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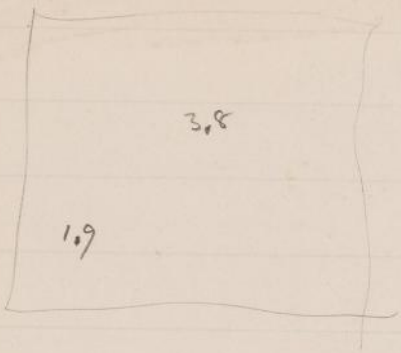
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March 29, 1887.

Plate 1014.

		V	H	Type	No. Lines	K	Focus	No. Lines.		V.	H.	V.	H.	corrc
12	0	?	23.0	12.9	IIa 3771	12	K=1.5H?	√	seen	11.5	25.8	45.9	64.9	+1.8
			22.3	13.0	I?	5	K=H	1	F.	11.2	26.0	46.2	64.7	+1.8
			21.2	11.6	I	4	?	1	—	10.6	23.2	46.8	67.5	+3.0
			21.2	13.5	I d?	5	H	1	—	10.6	27.0	46.8	63.7	+0.9
		?	21.2	13.9	I 3772 I	6	? K=.5H?	1 1	F. F? seen	10.6	27.8	46.8	62.9	+1.1
			21.2	14.7	~~I a~~ 3773 I	9	5 K=H	K=H 1 1	F seen	10.6	29.4	46.8	61.3	+0.2
		?	21.3	15.0	II a? 3773	3	K=H	2	F. seen.	10.6	30.0	46.8	60.7	0.0
			21.3	16.7	III? III 2	3	3 K=H	K=H 1 1	F. F	10.6	33.4	46.8	57.3	-1.7
			21.8	17.6	I I	4	H	H 1 1	F. —	10.9	35.2	46.5	55.5	-2.1
			21.7	21.9	III	2	K=H	1	F.?	10.8	43.8	46.6	46.9	-4.2
		?	20.3	7.7	II a? 3774 II a	2	2 K=H	K=H 1 1	F. seen seen.	10.2	15.4	47.2	75.3	+6.9
			20.3	9.2	III	3	K=H	1	F.	10.2	18.4	47.2	72.3	+3.6
			20.2	10.7	II?	3	K=H	1	F.	10.1	21.4	47.3	69.3	+3.5
			20.5	13.7	II? II	2	2 K=H	K=H 1 1	— —	10.2	27.4	47.2	63.3	+0.7
			20.7	14.9	I?		H	1	F.	10.4	29.8	47.0	60.9	+0.1
			20.7	17.5	I I	2	H H	K=H 1 1	— —	10.4	35.0	47.0	55.7	-1.5
			20.6	19.5	III	2	K=H	1	—	10.3	39.0	47.1	51.7	-2.7
			20.2	22.9	III	18	2 K=H		F.	10.1	45.8	47.3	44.9	-4.9
			19.4	6.4	I	6	K=H	2	F.	9.7	12.8	47.7	71.9	+8.3
			19.7	10.1	II	2	2 K=H	K=H 1 1	F.? —	9.8	20.2	47.6	70.5	+2.9
			19.5	19.2	I	9	H	3	F.	9.8	38.4	47.6	52.3	-2.5
			19.3	19.5	I I	3	H H	1 1	— —	9.6	39.0	47.8	51.7	-2.5
			18.6	19.3	III?	3	K=H	1	F.	9.3	38.6	48.1	52.1	+5.7
			18.4	13.7	I	11	K=1.2H	3	F.	9.2	27.4	48.2	63.3	+0.8
			17.0	8.0	I?	3	H	1	F.	8.5	16.0	48.9	74.7	+7.1
			17.2	15.4	I	8	K=.5H	2	F.	8.6	30.8	48.8	59.9	-0.5
			17.8	16.4	I I	6	6 K=.5H	K=.5H 1 1	— —	8.9	32.8	48.5	57.9	-1.3
			17.7	17.9	II a? 3775 II a	2	3 2 K=H	?	F F? seen	8.8	35.8	48.6	54.9	-1.8 2.7

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Mean 3

	No.	R.A.	Dec.	Mag.	H.	V	H'	Red. of D.M. Stars to 1900				Cou. Br.	Br.
	932	5 7.8	+45	52	0.2	33.6	57.4	31.8	5	9.3	+45	54	✓	✓
D.M.	989	5 5.7	+46	15	7.1	31.7	57.4	29.9	5	9.0	+46	19	✓	6.7 6.4 ✓
D.M.	998	5 9.8	+46	49	7.0	33.0	57.4	30.0	5	13.8	+46	52	✓	6.5 6.2 ✓
D.M	1047	5 4.0	+36	51	7.0	31.0	47.4	30.1	5	7.0	+36	55	✓	6.2 5.9 ✓
D.M.	979	5 3.0	+46	48	7.6	30.8	57.4	29.7	5	6.3	+46	52	✓	6.7 6.4 ✓
	972	5 0.9	+46	45	8.0	30.3	57.4	30.1						
D.M	~~1021~~	~~5 0.2~~	~~+36~~	~~49~~	~~7.8~~	~~29.6~~	~~47.4~~	~~29.4~~	5	4.2	+46	49	✓	6.7 6.6 ✓
	908	5 1.8	+36	49	5.6	31.8	47.4	31.8	5	3.3	+46	50	✓	5.8 5.5 ✓
D.M	959	4 54.7	+46	42	6.5	88.1	57.3	89.8	4	58.0	+46	46	✓	6.9 6.6 7.0 6.7
	952	4 52.1	+46	27	7.6	87.3	57.3	89.7						
D.M	~~1060~~	~~5 6.1~~	~~+36~~	~~33~~	~~8.8~~	~~31.3~~	~~47.5~~	~~30.6~~	4	55.4	+46	31	✓	7.0 7.0 6.7 ✓
	844	4 44.6	+36	31	5.0	88.4	47.3	92.6	4	45.9	+36	33	✓	6.2 5.9 6.5 6.2 ✓
D.M	1168	5 21.3	+47	5	7.5	36.7	57.3	29.8	5	24.7	+47	8	✓	6.8 7.0 6.5 ✓
	965	5 16.5	+37	16	5.2	34.9	47.5	31.3	5	17.9	+37	17	✓	6.1 5.8 6.4 6.1 ✓
D.M.	1146	5 10.9	+37	17	7.2	32.3	47.4	28.8	5	14.0	+37	20	✓	6.2 5.9 ✓
D.M	1091	5 3.5	+37	10	6.9	30.9	47.4	30.2	5	6.5	+37	14	✓	6.8 6.5 6.2 ✓
D.M	1067	5 0.5	+37	7	6.4	30.3	47.5	30.2	5	3.5	+37	11	✓	6.2 5.9 ✓
D.M	1031	4 53.8	+37	8	7.3	88.8	47.4	90.3	4	56.8	+37	7	✓	6.8 6.8 6.5 ✓
D.M	1002	4 48.7	+37	6	7.0	87.7	47.4	90.4	4	51.7	+37	11	✓	6.7 6.4 ✓
	835	4 41.8	+37	17	5.2	87.6	47.4	92.5	4	43.2	+37	19	✓	6.2 5.9 6.5 6.2 ✓
	1013	5 27.2	+47	40	6.1	40.0	57.4	31.7	5	28.7	+47	40	✓	6.1 5.8 ✓
D.M.	1160	5 12.7	+37	32	7.2	32.9	47.3	30.0	5	15.8	+37	35	✓	6.8 6.9 6.5 ✓
	873	4 51.1	+37	42	5.1	89.5	47.5	92.0	4	52.5	+37	44	✓	5.3 5.0 ✓
D.M	1077	4 46.3	+47	39	7.7	95.3	57.2	89.8	4	49.6	+47	44	✓	6.9 7.0 6.6 ✓
	1273	5 17.9	+48	6	6.2	35.6	57.4	29.9						
D.M	~~1188~~	~~4 47.6~~	~~+48~~	~~7~~	~~8.5~~	~~86.2~~	~~57.4~~	~~90.4~~	5	20.4	+48	9	✓	7.0 6.7 ✓
	922	5 5.2	+38	20	4.9	32.6	47.5	31.8	5	6.6	+38	22	✓	5.2 4.9 ✓
D.M.	1278	5 20.7	+48	49	7.5	36.7	57.3	28.6	5	24.1	+48	52	✓	6.7 6.4 ✓
D.M	1226	4 58.0	+48	56	7.0	88.8	57.5	89.3	5	1.4	+49	0	✓	6.2 5.9 ✓
D.M	1214	4 55.1	+48	27	7.9	87.9	57.3	89.2	4	08.5	+48	31	✓	7.0 6.7 ✓
	1196	4 50.6	+48	36	8.3	86.4	57.4	89.1						
D.M	~~1004~~	~~4 51.8~~	~~+38~~	~~34~~	~~7.8~~	~~87.6~~	~~47.4~~	~~89.4~~	4	54.0	+48	40	✓	6.9 6.6 ✓

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Plate 10.1.4.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
17.8	21.3	III b? 3776	3	K=H	2	F. arm	8.9	42.6	48.5	48.1	-6.3
16.7	7.0	III ?III	2 2	K=H	1 1	F.?	8.4	14.0	49.0	76.7	+8.3
16.3	7.9	II II	3 2	K=H	1 1	F. F?	8.2	15.8	49.2	74.9	+7.2
16.5	9.5	II ?II	2 2	K=H	1 1	— —	8.2	19.0	49.2	71.7	+5.7
16.4	17.1	d? I	2 3 H	K=H	1 1	F.? —	8.2	34.2	49.2	56.5	-2.3
16.7	18.7	II a 3777	3	K=H	2	F. arm.	8.4	37.4	49.0	53.3	-2.4
16.1	21.7	I ?	3 H	H	1 1	— —	8.0	43.4	49.4	47.3	-6.9
15.4	7.0	I ?	3	H	1 1	— —	7.7	14.0	49.7	76.7	+5.5
15.7	11.2	I I	3 H	H	K=H 1 1	— —	7.8	22.4	49.6	68.3	+2.5
15.2	11.6	II a 3778	3	K=H 1.2 1	2	F. arm.	7.6	23.2	49.8	67.5	+2.2
15.0	13.8	II II	2 2	K=H	K=H 1 1	F? —	7.5	27.6	49.9	63.1	+0.7
15.2	14.2	I	4	H	1	—	7.6	28.4	49.8	62.3	+0.6
15.5	16.1	I? I	2 3	H	N 1 1	— —	7.8	32.2	49.6	58.5	-1.2
15.5	16.3	I? I	2 3	K=H	K=H 1	— F.	7.8	32.6	49.6	58.1	-1.5
15.3	16.4	I	6 6	H	N 1 1	— —	7.6	32.8	49.8	57.9	-1.5
15.5	19.3	I? I	6 6	K=H	K=H 1 1	F. F	7.8	38.6	49.6	52.1	-2.8 4.5
15.2	19.5	d? I	3 4	H	K=H 1 1	— —	7.6	39.0	49.8	51.7	-1.8 3.3
15.2	23.5	I	8	H	2	F.	7.6	47.4	49.8	43.3	-9.3
15.0	24.1	d I	4 4	H	K=H 1 1	— —	7.5	48.2	49.9	42.5	-9.6
14.4	11.7	III III	3 3	K=H	K=H 1 1	F. F	7.2	23.4	50.2	67.3	+2.3
14.3	13.4	I I	7 6	H	N 1 1	F. F?	7.2	26.8	50.2	63.9	+1.8
14.9	16.0	II II	3 3	K=H	K=H 2 2	F. F	7.4	32.0	50.0	58.7	-1.1
13.3	10.2	I	11	K=2H	3	F.	6.6	20.4	50.8	70.3	+3.3
13.5	10.9	I	7	K=2H	1	—	6.8	21.8	50.6	68.9	+2.9
13.2	11.2	I	9	K=2H	3	F.	6.6	22.4	50.8	68.3	+2.7
13.2	16.3	I	11	H	5	F.	6.6	32.6	50.8	58.1	-0.9
13.4	17.8	II a 5779	2 3	K=H	2	F. arm b?	3.6	50.7	55.1		-1.9
12.2	7.3	III ?	3	K=H	1	F.	6.1	14.6	51.3	76.1	+5.9

