19 1.6 +16 41	" 19 2.6 +16 41	✓
" 3313	" Dm +76° 817	" Dm. +76° 717	✓
" 3445	" +0° 3'	" −0° 3'	✓
" 3250	" Dm +33° 3285	" Dm. +33° 3295	✓
" 3098	" 18 16.5 −12 40	" 18 16.5 − 12 4	✓
" 2792	" Dm Magn. 6.0	" Dm. Magn 5.5	✓
" 3011	" B.a.c. 5481 54.1m	" B.a.c. 6088 5446 m	
" 3012	" 17 54.2 Bac −	" 17 55.8 (prob.) B.a.c. 6099	
" 1258	" Dm +0° 1646	" Dm +0° 1546	✓
" 3132	" Dm. Magn. 6.5	" Dm. Magn 5.5	✓
" 1141	" −20°	" −21°	✓
" 112	" N.A. Magn 6.6	" Nd. Magn 6.3	✓
" 737	" Dm +25°	" Dm. +15°	✓
781	" Dm. 637	" Dm. 639	✓
" 1581	" Dm. Magn 6.6	" Dm. Magn. 6.8	✓
2083	" 10.5m	" 11.5m	✓
" 2084	" 2 11.5	" 12 13.5	✓
" 2644	" Dm. + 62°	" Dm. + 63°	✓
" 3932	" Dm. Magn. 5.0	" Dm. Magn. 5.4	✓
" 4168	" Dm. +70° 1227	" Dm. +70° 1327	✓
" 3165	" Dm Magn 6.2	" Magn 6.1	
" 4221	" Dm. +1° 4729	" Dm +1° 4792	
" 1792	" Dm +35° 2010	" Dm +35° 2110	
" 1256	" Na. magn. var.	" Na. Magn. —	
" 2049	" Dm No. 2456	" Dm. No. 2556.	
" 3665	" Dm No. 3639	" Dm No 3739.	
" 141	" ~~Dm~~ Bac. —	" ~~Dm~~ Bac. 250	

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Errata in DM.

See page 163.

DM. 591 18h 37m 43s + 79° 42.2' magn 7.8 should be 18 36 7 + 79 23 27"

✓ DM. 1027 5 23 48.4 + 32 11.3 9.5 in catalogue. On chart about 7.5 magn. Star on plate agrees with Book 4 p. 4 V 16.6 H 12.2. Chart. Book 4, p. 13 V 11.0 H 22.3

✓ DM. +57° 1498 } 14 11.3 + 57 21.7 6.5
" +57° 1498 } 14 11.4 + 57 21.6. 6.5 } Tr. Dec.? "Plate 2686" verified from 2026 I.

✓ DM. +52° 92 Magn in DM. 6.2 on Chart 9.0

1900

✓ DM. +82° 395 Spectrum of DM. +72° 600 Magn 7.0 superposed on plate 1256.

1900

✓ DM. +67 790 Spectrum of DM. +77 506 Magn 7.6 superposed on plate 1245.

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Errata in HP.

	H.P. No.	For	Read
✓	2113	" -30°	" -3°
✓	2536	" B.a.c. —	" B.a.c. 5023
✓	2580	" Dm. 1416 26.5^m 6.1	" Dm. 1414 25.5^m 6.7
✓	~~2792~~	" ~~Dm. Magn 6.0~~	" ~~Dm. Magn. 5.5~~
✓	~~3098~~	" ~~40'~~	" ~~4'~~
✓	~~3165~~	" ~~Dm. Magn. 6.2~~	" ~~Dm. Magn 6.1~~
✓	3351	" Dm Magn 6.2	" Dm. Magn 6.1
✓	3439	" B.a.c. —	" B.a.c. 6815
✓	3560	" Dm. 3981	" Dm. 3986
✓	3742	" 10.6^m	" 10.7^m
✓	3904	" 36'	" 32'
✓	932	" No. obs. 16	" No. obs. 15
✓	1206	" ~~Dm. No~~ B.a.c. —	" ~~Dm.~~ B.a.c. 2070
✓	1846	= Dm - 2° 3155 Magn. 6.0	
✓ Insert	2055 a camelop.	| - | 4070 | $+86^\circ$ 17.6^s | 58.7^m | $+86^\circ$ 15' | 7 | 6.7 | 5.7 | - | 3 | 6.44 .06 | - | - |	
✓	2072	Vol XIV B.H. —	" B.H. 1
✓	2786	= Dm - 2° 4211 Magn. 5.5	
✓	2972	" N.d. Magn 4.6	" N.a. Magn. var. 4-6
✓	3605	" Obs 6 Magn 3.74 P.E. .06	" Obs. 7 Magn. 3.66 P.E. .09
✓	3986	" B.H. 28	" B.H. 20
	884	" B.H. 65	" B.H.
✓	1141	" N.d. Magn 7.	" N.a. Magn. 6.3
✓	~~3167~~ 3168	" Dm +39° 3510	" Dm +39 3589.
✓	3169,70	" Dm +39° 3589	" Dm +39° 3510
✓	~~3914~~ 4148	" Dm + 24 4779	" Dm + 24° ~~4780.~~ 4778
✓	2443	For Dm + 49° 2095	" Dm. + 50° 2095
✓	3406	For Dm. +11° 3954	" Dm +11° 3956
✓	983	For Dm. +30° 989	" " 30° 898
✓	1809	For Dm. magn 6.7	" Dm. Magn 7.0
✓	3998	For Bd 31^m Dec 34° 5'	R.A. 31^m Dec −33° 42' 7 in star = U.A. Pos. Quad. 49 Mag. 8.7

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Errata in H. P.

	H.P. No.	For	Read
✓	481	BD. +26° 477	BD. +25° 477
✓	3012	" Mag. 6.5	" Mag. 7.3
✓	886	BD. Magn. 6.0	BD. Magn 6.5
✓	2001	BD. +28° 2021	BD. +28° 2022.
✓	228	BD No. +44° 317	BD +44° 307.
✓	3125	BD. No. +23° 3346	BD. +23° 3347
✓	3481	BD. No. +27° 5687	BD. +27° 3587
✓	1388	BD. Magn. 6.3	BD. Magn. 6.5
	~~2001~~	~~BD No +28° 2021~~	~~BD No. +28° 2022~~ Entered above
✓	2132	BD No +33° 2332	BD No. +34° 2332
	~~3125~~	~~BD No.~~	
✓	3788	BD. No. +31° 4402	BD No. +31° 4462
✓	3867	BD. No. +25° 4535	BD. No. +25° 4635
✓	3527	BD. No. +46° 2880	BD. No. +46° 2881
✓	3528	BD. No. +46° 2881	BD. No. +46° 2882.
✓	762	B.D. Magn 6.0	BD. magn. 5.0
✓	833	B.D. magn. 5.6	BD. magn. 5.3
✓	1423 } 1424	B.D. magn. 1.5	B.D. magn. 1.7.
✓	1724	BD Magn. 5.2	B.D. Magn. 5.3
✓	3335 } 3336		
✓	3794 } 3795		
✓	1678	BD Magn 5.6	BD. Magn. 6.5
✓	1607	BD. No. +12° 1905	BD. No. +12° 1904
✓	2881	BD No. +2° 3282	BD. No. +2° 3283
✓	3810.	BD Magn 6.6	BD Magn. 6.2
	~~4405~~	~~BD No. +56° 2966~~	~~BD No +56° 2967~~

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Errata in H.P.

H.P. No.

1470 . Enter also BD. -15° 2052 magn. 6.7

1022 Increase R.A. by 1ᵐ, carry Dec. 6' N. - A.G.C. 6476, not 6475.

		For	Read.
✓ H.P.	2388	B.D. No. +2° 2867	+3° 2867
✓ H.P.	1800	" " -11 2120	-11 2820
H.P.	1532	Ursae Maj. —	Ursae Maj. 57 (Samuloff)

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Miscellaneous Memoranda.

Mch. 11, 1887 7622 ✓ Plate 167. Centre of plate 7h 40m ? instead of 7h 10m as given in observing book No. 2.

7623 ✓ Plate 1092 G. Has an additional exposure, centre at +15°. Corrected in observing book 3.

7624 ✓ DM. +21° No. 1602 7h 18m 7.8° *19m.

7625 ✓ Plate 196 E. Dec. +65° to +85° instead of +70° to 90° as entered in obs. book No. 2.

7626 ✓ From page 146 Book 7. the correction applied to plates is one half greater than that previously used.

Mch. 19. 7627 ✓ Plate 909 F. Book 10. p. 24. V 22.7 H 14.2 Not found on chart.

7628 ✓ Plate 309 G Book 1. p. 84. V 6.6 H 12.1 Not found on chart

" 22 7629 ✓ Plates 918 F. Book 10. p. 14. V 17.4 H 22.8, V 11.6 H 8.4 V 10.5 H 17.0, V 18.0 H 8.5 V 9.7 H 16.8, V 4.4 H 15.4, V 5.3 H 17.6, additional exposure Not found on chart.

" 7630 ✓ Plate 908 F. Book ~~10~~ 9 p. 40. V 7.0 H 23.3 Not found on chart.

" 29 7631 ✓ Plate 186 E. Centre of plate 0h 8m for exposure at +70°

7632 ✓ DM. 16 +61° Magn. 6.1 in Cat. On chart about 9.0
Error on DM. chart. This star charted 9th magn. instead of 6th magn.

7633 ✓ DM. 111 +71° Magn. 7.4 in Cat. On chart about 4.0
Is faint on plate.
Error on DM. Chart. This star is charted 4th magn. instead of 7th magn.

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Feb.	29.	7634	~~Diff. 29.+79° Magn. in Cat. 6.t faint on all plates.~~				
"	30.	7635	Plate 982 J.	Book 11, p. ~~52~~ 54	9.5	18.6	Not found on chart.
April	4.	7636	Plate 844 E. This star omitted erroneously in 14.8 right ascension & Dec 1° 5.8'	Book 12, p. 94. chart. In Cat. 1h 5.8m +73° 14'. Star on plate agrees with catalogue.	8.6	21.6	Is about 1h 4.8m +73.3 in
"	12	7637	Plate 1057 E.	Book 12, p. 168.	12.2	13.0	Not found on Chart
"	..	7638	~~Plate 954 E~~	~~Book 12, p. 60.~~	~~6.4~~	~~5.4~~	~~Not found on Chart~~ Identified
"	15	7639	Plate 1062 F.	Book 13, p. 28.	10.0	10.3	Saturn.
"	15	7640	Plate 1110 F.	Book 13, p. 44	20.0	20.2	Saturn.
"	18	7641	Plate 1153 F.	Book 13, p. 48	10.2	22.2	Saturn.
"	22	7642	Plate 1119 E.	Book 12, p. 210	5.5	12.9	Not found on chart
May	11	7643	Plate 1073 E.	Book 16, p. 60.	Centre of plate at +5.0° +60 h +69°		
"	16	7644	Plate 1220 G.	Bo contains only the planet Jupiter and therefore had not been measured.			
"	16	7645	Plate 1244 G.	Book 17, p.	8.4	12.0	Jupiter.
"	16	7646	Plate 1325 G.	Book 17, p.	16.0	7.0	Jupiter.
"	17	7647	Plate 1188 G.	Book 17, p.	19.4	17.7	Jupiter.
"	19	7648	Plate 1218 E.	Book 16, p. 120.	16.0	15.0	Not found on Chart.

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7647
May 20 1887. Book 16, p. 73. From page 73, inclusive, the correction applied to the plates in getting out constants for reductions of values of Dec. & R.a.

F. plates. single correction.
F' " 1.50 "
I. " single " north of +20°
" " 1.50 " " " +30°
G. " single " for exposures at -20° and -25°

" 20 " 7650 ✓ Plate *1137 F'. Identifies as 1136 F. Dec. +30° to +40° instead of +50° to 60°.

* This was found to be the missing plate 1136 F.

" 27 " 7651 ✓ It will be necessary to revise the identification of G plates contained in the first cycle, as the limit allowed was 1 minute, and it has been found that stars near the edges of the plates are almost 2 minutes out, in exposures with centres at -20° and -25°.

" 27 " 7652 ✓ The F. plates in the first cycle will also have to be revised as the correction applied was not large enough for plates with exposures beyond +30°.

" 27 " 7653 ✓ In cases where the stars have been +29 59.9 or 39 59.9, taking them to the nearest ~~hours~~ minute they have been entered +30 0 +40 0 instead of +29 60 +39 60. The books contained in the first cycle will have to be examined and the changes made to +29 60 &c. as the number given is in that zone and not in +30°. The E book in the first cycle has been examined.

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May 30 1887 7654 ✓ Plate 1379 I. Book 15, p. 40. 20.8 17.9 Draunes.

" 30 " Plate 186 E. Centre of plate 0h 8m for exposure at +70° See page 101.