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Mean 3

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of ~~D.Tit.~~ stars to 1900	Cor. Br.	Cor. Bv
	837	4 42.2	+48 32	5.8	84.8	57.4	91.1	4 43.6 +48 35	6.3	6.0
									6.5	6.2
D.M.	~~1258~~	5 23.8	+48 56	7.5	37.8	57.3	29.5	5 27.2 +48 58	7.0	7.0
									7.5	7.1
D.M.	1364	5 21.2	+49 16	6.3	37.0	57.5	29.8	5 24.6 +49 19	6.5	6.2
D.M.	1356	5 16.5	+49 8	7.7	35.5	57.3	29.8	5 19.9 +49 11	7.0	7.0
D.M.	1292	4 53.0	+49 18	7.9	87.2	57.5	89.5	4 56.4 +49 22	7.1	7.0
D.M.	1133	4 50.3	+39 10	6.4	87.7	47.6	90.1	4 53.4 +39 15	6.0	5.7
D.M.	1257	4 38.7	+49 19	7.5	82.1	57.3	89.0	4 42.1 +49 24	7.0	7.0
Dm	1321	5 20.6	+39 43	7.7	34.6			5 23.7 +39 46	6.8	6.7
D.M.	1322	5 20.7	+39 43	6.5	34.7	47.4	29.2	5 ~~24.8~~ 23.8 +39 46		
D.M.	1255	5 10.0	+39 38	7.3	32.4	47.4	29.9	5 13.3 +39 41	6.7	6.5
	944	5 10.7	+40 0	5.0	33.9	47.6	31.7	5 12.1 +40 2	5.3	5.0
	1213	5 3.2	+40 1	7.6	30.8	47.5	30.1			
D.M.	~~1205~~	5 2.2	+39 55	7.1	29.8	47.4	29.1	5 6.3 +40 5	6.5	6.7
	1205	5 2.2	+39 55	7.1	30.6	47.5	30.0	5 5.8 +39 59		
D.M.	~~1323~~	5 2.0	+49 41	7.8	30.4	57.3	29.7		6.4	6.1
	1305	4 55.7	+49 44	8.2	87.9	57.5	89.1	4 59.1 +49 48		
D.M.	~~1269~~	4 56.4	+39 50	7.8	88.6	47.6	89.5		7.3	7.2
D.M.	~~1301~~	4 55.1	+49 46	7.8	84.7	57.6	89.2	4 58.5 +49 50	6.8	6.7
D.M.	1300	4 54.8	+49 51	7.5	87.6	57.4	89.1	4 58.2 +49 55	6.5	6.5
	1271	4 46.0	+49 41	7.0	84.6	57.5	89.1	4 49.4 +49 46		
D.M.	~~1222~~	4 48.2	+39 50	7.3	86.8	47.6	89.6		6.6	6.5
	1222	4 48.2	+39 50	7.3	~~87.2~~	47.4	90.5	4 51.3 +39 55		
D.M.	~~1271~~	4 46.0	+49 41	7.0	86.0	57.3	89.8		6.9	7.0
	817	4 34.3	+49 45	5.7	81.7	57.4	91.0	4 35.8 +49 47	5.7	5.4
	1226	4 31.2	+49 38	7.0	79.4	57.1	89.0	4 34.6 +49 44		
D.M.	~~1230~~	4 32.4	+49 42	5.5	80.6	57.2	90.1		6.9	6.4
	1240	5 8.5	+40 18	6.7	31.9	47.5	29.6	5 11.6 +40 21	6.9	6.6
D.M.	~~941~~	5 10.7	+40 0	5.0	34.1	47.2	31.8		7.2	7.2
D.M.	1136	5 4.5	+50 27	7.7	31.3	57.6	29.5	5 8.0 +50 31	6.6	6.7
D.M.	1122	4 56.2	+50 5	7.5	88.2	57.5	89.3	4 59.7 +50 9	6.5	6.5
	958	5 14.0	+40 54	5.5	34.4	47.5	31.1	5 15.8 +40 56	5.2	4.9
D.M.	1255	5 10.7	+40 44	7.8	32.5	47.5	29.6	5 13.8 +40 47	6.5	6.2
	947	5 11.8	+40 58	5.3	34.2	47.6	31.5	5 13.3 +40 59	5.3	5.0
	896	4 58.1	+41 4	3.3	90.7	47.7	91.6	4 59.5 +41 7	4.0	3.7
	879	4 54.1	+40 54	4.0	89.7	47.6	91.6	4 55.5 +40 54	5.3	5.0
D.M.	1206	5 20.6	+41 20	6.7	33.2	47.4	29.3	5 23.8 +41 23	6.6	6.3
									6.9	6.6

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March 29, 1887.

Plate 1014.

	V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	Cor.
	12.0	8.0	I?	I 3 4	H	K=H	1 1	— —	6.0	16.0	51.4	74.7	+7.9
	12.5	14.0	I?	I 5	K=H	K=H	1 1	F. F	6.2	28.0	51.2	62.7	+1.2
	12.4	16.2	I	8	K=H	3	F.		6.2	32.4	51.2	58.3	-1.3
	12.6	17.5	I	9	K=2H	2	F.		6.3	35.0	51.1	55.7	-1.8
	12.2	19.7	I	8	K=2H	2	F.		6.1	39.4	51.3	51.3	-5.3
	12.5	20.7	I?	I 3 3	H	H	1 1	— —	6.2	41.4	51.2	49.3	-6.3
	12.5	23.6	II a? 3720	2	K=H		1	F? sem	6.2	47.2	51.2	43.5	-6.5
?	11.5	9.7	II a? 3781	3	K=H		1	F. sem.	5.8	19.4	51.6	71.3	+3.9
	11.8	10.7	I	8	H		3	F.	5.9	21.4	51.5	69.3	+3.1
	11.5	13.4	II a? 3782	II a 2	2	K=H	K=H 1 1	F? F sem	5.8	26.8	51.6	63.9	+1.8 +1.2
	11.7	16.9	I	5	H		1	—	5.8	33.8	51.6	56.9	-1.3
	11.1	19.4	I?	I 2 3	H	H	1 1	F. —	5.6	38.8	51.8	51.9	-3.9 -3.9
?	11.7	19.6	Ib? 3783	I 6 5	H	H	1 1	sem.	5.8	39.2	51.6	51.5	-3.3
	10.8	6.4	I	7	H		2	F.	5.4	12.8	52.0	77.9	+6.6
	10.2	11.0	I	I 3 4	H	H	1 1	— —	5.1	22.0	52.3	68.7	+3.0
	10.4	17.6	I?	I 6 5	H	H	1 1	F. F?	5.2	35.2	52.2	55.5	-1.9
	10.3	21.3	I	9	K=2H		2	F.	5.2	42.6	52.2	48.1	-4.9
?	10.5	22.8	I b? 3784	6	H		2	F. sem	5.2	45.6	52.2	45.1	-9.0
?	10.5	23.7	II a? 3785	II a 3	2	K=H	K=H 1 1	F. F? sem	5.2	47.4	52.2	43.3	-6.8
?	9.6	8.1	I d?	5	H		1	F. —	4.8	16.2	52.6	74.5	+7.9
	9.8	12.0	III	III 3 3	K=H	K=H	1 2	F F	4.9	24.0	52.5	66.7	+2.3
	9.0	13.9	I	7	H		2	F.	4.5	27.8	52.9	62.9	+0.9
	9.0	14.8	I?	I 6 5	K=H	K=H	1 1	F. F?	4.5	29.6	52.9	61.1	+0.4
?	9.2	16.2	II a? 3786	3	K=H		2	F. sem	4.6	32.4	52.8	58.3	-0.9
	9.1	18.3	III b 3787	III 3 3	K=H	K=H	1 1	F F sem	4.6	36.6	52.8	54.1	-3.7
	9.7	19.3	I	8	H		2	F.	4.8	38.6	52.6	52.1	-4.9
	9.7	20.2	I	9	K=2H?		2	F.	4.8	40.4	52.6	50.3	-6.0
	9.0	21.8	I a? 3788	II X 3	2	H	K=H K=H 1 1	F. sem	4.5	43.6	52.9	47.1	-7.8

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Mean 3

	No	R.A.	Dec.	Mag.	H	V.	H'	Rid. of ~~D.M.~~ stars to 1900.				By. CW Bu
	1083	5 21.8	+51	20	8.2	37.8	57.3	29.9				
D.M.	~~1206~~	~~5 30.6~~	~~+41~~	~~20~~	~~6.7~~	~~36.6~~	~~47.3~~	~~31.3~~	5	25.3	+51 22	6.8 6.8 6.5
D.M.	1043	5 2.7	+51	15	8.0	30.7	57.4	29.5	5	6.2	+51 19	6.8 6.7 6.4
	891	4 57.3	+51	26	4.9	89.7	57.6	91.0	4	58.8	+51 29	5.5 5.2
D.M.	1044	4 53.1	+41	14	6.5	88.1	47.5	89.9	4	56.2	+41 18	6.0 5.7
	992	4 43.9	+51	21	7.0	83.3	57.5	88.6	4	47.4	+51 26	
D.M.	~~1008~~	~~4 46.4~~	~~+41~~	~~16~~	~~8.6~~	~~85.8~~	~~47.1~~	~~89.3~~				6.5 6.2
	983	4 41.1	+51	8	8.3	82.5	57.3	88.8				
D.M.	~~997~~	~~4 41.5~~	~~+51~~	~~17~~	~~8.0~~	~~82.9~~	~~57.5~~	~~89.2~~	4	44.6	+51 13	7.0 7.0 6.7
D.M.	956	4 36.9	+41	2	7.0	84.1	47.2	90.6	4	40.0	+41 7	6.5 6.2
D.M.	1181	5 14.2	+41	41	8.2	33.6	47.5	29.7	5	17.4	+41 44	6.6 6.3
	954	5 13.4	+41	41	5.1	34.8	47.6	31.7	5	14.7	+41 43	5.2 4.9
D.M.	1047	5 4.6	+51	48	8.0	31.4	57.6	29.6	5	8.1	+51 52	6.6 6.6 6.3
D.M.	1050	4 54.8	+41	40	8.0	88.6	47.5	89.9	4	58.0	+41 44	6.6 6.3
	999	4 44.9	+51	52	8.2	83.7	57.5	88.6	4	48.4	+51 57	
D.M.	~~1023~~	~~4 49.5~~	~~+41~~	~~39~~	~~7.1~~	~~88.3~~	~~47.2~~	~~91.4~~				7.0 7.9 7.6
	996	4 44.3	+51	36	8.0	83.5	57.4	88.8	4	47.8	+51 41	
D.M.	~~1005~~	~~4 47.7~~	~~+51~~	~~42~~	~~8.0~~	~~86.9~~	~~57.5~~	~~92.2~~				6.9 6.9 6.6
D.M.	1218	5 23.2	+42	60	6.8	36.0	47.0	29.4	5	26.4	+42 2	6.0 5.7
D.M.	1253	5 10.7	+42	21	7.1	32.7	47.4	29.7	5	13.9	+42 24	6.7 6.8 6.5
	1142	4 52.7	+42	21	8.0	87.9	47.6	89.8				
D.M.	~~1138~~	~~4 51.5~~	~~+42~~	~~8~~	~~7.7~~	~~86.7~~	~~47.3~~	~~88.6~~	4	55.9	+42 25	6.5 6.8 6.2
	843	4 44.4	+42	23	5.5	87.0	47.6	91.9	4	45.8	+42 25	5.6 5.3 4 42.6+42 20
	876	4 33.6	+52	3	7.0	79.2	57.2	88.2				
D.M.	~~1055~~	~~4 37.9~~	~~+42~~	~~12~~	~~8.5~~	~~83.5~~	~~47.4~~	~~89.5~~	4	37.1	+52 9	6.3 6.0
D.M.	1045	4 36.3	+42	4	6.7	83.7	47.3	90.5	4	39.5	+42 9	6.6 6.7 6.4
D.M.	968	5 21.9	+52	32	7.9	38.1	57.3	30.2	5	25.5	+52 34	6.8 6.5
	941	5 9.7	+42	40	6.0	33.7	47.6	31.4	5	11.1	+42 41	6.4 6.4 6.1 6.8 6.8 6.5 5 7.9+42 38
	921	5 5.1	+53	4	6.2	32.9	57.6	32.0	5	6.7	+53 6	5.6 5.3 5 3.1+53 2
D.M.	863	4 57.9	+53	1	7.7	89.5	57.5	89.1	5	3.5	+53 5	6.7 6.7 6.4
D.M.	1170	4 56.5	+42	58	6.8	88.9	47.6	89.8	4	59.7	+43 2	6.0 5.7
D.M.	906	4 48.2	+52	54	6.4	84.9	57.5	88.6	4	51.9	+52 59	6.7 6.7 6.4 7.1 7.1 6.8
	853	4 46.7	+52	40	5.9	85.3	57.3	90.2	4	48.2	+52 42	5.5 5.2 4 44.7+52 37
	891	4 41.7	+52	34	7.2	82.1	57.4	88.1	4	45.2	+52 39	
D.M.	~~878~~	~~4 44.7~~	~~+52~~	~~37~~	~~6.5~~	~~85.1~~	~~57.4~~	~~91.1~~				6.0 5.7
D.M.	880	4 36.6	+52	50	7.5	80.2	57.3	88.0	4	40.1	+52 55	6.7 6.8 6.5