" 30 " 7655 ✓ Plate 277 F. * Does this plate have a fifth exposure with centre at +30°? If so, stars marked in pencil require to be changed in F. book and in H.P. Catalogue. * Book 4, p. 12.

" 30 " 7656 ✓ Plate 1007 F' Centres of plate at +35° & +45° instead of +25° & 35° (Changed in Obs. book).

" 30 " Plate 1092 G. Has an extra exposure with centre at +15° See page 101

" 30 " 7657 ✓ Plate 1078 F' Centres of plate at +35° & +45° instead of +25° & +35°. as ent. in Obs. No 2.
(Changed in Obs. book to Dec. +45° to 55°).

" 30 " 7658 ✓ Plate 196 E. Centres of plate at +55° +65° & +75° or Dec. +65° to +85° instead of +70° to 90° as entered in Observing book No. 2.

June 1 7659 ✓ DM. 2138 +27° 12h 20m* 24.3 +27° 2.1 * 21.m4 on Chart, and 11.3 14.4 Plate 1297 I. Book 11, p. 182. identifies at 21.m Insert 21m omitted in DM. Catalogue.

June 8 7660 ✓ DM. 2561 +33° 15h 8m* 39.6 +33° 51.' in Catalogue and on Chart. Error in DM. Insert 9m. is 17.6 11.3 Plate 1417. I. Book p and identifies at *9m 39.6

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June 13, 1887 7661 Plate 1211 F. Book , f. Centres of plate at +35° 9. +45°.5. Stars in exposure at +35° will be about .2' north; or .2 greater than constant. Stars in exposure at +45°.5 will be about .2' south; or .2 less than constant. Constant V = 52.4

" 13 1887 7662 ✓ In making the identifications from the DM, for first Cycle, the tenths of seconds have been discarded and may make a difference of 0.1m in the following cases .0 .2 .4 .6 & .8. This was done in Books 1, 6, 8; also in Book 5 from f. 200. The same rule was followed for part of the work in the second Cycle, but it is now being corrected, and after this date the general rule will be followed.

" 16 . 7663 ✓ W.P. 2113 Virg. 12h 21m.7 −*30° 57' Found to be a misprint and changed to −*3° 57'

" 16 . 7664 ✓ DM. 1676 +31° 7h *40m.8 +31° 58' in Catalogue is 7h *41m.8 on Chart. Error in DM. ought to be 7h 41m Plate 1173, Book 13, f. 58. V 208 H 22.5 agrees with chart.

" 20 . ~~Plate 1450 E.~~ ~~Book 18, f. 16.~~ V 16.0 H 17.4 Not found on Chart. See page 107.

June 29. 7665 ✓ Examine all plates in second cycle measured before March 1st for peculiarities in spectra. G. ex. Aug. 24th/87. E. ex. Aug. 24th/87. F. ex. Sept. 6th 87

" 29 " 7666 ✓ Examine F, G, & I plates in second cycle, measured before May 1st for spectra having bright lines. The E plates have been examined. G ex. Aug. 24/87. F ex. Sept. 6th/87.

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Aug. 1 at 7667 Plate 1480 G. This plate could not be identified from DM Charts: so Heis Atlas was used for the identification

" 1 " 7668 Plate 1505 G. This plate could not be identified from D.M. Charts, so Heis Atlas was used for identification.

" 2 " 7669 Plate 1509 G. This plate could not be identified from D.M. Charts, so Heis Atlas was used for identification.

" 2 " 7670 ✓ Plate 1452 G. Heis Atlas was used for identification of this plate

" 3 " 7671 ✓ Plate 1329 F. Book 19, p. 16. This plate has an extra exposure with centre at $16^h + 20°$ The positions of spectra in this exposure have been determined from D.M. Charts.

" 3 " 7672 ✓ Plate 1251 F. This plate has only one exposure. Centre at $+15°$. Readings, Book 19 p.

" 4 " 7673 ✓ Plate 1332 F. This plate has only one exposure. Centre at $+40°$. Readings, Book 19, p.

" 5 " 7674 ✓ Plate 1482 G. Book 17, p. 40. In Observing Book No. 6. R.A. $17^h\ 03^m$. Dec. $-15°$ to $+15°$ H.A. 23^m W. This plate identifies at R.A. $15^h\ 20^m$ Dec. $-15°$ to $+15°$ and seems to be a duplicate of plate 1248.

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Aug 10h 7675 ✓ Plate 1452 G. V 21.3 H 17.6 Is K line double? Book 19, p 76

" 12 " 7676 ✓ Plate 1525 F. Book 19, p . This plate has only one exposure.

" 12 " 7677 ✓ Plate 1445 F' Book 19, p . This plate has only one exposure.

" 16 " 7678 ✓ Plate 1519 E. Book 18, p 42. V 15.3 H 19.0 = 18h 35m.9 + 79°.5
Not found on Chart. Dm. 59 18h 37m + 79° 42'. A Can this be the Star? No! Star omitted in DM.

" 16 " 7679 ✓ Plate 1395 E. Book 18, p 8. V 16.0 H 12.1 = 18h 35m.9 + 79°.5
Not found on chart. Star omitted in Dm.

" 16 " 7680 ✓ Plate 1450 E. Book 18, p 8. V 16.0 H 11.4 = 18h 35m.9 + 79°.5
Not found on chart. Star omitted in DM.

" 18 " 7681 ✓ Plate 1440 I Book , p . Centre of plate at 15h 26m instead of 15h 20m as given in Obs. Book No. 6.

" 19 " 7682 ✓ Plate 1100 G. Book 10, p. 136. V 22.3 H 10.4 Not found on Chart.

" 20 " 7683 ✓ Plate 1140 G. Book 10, p. 20 V 13.3 H 12.8 Not found on Chart.

" 23 " 7684 ✓ Plate 1421 F. Book , p . Centre of plate at 19h 12m instead of 19h 20m as given in Obs. Book No. 6.

" 23 " 7685 ✓ Plate 1500 F' Book , p . Centre of plate at 19h 6m instead of 19h 0m as given in Obs. Book No. 6.

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Oct 4/86 A second plate numbered 1486 was found to be an F plate. It identified in the region covered by 1487 F. and the number was changed to 1487?

Aug. 23 7176 1887 ✓ Plate 1487 F. Book , p. Identifies with centres at +40° & +50°. instead of at +20° & +30° as given in Obs. Book No. 6.

Found to be No. 1488 and number changed accordingly

" 23 " 7177 ✓ Plate 1488 F. Book , p. Identifies at R.A. 21h 20m Centres at +15° & +25°. instead of at 20h 20m " " +40° " +50° as given in Obs. Book No. 6.

Found to be the missing plate 1490 and number changed according by C 1490?

" 27 " 7178 ✓ Plate 1488 F. Book 18, p. 48. Identifies at R.A. 20h 28m instead of at 20h 20m as given in Obs. Book No. 6

" 29 " 7179 ✓ Plate 1320 I. Book , p. Identifies at R.A. 16h 19m instead of at 16h 40m as given in Obs. Book No. 3.

" 30 " 7180 Plate 1518 I. Book , p. Identifies at R.A. 17h 0m instead of at 18h 0m as given in Obs. Book No. 6.

" 31 " 7181 ✓ Plate 931 F. Book 9, p. 46. 11.6 19.6 Not found on Chart.

Sept. 6 " 7182 ✓ Plate 1013 F. Book 9, p. 194. This plate has an extra exposure at +40°.

" 10 " 7183 ✓ Plate 1542 F. Book , p. Identifies at R.A. 19h 9m instead of at 19h 0m as given in Obs. Book No. 6.

" 10 " 7184 ✓ Plate 1548 F. Book , p. Identifies at R.A. 19h 19m (Tel.) Dec. +30° to +40° instead of at 19h 20m Dec. +25 to +35° as given in Obs. Book No. 6.

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Sept. 12 1887 7685 Plate 1384 E. Book 18 f. 28. v. 18.2 h. 8.6 On Chart
19h 20.7m +73°3. In Catalogue 19h 21.7m +73°3
Entered erroneously on Chart 20.7m ought to be 21.7
Star on plate identifies at 19h 21.7m +73°3
and agrees with catalogue.

" 12 " 7686 Plate 1584 E. Book 18 f. 78. v. 10.5 h. 7.5 On Chart 22h 22.4m +76°7
DM+76°859 7.3 In Cat 22h 23.4m +76°7. Star on plate at
22h 23.4m +76°7 and agrees with Catalogue.
22.4m charted erroneously instead of 23.4m

" 13 " 7687 Plate 1576 E. Book 18 f. 88. v. 15.9 h. 16.0 Not found on Chart.
Ought to be about 22h 28.5m-.6 +74°.2 -.3

" 14 " 7688 Classes a, b, c, bc, and Id have been added to the types already used. For plates measured on and after this date those classes will be used. For all plates measured before Sept. 14, 1887., Spectra having the type questioned in the margin of left hand page will require to be revised and re classified

a = G & h faint
b = Additional fine lines
c = Additional bright lines
bc = Bright lines and Additional fine lines
Id = G + h × H double.

" 16 " 7689 Plate 1673 G. Identifies at R.A. 21h 6m instead of at 21h 0m as given in Obs. Book No. 6. Book f

" 20 " 7690 Plate 910 G. Book 10 f. 24. When identified this plate was found to be 909 F' and as the plate marked 909 F' did not identify for that region the number of this plate was changed to 909 F'.

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Sept. 20 1886 7891 ✓ Plate 909 F'. Book 9, f 32. As plate marked 910 G identified as 909 F'; this plate marked 909 F' was supposed to be the missing G plate. It identifies at R.A. 23h 40m Dec. +30° to +40° (Tel.); and is an F plate. Number changed to 910 F.

" 24 " 7892 ✓ Plate 1578 I. Book f. Dec. found to be +35°, not +30°. (Tel.). Note ent. in Obs. Book No. 6.

Oct. 1 " 7893 ✓ Plate 1638 F' Book f. Identifies at 21h 0m, not 21h 20m. Changed in Obs. Book No. 6. 9 in Check List.

" " " 7894 ✓ Two plates found numbered 1689. Only one of those identified in that region. As plate 1679 was missing and the second plate No. 1689 identified in the region covered by 1679 it was assumed to be the missing plate and the No. changed to 1679.

" 6 " 7895 ✓ Plate 1325 G Book 17, f. 11. V 11.2 H 8.8 Not found on Chart.

" " " 7896 ✓ Plate 1341 F. Book 19, f. 4. V 13.8 H 6.4 Not found on Chart

" 12 " 7897 ✓ Plate 1012 F' Book 9, f. 178 V 14.4 H 10.8 Star on plate
Error in DM. corrected identifies at 4h 10.6m +45.1 not 4h 11.6m +45.1 as given in Catalogue & on D.M. Chart.

" 12 " 7898 ✓ Plate 1025 F. Book 9, f. 207. V 10.4 H 21.6 = DM 1027 +32°
Magn. in Catalogue 9.5. On Chart about 6.8 or 7.0. Star too bright on plate to be 9.5

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Oct. 31d 8h 7799 ✓ Plate 1142 F. Book 13, p. 168. v 8.0 h 8.1 Star on plate
Error in Dm. Corrected. identifies at 13h 22m.2 +53° 30' and
not at 13h 21m.2 as given in Dm
Catalogue and on Chart.

" 31 " 7700 ✓ Plate 1184 F Book 13, p.184. v 12.9 h 9.7 Not found
on Chart.

" 31 " 7701 ✓ Plate 1259 F Book 13, p. 196. v 8.2 h 13.2 Not found
on Chart.

" 31 " 7702 ✓ Plate 1223 F. Book 13, p 205. v 22.2 h 19.0 Not found
on Chart.

" 31 " 7703 ✓ Plate 1036 G. Book 10, p. 140 The six stars having
measurements v 15.0 h 21.5, v 13.6 h 8.4, v 12.3 h 12.7,
v 12.5 h 17.8, v 6.6 h 17.7, v 2.7 h 10.3 do not identify
in the region covered by this plate
"R.d. 7h 20m Dec. -25°-15°-15° & +5°". They
probably belong to another exposure
having a different right ascension,
& therefore have been rejected & the
No. of stars on plate changed.

" 31 " 7704 ✓ Plate 931 F. Book 9, p. 47. v 11.6 h 19.6 Not found on
Dm. Chart

" 31 " 7705 ✓ Plate 1012 F. Book 9 p. 182. v 5.5 h 11.7 Not found on
Dm. charts but in Dm. Cat. = H.P. 723

" 31 " 7706 ✓ Plate 1056 F. Book 9. p. 186. v 15.4 h 18.8 Not found on
Dm. Charts but in Dm Cat = H.P. 723.

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1886chae.proj..834F

Oct. 15 1887 7707 ✓ Plate 1628 F Book 19, p. 196. V 18.0 H 16.4 Not found on Chart.

Nov. 15. 1887 7708 ✓ Plate 201 F Book 4 p 30 Dec. +20° to +50° (Tel).
not +30° to +60° as given in
Obs. Book No. 2.

Dec. 9. 1887 7709 ✓ Plate 874 F. Book p . Dec. +35° to 45° (Tel).
not +45° to +55° as given
in Obs. Book No. 3.

" 9 " 7710 ✓ Plate 857 F. Book p . Dec. +50° to +60° (Tel).
not +30° to +40° as given in
Obs. Book No. 3.

✓ Plate 856 G. Regions with Dec. 0° +10 +20 +30° instead of +10° 0° -10° -20° as recorded.

" 23 " 7711 ✓ For Spectra having V 21.0 and +, or 3.0 and −; H 7.0 and −, or 23.0 and +,
the measurements of brightness and reduction
of same have been underlined with red ink

✓ For Spectra having V 22.5 and +, or 2.5 and − no
measure will be made, and for any
such spectra previously measured, the
measures will be rejected.

" 30 7712 ✓ Plate 858 F Book 6. p 74. Identifies with centres
at +60° and +70°

Jan. 26 1888 7713 ✓ Plate 1585 G. Book 17 p. 103 V 21.1 H 17.8 Not found on Chart

" 26 " 7714 ✓ Plate 1259 F. Book 13 p. 196 V 8.2 H 13.2 Not found on Chart

" 26 " 7715 ✓ Plate 1347 F. Book 13 p. 65 V 18.4 H 22.1, V 16.6 H 16.9 Not found on Chart

" 26 " 7716 ✓ Plate 1368 F Book 13 p. 96 V 4.4 H 11.2 Not found on Chart.

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Jan. 26	1888	7717	√	Plate 1501 Z.	Book 13	p 112	V 17.4	H 12.1		Not found on Chart.
" 26	"	7718	√	Plate 1548 Z.	Book 13	p 114	V 9.1	H 7.6		Not found on Chart
" 26	"	7719	√	Plate 1488 Z.	Book 13	p. 142	V 22.0	H 22.8		Not found on Chart.
" 26	"	7720	√	Plate 1636 Z.	Book ~~13~~ 19	p. 146	V 8.8	H 9.2		Not found on Chart.
" 26	"	7721	√	Plate 1636 Z.	Book ~~13~~ 19	p. 146	V 6.3	H 20.2		Not found on Chart.
" 26	"	7722	√	Plate 1637 Z.	Book ~~13~~ 19	p. 158	V 7.1	H 14.5,	V 5.5	H 13.4, Not found on Chart.
" 26	"	7723	√	Plate 1692 Z.	Book ~~13~~ 19	p. 166.	V 10.9	H 14.2		Not found on Chart.
" 26	"	7724	√	Plate 1665 Z.	Book ~~13~~ 19	p. 190	V 15.4	H 23.2		Not found on Chart.
" 26	"	7725	√	Plate 1665 Z.	Book ~~13~~ 19	p 190	6.0	15.7		Not found on Chart
				" " "	" "	" 190	5.1	15.8		" " " "
" 26	"	7726	√	Plate 1626 Z.	Book ~~13~~ 19	p. 156	V 20.0	H 9.7,	V 15.6	H 20.9, V 8.6 H 10.1, Not found on Chart
" 26	"	7727	√	Plate 1687 Z.	Book ~~13~~ 19	p 172	V 20.6	H 10.6		Not found on Chart.
" 26	"	7728	√	Plate 772 Z	Book 6	p 36.	Identifies at Dec. +45° to 55° Zels. not ~~25°~~ to ~~35°~~ as given in Obs. Bk. No. 3.			
" 30	"			[illegible]						

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7729
Jan. 30, 1888 On January 30, 1888 the first wedge used in these measures fell on the floor and was broken. The measures made with it include all the E plates, the F plates numbered 175, 170, 177, 905, 904, 907, 906, 910, 960, 974, 973, 959, 1709, 1715, 1563, 298, 277, 310, 300, 332, 203, 201, the G plates numbered 176, 197, 157, 864, 949, 894, 893, 863, and the I plates numbered 1565, 1466, 1529, 1595, 1599, 1420, 1528, 1623, 1456, 1632, 1657, 1710, 140, 2242.
A second wedge was substituted for the broken one

7730
Feb. 4. " Stars of Type I having no K line, are used as Standard stars for the Reduction of E plates.

7731
Feb. 4. " Stars of Type I having no K line, also those having K. line .5 or fainter, are used as Standard stars for F. & G. Books.

7732
Feb. 17. " Plate 1085 F. Book 13, p. 101. v 16.5 H 16.7 II?; v 15.1 H 13.9 II?; v 12.0 H 13.6 III, Spectra narrow and altogether different from other spectra on plate. Therefore these have not been identified, neither have they been included in count of stars on plate.

7733
March 28. Y The Reductions to 1900 for E. Stars have not been checked. Some way of doing this will have to be found ~~for doing this~~ before printing Catalogue E.
Y The same will have to be done for the Pole Stars and for all F and G. stars which occur only on one Plate.

7734
Dec. 15th/88. Y E. Stars reduced by Miss Ruff. Checked independently by Miss Cushman. Second reduction to check Pole Stars Made by Miss Ruff. F & G. stars occurring only on one plate Checked by Miss Cushman also all Stars brighter than Cat. C. Magnitude.

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April 9th 1888 7738 ✓ For 6. Stars having observations on more than one plate the DM No & Magn has been checked by comparing with first entry whenever an additional plate number was entered.

~~June 2nd~~ ~~DM. -10~~
June 26/88. 7736 ✓ In order to detect errors in Catalogue 6. all A.G.C. stars contained in the Catalogue have been reduced to 1900 directly from the A.G.C. and a comparison made with the places given for them in Catalogue 6. Where any difference in reduction was found it was gone over a second time independently by another computer and if the difference still came out the same, it was corrected in Catalogue 6, the change being made in red ink. All stars in the A.G.C. brighter than the 7th magnitude were looked for in Catalogue 6 and if not found there a note was made and they were looked for on the plates. Quite a number of them proved to be too faint to appear on the plates, and some were too faint to be measured, but in several cases it was found to be an error in the reduction to 1900 of these same stars in Catalogue 6. Where two stars came in Catalogue 6 (being measured and reduced on different plates) with a difference of a few tenths in R.A. and having about the same Dec. with only one star in the A.G.C., the reduction, and if necessary the identifications of those two stars was gone over in order to find if they were one & the same star, one having an error in the reduction

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to 1900. And it very often proved to be so, sometimes being an error of one hour in R.A, sometime 1 minute, or 2 or 3 tenths minute, and sometime the error was in the sign being reversed in applying the precession for Dec. Also if two stars came together in the A.G.C. and there was only one of these in catalogue C, and that one the fainter of the two A.G.C. stars, the identification was revised and the brighter star looked for on the plate, if the star already entered in catalogue C. proved to be the fainter one.

July 31/88. 7737

Class I 35° Rd. 11.3 2242 N 5h 49m 80° ought to be 2292 I 11,3 30°
" " 35° 17.0 1763 I 23.0 15° " " " 1463 I 17,0 35°
" " 65° 20.0 2715 I centre at 60° not 65°

Nov. 19th in p.m. /88. 7738

For stars in Cat. C. from the Equator south, where the R.A. magn. differed from the A.G.C., the A.G.C. magn. has been adopted; R.A. magn. to be entered in form of a remark.
For stars in Cat C. North of the Equator where the R.A. Standard magn. differed from R.A. Cat. magn., the Standard magn. has been adopted. R.A. magn. to be entered in the form of a remark.

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Dec. 14th 1888 7739 In checking the Reductions to 1900 in Cat. C. (Draper) positions ~~obtained~~ reduced from reduction of H.A. & A.G.C. plates have been adopted in all cases where these reductions differed from ~~D.M.~~ position Reduced from Dun.
For all stars reduced from the B.A.C. and differing in reduction from any other catalogue, the B.A.C. position has been adopted.
" " For all Stars north of +85° the Carrington positions were used and the reduction to 1900 made twice, each reduction being independent of the other.

Dec. 14th 1888. 7740 For plates having three or less that three standard stars no mean was obtained from H.P. magnitude. For each plate all the stars measured were entered in a table & their measures on other plates used, the mean of the differences between the uncorrected & corrected measures giving a constant for the Reduction of the plate. For non plates covering same region & falling in two class, only the differences of measures reduced, taken from plates having constants taken from H.P. magnitudes number used. Plates 1180, 1078, 1209, 822, 824 & 943. are exceptions to this rule. As there were not sufficient differences to derive a mean from, the measures derived from the above method had to be used.

" " " 7741 For stars occuring on more than one plate, where the classification from all plates did not agree, it was looked up independently and if still discordant the identification from charts was Revised.

Jan 22, 1889 7742 When second measure of brightness was made for plates giving large residuals, the identification was revised where either residual was greater than 5 and the difference between first & second measures small

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7743 ✓

March 22, 1889 Large residuals on D.C. Where the large residuals proved to be due to wrong identification, the measures were added where they belonged and this disposed of quite a number of these residuals.

Where the difference between first & second measures is .5 or greater, spectra to be re-examined and when first measure is wrong, second measure to be adopted in taking mean & first measure & residuals to be provided for by a remark. Where second measure is wrong enter as a remark.

7744

All plates examined for III, that is; α Orionis type Stars.

Table made from results of same examination and compared with Draper catalogue of III type Stars.

7745

April 10, 1889 Large residuals in D.C. Tables to be made of large residuals where first & second measures are accordant and not due to wrong identifications. Where there are several on same plate and the majority either positive or negative, examine the constants used for reductions of these plates, if this does not account for the large residuals examine quality of plate & spectra thereon.

7746

S

K
1

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April 13 1889 (9707) All residuals in D.C of 6 or more are entered in Table in Book 27 p 50-80. A hand mark is made at end of each. If diff. of two means equaled 4, spectrum was examined to see which was right. Such means always in every result for elem at Ep 16h 27m.2 +80° 13' Ref 1884. Wrong reading rejected in all three cases, and residuals taken again.

Intent in Table any new residuals that fall under the 5. Group all residuals greater than 5 that fall in each field hand mark opens with field, record to Plate numbers, and exposures.

July 31, 1889 Examine each DM. Zone in D.C. and see that DM. numbers follow in regular order. Make notes where they do not and examine DM. Catalogue for identification and reduction to 1900. This examination is made to prevent stars being entered in wrong hour in D.C.

Make add. table to follow Table IV Vol XXVII Catalogue examined for ~~residuals of~~ two measures on same plate giving ~~resid~~ diff. of 7 or greater. Examined also for stars on two plates where diff. is 9, 10, or 11 in the latter case the resid of 5 only to be measured as all of 6 and greater have already been measured

A note on presence of Flint being questioned. Vol XXIV

Ref to Comparison with Dimer.

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Comparison with Vogel.

Catalogue examined for all H. D. Stars

Catalogue examined for DM stars 6.2 and 6.2..

Limits of spectra and value of K line checked by Comparison with original Record books

Remarks on add. lines on spectra grouped according to wavelength for individual Stars.

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Miscellaneous Remarks on Catalogue 6

	Magn	h	m					Dm. Magn	m
Dm +61° 676	6.5	3	59.1	+62	4	Assumed to be H.P. 673	3 58.0	+62 0	6.2 cmm 57.6?
Dm +11° 1169		6	17.8	+11	12	" " " "	1206	6 19.0	+11 16 cmm. cmm.
~~Dm -20 1555~~	~~7.5~~	~~6~~	~~39.7~~	~~-20~~	~~38~~	" " " "	1281	6 40.8	-20 49 cmm ~~7.8~~ 7.5
Dm -14° 2016	7.8	7	29.8	-14	17	" " " "	1435	7 31.1	-14 13 cmm. cmm.
Dm +20° 2171	7.2	8	32.1	+20	4	" " " "	1592	8 33.6	+19 58 cmm —
Dm +47° 1743	7.3	12	~~9.8~~ 8.0	+47	~~57~~ 55	" " " "	2075	12 9.3	+47 47 cmm —
Dm +6° 3788	8.7	18	20.8	+6	31	" " " "	3117	18 22.2	+6 30 cmm. cmm.