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Plate 1014.

	r	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H. Cor.
	8.5	8.7	I	6	H	2	F?	4.2	17.4	53.2	73.3 +5.1
?	8.8	9.1	~~I?~~	14	K=H	1	~~F~~	4.4	18.2	53.0	72.5 +6.9
	8.3	9.4	~~II?~~	3	K=H	1	F	4.2	18.8	53.2	71.9 +6.6 +~~4.8~~
✓	8.6	14.7	II?	IIa 4, 3788a 3, 1	K=H K=H	1 1	F? F seen	4.3	29.4	53.1	61.3 +0.5
	8.0	15.2	I	7	H	1	F	4.0	30.4	53.4	60.3 +0.5
✓	8.0	17.0	I	I 5	H	1	—	4.0	34.0	53.4	56.7 -1.7
?	8.0	17.9	IIa	3789 3	K=H 1.2		F seen,	4.0	35.8	53.4	54.9 -2.4
	8.0	19.0	I	12	H	4	F	4.0	38.0	53.4	52.7 -4.8
✓	8.6	21.8	II	a 3790 IIa 3	2 K=H	K=H 1	F seen, seen	4.3	43.6	53.1	47.1 -7.8
?	9.0	24.2	II	a 3791 3	K=H	2	F seen,	4.5	48.4	52.9	42.3 -7.2
?	8.0	24.1	~~I~~	d? 7	K=H?	2	~~F seen~~,	4.0	48.2	53.4	42.5 -11.1
?	7.7	6.0	III	b 3792 3	K=H	1	F seen,	3.8	12.0	53.6	78.7 +~~7.9~~ 12.0
✓	7.0	6.4	I	I ~~5~~	K=H	~~K=H~~ 1	—	3.5	12.8	53.9	77.9 +7.1
✓	7.4	14.1	I	I 4	H	H. 1	—	3.7	28.2	53.7	62.5 +0.9
	7.4	20.5	I	8	H	2	F	3.7	41.0	53.7	49.7 -3.9
	6.1	7.5	III	3	K=H	1	F	3.0	15.0	54.4	75.7 +9.3
✓	6.8	12.0	III	? III 3	3 K=H	K=H 1	F F	3.4	24.0	54.0	66.7 +3.6
✓	6.5	13.0	~~I~~	~~I?~~ I ~~X~~ H 4	~~K=H~~ K=H	K=H 1	~~X~~ —	3.2	26.0	54.2	64.7 +2.6 +~~1.7~~
✓	6.3	14.0	II	II 3	2 K=H	K=H 1	F F?	3.2	28.0	54.2	62.7 +0.7
✓	6.0	16.3	I	? I? 5	? H	1 1	— —	3.0	32.6	54.4	58.1 -1.1
	6.6	18.1	I		H	1	—	3.3	36.2	54.1	54.5 -2.5
✓	5.2	19.8	I	? I 3	H	K=H 1 1	— —	2.6	21.6	54.8	69.1 +3.6
✓	5.5	15.8	I	I 3	6 H	K=H 1 1	— F?	2.8	31.6	54.6	59.1 -0.9
✓	5.7	16.9	II	a 3793 IIa 2	2 K=H	K=H 1 1	F? seen, seen	2.8	33.8	54.6	56.9 -2.3
✓	4.3	13.1	I	I	6 5 H	H 1 1	F —	2.2	26.2	55.2	64.5 +2.3
✓	4.2	14.4	III	? III	4 2	2 K=H	K=H 1 1	F? —	2.1	28.8	55.3	61.9 +0.6
✓	4.3	15.9	II	a 3794 IIa 2	2 K=H	K=H 1 1	F? seen, seen	2.2	31.8	55.2	58.9 -1.2
✓	4.3	17.6	I	I	7 K=H	K=H 1 1	F —	2.2	35.2	55.2	55.5 -3.3

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Cor.	No.	R.A.	Dec.	MAG.	H.	V.	E'	Red. of Hfm. stars to 1900			Br.	Cow. Br.
	1272	5 17.2	+43 14	6.8	34.6	47.4	29.5					
+5.1	D.M. ~~925~~	~~5 20.2~~	~~+53 19~~	~~6.9~~	~~37.6~~	~~57.5~~	~~30.1~~	5	20.4	+43 17	6.1	5.8
+6.9	D.M. 918 5	5 19.0	+53 2	7.7	37.2	57.4	30.3	5	22.6	+53 5	7.0	6.7
6b +4.8	912	5 18.2	+53 17	7.3	37.0	57.5	30.4					
	D.M. ~~1278~~	~~5 17.2~~	~~+43 14~~	~~6.8~~	~~36.0~~	~~47.4~~	~~31.2~~	5	21.8	+53 20	6.6	6.3
	864	5 0.3	+53 16	7.5	29.7	57.6	29.2					
+0.5	D.M. ~~860~~	~~4 59.9~~	~~+53 1~~	~~7.9~~	~~39.3~~	~~57.3~~	~~38.8~~	5	3.9	+53 20	6.8 6.9	6.6
	858	4 58.5	+53 31	8.1	38.9	57.5	38.4					
+0.5	D.M. ~~864~~	~~5 0.3~~	~~+53 16~~	~~7.5~~	~~30.7~~	~~57.3~~	~~30.2~~	5	2.1	+53 35	6.5	6.2
-1.7	D.M. 1177	4 54.1	+43 31	8.0	38.1	47.5	39.8	4	57.3	+43 35	6.6 6.6	6.3
-2.4	877	4 53.4	+43 39	3.2	39.2	47.6	91.6	4	54.8	+43 41	4.0	3.7
-4.8	856	4 47.7	+53 34	4.5 ~~5.4~~	85.7	57.6	90.5	4	49.3	+53 35	4.6	4.3
	813	4 36.3	+53 1	7.0	79.9	57.3	87.7					
-7.8	D.M. ~~818~~	~~4 38.0~~	~~+53 6~~	~~7.8~~	~~81.6~~	~~57.4~~	~~89.4~~	4	39.8	+53 6	6.5 6.5	6.2
-7.2	818	4 34.3	+43 8	5.3	82.7	47.6	89.9	4	35.8	+43 10	6.2	5.9
-11.1	800	4 30.5	+53 14	5.5	78.7	57.2	88.8	4	32.0	+53 17	5.7	5.4
12.0 +9.9	934	5 29.6	+53 24	6.3	41.6	57.2	29.6				6.4 6.1	
	D.M. ~~1320~~	~~5 28.9~~	~~+43 37~~	~~7.9~~	~~40.9~~	~~47.4~~	~~31.0~~	5	33.2	+53 26	6.6 6.3	6.5
+7.1	D.M. 1301	5 23.6	+43 50	7.2	36.4	47.3	29.3	5	6 28.8	+43 52	~~5~~ 6.6	6.3
+0.9	D.M. 869	5 2.4	+53 50	8.0	30.6	57.5	29.7	5	6.0	+53 54	6.8 6.8	6.5
-3.9	852	4 46.3	+43 52	6.1	87.3	47.6	91.2	4	47.7	+43 54	5.6 5.3	4 44.5+43 49
+9.3	D.M. 914	5 24.7	+54 18	6.0	39.7	57.3	30.4	5	28.4	+54 20	6.6 6.3 7.1 6.8	
+3.6	D.M. 882	5 9.5	+54 6	6.3	33.5	57.5	29.9	5	13.2	+54 9	6.7 6.7 6.8 6.9	6.4 6.6
-2.6	878	5 6.0	+54 14	8.5	32.0	57.4	29.4	5	9.6	+54 18	~~6.8~~ 6.8	~~6.5~~
+4.7	D.M. ~~1176~~	~~5 5.0~~	~~+41 10~~	~~8.0~~	~~31.0~~	~~47.4~~	~~29.3~~				7.0 6.9	6.6
	~~1138~~	~~5 2.6~~	~~+44 23~~	~~7.0~~	~~30.6~~	~~47.6~~	~~29.9~~					
+0.7	D.M. ~~1136~~	~~5 2.1~~	~~+44 15~~	~~7.5~~	~~30.1~~	~~47.4~~	~~29.4~~	4	58	+ 44 27 ~~30~~	6.5 6.5	6.2
-1.1	D.M. 1091	4 56.1	+44 32	7.3	38.7	47.5	39.8	4	59.3	+44 36	6.7 6.5	6.2
-2.5	D.M. 1077	4 51.0	+44 11	7.5	37.2	47.5	39.7	4	54.2	+44 15	6.5	6.2
+3.6	D.M. 1182	5 11.6	+44 56	7.4	33.2	47.5	29.6	5	14.9	+44 59	6.6 6.5	6.2
-0.9	D.M. 862	4 56.0	+54 48	7.5	37.6	57.6	38.5	4	59.7	+54 52	6.6 6.6	6.3
-2.3	D.M. 856	4 52.3	+54 40	8.0	36.1	57.5	38.4	4	56.0 55.9	+54 44	6.8 6.8	6.5
+2.3	D.M. 977	5 5.6	+55 21	7.3	31.8	57.5	29.5	5	9.3	+55 25	6.6 6.6	6.3
+0.6	~~X~~ D.M. 1062	5 1.2	+45 28	8.0	30.0	47.6	29.4	5	4.5	+45 32	6.8 6.9 7.0 7.0	6.6 6.7
-1.2	D.M. 958	4 55.6	+55 20	7.3	37.4	57.5	38.6	4	59.3	+55 24	6.7 6.8	6.5
	952	4 49.8	+55 21	7.4	85.0	57.6	88.3					
-3.3	D.M. ~~1028~~	~~4 50.7~~	~~+45 13~~	~~7.5~~	~~35.9~~	~~47.4~~	~~38.2~~	4	53.5	+55 26	6.6 6.7	6.4

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Plate 1014.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc
4.9	19.5	I	10	H	3	F.	2.4	39.0	55.0	51.7	-5.7
4.0	21.4	I	6	K=H	1	F.	2.0	42.8	55.4	47.9	-8.1
3.0	11.5	III ? III	3 2	K=H K=H	1	F.	F. f.	1.5	23.0	55.9	67.7	+4.7
3.6	12.8	III a? 8795	3	K=1.5H?	5	F. nm.		1.8	25.6	55.6	65.1	+1.9
3.9	17.1	I	6	H	1	—		2.0	34.2	55.4	56.5	-1.9
2.5	8.6	I	3	H	1	—		1.2	17.2	56.2	73.5	+8.4
2.5	12.9	I ?	3	H	1	—		1.2	25.8	56.2	64.9	+1.8

F. nw. 8 c. F. cl.

8.0 7.7

Plate 1117.

7.7

20.0	10.9	I	11	H	5	F.	10.0	21.8	47.2	48.9	+2.4
18.9	19.4	I	5	K=H	1	F.	9.4	38.8	47.8	31.9	-4.2
18.5	11.2	I	7	H	1	F.	9.2	22.4	48.0	48.3	+3.7
17.6	9.6	I ?	3	H	1	—	8.8	19.2	48.4	51.5	+5.4
17.3	8.2	I	5	K=½H	2	F.	8.6	16.4	48.6	54.3	+6.7
16	7.8	I	6	H	1	F.	8.8	15.6	48.4	55.1	+4.8
16.3	14.2	III bc? 8796	3	K=H	2	F. bright sel.	8.2	28.4	49.0	42.3	+0.5
16.3	15.0	III b 8797	3	K=H	2	F. Less	8.2	30.0	49.0	40.7	0.0
14.4	13.8	I	6	K=H	1	F.	7.7	27.6	49.5	43.1	+0.9
14.9	16.1	I	7	H	2	F.	7.4	32.2	49.8	38.5	-1.2
14.5	10.8	I	6	H	2	F.	7.2	21.6	50.0	49.1	+4.7
13.5	16.2	II ?	2	H K=H	1	—	6.8	32.4	50.4	38.3	-0.9
12.3	11.8	I	5	K=.5H	1	—	6.2	23.6	51.0	47.1	+3.6
11.1	10.5	I	5	H	1	F.	5.6	21.0	51.6	49.7	+5.1
10.9	13.1	I a? 8798	2	K=H	1	Less	5.4	26.2	51.8	44.5	+2.1
?	10.2	20.9	II a? 8799	2	K=H	1	F. Less.	5.1	41.8	52.1	28.9	-6.6
	8.9	8.4	I I	4 3	H H	1 1	F.	4.4	16.8	52.8	53.9	+5.3
	8.4	9.3	I ?	5	K=H	1	F.	4.2	18.6	53.0	52.1	+4.8
?	6.0	12.2	III bc 8800	3	K=1.2H?	3	F. Bright sel.	3.0	24.4	54.2	46.3	+3.5

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Mean 3

	NO.	R.A.	DEC.	MAG.	H.	V.	H'	Red. of D.Tm. Stars to 1900	Cow. Br.	Cow. Br.
	848	4 45.3 ~~45.5~~	+55	4	5.8	82.5	57.5	88.2	4 46.9	+55 6	5.3	5.0 4 43.2 +55 1
	826	4 38.2	+55	24	6.2	81.0	57.4	89.1	4 39.9	55 26	6.2	5.9 +36.2 +55 20
D.Tm.	989	5 11.6	+55	56	6.5	34.6	57.4	29.9	5 15.4	+55 59	6.9 7.0	7.0 6.7 7.1 6.8
	932	5 7.8	+45	52	0.2	33.4	47.7	31.5	5 9.3	+45 54	~~6.2~~	~~6.2~~
D.Tm.	1032	4 53.7	+45	34	6.8	37.9	47.6	89.8	4 57.0	+45 38	6.2	5.9
D.Tm	1035	5 22.1	+56	9	8.0	39.3	57.4	30.9	5 25.9	+56 11		
D.Tm	989	5 5.7	+46	15	7.1	31.5	47.4	39.7	5 9.0	+46 19		

Mean 9

	NO.	R.A.	DEC.	MAG.	H.	V.	H'	Red. of D.Tm. Stars to 1900	Cow. Br.	Cow. Br.
	1104	5 51.5	+37	12	2.7	73.3	47.2	70.9	5 52.9	+37 13	4.0	3.1
	1013	5 27.2	+47	40	6.1	66.0	57.1	70.2	5 28.7	+47 40	6.8	5.9
	1106	5 51.9	+47	52	5.5	74.3	57.1	70.6	5 53.4	+47 54	6.4	5.5
~~D.Tm~~	~~1236~~	~~5 51.7~~	~~+47~~	~~48~~	~~6.7~~	~~74.1~~	~~57.0~~	~~70.4~~				
D.Tm	1339	5 54.8	+48	15	6.8	74.0	57.0	68.6	5 58.2	+48 15	6.9	6.0
	1123	5 58.4	+38	30	5.3	74.8	47.1		5 59.6	+38 29		
	~~1239~~	~~6 2.4~~	~~+48~~	~~45~~	~~5.6~~	~~18.8~~	~~57.1~~	~~12.1~~	~~6 3.9~~	~~+48 44~~	6.5	8.6
	1139	6 2.4	+48	45	5.6	18.0	57.1		6 3.9	+48 44		
	~~1123~~	~~5 58.4~~	~~+38~~	~~30~~	~~5.3~~	~~74.0~~	~~47.3~~	~~69.2~~	~~5 59.6~~	~~+38 29~~	6.3	5.4
	1073	5 43.2	+39	7	4.2	71.6	47.3	71.1	5 44.6	+39 7	6.1 6.5	5.2 5.6
	1063	5 40.9	+39	8	4.6	70.9	47.3	70.9	5 42.3	+39 8	6.4 6.7	5.5 5.8
Dm	1435	5 42.6	+39	32	7.3	70.2	47.2		5 45.2	+39 33		
~~D.Tm~~	~~1440~~	~~5 43.6~~	~~+39~~	~~41~~	~~8.2~~	~~71.2~~	~~47.3~~	~~70.3~~	~~5 46.6~~	~~+39 5~~	6.9	6.0
	1052	5 36.6	+49	46	5.4	68.8	57.2	70.0	5 38.2	+49 47	5.8	4.9
	1112	5 53.5	+49	53	6.0	75.1	57.1	70.4	5 55.0	+49 55	6.4	5.5
D.Tm	1403	5 35.7	+40	26	6.6	68.1	47.2	69.0	5 38.9	+40 28	7.2	6.3
D.Tm	1139	5 48.8	+51	3	6.7	72.4	57.2	68.8	5 52.3	+51 4	7.0	6.1
D.Tm	1146	5 53.0	+51	35	6.3	74.0	57.2	68.9	5 56.6	+51 35	6.8	5.9
D.Tm	1128	5 44.7	+51	45	7.0	70.9	57.2	68.8	6 48.3	+51 46	7.0	6.1
	1218	5 23.2	+42	60	6.8	65.0	47.0	69.8				
D.Tm	~~967~~	~~5 21.4~~	~~+52~~	~~1~~	~~8.2~~	~~63.2~~	~~57.1~~	~~69.8~~	5 26.4	+42 2	7.1	6.2
D.Tm	1486	5 57.5	+42	41	6.8	74.3	47.1	69.0	6 0.7	+42 41	6.9	6.0
D.Tm	1477	5 54.6	+42	59	6.8	73.2	47.2	68.4	5 57.8	+42 59	7.1	6.2
	1093	5 49.6	+54	16	3.8	74.0	57.3	70.5	5 51.3	+54 17	5.3 5.6	4.4 4.7 5 47.6 +54 15

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Plate 1117.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
	4.7	11.5	I	12	H		F.	2.4	23.0	54.8	47.7	+3.0
	4.8	16.7	I?	3	H	1	—	2.4	33.4	54.8	37.3	−2.1 +1.5
	3.2	13.7	I	8	K=1/2 H	2	F.	1.6	27.4	55.6	43.3	+1.8
. . .	2.4	16.0	I	7	K=1/2 H	1	F.	1.2	32.0	56.0	38.7	−1.5
	F. nw. 8 c.							F. ch.				
	8.0	7.1						7.2				

Plate 1093.

	20.6	17.1	I	4	K=H	1	—	10.3	34.2	21.8	56.9	−0.3	
III?	6.7, 6.0 ?	19.0	8.2	III	bc? 3880 1	3	K=H	2	F	Bright ring	9.5	16.4	22.6	74.7	+1.5
		19.4	10.8	I		1	K=1/2 H	1	—		9.7	21.6	22.4	69.5	+1.0
III	5.8, 6.2 ?	19.2	12.0	III	bc? 3880 2	3	K=H	2	F. neu.	Bright	9.6	24.0	22.5	67.1	+0.8
		19.3	18.0	I		4	K=H	1	—		9.6	36.0	22.5	55.1	−0.7
	?	18.9	11.2	I	b? 3880 3	6	H	1	F. neu.		9.4	22.4	22.7	68.7	+0.6
	?	18.7	23.9	I	d?	6	?	2	F. neu.		9.4	47.8	22.7	43.3	−1.2
		17.3	7.1	I		4	K=H	1	—		8.6	14.2	24.5	76.9	+1.3
		17.9	14.4	II		3	K=H	1	F.		9.0	28.8	23.1	62.3	+0.2
	?	17.7	16.9	III	b? 3880 4	3	K=H	2	F. neu.		8.8	33.8	23.3	57.3	−0.4
		16.4	11.5	I	?	6	H	2	F.		8.2	23.0	23.9	68.1	+0.4
		16.7	13.3	I		4	H	1	—		8.4	26.6	23.7	64.5	+0.1
		15.2	10.1	I		4	K=H	1	—		7.6	20.2	24.5	70.9	+1.8
		15.9	10.4	I		4	H	1	—		8.0	20.8	24.1	70.3	+0.6
		15.7	13.1	I	b 3880 5	9	H	3	F. neu.		7.8	26.2	24.3	64.9	+0.1
		15.7	20.2	I	?	2	H	1	F.		7.8	40.4	24.3	50.7	−1.5
		15.7	22.5	I	I	6	5 H K	2	F. F?		7.8	45.0	24.3	46.1	−1.0
		15.1	23.8	III	?	3	K=H	1	F.		7.6	47.6	24.5	43.5	−2.0
		14.7	11.7	I		3	H	1	—		7.4	23.4	24.7	67.7	+0.5
	?	14.6	15.1	I	b 3880 6	9	H	3	F. neu.		7.3	30.2	24.8	60.9	+0.0
		12.4	19.6	I		7	H	2	F.		6.2	39.2	25.9	51.9	−1.3
		11.8	11.5	I		7	H	2	F.		5.9	23.0	26.2	68.1	+0.6

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Mean q

	No.	R.A.	Dec.	Mag.	Ff.	V	Ff'	Red. of D.M. stars to 1900		Cov. Bv.	Bv
	1100	5 50.7	+44 56	2.1	73.7	47.3	70.7	5 52.2	+44 57	B	B
D.M.	932	5 32.0	+54 46	7.0	65.4	57.2	67.5			7.2	6.3
D.M.	~~1273~~	~~5 35.6~~	~~+44 43~~	~~7.3~~	~~69.0~~	~~47.1~~	~~70.5~~	5 35.7	+54 48		
	1079	5 44.8	+55 41	5.0	72.2	57.3	70.4	5 46.5	+55 41	5.4	4.5
	1051	5 36.4	+56 4	6.0	68.4	57.3	69.9	5 38.1	+56 5		