June 2nd 1888 * Dm. -10° ~~2998~~ 3000 ~~185~~ 10 1 37.9 -10 10.6 6.6 K } Same star?
(on remark Dec p. 162) Leslans N.A. 29 10 2 20 -10 30 6.6 W.B. 1318

	Epoch	Ra	Dec	Magn	Ra. 1900.	Dec.
Must 1318 = Dm. -10° 2998	1855	10 1 20	-10 25	8.0	10 3.5	-10 38
* " -10° 3000	"	10 1 38	-10 11	6.6	10 3.8	-10 24
Weisse -9h 1318	1825	9 59 ~~53~~ 52.75	-10 ~~15 53.7~~ 15 52.7	8	10 3.6	-10 38
		1 2247	9 30.8			
		10 1 21.22	-10 25 24.7			
A.G.C. 13810	1875	10 2 19	-10 30	6	10 3.5	-10 37
Leslans N.A. 29	"	10 2 20	-10 30	6.6	10 3.5	-10 37

* This star not found in N.A., A.G.C., or Weisse. a star of the 8th ~~magnitude~~ preceedes this by 18 seconds and is 14' south. This star is Weisse -9° 1318, 8 magn; A.G.C. 13810, 8 magn; And is given in the N.A Leslans 29 with a magnitude of 6.6

77 56

H.P. 1524 8 5.6 -12 34 4.6 } Not in A.G.C.
Puppis N.A. 263 8 5.4 -12 33 5.2

77 57

H.P. ~~1648~~ 1647 8 55.8 -0 1 5.6 } Not in A.G.C.
Hydra N.A. 92 8 55.6 +0 0 6.2

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7758 ✓ DM -21° 3080 10 22.8 − 21 18 7.2 B 1900 10 24.9 − 21 32
A.G.C. 14316 10 23.7 − 21 36 8 3/4 7/4 LC 20361 1900 10 24.9 − 21 28 } Is it same star

7759 ✓ ✓ H.P. 1021 = Nd var. Two stars in Nd. Orion 102 var, mags 103 5.8

7760 H.P. 2375 ~~1205~~ on Plate 1205 Red. to 1900 fm DM. Charts = 13h 56.6m +27° ✓3'
" " " 1184 " " " " B.A.C. 13 56.7 +27 52
" " " 1258 " " " " " " 13 56.7 +27 52.

7761 ✓ H.P. 1023. on plates 276, 309, 309, ✓ 345. H.P. 1023 is superposed on 1024. Measure of brightness is combined light of both.

7762 ✓ H.P. 847 On first measurement of plate 307, a star of the I. type which proves to be D.M. +9° 669 was measured instead of H.P. 847. which is III type. ∞. Therefore in taking mean first meas. of Br. have been rejected.

7763 DM -21° 3080 assumed to be A.G.C. 14313 ~~this~~ star being 4' north of the DM.

Red. to 1900.

7764 ✓ ✓ U.A. Corvus 19 12h 10.6m − 15° 6' 6.2 = 12h 11.9m −16° 4' 8'
16752 Corvus 12 9.6 − 15 6 6.2 = 12 10.9 −16 4 8'
DM -15° 3442 12 9.6 − 15 53 6.7 12 11.9 −16 4 8'
Assumed to be a mistake with A.G.C.

7765 ~~DM. +17° 731~~ On first reading of plate 289 DM +17° 661 was measured by mistake instead of DM +17° 731. First reading to be rejected.

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7766

Sept. 19th/88. Dm +45° 1024 On first reading of plate 298 H.P. 894 was measured by mistake instead of +Dm +45° 1024. First reading to be rejected.

7767

Sept. 21st/88. On making the second readings of stars which occurred only on one plate, for all stars having observed brightness 6.5 or brighter the identifications and reductions to 1900 were revised.

" " " Plate 907 F. 1h 14m 14s Matches a star on Dm. chart which is Dm +42° 91. 0h 23m.1 +42° 8' mags 9.0. Obs. br. 6.5 6.9 III Type

7768

Oct. 5/88. Plate 917. Dm. +25° 87 1900 0h 32m.5 +25° 34'. The spectrum of Dm. +25° 88 mags 9.0 is superposed on Dm +25° 87. meas. of br. combined light of both

7768a P908. Dm +23° 150 1900. 1h 43m +23° 16 The spectrum of Dm. +23° 181 mags 7.0 is superposed on Dm +23° 150. meas of br. combined light of both

7769 H.P. 3362 1900 1h 26m.7 +27° 45' 30 f.c. III obs. br. 5.3 The spectrum of ~~Dm +27°~~ H.P. 3363 is superposed on 3362 I β K. Means of brightness combined light of both

7770 Oct 31st/88 Dm +79° 202 6h 9m.2 +79° 4 7.0 III obs. br 6.5 6.8 The spectrum of dm +59° 953 is superposed on this star.

" " 7770a Dm +72° 248 8.4 II obs. br 6.6 The spectrum of Dm +72° 247 8.9 is superposed on this star.

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7771 ✓

Oct. 31 $\frac{d}{88}$ DM. +59° 582 7.0 Fds 6.6 The Spectrum of DM. +59° 581 8.7 is superposed on this star. Measure of brightness combined light of both.

7772 ✓

Dec. 31 / 88. DM +7° 167 ~~At~~ Pi 107 in R.A. has same R.A. and is 17' north Magn 6.9 No star on ~~DM Ch.~~ Plates or the DM. Chart. Star of Magn 8.2 following 167, 14.8 and 17.4' north.

7773 ✓

Dec. 31 / 88. DM. +73° 61 $1^h 9.1^m$ (1900) $+73° 28'$. R. DM. +73° 60 Precedes No 4s and 2' south Magn. 8.5 Spectra superposed on plate. Measure of brightness combined light of both.

7774 ✓

DM −7° 283, 284 Magns. 8.7 8.4 $1^h 38.3^m$ (1900) $-7° 35'$ R. The spectra of Nos and are superposed on plate. Measure of brightness combined light of both.

7775 ✓

$3^h 40.0^m$ (1900) $+24° 15'$

DM. +24° 553, 556. Magn. 7.0 7.0. R. Spectra of Nos. Superposed on Plate 953. Limit-E. B. 6.6. Combined light

7776 ✓

Jan. 30, 1889. DM −14° 1846 $7^h 16.3^m$ (1900) $-14° 11'$ Not in A.G.C.

7777 ✓

Jan. 30 89. DM. −14° 2016 $7^h 31.4^m$ (1900) $-14° 16'$. One of a group of stars. DM. position 6.6 south of that given in Gould's General Catalogue.

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1900

Jan. 31 ~~7775~~ 24h 89. H.P. 1614 8 44.3 ~~-3°.7~~ . Second measure of brightness on plate 1272 5.6

7779 H.P. DM+59° 2137 19 51.8 +59 27 5.8 Spectrum of DM.+79 628 6.3 superposed on the star. (Plate 1570) Measure of brightness combined light of both.

7780 DM+79° 628 19 27.8 +79 24 6.3 1900 See DM.+59° 2137

7781 DM+65° 115 0 52.2 +65 49. 1900 1st just reading of Plate 949 DM+65° 113 9.5 was measured by mistake for 115. Identification revised and spectrum remeasured Last measure (5.8) adopted in taking mean.

7782 H.P. 776 4 22.9 +15 39. 1900 Spectrum of H.P. 775 3.9 Superposed on H.P. 776 (Plate 289).

7783 W.d. Pulspis 263 8 6.6 -12 37 5.2 Not in A.G.C.

7784 Feb. 9th 1889. H.P. Nos. 805, 765, 737, 776, 783, 797. Measures of brightness on plate 191 Rejected, Width of images 5.5 ~~mm~~. Light spread so that all their measures occasioned large residuals when included in the mean of measures taken from other plates. 1st 2nd 765 ~~7.0 6.9~~, 783 1st 7.0 2nd 6.9 776 1st 5.5 2nd 5.5 805 1st 6.6 2nd 6.8 797 1st 5.2 2nd 5.2, 737 1st 6.3 2nd 6.6, 1st 6.5 2nd 6.7

~~7785~~

7786 H.P. 785 Spectrum of DM+42° 989 Magn 7.0 superposed. P. 289. Meas. of Br 6.5 combined light.

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Feb. 23 | 7787 | Dm. -8° 38 | Argentine General Catalogue Magn. 7

7788 | Dm -14° 29 | Argentine General Catalogue Magn. 7

7789 | Dm. -14° 35 | a. G. C. Magn. 8

~~7790 Dm -8° 38 a. G. C. Magn. 7~~

7791 | Dm -20° 55 | a. G. C. Magn. var.

7792 | Dm -17° 61 | a. G. C. Magn. 8

7793 | Dm. -1° 52 | a. G. C. Magn 8

7794 | Dm +55° 139 Dm. Magn. Var.

7795 | Dm -18° 115 Dm. Magn. 2

7796 | Dm -0° 109 | a. G. C. Magn. 8

7797 | Dm -3° 113 | a. G. C. Magn. 7

7798 | Dm -19° 147 | a. G. C. Magn. 7

~~7799 Dm -20° 174 a. G. C. ?~~

~~7800 Dm -16° 265 W. A. Magn 5.6~~

~~7801 Dm -0° 307 W. A. Magn 5.4~~

~~7802 Dm. -16° 356 W. A. Magn 5.9~~

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7803 Feb. 23, 89. DM. +6° 174,475 Two components measured separately in DM. Magn 5.2 & 7.7 Spectrum superposed. Combined light measured in N.A. H.P. & in this Catalogue.

7804 DM. 0 445 +27 10 Spectrum superposed. Combined light measured in DM. H.P & in this Catalogue

7805 DM +20° 156, 7, two Components measured separately in Dm. Magn 5.0 & 6.0. Spectrum superposed. Combined light measured in H.P. & in this Catalogue

~~7806~~ 7 DM +18° 243 Spectrum superposed. Combined light measured in N.A. & H.P. and in this Catalogue

7807 DM. +2° 317 Spectrum superposed. Combined light measured in DM. No. H.P. & in this Catalogue

7808 DM +41° 395 Spectrum superposed Combined light measured in DM. H.P. & in this Catalogue.

7809 DM. ♯ -1° 293 A.G.C. Magn 7

~~7810 DM -10° 437 N.A. Magn 6.7~~

~~7811 DM +2° 375 N.A. Magn. 6.0~~

~~7812 DM -10° 447 N.A. Magn 6.0~~

Through p. 65. Cat. C.

7813 H.P. 1225 (Pl. 166 Spectrum of H.P. 1261 superposed meas. of brightness Combined light 5.6

7814 H.P. 1261 See H.P. 1225.

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7815

Mch. 10/88 H.P. 2967, 2968. Magn. of two components in D.A.
6.4 6.4

7816

Mch. 18/88. H.P. 2884 Two components in D. G. 6. 23419 23420 Magns 6 7

7817

~~Mch. 21/88. H.P. 3519 D.M. +26 3826 6.5 Superposed on Plate 1403.~~

~~7818~~

~~Error in DM.~~ DM+14 1152 (1855) 5 59.3 +14° 47' 4.0 K = Weisse 1516 (1900) 6 ~~1.9~~ + 14 47

~~K 1516 5 57 34.88 +14 47 6 .. 6 1.9 + 14 47 (5 58.7) 1855~~

~~Weisse 1516~~ 5 57 34.88 +14 47 6 Prec. 3.423 x 30 = 42.69 6 1.9 + 14 47

B.A.C. 1958 5 59.0 + 17.57 14 46 57" 4½ .. 6 1.9 + 14 47

Bradley ..

Piazzi ..

Taylor ..

U.A. .. 6 1.8 + 14 47

Star on plate agrees with ~~DM.~~ B.A.C. position and ~~DM.~~ B.A.C. red. adopted.

7819

DM. +24 3640 (1855) 19 0.6 +24° 2' 57" (1900) 19 2.5 + 24 6

K 1902 (1825) 18 59.3 + 23 59 6.7 .. 19 2.4 + 24 6 (19 0.5) 1855

H.P. ..

Error in B.A.C. B.A.C. 6542 (1850) 18 59.8 +24 1 37 6½ .. 19 1.9 + 24 6

~~L.H. 3581~~ 9,20 (1800) 18 58 18 66 n.P.D. 2 57 .. 19 2.4 + 24 6

Star on plate agrees with DM. position and DM. red. adopted

7820

1900

DM +15° (1855) 14 39.3 +15 45 55 L. 14 41.4 + 15 33

Ll. (1800) 14 37.6 74 1 n.P.D. 14 41.4 74 27

Dmér 14 41.0 + 15 33

7821

D.M. + 59° 466. . Magn. of two components in DM. 6.7 + 6.7.

7822 DM + 59 467 Sec + 59 466

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7823 DM.+24°376. DM+24 375 preceding 2.6 north 0.2 magn 7.5 Spectrum superposed combined ~~light measured in this catalogue~~

7824 DM.+27° 513, 514 Two Components measured separately in Dm. Magn. 8.0 & 8.0 Spectra superposed & combined light measured in this catalogue

7825 DM+44° 707, 709 Two Components measured separately in Dm. Magns 8.0 8.0 Spectra superposed & combined light ~~measu~~ in this catalogue.