5 42.7 +55 40

5 34.3 +56 2

Mean q Cov Bv

	1120	5 56.7	+11 41	5.9	90.9	22.0	91.2	5 57.8	+11 41	7.0	6.1	5 55.3 +11 41
	1194	6 15.7	+22 34	3.2	32.1	32.1	30.6	6 16.9	+22 34	5.8 / 6.5	4.9 / 5.6	
	1174	6 9.7	+12 19	5.1	31.3	22.0	30.3	6 10.8	+12 18	6.7	5.8	
	1160	6 7.6	+22 32	3.5	31.6	32.1	30.8	6 8.8	+22 33	6.0 / 6.6	5.1 / 6.7	Make [illegible] 6.1 +22 33
	~~1163~~	~~6 8.3~~	~~+13 53~~	~~5.7~~	~~32.3~~	~~22.5~~	~~31.5~~	~~6 9.4~~	~~+13 53~~			
D.M.	1140	5 52.9	+22 24	6.7	88.9	32.0	89.6	5 55.6	+22 24	7.1	6.2	
	1169	6 9.0	+12 35	5.4	31.1	22.0	30.8	6 10.1	+12 35	6.4	5.5	
	1071	5 42.8	+12 37	4.8	90.6	22.0	91.8	5 43.9	+12 37	5.8	4.9	
D.M.	1347	6 16.7	+23 24	6.8	30.9	32.0	29.6	6 19.4	+23 23	6.8	5.9	
D.M.	1226 / 1232	6 1.0 / ~~6 1.7~~	+23 8 / ~~+23 1~~	6.5 / ~~7.1~~	29.8 / ~~30.5~~	32.1 / ~~32.0~~	29.6 / ~~30.3~~	6 3.7	+23 8	6.5	5.6	
	1121	5 58.8	+23 16	4.3	90.6	32.1	91.0	5 58.0	+23 16	6.0 / 6.1	5.1 / 5.2	
	1163	6 / 5 8.3	+13 53	5.7	31.3	22.1	30.9	6 9.4	+13 53	6.5	5.6	6 6.9 +13 53
	1147	6 4.7	+13 40	5.7	31.3	22.1	31.2	6 5.8	+13 40	6.7	5.8	6 3.3 +13 40
	1180	6 11.3	+14 26	6.0	31.5	22.0	30.2	6 12.4	+14 25	6.9	6.0	6 9.8 +14 26
D.M.	1233	6 9.3	+14 6	7.0	30.1	22.1	29.5	6 11.9	+14 5	7.1	6.2	
	1153	6 5.1	+14 14	4.2	31.3	22.0	31.2	6 6.2	+14 14	5.3	4.4	
	1094	5 49.6	+24 14	6.0	90.0	32.0	91.5	5 50.9	+24 14	6.8	5.9	5 48.1 +24 13
D.M.	~~1083~~	~~5 48.0~~	~~+24 13~~	~~6.0~~	~~88.1~~	~~32.0~~	~~89.9~~					
	1082	5 45.5	+14 9	5.6	90.5	21.9	91.5	5 46.7	+14 9	6.4 / 6.7	5.3 / 5.8	6 6.2
	1067	5 41.7	+24 32	5.1	89.3	32.2	91.3	5 42.9	+24 32	7.1	6.2	
D.M.	1213	6 6.4	+14 38	7.7	29.8	22.0	29.3	6 9.0	+14 38	7.3	6.4	
	1132	6 0.7	+14 47	4.4	30.9	22.1	30.9	6 1.9	+14 47	5.3	4.4	
	1099	5 50.6	+25 56	5.1	89.8	32.1	91.1	5 51.8	+25 57	5.7	4.8	
	1164	6 8.5	+16 10	5.4	31.5	22.1	30.9	6 9.7	+16 11	6.0	5.1	

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Plate 1093.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	-V.	H.	Correc.
11.9	13.1	~~I~~ b	3807 8	N	2	F.	6.0	26.2	26.1	64.9	+0.3
9.4	9.7	I	5	N	1	—	4.7	19.4	27.4	71.7	+1.1
✓ ✗ 9.2	18.3	I ?	I 3 4	N	K=H 1 1	— —	4.6	36.6	27.5	54.5	-1.1
9.1	21.7	I	8	N	2	F.	4.6	43.4	27.5	47.7	-2.4
8.3	12.0	I	4	N	1	F.	4.2	24.0	27.9	67.1	+0.5
6.9	12.5	II ?	2	K=H	1	—	3.4	25.0	28.7	66.1	+0.5
6.4	20.3	III ?	2	K=H	1	—	3.2	40.6	28.9	50.5	-1.9
5.9	11.8	I ?	4	K=H	1	F.	3.0	23.6	29.1	67.5	+0.6
5.4	12.0	III b v ?	3808 3	K=H	2	F. bright Sehr	2.7	24.0	29.4	67.1	+1.2
4.7	13.2	I	6	N	2	F.	2.4	26.4	29.7	64.7	+0.3
4.9	17.2	I	V0	N	2	F.	2.4	34.4	29.7	56.7	-0.5
4.1	17.0	II a ?	3809 3	K=H	2	F. Rem	2.0	34.0	30.1	57.1	-0.3
? 4.7	21.2	~~I~~ I ?	5	K=K	1	F. ~~Rem~~	2.4	42.4	29.7	48.7	-1.2
3.5	5.2	I	8	N	3	F.	1.8	10.4	30.3	80.7	+1.8
3.7	21.4	II a ?	3810 3	K=H	2	F. Rem	1.8	42.8	30.3	48.3	-1.3
3 2.4	18.2	I	4	N	1	—	1.2	36.4	30.9	54.7	-0.9

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Mean q

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of Bm. Stars to 1900			Cow. Br.	Bv
	1152	6	5.1	+16	9	5.0	31.3	22.1	31.0	6	6.3	+16 10	5.8	4.9
D.M.	1203	6	10.6	+17	22	6.5	30.0	22.1	28.9	6	13.2	+17 21	6.7	5.8
D.M.	945	5	51.9	+27	34	6.8	88.5	32.2	89.6	5	54.7	+27 35	6.9 6.9	6.0
	1084	5	45.8	+27	36	4.5	89.2	32.2	91.6	5	47.0	+27 35	5.1	4.2
D.M.	1182	6	6.0	+17	57	6.5	30.0	22.2	29.5	6	8.6	+17 57	6.8	5.9
D.M.	1129	6	5.0	+18	43	6.5	30.0	22.1	29.5	6	7.6	+18 43	7.1	6.2
D.M.	952	5	47.3	+28	55	6.5	87.9	32.1	89.8	5	50.2	+28 56	7.1 7.2	6.2 6.3
	1162	6	7.8	+19	12	5.1	31.4	22.2	30.8	6	8.9	+19 12	6.2	5.3
	1161	6	7.7	+29	32	4.5	31.7	32.2	30.5	6	9.0	+29 33	6.0 6.4	5.1 5.5
	1150	6	4.9	+19	49	5.6	31.3	22.2	31.0	6	6.1	+19 49	6.3	5.4
	1119	5	56.4	+19	42	5.1	90.8	22.1	91.3	5	57.6	+19 41	5.8	4.9
	1122	5	56.8	+20	9	4.8	90.8	22.2	91.1	5	58.0	+20 8	5.8	4.9
	1090	5	47.9	+19	44	5.8	90.3	22.1	91.5	5	49.1	+19 44	6.4	5.5
	1216	6	21.8	+20	17	4.0	32.2	22.1	30.4	6	23.1	+20 17	5.0	4.1
	1089	5	47.3	+20	16	4.6	90.1	22.1	91.4	5	48.5	+20 16	6.0	5.1
D.M.	1164	5	51.8	+31	1	6.5	88.2	32.2	89.1	5	54.7	+31 21		

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F. m. ☆c. 7.9 7.0

F. ch. 7.0

April 5, 1887.

Plate 1094.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	correc.
2 15	21,9	18,2	III?	32	K=H	1	—	11.0	36.4	41.2	54.5	-1.3
	20.6	20.8	I?	3	H	1	—	10.3	41.6	41.9	49.3	-2.5
	18,3	16.5	I?	3	H	1	—	9.2	33.0	43.0	57.9	-1.2
	17,0	16,3	I	7	H	1	F.	8.5	32.6	43.7	58.3	-0.6
	14,6	18,5	I	12	H	5	F.	7.3	37.0	44.9	53.9	-2.9
	13,1	18,5	I	4	H	1	—	6.6	37.0	45.6	53.9	-3.0
III? 6.2, 6.5.	12,5	18,3	III	3811 bc? 3	K=H	1	F. bright seen	6.2	36.6	46.0	54.3	-2.9
	11,4	12,3	I?	4	H	1	—	5.7	24.6	46.5	66.3	+2.9
	11.6	15.6	I? I	43	K=H	1 1	— —	5.8	31.2	46.4	59.7	-0.3
	11,1	16.7	II? II	33	K=2.0 H? K=H	1 1	F — F.	5.6	33.4	46.6	57.5	-1.7
?	10,0	18,7	I	3812 b 12	H	5	F. seen	5.0	37.4	47.2	53.5	-2.1
	9,3	8,9	I	5	K=H	1	—	4.6	17.8	47.6	73.1	+5.7
	9.5	22,1	III	19	K=H	1	F.	4.8	44.2	47.4	46.7	-4.5
	8.5	14,5	I	I 3	H H	K=H	1 1	— —	4.2	29.0	48.0	61.9	+0.5
	8,8	17,3	II	II 32	K=H	K=H	1 1	F — —	4.4	34.6	47.8	56.3	-2.1
	8,7	17,9	I	6	H	2	F.	4.4	35.8	47.8	55.1	-2.7
	7,0	14,4	I	6	H	2	F.	3.5	28.8	48.7	62.1	+0.7
	7.5	16,0	I	8	K=.5 H	2	F.	3.8	32.0	48.4	58.9	-0.6
	7,9	16,3	II	3	K=H	1	F.	4.0	32.6	48.2	58.3	-1.2 -0.7
	6.1	21,8	III	3813 b? 3	K=H	2	F. seen	3.0	43.6	49.2	47.3	-4.8
	6.0	22,7	I? I	35	K=H	2	F.	3.0	45.4	49.2	45.5	-5.3
	4,7	17,3	I	7	H	2	F.	2.4	34.6	49.8	56.3	-2.3
	5,2	21,4	I	3	H	1	—	2.6	42.8	49.6	48.1	-4.6
	4,7	22,7	I	6	H	2	F.	2.4	45.4	49.8	45.5	-5.1
	2,3	18,1	I?	2	H	1	—	1.2	36.2	51.0	54.7	-3.5
	5.8	10.1	III	III 2	2 K=H	K=H	1 1 — —	2.9	20.2	49.3	70.7	

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Mean 6

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. of D.M. Stars to 1900				Cow. B	Cow. Br.
D.M.	1164	5 51.8	+31 1	6.5	88.2	42.0	89.5	5	54.7	+31 2		6.4 6.7	7.0 7.3
~~D.M.~~	~~1168~~	~~5 52.4~~	~~+31 19~~	~~9.0~~	~~88.8~~	~~42.3~~	~~90.1~~						
D.M.	1139	5 45.6	+31 40	6.2	87.2	42.0	89.7	5	48.5	+31 41		6.2	6.8
D.M.	1477	5 54.6	+42 59	6.8	87.6	52.2	88.8	5	57.3	+42 59		6.0	6.6
D.M.	1236	5 56.0	+33 36	6.3	88.6	42.1	89.2	5	59.0	+33 36		5.8	6.4
	1100	5 50.7	+44 56	2.1	87.7	52.2	90.6	5	52.2	+44 57		B	B.
D.M.	1216	5 48.7	+45 36	7.2	85.7	52.2	88.7	5	52.0	+45 37		6.2	6.8
	1102	5 51.0	+45 56	4.5	87.6	52.1	90.5	5	52.5	+45 56		5.7 6.2	6.3 6.8
	1166	6 8.6	+46 28	6.4	33.2	52.2	30.3	6	10.1	+46 28		6.1	6.7
D.M.	1360	5 57.6	+36 16	6.8	88.8	42.1	89.1	6	0.6	+36 16		6.3	6.9 7.0
D.M.	1091	5 53.8	+46 33	7.0	87.2	52.2	88.9	5	57.2	+46 33		6.4	7.0 6.9
	1104	5 51.5	+37 12	2.7	88.9	42.2	91.0	5	52.9	+37 13		B	B. 5.7
D.M.	1299	6 17.0	+47 29	7.0	34.8	52.1	29.1						
~~D.M.~~	~~1482~~	~~5 15.4~~	~~+37 55~~	~~7.2~~	~~33.5~~	~~42.5~~	~~29.6~~	6	20.4	+47 28		6.1	6.7
	1072	5 43.0	+37 16	5.2	87.2	42.1	91.7	5	44.2	+37 16		6.1 6.4	6.7 7.0
D.M.	1261	6 0.3	+47 55	7.2	29.3	52.1	28.8	6	3.7	+47 55		6.2	6.8 7.0
D.M.	1236	5 51.7	+47 48	6.7	86.3	52.2	88.4	5	55.1	+47 49		6.4	7.0 7.1
	1106	5 51.9	+47 52	5.2 5	87.7	52.3	90.4	5	53.4	+47 54		5.1	5.7
	1139	6 2.4	+48 45	5.6	31.2	52.3	30.5	6	3.9	+48 44		5.4	6.0
	1123	5 58.4	+38 30	5.3	90.4	42.3	91.0	5	59.6	+38 29		5.3	5.9
	1339	5 54.8	+48 15	6.8	87.4	52.2	88.6						
~~D.M.~~	~~1382~~	~~5 57.6~~	~~+38 5~~	~~7.0~~	~~90.2~~	~~42.1~~	~~90.9~~	5	58.2	+48 15		6.0	6.6
	1073	5 43.2	+39 7	4.2	86.8	42.1	91.6	5	44.6	+39 7		4.9 5.4	5.5 6.0
	1063	5 40.9	+39 8	4.6	86.3	42.1	91.6	5	42.3	+39 9		5.5	6.1
	1112	5 53.5	+49 53	6.0	88.1	52.3	90.4	5	55.0	+49 55		5.4	6.0
D.M.	1435	5 42.6	+39 32	7.3	85.4	42.1	90.0	5	45.7	+39 33		6.3	6.9
	1052	5 36.6	+49 46	5.4	82.0	52.2	90.1	5	38.2	+49 47		5.2	5.8
D.M.	1139	5 48.8	+51 3	6.7	85.0	52.1	88.5	5	52.3	+51 4			
	1193	6 15.7	+49 21	5.0	35.9	52.3		6	17.2	+49 20		6.3 6.8	6.9 7.4 7.0 7.4

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F. w. 8 c. 8.0 7.3 F. ch. 7.3

April 5, 1887.

Plate 1095.

	V	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H	Correc.
	22,1	20,7	I	5	H	1	—	11.0	41.4	16.3	9.0	−0.9
	22,1	22,4	I	6	K=.5H	1	—	11.0	44.8	16.3	5.6	−1.1
	21,6	10.1	I	10	H	5	F.	10.8	20.2	16.5	30.2	+0.6
	19.0	7.9	I	4	H	1	—	9.5	15.8	17.8	34.6	+1.2
	18,4	11.8	I	5	H	2	—	9.2	23.6	18.1	26.8	+1.2
	18,6	21,2	I	4	K=H	1	—	9.3	42.4	18.0	8.0	−1.1
	17,8	9.9	I	5	H	1	—	8.9	19.8	18.4	30.6	+0.5
	16,4	10.5	I	6	H	2	F.	8.2	21.0	19.1	29.4	+1.7
?	16,3	21,0	II	a 3881H	K=H	1	F. diff.	8.2	42.0	19.1	8.4	−2.3
	15,1	16,3	II	2	H	1	F.	7.6	32.6	19.7	17.8	−0.6
	15,5	17,9	I	4	H	1	—	7.8	35.8	19.5	14.6	−1.2
?	15,6	20,5	II	bc 3885	K=H	2	F. bright diff.	7.8	41.0	19.5	9.4	−2.1
	14,3	14,4	I	11	H	4	F.	7.2	28.8	20.1	21.6	+0.1
	15,0	22,4	I	6	H	1	F.	7.5	44.8	19.8	5.6	−1.3
	14,2	20,0	I	? 2	K=H	1	—	7.1	40.0	20.2	10.4	−2.1
?	13,6	14,8	II	a 3816 3	K=H	1	F. diff.	6.8	29.6	20.5	20.8	+0.2
	9.7	13,2	I	5	K=.5H	1	—	4.8	26.4	22.5	24.0	+0.9
III 5.4,5.7,6.7?	9.7	17,2	II	bc 3817 3	K=H	3	F. Bright diff.	4.8	34.4	22.5	16.0	−0.6
III 5.6,5.9,6.9?	9.7	20,9	II	bc 3818 3	K=H	2	F. Bright diff.	4.8	41.8	22.5	8.6	−1.3
	8,6	12,7	I	4	H	1	—	4.3	25.4	23.0	25.0	+1.1
	8,0	16,0	I	5	H	1	—	4.0	32.0	23.3	18.4	−0.3
	8.4	23,3	I	? 3	K=H	1	F.	4.2	46.6	23.1	3.8	−2.1
?	4,3	7.7	II	bc 3819 3	K=3.0H	? 2	F. Bright diff.	2.2	15.4	25.1	35.0	+2.1
2 50	2,2	8,6	I	3	H	1	—	1.1	17.2	26.2	33.2	+3.7

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Mean 10

	No.	R.A.	Dec.	Mag.	Ec.	V.	H'	Red. of Stars to 1900	Br.	Cor. Br
	1164	6 8.5	+16 10	5.4	49.9	27.2	50.8	6 9.7 +16 11	6.4	5.4
	1152	6 5.1	+16 9	5.0	49.9	27.2	51.0	6 6.3 +16 10	6.0	5.0
	1249	6 30.8	+16 30	2.0	51.0	27.3	50.4	6 31.9 +16 29	B.	B
	1260	6 35.4	+17 46	5.0	51.2	27.3	50.0	6 36.6 +17 45	6.3	5.3
	1239	6 27.7	+28 7	4.9	51.3	37.3	50.1	6 29.0 +28 6	6.0	5.0
D.M.	1182	6 6.0	+17 57	6.5	48.4	27.3	49.5	6 8.6 +17 57	6.9	5.9
	1252	6 32.0	+28 22	5.7	51.8	37.3	51.3	6 33.3 +28 21	6.5	5.5
	1248	6 30.8	+29 5	5.5	51.8	37.3	50.1	6 32.1 +29 4	6.3	5.3
X	1162	6 7.8	+19 12	5.1	49.8	27.4	52.1	6 8.9 +19 12	6.2	5.2
D.M.	1213	6 15.6	+29 47	6.8	48.2	37.4	48.8	6 18.5 +29 46	7.0	6.0
	1187	6 13.5	+29 36	6.0	49.3	37.4	50.5	6 14.8 +29 35	6.8	5.8
	1161	6 7.7	+29 32	4.5	48.7	37.3	50.8	6 9.0 +29 33	5.8 / 6.2	4.8 / 5.2
	1216	6 21.8	+20 17	4.0	50.6	27.5	50.7	6 23.1 +20 17	4.7	3.7
	1150	6 4.9	+19 49	5.6	49.7	27.3	51.0	6 6.1 +19 49	6.5	5.5
D.M.	1172	6 7.8'	+30 9	7.0	47.0	37.3	49.1	6 10.0 +30 9	7.2	6.2
	1211	6 20.9	+30 34	5.2	50.5	37.4	50.8	6 22.1 +30 34	6.2	5.2
	1223	6 24.6	+32 32	6.0	51.0	37.3	50.1	6 26.0 +32 31	6.8	5.8
	1194	6 15.7	+22 34	3.2	50.1	27.4	50.7	6 16.9 +22 34	5.3 / 6.0	4.3 / 5.0
	1160	6 7.6	+22 32	3.5	49.4	27.3	50.7	6 8.8 +22 32	5.7 / 6.3	4.7 / 5.3
D.M.	1356	6 24.2	+33 8	6.5	49.6	37.4	48.5	6 27.2 +33 6	6.3	5.3
D.M.	1347	6 16.7	+23 24	6.8	48.7	27.4	49.0	6 19.4 +23 23	6.4	5.4
D.M.	1226	6 1.0	+23 8	6.5	47.6	27.3	49.7	6 3.7 +23 8	6.5	5.5
	1263	6 36.5	+25 15	3.2	51.9	27.4	49.8	6 37.8 +25 13	5.4 / 5.9	4.4 / 4.8
D.M.	1494	6 34.5	+36 14	6.7	51.7	37.3	48.0	6 37.5 +36 12	.	.

6 11.9 +29 36

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F. w. & c. 7.9 6.9 F. ch. 7.0

April 6, 1887.

Plate 1096.

	T	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	
2 40	20,0	15.3	I	4	H	1	—	10.0	30.6	47.5	19.4	- 0.5
	17.5	20.7	I	7	K=1.5 H	1	F.	8.8	41.4	48.7	8.6	- 5.7
	17.9	23.5	I	7	K=H	1	F	9.0	47.0	48.5	3.0	- 0.5
	17.0	8.8	III	13	K=H	1	F	8.5	17.6	49.0	32.4	+6.5
	15.1	11.0	I	9	H	2	F	7.6	22.0	49.9	28.0	+2.7
	15.5	14.0	I	3	H	1	—	7.8	28.0	49.7	22.0	+ 0.6
	14.9	23.4	I	7	K=H	1	F	7.4	46.8	50.1	3.2	- 9.0
	12.3	14.3	I	5	H	1	F.	6.2	28.6	51.3	21.4	+ 0.6
	11.7	11.2	I	4	H	11	— —	5.8	22.4	51.7	27.6	+2.7 +4.3
	11.0	6.7	III	3	K=H	1	F	5.5	13.4	52.0	36.6	+6.5
	11.6	22.7	II	3	K=H	1	F	5.8	45.4	51.7	4.6	-8.5 -5.4
	10.3	17.6	I	3	H	K=H	1 — —	5.2	35.2	52.3	14.8	-1.8
	10.0	11.0	III	3	K=H	1	F. Rem	5.0	22.0	52.5	28.0	+ 3.1
	9.6	20.3	I	5	H	1	—	4.8	40.6	52.7	9.4	- 6.1
	8.2	17.2	II a	3	K=H	2	F. Rem	4.1	34.4	53.4	15.6	- 2.5
?	8.8	23.6	II a	2	K=1.5 H?	1	F? Rem	4.4	47.2	53.1	2.8	- 7.1
?	7.6	8.4	II a	3	K=H	2	F. Rem	3.8	16.8	53.7	33.2	+5.5
?	6.2	23.8	II a	3	K=2.0 H?	2	F. Rem	3.1	47.6	54.4	2.4	-10.9
	3.3	9.8	I	5	K=H	1	—	1.6	19.6	55.9	30.4	+6.9
	2.5	15.9	I	7	K=H	1	F.	1.2	31.8	56.3	18.2	- 1.2

F. w. & c. 8.0 7.0 F. ch. 7.0

Plate 1104

	21.2	13.7	I	9	K=1.2 H	2	F	10.6	27.4	11.9	44.2	+0.3
	21.5	23.1	I	4	H	1	—	10.8	46.2	11.7	25.4	-1.1
	19.3	7.3	I	4	H	1	—	9.6	14.6	12.9	57.0	+1.8
?	19.1	16.8	II a	3	K=1.2 H	3	F. Rem	9.6	33.0	12.9	38.6	-0.2
	18.5	12.0	I	7	K=1.5 H	2	F	9.2	24.0	13.3	47.6	+0.3
	18.5	17.1	III	13	K=H	1	F	9.2	34.2	13.3	37.4	-0.3