7826 DM.+23° 534, 536 Two Components measured separately in Dm. Magn 8.0 8.0 Spectra superposed & combined light measured in this catalogue

7827 DM.+42° 896, 897 Two Components measured separately in Dm. Magn. 6.7 6.5. Spectra superposed & Combined light measured in this Catalogue

Dec. 2416 7828 DM+5° ~~618~~ 614° superposed on 2417 ~~DM.+5° 613 preceding 3.0 north in magn 8.5~~ ~~Spectra superposed Combined light measu~~ ~~Two components measured separately~~ Magn of two components in Dm. Magn 8.5 and 7.5 Magn of two components in H.A. 6.5 & 7.2

7829 DM.+55° 868, 869. Two components measured separately in Dm. Magn. 8.0 & 8.0 Spectra superposed & combined light measured in this catalogue

7830 DM+62° 722, 723. Two components measured separately in Dm Magns 8.5 & 8.5 Spectra superposed & combined light measured in this catalogue.

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7831 DM. +82° 137, 138. Two components measured separately in Dun. Magns. 9.4 & 9.2. Spectra superposed & combined light measured in this Catalogue.

7832 DM +58° 804, 805. Two components measured separately in Dun. magns 6.0 & 6.5 Spectra superposed & combined light measured in this catalogue.

7833 DM. -18° 1055, 1056. Two components measured separately in Dun. Magns. 7.3 & 7.0 in B.A.C. 6.3 & 7. Combined light in N.A. 6.1 Spectra superposed & combined light measured in this Catalogue

7834 DM + 31° 984, 985 Two components measured separately in Dun. Magns. 6.6 & 6.4. Light of two components in N.A. 6.4 & 5.9 Spectra superposed & combined light measured in this catalogue

7835 DM. +39° 1322 DM, +39° 1321 preceding 5.8, 0.0 Magn 7.7 Spectra superposed & combined light measured in this Catalogue

7836 DM. +29° 953, 954 Two components measured separately in Dun. Magns 7.0 & 7.5. Spectra superposed & combined light measured in this catalogue. ~~Light of two components in N.A. 6.9~~

7837 DM. +13° 1199 DM. +13° 1200 following 2.3 north 1.3 magn 8.5 Spectra superposed.

~~7838~~ DM. -6° 1574, 1575. Two components measured separately in DM. magns. 5.5 & 5.5 Magn in Argentine General Catalogue 4/4. Spectra superposed & combined light measured in N.A. 6.5 in this Catalogue

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7839 Dm.+11°1204 Dm.+11°1205 following 0.1 north 0.6 magn. 9.2

7840 Dm-20 1849,1845 Two components measured separately in Dm. magns 7.8 & 7.6 In A.G.C. 7½ & 8¼ cmm. in H.P. cmm. Spectra superposed & combined light measured in this catalogue.

7841 Dm +8 1499,1500 Two components measured separately in Dm. magns 8.9 & 9.0 Spectra superposed & combined light measured in this Catalogue

7842 Dm+37° 1628,1629 Two components measured separately in Dm. Magns 7.8 & 7.7. Spectra superposed & combined light measured in this catalogue

7843 Dm.+73°375. Dm +73°376 following 7°, 0.0 magn. 7.8 Spectra superposed

7844 Dm-14° 2020,2021 Two components measured separately in Dm. magns 8.0 & 8.0 In A.G. 7.0 & 7.3. Spectra superposed & combined light measured in this catalogue

7845 ~~Dm~~ A.G.C. 9900, 9902 Two components measured separately in A.G.C. magns 6.9 & 7.2 Spectra superposed & combined light measured in this catalogue.

7846 Dm -14° 2193,2194 Two components measured separately in Dm. Magns 7.0 & 7.0 ~~A.G.C.~~ 23. Spectra superposed & combined light measured in this catalogue

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7847 Dm. +42° 1859 Dm. +42° 1860 following 1.1 s n 0.0 magn 8.6

7848 Dm. +20° 2188, 2189 Two components measured separately in Dm. Magns 7.0 & 7.3 Spectra superposed & combined light measured in this catalogue

7849 Dm +62° 1054, 1055 Two components measured separately in Dm Magns 7.6 & 7.6 Spectra superposed & combined light measured in this catalogue

7850 Dm. +24° 2209 Dm. +24° 2207 preceding 7.1 s n 6.0 magn 7.0 spectra superposed?

7851 Dm. -14 3186, 3188, 3189 Measured separately in Dm. Magns 7.0 7.5+7.n ~~6.2 & 6.0~~ in A.G.C. 7 3/4, 6.7, & 7 1/4. Spectra superposed & combined light measured in this catalogue.

7852 Dm. +03° 1439, 1440 Two components measured separately in Dm. Magns 6.2 & 6.0 In N.P. 6.6 & 6.8 Spectra superposed & combined light measured in this catalogue.

7853 Dm. -16° 3258, 3259 Two components measured separately in Dm. Magns 8.8 & 8.8 Spectra superposed & combined light measured in this catalogue

7854 Dm +82° 337, 338 Two components measured separately in Dm. Magns 9.0 & 9.0 Spectra superposed & combined light measured in this catalogue.

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7855 DM.+47 1913,1914 Two components measured separately in Dr. mags. 7.3 & 7.5 Spectra superposed & combined light measured in this catalogue. Also measured separately on Plate 1078 obs. 1. 5.9 & 6.2

7856 DM.+56° 1868,1869 Two components measured separately in D.M. Mags 8.0 & 8.0 Spectra superposed & combined light measured in this catalogue.

7857 DM.+80° 380,381 Two components measured separately in DM. Mags 8.4 & 8.3. Spectra superposed & combined light measured in this catalogue

7858 DM.+84° 289,290 Two components measured separately in DM. Mags 6.8 & 8.8 Spectra superposed & combined light measured in this catalogue

7859 DM-17° ~~3724~~ 3725,3726 Two components measured separately in DM. mags DM. A.G.C. 7¾ & 7¼. Spectra superposed & combined light measured in this catalogue

7860 DM+68° 935,936 Two components measured separately in DM. Mags 6.7 & 6.7 Spectra superposed & combined light measured in this catalogue.

7861 DM+21° 2579,2580 Two components measured separately in D.M. Mags 7.5 & 7.4 Spectra superposed & combined light measured in this catalogue

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7862 DM. +57° 1498, 1499 ~~Mea~~ Two Components measured separately in DM. Magn. 6.5 & 6.5, In W.P. 6.5 —. Spectra superposed & combined light measured in this catalogue

7863 DM. +54° 1724, 1725 Two components measured separately in Dm. magns. 7.5 & 7.5 Spectra superposed & combined light measured in this catalogue.

7864 DM. +64° 1052, 1053 Two components measured separately in Dm. Magns 7.5 7.5 Spectra superposed & combined light measured in this Catalogue.

7865 DM -19° 4307, 4308 Two Components measured separately in Dm. Magns 2 & 8.0, In A.G.C. 2½, 7½. Spectra superposed & combined light measured in this Catalogue & in W.P.

7866 DM +17° 2964, 2965 Two Components measured separately in Dm. Magns 5.5, 7.0. In W.P. 4.8 4.8. Spectra superposed & combined light measured in this catalogue

7867 A.G.C. 22250, 1 Two components measured separately in A.G.C. Magn. 5½, 5¾. Spectra superposed & combined light measured in this Catalogue.

7868 DM +53° 1875, 1876 Two components Measured separately in Dm. Magns 5.3, 5.0. In W.P. 5.6, 5.2. Spectra superposed & combined light measured in this Catalogue

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7869 DM. +4° 3234, 3235 Two components measured separately in Dm.
Magns 7.5 6.1. In N.A. 7.5 6.0. In H.P. 6.6 5.7
Spectra superposed & combined light measured
in this Catalogue.

7870 DM +54° 1869 Dm. +54° 1868 preceding 9.0 n 0.0 magn 8.9

7871 ~~DM +55°~~ H.P. 2945, 2946 Superposed on plates 601, 609, 613 & 1393.
Mes. by. 6.6 5.7 6.7 4.8

7872 DM +35° 3953. Dm +35° 3955 following 2.4 north 0.5 magn 8.0

7873 H.P. 3756 = N.A. Capricornus 86 magn 4.4 not in
Argentina General catalogue. ~~N.A. no~~ Resid.
from N.A. magn. entered in ~~catalogue~~.

7874 H.P. 3984 Not in A.G.C. : N.A. Aquarius 157 Magn 6.2

7875 April 13. 1889. DM. +48° 2532 Dm. +48° 2533 following 1.8 north 0.5 magn. 9.3

7876 H.P. 2967.8 = ~~DM~~ Light of two components in DM. 6.5, 6.5.
In N.A. 6.4 6.4. Comb. lt. in N.A. 5.9

7877 H.P. 2985, 6

7878 DM +62° 1586 DM +62 1587 following 4 ~~north 1~~ magn 7.2
Spectra superposed & combined light measured
in this Catalogue

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7879 DM. +12° 3382, 3383 magn 7.6 7.5. Spectra of Nos superposed on plate. Measure of Br. combined light of both. Light of two components in Dm 7.6 7.5

~~7880 DM +56° 2061~~ DM +56° 2060 preceding 1s north 2.1 magn 8.0 Entered in Catalogue

7881 DM + 49° 2729, 2728 Magn 7.7, 7.3 Spectra of Nos. superposed on plate. Measure of Br. combined light of both. Light of two components in Dm. 7.7 7.3

7882 DM. +14° 3427 Dm +14° 3428 following 1.3s south 2' magn 8.9

7883 HP. 3071, 2. Spectra of Nos superposed on plate & combined light measured in this Catalogue Light of two components in Dm. 6.5, 6.5.

7884 DM. +46° 2490 Dm. +46 2489 preceding 1.9s south 0.4 Magn 9.3

~~7885 DM. +4° 3758 DM +4° 3759 following 0.5s south 1.1 Magn 8.5~~

7886 DM +22° 3418 DM +22 3417 preceding 2.6s north 0.3 Magn 9.5

7887 DM. +30° 3262 Dm +30° 3261 preceding 5.8s south 0.8 Magn 9.5

7888 DM. +33° 3190, 3191 Spectra of Nos. Superposed on plate & combined light measured in this Catalogue. Light of two components in DM. 8.0 8.6

7889 HP. 3167, 8, 9, 70

Remarks continued on Page 146

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List of good plates of special Regions.

Region Plate Nos.

Pole. 6, 1945, 2304, 2426, (231)

Neb. in Orion. 2312, 2325, 2335, 2423

Pleiades 1033, 2311, 2343,

IV Type Spectra.

Draper III b 53 = Plate 3157 DM. +34° 4500 21h 35.9 +34° 51' 6.2 IV

" " " 55 = " 3071 H.P. 4198 23 40.2 +2 49 6.2 IV DM. +2° 4709 6.2

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A

List of Plates having wrong settings &c.

	Plate No.	Letter	RA.	Dec.		Plate No.	Letter	RA.	Dec.
Sept. 14th 1888	2242	M	5h 49m	+80°	ought to be	2292	I	11.3h	+30°
	1763	I	23.0	+15°	" " "	1463	I	17.0	+35°
	2715		20.0	+65°	Identifies at —	2715		20.0	+60
	1456	I	18.7	+15°	" " "				+10° No plate of this Region
	1610	I	0.0	+5°	" "				+0° No plate of this region
	1722	I	"	+ "	" "				+0°
	2120	I	"	+ "	" "				+0° No plate of this Region
	1631	I	0.40	+10°	" "				+15° No plate of this Region

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Examination of Boxes containing Plates of Series B July 1888.

No.	Missing Plates
	1890 May 21 (See ~~154~~) 25. ~~44~~ 122 ~~249~~ 249
231	—
~~479~~	
496	—
~~657~~	~~372 374 375~~
773	773
820	820
821	821
892	892 ~~1045~~
1047	1047
1241	—
1263	—
1370	—
1530	—
1531	—
1532	—
1533	—
1991	1991
2106	2106 ~~2312~~
2328	—
2329	—
2330	— 2341
2342	—
2495	2495 Found Oct 20 '90
2496	2496 " " "
2497	2497

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Missing Plates Continued.

No	1890 May 21	1890 May 21	1890 May 21
2498	2498	3256	~~4210~~
2499	2499	3257	~~4211~~
2543	—	3258	4547
2568	—	3297	4556
2580	—	3298	4562
2657	—	3299	4563
2660	—	3300	4564
1852	—	3304	4571
	3187	3360	4622
	3188	3426	4632
	3189	3455	4669
	3191	3433	4718
	3193	3752	4719
	3213	~~4057~~	
	3214	~~4055~~	
	3215	~~4056~~	
	3216	4185	
	3217	4186	
	3218	4187	
	3219	4230	
	3220	4235	
	3221	4236	
	3250	4250	
	3252	4251	
	3254	4272	
	3255	4209	

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Remark May 21 '90

Broken Plates having a check mark, are in Boxes containing Broken Plates.

Broken Plates.