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1887phae.proj...ssp

	No.	R.A.	Dec.	Mag	H.	V.	H'.	Red. of H.m. stars to 1900						Bv.
D.m.	1299	6	17.0	+47	29	7.0	47.6	57.5	48.1	6	20.4	+47	28	7.0
	1139	6	2.4	+48	45	5.6	48.8	57.6	49.5	6	3.9	+48	44	6.3
	1123	5	58.4	+38	30	5.3	105.4	47.5	110.9	5	59.6	+38	29	6.2
	1271	6	38.5	+48	54	5.3	56.1	57.4	49.6	6	40.0	+48	53	7.0 7.3
	1245	6	30.5	+40	0	5.1	52.5	47.6	49.8	6	31.9	+39	59	5.7
D.m.	1649	6	20.9	+39	51	7.0	48.9	47.6	48.8	6	24.0	+39	50	7.0 6.2
	1112	5	53.5	+49	53	6.0	100.3	57.3	109.3	5	55.0	+49	55	6.9
X D.m.	1451	6	20.2	+41	29	7.0	48.8	47.7	48.2	6	23.4	+41	28	6.9
	1480	6	28.4	+41	42	7.0	50.8	47.5	48.1					
D.m.	~~1209~~	~~6~~	~~32.6~~	~~+51~~	~~36~~	~~7.3~~	~~55.0~~	~~57.4~~	~~50.7~~	6	31.6	+41	40	7.1 7.0 6.8
	1287	6	42.3	+41	56	5.0	55.7	47.4	49.2	6	43.7	+41	54	7.2
	1146	5	59.0	+51	35	6.3	98.4	57.4	106.9					
D.m.	~~1357~~	~~5~~	~~57.1~~	~~+41~~	~~52~~	~~6.3~~	~~102.5~~	~~47.7~~	~~108.2~~	5	56.6	+51	35	6.7
D.m.	1536	6	11.0	+42	24	6.5	46.2	47.6	48.0	6	1.2	+42	23	7.0 7.0
	1247	6	30.8	+42	36	5.2	52.8	47.6	49.7	6	32.2	+42	35	6.4 6.9
X D.m.	1041	6	0.1	+52	40	6.7	40.7	57.5	46.8	6	3.7	+52	40	6.7
	1182	6	12.1	+53	30	5.5	46.5	57.6	48.0	6	13.7	+53	30	5.8 6 10.0 +53 30
	1115	5	54.7	+42	55	6.2	101.9	47.3	109.0	5	56.1	+42	56	6.8
	1269	6	38.1	+43	42	5.4	54.9	47.5	49.4	6	39.5	+43	40	6.4
	1093	5	49.6	+54	16	3.8	97.2	57.4	108.1	5	51.3	+54	17	5.3 5 47.6 +54 15
	1267-8	6	38.1	+55	49	5.5	57.7	57.4	50.8	6	39.9	+55	49	6.6 6 36.1 +55 5
	1193	6	16.3	+56	21	5.4	48.1	57.6	49.3	6	18.0	+56	20	6 14.2 +56 2

Mean 12 Bv. Bv. (cor)

	1293	6	44.4	+21	65	5.2	71.8	32.5	71.5	6	45.6	+21	53	6.2 5.0
	1224	6	25.1	+11	38	4.9	71.3	22.4	72.4	6	26.2	+11	36	6.7 5.5 6 23.7 +11 38
	1338	6	58.1	+22	49	5.8	72.7	32.4	70.9	6	59.3	+22	47	6.9 5.7
	1272	6	38.6	+13	1	3.4	71.6	22.6	71.8	6	39.7	+13	0	5.0 3.8
	1305	6	47.9	+13	20	4.8	71.9	22.5	71.6	6	49.0	+13	19	6.0 4.8
	1266	6	37.2	+13	21	4.6	71.4	22.6	71.7	6	38.3	+13	20	6.7 5.5 6.9 5.7

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April 6, 1887.

Plate 1164.

	V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	
	18.9	19.2	I				—	9.4	38.4	13.1	33.2	-0.8
	16.3	8.8	III?	9	K=H	F.		8.2	17.6	14.3	54.0	+1.7
	14.2	12.1	I	4	H	F.		7.1	24.2	15.4	47.4	+0.7
?	14.7	17.2	III	3882.6 he 3	K=H	3	F. Bright	7.4	34.4	15.1	37.2	-0.6
	12.9	10.2	III?	3	K=H	1	F.	6.4	20.4	16.1	51.2	+1.3
	12.5	14.4	I	5	H	1	—	6.2	28.8	16.3	42.8	+0.0
	12.2	18.4	I		K=.2H	1	—	6.1	36.8	16.4	34.8	-0.6
	12.3	20.1	I	13	H		F.	6.2	40.2	16.3	31.4	-0.7
	9.7	17.9	I	8	K=.2H	2	F.	4.8	35.8	17.7	35.8	-0.5
	9.0	21.0	I	6	H	2	F.	4.5	42.0	18.0	29.6	-2.1
	9.3	22.7	III?	12	K=H	1	F.?	4.6	45.4	17.9	26.2	-1.3
	8.3	6.8	I?	13	H	1	—	4.2	13.6	18.3	58.0	-3.0
—	? 8.6	15.5	II	a? 3882.7 2	K=H	1	F.? Diff.	4.3	31.0	18.2	40.6	-0.1
	8.5	19.1	I	4	H	1	—	4.2	38.2	18.3	33.4	-1.5
	4.0	19.6	I	5	H	1	—	3.5	39.2	19.0	32.4	-1.8
	4.5	24.2	I?	8	K=H	3	F.	2.2	48.4	20.3	23.2	-1.8
3	20 3.7	7.8	III	h? 3882.8 3	K=H	2	F. Diff.	1.8	15.6	20.7	56.0	+1.3

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Mean 12

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of D.M. stars to 1900				Br.	Cor. Br
D.M.	1356	6 31.7	+13	7	7.0	70.1	22.5	70.7	6	34.2	+13 5	6.8 6.8	5.6
	1326	6 55.1	+24	23	5.3	72.7	32.6	71.0	6	56.4	+24 21	6.9 7.1	5.7 5.9
	1496	6 46.4	+25	33	6.2	70.6	32.7	69.7					
D.M.	1502	6 47.4	+25	11	7.5	71.6	32.3	70.9	6	49.2	+25 30	6.9	5.7
	1263	6 36.5	+25	15	3.2	70.9	32.6	71.5	6	37.8	+25 13	5.4 5.8	4.2 4.6
D.M.	1411	6 50.5	+26	6	6.5	70.9	32.5	69.6	6	53.3	+26 3	6.8	5.6
	1290	6 42.9	+16	20	5.4	71.7	22.5	71.7	6	44.1	+16 19	6.4	5.2
D.M.	1242	6 33.0	+16	32	7.3	69.8	22.6	70.4	6	35.6	+16 30	7.0	5.8
	1249	6 30.8	+16	30	2.0	71.0	22.7	71.7	6	31.9	+16 29	B.	B
	1260	6 35.4	+17	46	5.0	71.2	22.6	71.7	6	36.6	+17 45	6.2	5.0
	1239	6 27.7	+28	7	4.9	69.7	32.6	71.8	6	29.0	+28 6	6.1	4.9
D.M.	1286	6 23.9	+17	53	6.5	69.3	22.5	70.6	6	26.5	+17 51	7.0	5.8
D.M.	1314	6 58.3	+28	25	6.8	71.9	32.6	71.9	7	1.1	+28 21	7.2	6.0
D.M.	1349	6 38.9	+18	21	6.5	69.9	22.7	70.0	6	42.5	+18 18	6.9	5.7
	1252	6 32.0	+28	22	5.7	70.2	32.6	71.7	6	33.3	+28 21	6.7	5.5
	1248	6 30.8	+29	5	5.5	70.0	32.6	71.8	6	32.1	+29 4	6.5	5.3
	1216	6 21.8	+20	17	4.0	70.2	22.5	72.0	6	23.1	+20 17	5.2	4.0
	1334	6 57.0	+20	45	4.0	72.6	22.6	71.3	6	58.2	+20 43	6.1 6.4	4.9 5.2

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F. mv. & c. 8.0 6.8

F. cl. 6-8

April 8, 1887.

Plate 1105.

8 40	Y	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
	19.6	18.5	III	3	K=H	1	F	9.8	37.0	42.6	33.6	-2.7
	19.5	21.7	I	3	H	1	—	9.8	43.4	42.6	27.2	-5.3
	17.6	15.8	II	3	K=H	1	F1	8.8	31.6	43.6	39.0	-0.6
?	16.7	12.8	III?	3	K=H	1	F	8.4	25.6	44.0	45.0	+1.8
	16.7	13.3	I	10	K=.2H	4	F	8.4	26.6	44.0	44.0	+0.7
	15.7	17.1	III	3	K=H	1	F	7.8	34.2	41.6	36.4	-1.9
	14.5	12.0	I	8	K=.2H?	2	F	7.2	24.0	45.2	46.6	+2.5
	15.0	13.6	I?	2	H	1	—	7.5	27.2	44.9	43.4	+1.1
	12.2	12.5	I	V	H	1	—	6.1	25.0	46.3	45.6	+2.3
—	12.5	16.8	I	6	K=H	1	F?	6.2	33.6	46.2	37.0	-0.9
	9.8	6.0	III	3	K=H	1	F.2nn	4.9	12.0	47.5	58.6	+8.7
	9.0	9.7	II	2	K=H	1	F.2	4.5	19.4	47.9	51.2	+5.1
	9.8	22.2	I	V	K=H	1	—	4.9	44.4	47.5	26.2	-6.9
	7.7	13.0	I?	3	H	1	—	3.8	26.0	48.6	44.6	+1.2
	7.9	13.3	III?	2	K=H	1	F?	4.0	26.6	48.4	44.0	+0.9
	7.1	13.4	II?	2	K=H	1	F?	3.6	26.8	48.8	43.8	+1.1
	7.4	15.5	III	3	K=H	1	F	3.7	31.0	48.7	39.6	-0.5
	5.4	5.5	I	6	K=H	2	F	2.7	11.0	49.7	59.6	+9.9
?	5.0	18.8	I	7	H	2	F.nn	2.5	37.6	49.9	33.0	-2.5

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Mean 8

	No.	R. A.	Dec.	Mag.	H.	V.	H′.	Red of Stars to 1900			Br.	Cor. Br.
	1247	6 30.8	+42 36	5.2	67.8	52.4	70.5	6	32.2	+42 35	6.8 7.2	6.0 6.4
	1223	6 24.6	+32 32	6.0	68.0	42.3	73.3	6	26.0	+32 31	6.8	6.0
	1269	6 38.1	+43 42	5.4	69.7	52.5	70.3	6	39.5	+43 40	6.5	5.7
D.M.	1551	6 44.8	+44 5	6.5	70.4	52.5	68.6	6	48.0	+44 2	7.0 7.2	6.2 6.4
	1295	6 44.9	+34 6	3.7	71.5	42.5	70.8	6	46.2	+34 5	4.3	3.5
	1255	6 34.4	+44 39	5.2	68.6	52.4	70.5	6	35.8	+44 38	7.0 7.5 7.4	6.2 6.6
	1310	6 48.9	+45 17	4.7	72.9	52.5	70.4	6	52.4	+45 14	5.3	4.5
D.M.	1359	6 42.5	+45 1	7.0	69.7	52.5	68.6	6	45.8	+44 58	7.0	6.2
	1304	6 47.7	+46 26	5.9	72.7	52.5	70.4	6	49.1	+46 25	6.4	5.6
D.M.	1494	6 34.5	+36 14	6.7	68.1	42.4	69.0	6	37.5	+36 12	6.7	5.9
	1363	7 7.0	+47 28	5.6	19.0	52.4	10.3	7	8.4	+47 25	6.7	5.9
D.M.	1391	6 54.3	+47 58	6.8	73.7	52.5	68.6	6	57.7	+47 54	6.8	6.0
D.M.	1299	6 17.0	+47 29	7.0	61.4	52.4	68.3	6	20.4	+47 28	6.6	5.8
	1299	6 45.8	+38 39	6.1	71.8	42.4	70.6	6	47.1	+38 38	6.6	5.8
	1298	6 45.0	+38 35	6.3	71.6	42.6	70.7	6	46.3	+38 34	7.2 7.5	6.4 6.7
D.M.	1771	6 43.1	+39 2	6.3	69.8	42.6	68.7	6	46.2	+38 59	7.0	6.2
	1271	6 38.5	+48 54	5.3	69.5	52.6	70.0	6	40.0	+48 53	6.7 7.1	5.9 6.3
	1367	7 9.4	+49 41	4.8	20.4	52.4	10.5	7	10.9	+49 38	5.9	5.1
	1245	6 30.5	+40 0	5.1	68.1	42.5	70.6	6	31.9	+39 59	5.9	5.1

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F. nw. & c. 6.2 6.1

F. ch. 6.9

April 12, 1887.