No.	1890 May 21
7	7
81	15 (cut up for Standards) 30 ✓ 81 ✓
84	84 ✓
122	–
126	126 ✓
149	149 ✓
171	171 ✓
~~200~~	~~200~~
327	327 ✓
	333 ✓
338	338
~~422~~	~~422~~ ✓ ~~[illegible]~~ 601 ✓
621	621 ✓, 642 (cut up) ~~[illegible]~~ 729 (cut up) 737 ✓
763	763 ✓
766	766 ✓
767	767 ✓
769	769 ✓ ~~[illegible]~~ 801 ✓ 802 ✓ 804 ✓
863	863 ✓ ~~[illegible]~~ 918 ✓ 929 ✓
1038	1038 ✓
795	795 ✓
500	500 ✓
598	598 ✓
599	599 ✓
900	900 ✓
699	699 ✓
794	794 ✓
1463	1091 ✓ 1210 ✓ 1450 ✓ 1463 ✓
1587	1587 ✓
1555	1555 ✓
	1685 ✓
208	208 ✓

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Broken Plates continued.

No.	1890 May 21	1890 May 21	1890 May 21
2185	2185 (cut up)	3700	4673
2201	2201	3713	4705
2206	2206	3714	4758
2235	2235	3740	
2243	2243 2268 2325	3775	
~~3149~~	2286 (Duplicate. Useless)	3809	
2374	2374	3853	
2445	2445	3980	
1523	1523	4057	
344	344	4093	
	2693	4108	
	2734	4145	
	2735	4160	
	2803	4163	
	3200	4173	
	3349	~~4185~~	
	3399	4195	
	3407	4201	
	3470	4202	
	3553	4203	
	3554	4204	
	3555	4232	
	3690	4255	
	3692	4283	
	3694	4438	
	3696	4534	
	3697	4608	
	3698	4637	
	3699		

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Plates Retained for Special Purpose.

List of Plates in Show Box, May 21, 1890

No.			
1041	(Returned 1890 May)	6	Harkness Mrs. H. H. P. nat. Labor.
1752	(In show box)	3321	2335
1760	(In show box)	3585	372
2300	(Returned)	1661	374
2303	(In show box)	3396	375
2310	(In show box)	3559	219
2569	(Returned to box)	657	249
2570	(Returned to box)	3637	1043
657	(Returned)	3601	2312
479	(Returned)	2437	2325 (broken)
422	(Broken)	I 817	
327	(Broken)	2303	
		3323	
		2304	
		3633	
		1670	
		1760	
		1752	

Miscellaneous Remarks on B. Lewis. May 23 1890

Two plates numbered 2286 (Duplicate)

" " " 199 (Duplicate. N Plate. Pleiades.)

Plate marked 287 does not cover region of that plate (Duplicate)

" " 2123 " " " " " " " "

" " 770 " " " " " " " "

There are 4 plates having no numbers.

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B Plates at Laboratory

15 Cut up for standards.

327 Broken

422 "

D 477 Probably B plate. ?? (On hf)

642 Cut up for standards.

729 "

~~1752 kept for special purpose~~

1752 in show box ✓

1760 " ✓

2185 Cut up for standards.

2201 Broken

2206 "

~~2222 Double exposures (I & I Plate)~~

2235 Broken

2243 "

2300 in show box ✓ (Returned to hf)

2303 " ✓

2310 " ✓ (Returned to hf)

2374 Broken

~~2378~~

2470 Broken

~~2569 Special examination.~~

~~1752 Special Examination~~
~~One plate possibly of the~~
~~B series.~~

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Record of I Series Plates, taken May 23, 1890

Missing	Broken	In Show Box	Miscellaneous Notes
~~55~~	160	817	26? not identified Duplicate
~~56~~	209		Two plates have no
~~57~~	489		numbers, are useless and
~~58~~	545		not identified
78	686		836 Duplicate. Not identi
151	864		
~~245~~	994		At Laboratory May 23. 1890
375			55
~~497~~			56
~~546~~			57
638			58
703			
785			
849			
991			
~~1016~~			
1018			
~~1035~~			
1037			
~~1087~~			
1089			

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List of Duplicates.

No.

287
770
2286
2123

Change of Nos. in California Plates.

Dec. 31 to Jan 1. 1889. 8 eclipse plates.
Jan. 28 " 4 plates to determine abs. of lb.
Jan. 14 " 1 Orion (dark plate).
" 15 " 1 "

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April 13 1889 H.P. 3172, 3. Spectra of Nos Superposed
7890 on plates & combined light measured in
this catalogue. Light of two Components in
Dm. 45, 55 ; In H.P. 43 59.

7891 Dm+18°3814 Dm.+18°3815 following 1.8 with 0.1 Magn. 92

7892 H.P. 3215, 6 Spectra of Nos superposed on
plates & combined light measured in this Catalogue. Light of two
components in Dm 40 43 ; in A.H.C.

7893 Dm+3°4043 Dm+3°4044 following 5.8 with 0.2 Magn. 95

7894 H.P. 3362, 3. Spectra of Nos. superposed on
plates & combined light measured in this
catalogue. Light of two components in Dm 63.0 65

7895 Dm. +36°3588, 9. Spectra of Nos. superposed on
plate & combined light measured in this Catalogue
& Light of two components in Dm. 79 80

7896 H.P. 3410, 11 Spectra of Nos superposed on
plates & combined light measured in this
Catalogue & in H.P. Light of two Components in Dm. 63 62

7897 Dm+35 3786, 7 Spectra of Nos superposed on
plates & combined light measured in this catalogue
Light of two Components in Dm 70 80

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7898
April 13, 1889 DM+34° 3701 DM+34° 3702 following 1.0 north 0.6 Magn 9.0

7899 DM+19 4195,6 Spectra of Nos. superposed on plate & combined light measured in this Catalogue. Light of two components in DM 7.2 7.5

7900 DM+40° 3948. DM+40 3949 following 6.8 north 0 Magn 9.1

7901 DM+36° 3816 DM+36° 3815 preceding 2.3 south 1.1 Magn 8.7

7902 DM+35° 3930. DM+35° 3929 preceding 1.8 north 0.2 Magn 9.4

7902 DM+38° 4051. DM+38 4050 preceding 4.5 south 0.1 Magn 8.9

7904 DM+41° 3987. DM+41° 3986 preceding 1.2 south 0.6 Magn 9.0

7905 HP. 37178 Spectra of Nos superposed on plates & combined light measured in this Catalogue & in HP. Light of two components in DM. 5.0 5.3

~~7906~~ ~~DM+21° 4486~~ ~~DM+21 4485 preceding 0.8 north 0.2 Magn. 7.8~~

7907 DM+40° 4611 DM+40° 4610 preceding 3.6 south 0.7 Magn. 9.3

7908 DM+82 673. 674. Spectra of Nos. superposed on plates & combined light measured in this Catalogue.
~~7909~~ Light of two components in DM. 7.8 8.0

7909 HP. 39701 Spectra of Nos superposed on plates & combined light measured in this Catalogue in DM & in HP. Light of two components in A.G.C. 4½ 4½.

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Remarks on D.C.

79 10 D.C. = Dunér 7

Examined on plate 986. Does not give banded spectrum of III Stars. Is same as d Cas. To faint on plate 975 to show any peculiarity

79 11 18 D.C. = Dunér 27.

Examined 954. Spectrum not particularly good. Definition poor. Bands ~~for~~ very faintly marked same on plates 939, 940

79 12 H.P. 2154 Light of two components in A.G.C. 6½ 6½

79 13 DM -1° 2395 5.0 = DM -2° 3155 6.0

June 3rd 1889

79 13a DM. +31° 1676 $_1^{1855}$ 7h 40.8 + 31 58 $_1^{7.0}$ K = Weisse 1200

Weisse 1200 $_1^{1825}$ 7h 39 52.76 + 32° 2' 45.8" 8 = 7h 41m 1855.8 47.63

Prec. 3.829 × 30 = 1m 54.87 Insert 41m in minute column of DM.

79 14 DM +21° 1602 $_1^{1855}$ 18 7.8 + 21 44 3 $_1^{5.8}$ K = Weisse 547.

Weisse 547 $_1^{1825}$ 17 20.50 + 21 47 40.2 6 Prec. 3.75 × 30 = 1m 47.25

1 47.25

(1855) 7h 19m 07.75 Correct DM. Catalogue.

79 15 DM -10° 2998 ~~Magn 8.0~~ = Weisse 1318 magn. 8. ~~DM~~ N.A. Leyden 29 6.6

~~N.A.~~ A.G.C. 13810 Magn 8. DM -10° 3000 10h 1m 20 -10° 25' 6.6K

Not in Weisse, N.A. or A.G.C. Probably the Magns & catalogue reference for these stars have been interchanged in the DM.

79 15 DM -10° 4237 Light of two components in a.G.C. 4¾ & 7¾.

Combined in N.A Magn 4.6

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Examine 23 Lyrae for D.C. 10261. and see if 835 has been added.

Wrong Ident. Added to another star.

626 794
1193 4311
1623 6936
1821 7073
251 7174
313 8117
771 8290
914 8296
10427
1236 10392
4897 9052
5561 9086
9379
9660
9767
10079

3622

Wrong Ident. Position changed in Cat.

836 = 934a ✓
1494 = 1319a ✓
3302 = 3312a ✓
8594 = 8591a ✓
9117 = 9098a ✓
10086 = 10124a ✓

Double Stars

1553
2783
1596
1642
845
1110
2744
2772
3442
3964
4497
4283
4303
5964
6048
6440
6650

9729

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Remarks on DC.

See page 96.

7925 +32° 1027 5 23 48.4 +32 11.3 9.5 in Cat. 7.5 on chart. Chart is correct

7926 +57° 1498 14 11.3 +57 21.7 6.5 } Tr. Dec. Plate 2686
+57° 1499 14 11.4 +57 21.6 6.8 } Verified on I+2026
Star 1499 following 1498 is north on chart plate.

7927 +52° 92 Magn in DM 6.2 on Chart 9.0. Error in Chart

~~7928 DM +79° 591~~ ~~18 37 43 +79 42 7.8~~ Should be
18 36 7 +79 23 27" Already corrected from
~~first~~ Piratta in DM = d 31.1 B ~~which shall be adopted~~

~~8288~~ added to DC. 8277

7929 DM +82° 395 Spectrum of DM +72° 600 7.0 superposed on plate 1256.

7930 DM +67 790 Spectrum of DM +77° 506 Magn 7.6 superposed on plate 1245

7931 DM. -0° 2601 Light of two components in ~~the~~ N.A.G.C. 5½ & 5¼. Combined in Na. Magn. 3.1

7932 H.P. 2884 Double in A.G.C. Light of two components 6 and 7. Combined in N.A. Optic. 112, 113 Magn. 5.5

7934 ~~DM -18° 1055, 6~~ DM -19° 262 = A.G.C. 1454. K.A.G.C. 1456 follows 5.01 south 36.9 Magn. 7½

7935 H.P. 1710 = DM +23° 2107 (1855) 9 23 26.2 +23° 53.6" 4.1 = Weisse 490
Weisse 490 (1825) 9 21 43.00 +23 44 29 5 = 9h 23m 26.38 +23° 36.2' (1855)
43.38 23.8
Corrected in DM Cat. OK

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7936 Dm+12 2284 10 54 (1900) 5 +12 14 = N.A. St. 329 4 12° 12'.4 but is undoubtedly the same star as there is no other star near it on plates or on Dm. charts. Should be 12° 22'.4 in N.A. Dm. Position verified from Plate 2357 I.

7937 D.C. 1182 = Dm 79° 63 6.7 Spectrum of D.C. 1173 = Dm+78° 71 7.3 Superposed. Combined light measured.

7938 Dm +21 642,3 Spectra superposed on plate 289. Obs br. H.

7939 Dm+27° 725 Originally entered in Dm. Catalogue Magn. 5.9. Correction from Vol. VI Magn. 9.5. ~~This star is H.P. 893. Magn 6.3~~ On Dm. Chart magn. 6.5 Examined on I plate 1822. Magn. about 6.5 Probably the type of 6 inverted in printing errata. Assumed to be Magn 6.5 and so entered in D.C.

7940 Dm - 5° 1315, 19 Combined light measured on Plates 276, 309, 309, 345. ~~Plates~~. Magn 5.09 ± 4.3

7941 H.P. 10405,6. Light of two components in ~~D.M.~~ Dm. Magn 2, in D.G.C. Magn 1.8 and in H.P. Magn 9

7942 Dm+84 216. Dm. +84 217 follows 47 s south 1.5 Magn. 8.7 ~~Spectra superposed & combined light measured~~

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7943 DM +84 213 and 216 Magns. 8.3 and 8.7 Spectra Superposed. Combined. Has Difficult to determine spectrum. Observed B brightness 6.9 6.9 Corrected brightness 6.5 6.5 Magn. 7.96 Rapid .00.

7944 = N.d. Ophiuchus 112, 113 Combined magn. 5.5. H.G.C. 23419, 23420 Magns. 6 and 7.

7945 DM +34° 3437 DM. +34° 3436 preceding 2.1 s 1' south Magn 8.5

7946 DM. -12° 5683 DM. -12° 5682 preceding 1.1 s 0.5' Magn. 9.1

7947 DM -20° 6251 DM -20° 6253 following 3.5 s north 0.9' Magn. 9.4

7948 DM +59° 2631 DM +59° 2630 preceding 5.6 s north 0' Magn. 9.2

H.P. 1678 Under column DM. Magn. 5.6. Should be 6.5

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List of Remarks in D.C.
to be examined by Professor Pickering.

Oct. 7th 1889.

D.C. No.

0h to 3h

189 v
276 = 189 v
374a v
381 v I = ~~inspection~~ examination
486 v
558a 374a v
~~570~~
589 v
624 = 189 v
~~669~~
686(681). v ~~to be~~ examine mags. and reject measures on Plates 196 and 843 ~~proposed~~.
843 v
~~1041~~
1158 v
1172 } v Look up remarks.
1183 }
1400a = 374a v
~~1477~~
~~1504~~
1552 v Cum.
1629a = 374a v
1696 v

3h and 5h

1822 v
2137 v
2191 v
2165 v
2210a v
2376 v

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List of Remarks in D.C. to be examined by Professor Pickering.

	D.C. No.	
*	2445 v	2506, 2529, 2546, 2585, 2608. See that other stars in same eff zone Plate 191 have remark.
	2498, 9 v	
	2896[a] v	
	2991, 2 v	
	3020, 1 v	
	~~3028~~	No remark. = A.G.C. 6199.
	3159 v	Should have been entered ~~as~~ Catalogue as Companion to D.C. 3157.
	3306 v	
	3361 v	
6[h] to 9[h]	*3535 v	
	*3630 v	
	*3646 v	
	3715 v	
	~~3724~~	No remark.
	~~3802~~	" "
	*3920, 1 v	
	3939 v	
	*4138 v	
	4198 v	
	*4248 v	
	4272 v	
	4315 v	
	4352 v	
	4350 v	
	4502 v	
	~~4717~~	Ask Professor Pickering. v
9[h] to 12[h]	~~4872~~	
	5061 v	

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1886phae.proj..834F

(Continued.)

List of Remarks in D.C. to be examined by Professor Pickering.

D.C. No.	
5108	✓
~~*5270~~	No remark.
~~*5378~~	No remark.
5400	✓
*5402	✓
5492	✓
5555	✓
*5811	✓
5938	✓
4h 2529	✓
2744	✓
2808	✓
2826	✓
2833	✓
~~15½ to 18½~~ ~~12 to 15~~ 7355	✓
7356,7	✓
7633	✓
12h to 15h 6054	✓
6056	✓
6069	✓
~~6102~~	No remark.
6138	Have Professor Pickering examine. ✓
6143	✓
6199	✓
6492	✓
~~6495~~	No remark
6520	Ask Professor Pickering.
6566	✓
6665	✓
6787	✓ Measured on 6 plates; [illegible] only given in remark.

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1886phae.proj...834F

D.C. No.

6811 ✓
7903 ✓
8168 ✓
15 to 18 8280 ✓
8354 ✓
8461 ✓
8565 ✓ See Book 8 p. 137
8771 ✓
8778 & 8947 ✓
8784 ✓
8923 ✓
8926 ✓
8952
9205 ✓
9227 ✓
9344 ✓
9383 ✓
9485 ✓
~~9531~~
9619 ✓
9628 ✓
9661 ✓
9824 ✓
10154 ✓
10171 ✓
10434 ✓

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1886phae.proj..834F

Errata in D.C. found on examination of Catalogue Residuals of 20 and greater.

D.C. No.

782 N.G.C. 1341 Magn 9½ Should be 1342 Magn 6½.

1154 N.A. Resid ⅔, Should be 3

626 The spectrum measured on Plate 1019 was supposed to be that of DM +56° 211. On reexamination the star was found to be DM. +56° 438 and the measures have accordingly been added to the latter star which equals D.C. 1218.

1193 The spectrum measured on Plate 1019 was supposed to be that of DM. +58° 384. On reexamination the star was found to be DM +78° 71 and the measures have accordingly been added to the latter star which equals D.C. 1173.

1263 DM. resid 12. Should be 13.

the latter star which equals

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~~798~~ 800.

798

the latter star which equals

H. P. 2025

No. Obs. is given as 14

There are seven Neil. on p. 183 Vol. XIV & five on p. 283 = 12 Obs.

Compared with original Mss.

(p. 283 Vol. XIV.) original Mss. gives Lewis Nos. (following 447 p. 183) as 450, 453, 454, 456, 649, 650 & 651.

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1886phae.proj..834F

u 41.0 — A Plates. 7 Plan Lens

d 43 4 — K Plates.

u 45 0 ± — Distinct Light = Shadows.

d 47.3 ± — Began Jan 12. Sid. Mondays

u 49.0 ± — Plants Veb.

d 51.0 ± — I Plate 75°

u 53.1 — Began Mt. Wilson.

Letters of Mr Bailey & Mrs Fleming

u 57.2

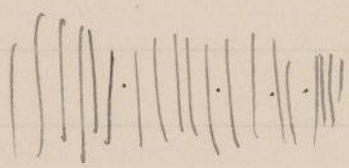
d 63.2

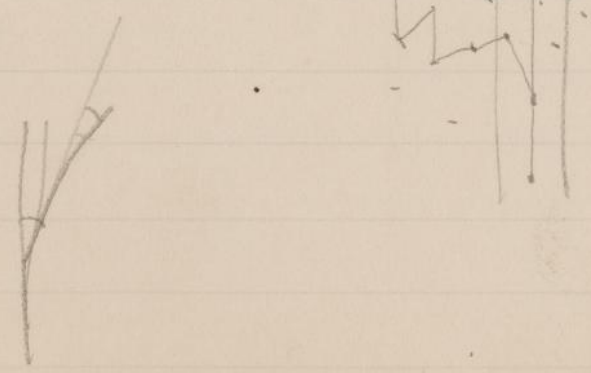
u 65.2

12 | 24.2

2.02

4.04





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1886phae.proj...834F

~~798~~ 800.

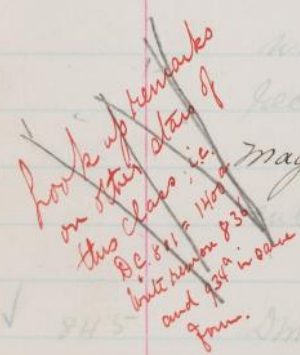
798

the latter star which equals

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1886phae.proj..834F

819 Dm. residual .15. Ident. correct



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1676 Dm. resid 18. Ident. correct

1745 Dm. resid 18. Ident. correct.

1756 Dm. resid 16 Ident. correct

1847 Dm resid 17. Ident correct

1890 Dm resid 15. Ident correct

1913 Dm resid 18 Ident. correct.

2118 Dm. resid 18 Ident correct

912 Dm resid 18 Ident correct

1911 Dm resid 18 The spectrum measured on Pg 6 173 was supposed to be that of Dm +66° 1172. On measuring the star was found to be Dm +66° 1172 and the measures thereon highly considered & the latter star which equals D.C. 1895 Dm measured on 911 on Mayr. Beyond limits for meas.

911 Dm resid 18 Ident correct.

909 Dm resid 18 Ident correct

912 Dm resid 18 Ident correct.

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1886phae.proj..834F

which equals D.C. 1208.

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1886phae.proj...834F

D.C.

1371 Dm. read. 6. Ident. correct.

1375 Dm. read. 15. Ident. correct.

1376 Dm. read 16. Ident. correct.

1389 Dm. read 15. Ident. corect.

1400 Dm read 15. Ident. corect.

1431 Dm. read 17. Ident. corect.

1444 Dm read 17. Ident. corect.

1459 Dm. read 17. Ident. corect.

✓ 1499 Dm read 18 The spectrum measured on Plate 1019 was supposed to be Dm+32°60. On subsequent ex. it proved to be Dm+32°61 Magn. 6. Position shall be Rd 2h43 Dec. Pole +32°21' Photom. Magn. 6.73 Read p.m. Entered in Table 2 Vol V. (See No 836)

2305 Dm. read. 16. Ident. corect.

2329 Dm read 15. Ident. corect.

1512 Dm read 17. Ident. corect.

✓ 1596 Dm read 15 OK Dm+35°48 Mag 8.5 Precedes 15 south f and should be entered in DO as complement to 1596

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1886phae.proj..834F

D.C.

1641 Dm. read. 17 O.K.

1642 Dm. read. 16 O.K. Dm. 75° 14 Mags. go follow 17° north is
should be entered in D.C. as companion
to D.C. 1602

2358 Dm. read. 2 Ident. correct.

2366 Dm. read. 15 Ident. correct.

2496 Dm. read. 18 Ident. correct.

2594 Dm. read. 18 Ident. correct.

2564 Dm. read. 15 O.K.

2601 Dm. read. 17 O.K.

2595 [illegible] read. 18 Not read. 17.

2744 Dm. read. 17 Ident. correct. Dm. 24° 17' north is (Comp. 89 precedes)
and should be entered in D.C. as compan-
ion to D.C. 2744

2772 Dm. read. 15 Ident. correct. Dm. 14° 19m Mags. go follow
13° north it.

2779 Dm. read. 16 O.K.

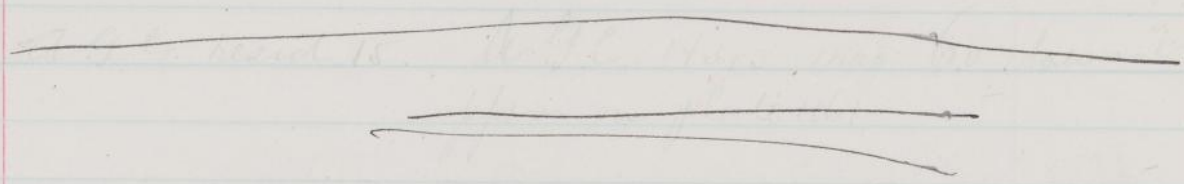
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1886phae.proj..834F

15.

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1886phae.proj..834F



the latter star

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1886phae..proj..834F

[illegible] Dec +52° 15'. Dr Peters gives the star was found to be Dec. +62° 1/2 and the measures have already been added to that star which equals D.C. 179

[illegible] The spectrum on Plate 67 was supposed to be Dec +67° 30. Dr Peters gives the star was found to be Dec. +76° 1/2 and the measures have already been added to that star which equals D.C. 179

2810 Dec. read. 15 O.K.

2811 Dec. read. 18 O.K.

2815 Dec. read. 16 O.K.

2867 Dec. read. 12 O.K.

2884 Dec. read. 15 O.K.

2905 Dec. read. 18 O.K.

2921 Dec. read. 15 O.K.

2923 Dec. read. 15 O.K.

2927 Dec. read. 15 O.K.

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1886phae.proj..834F

Peculiar Spectra.

Plate No.	r	H.	No. H.P.			
932	12.2	8.4	370	2	13.3 – 3 31	var.

3173 O.K.

3190 DM. read 17

1886phae.proj...834F

Dec 22.

3221 Dm. reed 17 O.K.

3223 Dm reed 15 O.K.

3226 Dm reed 15 O.K.

3239 Dm reed 12 O.K.

3269 Dm. reed 16 O.K.

3254 Dm. reed 17 O.K.

3275 Dm. reed 12 O.K.

3279 Dm reed 18 The position on Plate 27 was supposed to be that of Dm. 32° 1083. On replacing the star was found to be that of Dm. 15° 1403 and the measures have accordingly been added to that star which equals O.C.+0.16

3296 Dm reed 17 O.K.

3304 Dm reed 16 O.K.

3308 Dm. reed 12 O.K.

3325 Dm reed 15 O.K.

3353 Dm. reed 16 O.K.

3411 Dm. reed 16 O.K.

3421 Dm reed 17 O.K.

3402 Dm. reed 16 O.K. Dm -16° 1342 Bruno's proper motion

3491 Dm reed 18 O.K.

3489 Dm. reed 15 O.K.

3496 Dm reed 16 O.K.

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1886phae.proj..834F

DC

3531 Dm. read. 17 OK

3562 A.G. read 22 Dm. " OK

3585 Dm. read 20 OK

3600 Dm. read. 17 O.K.

3622 Dm read 17 The spectrum measured on Plate 1035 was supposed to be that of Dm +58° 924. On inquiry the star was found to be Dm +58° 923 and the measures have accordingly been added to that star which equals 3618.

3644 Dm. read 18 OK

3646 Dm. read. 16 OK

3658 Dm read 16 OK

3680 Dm. read. 15 OK

3690 Dm. read 16 OK

3720 Dm. read 15 OK

3722 Dm. read 5

3724 Dm read 5

3713 A.G. read 30 The spectrum measured on Plate 311 was supposed to be that of H.P. 1240. On inquiry the star was found to be H.P. 1238 and the measures have accordingly been added to that star which equals D.C. 4696

3747 Dm. read 15 OK

3794 Dm read 11 OK

3799 Dm read 15 OK

18

3802 Dm read 21 The spectrum measured on Plate 311 was supposed to be that of Dm 20° 1549. On inquiry the star was found to be Dm 20° 1547 and the measures have been entered in the order of R.A. Table II 3812 Write 3 next to 3812

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1886phae.proj..834F

J.C.

3803 Dm read. 20 The spectra measured on Plate
3[illegible] were found to be Dm -20° 1[illegible]
[illegible] pectra of the stars are found to be
Dm -20° 1[illegible] and the measures have accordingly
been added to that star which equals D[illegible]

3901 Dm read. 15 OK
3901 Dm read. 15 OK
39-3 A.G.C. read 16 OK
3937 Dm. read. 16 OK
3940 Dm. read 15 OK.
3943 Dm read 15

OK Dm -12° 1396 spectra 3-4 with
0.2 Magn.

3965 Dm read 15 OK
3974 Dm read 15 OK
3982 Dm read 16 OK
3985 Dm read 17 OK
3991 Dm read 16 OK
3994 Dm read 16 OK
4023 Dm read 16 OK
4028 A.G.C. read 17 OK
4036 Dm read 15 OK
4039 A.G.C. read 17 OK
4067 Dm read 15 OK
4076 Dm read 14 OK
4104 Dm read 14 OK
4143 Dm read 14 OK
4150 Dm read 17 OK
4185 Dm read 16 OK

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1886phae.proj..834F

No.
D.C.

4197 Dm read. 20. O.K. Dm -0° 1722 follows 38 south of Magn. 9.3

4231 Dm. read 21 O.K.

4244 Dm. read 20 O.K.

4272 Dm read. 17 O.K.

4272 Dm read 23 Should be Dm -1° 1919 read 14.

4283 Dm read 17 A.G.C. read 18. The Spectrum of A.G.C. 9825 Magn 7.2 is superposed. The Spectrum measured on Plate 343 was supposed to be that of Dm +63° 1950 [illegible] On Examination the star was found to be Dm +63° 1933 and the measures have accordingly been added to D.C. 4316

4290 Dm read 20 O.K.

4302 Dm read 24 O.K.

4311 A.G.C. read 19 The Spectrum measured on Plate 342 was supposed to be that of A.G.C. 9999. On Examination it was found to be Dm -7° 2118 and the latter measures have accordingly been added to that star which equals D.C. 4303

4303 D.C. Dm -7° 2116 and 2117 precede 5.2 and 2.4 south 0.3 and 1.2 Magns 9.3 and 9.2

4413 Dm read 18 O.K.

4436 Dm read 18. O.K.

4516 Dm read. 15 O.K.

4564 Dm read 6 Dm +37° 100 Magn. 7.0 precedes 0.4 and follows 5.

6048 Dm read 15 O.K. Dm +37° 356 precedes 2.0 south 3.0 Magn 9.0

6027 Dm read 21 O.K.

6030 A.G.C. read. 21 O.K.

6141 Dm. read. 16 O.K.

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1886phae.proj..834F

6271 Dm. read. 24

6361 A.G.C. read. 20. Ok

6440 Dm. read 17. OK. DM+3° 2766 follows 2.8 mt. of mag. 8.5 and should be entered in D.C. as companion to 6440.

6799 H.P. read 11 OK.

6866 Dm. read 22 H.P. read 20 OK.

6891 H.P. read 17 H.P. read 20 OK.

6939 D.M. read 15 The spectrum measured on Plate 1248 was supposed to be that of Dm-13° 4367. On reexamination this star proves to be A.G.C. 26623 and the measures have accordingly been added to that star which is D.C. 6932

6993 A.G.C. read 15 OK

6972 A.G.C. read 22 OK

6998 Dm. read. 15 A.G.C. read 18 OK.

7010 Dm. read. 20 OK.

7029 A.G.C. read 16 OK

7035 Dm read. 20 H.P. 17 OK

7093 A.G.C. read 21 The spectrum measured on Plate 1187 was supposed to be that of Dm-22° 3993. On examination the star was found to be Dm-22° 3996 and the measures have accordingly been added to that star which equals D.C. 7078

7096 A.G.C. read 18 OK.

7111 Dm read 20 A.G.C. 16 H.P. 17 OK.

7132 Dm read 21 The spectrum measured on Plate 1180 was supposed to be that of Dm-20° 5368. On [illegible] equals D.C. 7169

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1886phae.proj..834F

7316 A.G.C. read 22 H.P. 15

7520 Dm read 22 H.P. 15 O.K.

7583 Dm read 20 Obs. H.P. 15 O.K.

7650 Dm read 9. Obs. +86°2630 Magn. 7.7 prints 2.5 in one direction

7810 Dm read 20 H.P. 15 O.K.

7827 " " 22 " 20 O.K.

7862 Dm read 18 H.P. 15 O.K.

7922 Dm read 17. O.K.

8038 Dm read 16 O.K.

8117 Dm read 15 The spectrum measured on Plate 660 was supposed to be that of Dm +48°2683. On reexamination the star was found to be Dm +38°3159 and the measures have accordingly been added to that star which is also D.C. 822

8144 Dm read 18 O.K.

8168 Dm read 21 O.K.

8178 Dm read 18 O.K.

8199 Dm read 16 O.K.

8230 Dm read 17 O.K.

8260 Dm read 18 O.K.

8290 Dm read 20 The spectrum measured on Plate 666 was supposed to be that of Dm +38°3167 On reexamination the star was found to be Dm +38°3158 and the measures have accordingly been added to that star which equals D.C. 823

8292 Dm read 18 O.K.

8296 Dm read 19. The spectrum measured on Plate 660 was supposed to be that of Dm -53°2168 On reexamination the star was found to be Dm +43°3027 And the measures have accordingly been added to that star which equals D.C. 8282.

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1886phae.proj..834F

8395 A.G.C. read 17 O.K.
8491 Dm. read 15 O.K.
8493 Dm. read 15 O.K.
8505 Dm. read 19 O.K.
8529 Dm. read 17 O.K.
8556 Dm. read 19 O.K.
8595 Dm. read 17 The spectrum measured on Plate 1152 was supposed to be that of Dm-20 5432 on precipitation the star was found to be Dm-20 5428 and the measures have been deleted. Other Dm in order O.K. — Table II Pre. No. 18 Dec. 74 Wolf Trunk on 3812 a 859 1a 1.
8621 Dm. read 15 O.K.
8638 Dm. read 16 O.K.
4693 Dm. read 15 O.K.
4715 Dm. read 15 O.K.
4753 Dm. read 15 O.K.
4759 Dm. read 16 O.K.
4788 Dm. read 16 O.K.
4810 Dm. read 15 O.K.
4811 Dm. read 15 O.K.
4835 Dm. read 14 O.K.
8648 Dm. read 17 O.K.
8694 Dm. read. 15 O.K.
8721 Dm. read. 17 O.K.
8769 Dm. read 11 A.G.C. read 16 O.K.
8845 Dm. read. 16 O.K.
8909 Dm. read. 19 O.K.
9002 Dm. read 16 O.K.
9006 Dm. read 15 O.K.

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1886phae.proj..834F

No.
D.C.

9052 D M. resid 15 . The spectrum measured on Plate 695 was supposed to be that of DM +42° 3624. On reexamination the star was found to be DM+52° 2622 and the measures have accordingly been added to that star which equals D.C. 9028

9072 D M. resid. 16 D K

9086 D M. resid. 19 The spectrum measured on Plate 80[illegible] was supposed to be that of DM+ 75° 918. On reexamination the star was found to be DM+ 6° 2575 and the measures have accordingly been added to that star which equals D.C. 9089

9106 D M. resid. 21 The spectrum measured on Plate 15[illegible] was supposed that of DM +35° 4057 On reexamination the star

9110 D M. resid 4. A G C. resid 15 Star in A G C. following 0.8[illegible] magn 7/4 In DM. magn. 7.3

Omit in writing up remarks

9107 D M. resid 15 The spectrum measured on Plate 738 was supposed to be that of DM +61° 1996 On reexamination the star was found to be DM +51° 2873 and the measures have been entered in order D. K. in Table II Spectrum [illegible] Appended [illegible]

Magn. See Table II 9078a

9142 D M. resid 22 The spectrum measured on Plate 1520 was supposed to be that of +49° 670 On reexamination the star was found to be DM+49° 675 and the measures have accordingly been added to that star which equals D.C. 9181

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1886phae..proj...834F

No.

9209 DM. reads 15 O.K.

9379 DM. read 9 The spectrum measured on Plate 83 was supposed to be that of DM +67° 1303. But the star was found to be DM +67° 1302. Both the plate and the Harv. Ann. records by her refer to the star which typifies D.C. 9352.

9389 DM. read 17 O.K.

9487 DM. read 15 O.K.

9500 DM. read 21 H.A. 21 Hhg O.K.

9511 DM. read 21 H.C. 21 Spec. M. O.K.

9515 DM. read O.K.

9594 Alg. read The spectrum measured on Plate 122 was supposed to be that of DM +67° 1303. But the star was found to be D.C. 9352, and the measures have accordingly been added to that star.

9623 Spectrum A. Plate 122 (RA 21 55.1 Dec +28° 56')

(Find table 37 corr. for Dec. and make correction in D.C. Mags if necessary. Corr applied -.46

Look up Stars where identification has been changed and not added to a star already in D.C. See that correction for Dec. + Mags. abs. is correct.

9627 DM. read 17 O.K.

9665 DM. read The spectrum measured on Plate 122 was supposed to be that of DM +63° 1812. But on examination the star was found to be DM +63° 1815 and the measures have accordingly been added to that star which reads DM +63

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No.

C.

9670 Dm. reed. 17 O.K.

9689 Dm. reed. 15 O.K.

9691 Dm. reed. 20 O.K. In reexamination

9704 Dm. reed. 18 The image here measured on Plate 1585 does not identify with Dm — but proves to be a Defect in the plate.

9719 Dm. reed. 5 O.K.

9729 Dm. reed. 16 O.K. Dm +55° 2713 precedes 5.5 north of mag. 84 and should be entered in Catalogue accompanying D.C. 9729.

9759 Dm. reed. 15 O.K.

9767 Dm. reed. 16 The spectrum measured on Plate 1576 was supposed to be Dm +69° 1245. On reexamination the star was found to be Dm +69° 1257 and the measures have accordingly been added to that star which equals D.C. 9833.

9880 Dm. reed. 15 O.K.

Dm. reed. 19 O.K.

9933 Dm. reed. 18 O.K.

9940 Dm. reed. 18 O.K.

9954 Dm. reed. 15 O.K.

9977 Dm. reed. 16 O.K.

10014 Dm reed. 21 The spectrum measured on Plate 1564 was supposed to be Dm +67° 1191. On reexamination the star was found to be Dm +67° 866 and the measures have accordingly been added in Table II in order of R.A.

Spectrum E³ Mag. 6.88 Cat. Reed. 16... = Table II 9864

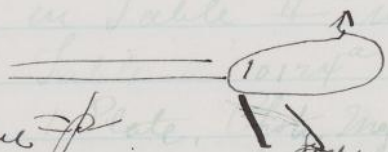
(R.A. 20 34 Dec. +67° 43')

10027 Var in Dm. Spectrum M. O.K.

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1886phae.proj..834F

When transferring the measures referred to under D.C. 10079 it



Measured on one

Dafokis.

also [illegible]

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1886phae.proj..834F

No.
D.

10374 Dm. resid. 16 O.K.

10392 Dm. resid. 11 The spectrum measured on Plate 1564 was supposed to be D.M. -56°3112. On reexamination the star was found to be Dm+56°10 and the measures have accordingly been added to that star which equals D.C. 189

189 Measured also on plate 1564 Spect. K. Mag. 6.8 Weak, Print K. K line o.
Change Cent Prod 189 to Plate 1564 Mag 6.0

10402 Dm resid. 15. O.K.

10420 Dm resid. 15 O.K.

10427 Dm resid. 18 The spectrum measured on Plate 905 was supposed to be Dm+45°4376 On reexamination the star was found to be Dm+45°4381 and the measures have accordingly been added to that star which equals D.C. 10420

10459 Dm resid. 19 The spectrum measured on Plate 1564 was supposed to be Dm+75°1059 On reexamination the star was found to be +75°1059 and the measures have accordingly been added to that star which equals D.C. 10459

Mag 8.8
1

9

Measured also on Plates 983 and 1002 Mag. 6.2 6.2
Spect. K. K. K. AK

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1986phae.proj...034F

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1886phae.proj..834F

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1886phae..07O1..834F

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3386phae.proj..834F

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