Plate 1662.

	V	H	Type	No. lines	K	Focus	Other Lines,	V.	H.	V.	H.	Correc.
8 50	22.4	15.1	II a? 3831	3	K=H	1	F. seen	11.2	30.2	26.2	61.2	-0.2
	22.4	19.2	I	6	H	1	F	11.2	38.4	26.2	53.0	-0.9
?	22.0	19.5	II a 3832	3	K=H	1	F. seen	11.0	39.0	26.4	52.4	-1.5
	21.3	6.4	I ? II	2 2	K=H K=H	1 1	F. ?	10.6	12.8	26.8	79.6	+2.8
	21.1	10.5	I	10	K=.2H	4	F	10.6	21.0	26.8	70.4	+0.6
	21.9	12.8	III III	3 3	K=H K=H	1 1	F F	11.0	25.6	26.4	65.8	+0.3
	21.7	24.0	I ?	6	K=H	1	F	10.8	48.0	26.6	43.4	-1.3
	20.5	13.9	I	9	K=.5H	2	F	10.2	27.8	27.2	63.6	+0.5
	20.4	18.8	I I	6 7	N N	1 1	F —	10.2	37.6	27.2	53.8	-0.6
	19.3	8.2	I	6	N	1	—	9.6	16.4	27.8	75.0	+2.3
	19.8	13.3	II a? II a 3833	3	K=H K=H	1 1	F F seen seen	9.9	26.6	27.5	64.8	+0.6
	19.5	20.7	I ? II	2 2	K=H K=H	1 1	F —	9.8	41.4	27.6	50.0	-1.9
	19.6	23.8	I I	4	K=H N	1 1	F —	9.8	47.6	27.6	43.8	-3.0
	18.2	5.7	III	3	K=.5H	1	F	9.4	11.4	28.3	80.0	+1.9
	18.5	7.5	III bc? 3834	3	K=.5H	2	F bright seen	9.2	15.0	28.2	76.4	+2.7
	18.8	8.1	I ?		K=H	1	F	9.4	16.2	28.0	75.2	+2.4
	18.5	11.9	III III	3 3	K=H K=H	1 1	F F	9.2	23.8	28.2	67.6	+1.1
	18.9	15.0	III III	2 2	K=H K=H	1 1	F ? F	9.4	30.0	28.0	61.4	0.0
	18.0	15.6	I	8	N	2	F	9.0	31.2	28.4	60.2	-0.2
	18.7	16.1	I I	6 5	N N	1 1	F F	9.4	32.2	28.0	59.2	-0.3
	18.8	17.9	I ? I	4 9	N N	1 1	— —	9.4	35.8	28.0	55.6	-0.6
	18.4	18.2	I I	6 5	N N	1 1	F F	9.2	36.4	28.2	55.0	-0.6
	18.5	20.2	II a? II a 3835	3 2	K=H K=H	1 1	F F seen	9.2	40.4	28.2	51.0	-0.9
	17.8	6.0	I	8	N	3	F	8.9	12.0	28.5	79.4	+3.5
	17.6	8.2	II II	2 2	K=H K=H	1 1	F ? F	8.8	16.4	28.6	75.0	+1.1
?	17.9	10.0	II a II a 3836	3 3	K=H K=H	1 1	F F seen	9.0	20.0	28.4	71.4	+1.8
	17.3	12.9	I I	6 6	N N	1 1	F F	8.6	25.8	28.8	65.6	+0.7
	17.8	16.2	I II ? II	3 2	K=H K=H	1 1	F F	8.9	32.4	28.5	59.0	-0.6
Recorded above	17.9	15.6	I	8	N	1	F	8.9	31.2	28.4	60.2	-0.6

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Mean 4

	No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of Start to 1900						Br.	Cou 12v
	1347	7 15	+16	7	5.6	31.7	27.3	31.9	7	2.7	+16	6	✓	6.8	6.4
	1411	6 50.5	+26	6	6.5	88.9	37.3	90.1	6	53.3	+26	3	✓		
D.M.	~~1328~~	~~6 53.4~~	~~+16~~	~~14~~	~~5.9~~									6.5	6.1
D.M.	1405	6 49.8	+26	16	6.5	88.9	37.3	90.1	6	52.3	+26	13	✓	6.7	6.3
D.M.	1384	7 19.1	+26	31	7.3	31.9	37.1	29.1	7	21.3	+26	26	✓	7.0	7.1 6.7
	1373	7 11.2	+16	45	3.6	32.2	27.4	31.6	7	12.4	+16	43	✓	4.7	4.3
	1361	7 6.5	+16	22	5.4	32.1	27.4	31.8	7	7.7	+16	20	✓	6.7 6.8 7.0 7.1	6.4 6.7
	1290	6 47.9	+16	20	5.4	90.9	27.1	92.2	6	44.1	+16	19	✓	6.3	5.9
	1351	7 3.9	+27	4	5.5	31.7	37.3	31.2	7	5.2	+27	2	✓	6.0	5.6
D.M.	1469	6 52.3	+17	10	7.8	89.9	27.4	90.5	6	54.9	+17	7	✓	6.7	6.8 6.4
D.M.	1361	7 14.7	+17	41	7.7	31.1	27.3	28.8	7	17.3	+17	36	✓	6.7	6.8 6.4
D.M.	1337	7 3.8	+27	30	6.8	30.4	37.4	29.8	7	6.6	+27	26	✓	6.7	6.7 6.3
D.M.	1270	6 46.9	+27	28	7.5	88.3	37.3	90.2	6	49.7	+27	25	✓	6.8	7.0 6.6
D.M.	1238	6 40.1	+27	21	7.2	87.7	37.2	90.7	6	42.9	+27	18	✓	6.6	6.7 6.3
	1412	7 22.4	+28	10	5.1	33.8	37.3	31.9	7	23.6	+28	7	✓	6.2 6.4	5.8 6.0
	1394	7 18.3	+28	2	4.0	33.3	37.2	30.6	7	19.5	+28	0	✓	5.4 5.7	5.0 5.3
D.M.	1374	7 15.5	+27	55	6.9	31.7	37.3	29.3	7	18.3	+27	50	✓	6.2	5.8
D.M.	1350	7 6.9	+28	9	6.5	30.7	37.4	29.6	7	9.7	+28	5	✓	6.8 7.0	6.9 7.2 6.5 6.8
D.M.	1505	7 0.3	+17	54	7.3	30.3	27.3	30.3	7	29	+17	50	✓	7.0 7.3	6.9 7.2 6.5 6.8
D.M.	1314	6 ~~58.3~~	+28	25	6.8	89.5	37.4	89.7	7	1.1	+28	21	✓	6.0	5.6
D.M.	1492	6 57.9	+17	58	7.1	90.1	27.4	90.4	7	0.5	+17	54	✓	6.6	6.5 6.1
	1327	6 55.4	+17	55	6.2	91.2	27.3	91.8	6	56.6	+17	53	✓	6.8	6.9 6.5
D.M.	1451	6 53.3	+18	11	7.5	89.7	27.4	90.3	6	55.9	+18	8	✓	6.9	6.8 6.4
D.M.	1423	6 49.3	+18	5	7.1	89.7	27.3	90.6	6	51.9	+18	2	✓	6.5	6.4 6.0
	1409	7 21.9	+28	23	5.1	33.9	37.3	30.4	7	23.1	+28	~~21~~ 19	✓	5.3	4.9
D.M.	1593	7 14.7	+18	33	7.0	31.1	27.4	30.0	7	17.3	+18	28	✓	6.8	6.8 6.4
D.M.	1367	7 11.3	+28	22	7.6	31.3	37.4	29.5	7	14.1	+28	17	✓	6.7	6.7 6.3
D.M.	1342	7 4.7	+28	44	7.7	30.5	37.3	29.8	7	7.5	+28	40	✓	6.5	6.6 6.2
D.M.	1310	6 57.1	+28	25	7.8	89.5	37.3	90.1	6	59.9	+28	21	✓	7.0	7.1 6.7
D.M.	1314	6 ~~58.3~~	+28	25	6.8	89.5	37.3	90.1							

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Plate 1062.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc
	17.1	17.1	I	5	H N.	1	F Fl ?	8.6	34.2	28.8	57.2	- 0.5
	17.4	21.0	I ?	4 4	H K=H	1	F Fl ?	8.7	42.0	28.7	49.1	- 1.1
	16.0	6.0	III ?	3 3	K=H K=H	1	F Fl	8.0	12.0	29.4	79.4	+1.7 +3.6
	16.5	12.9	IIa	3 2	K=H	1	F dim	8.2	25.8	29.2	65.6	+0.5
	16.6	14.5	I	6	H N	1	F —	8.3	29.0	29.1	62.4	+0.0
	16.6	20.9	IIa 3938	2 2	K=H K=H	1	F dim	8.3	41.8	29.1	49.6	- 1.1
	15.1	6.6	IIa 3839	2 2	K=H K=H	1	F Fl dim	7.6	13.2	29.8	78.2	+2.3
	15.7	11.9	I	6 5	H N	1	F Fl ?	7.8	23.8	29.6	67.6	+1.2
	15.2	16.4	III	3 2	K=H	1	F Fl ?	7.6	32.8	29.8	58.6	- 0.6
	15.6	17.4	II ?	3 2	K=H K=H	2	F Fl	7.8	34.8	29.6	56.6	- 1.1
	15.9	17.4	I ?	H	K=H K=H	1	F —	8.0	34.8	29.4	56.6	- 0.9
	14.1	7.5	I ?	4 5	H K=H	1	F —	7.0	15.0	30.4	76.4	+1.5
	14.7	9.9	I	4	H N	1	F —	7.4	19.8	30.0	71.6	+2.1
	14.6	11.8	II ?	3 2	K=H K=H	1	F Fl ?	7.3	23.6	30.1	67.8	+0.6
	14.8	16.6	II ?	2 2	K=H K=H	1	Fl ?	7.4	33.2	30.0	58.2	- 0.7
	14.6	21.1	IIa 3839a	3 2	K=H K=H	1	F Fl dim	7.3	42.2	30.1	49.2	- 2.5
	13.6	6.5	I ?	9	K=H	2	F	6.8	13.0	30.6	78.4	+1.7
	13.2	7.2	I ?	4	K=H K=H	1	F —	6.6	14.4	30.8	77.0	+1.5
	13.1	8.4	II ?	3839a 2 2	K=H K=H	1	F ? Fl ? dim	6.6	16.8	30.8	74.6	+1.3
III ? 6.4, 6.8.	13.5	8.9	III 8840	3 3	K=H K=H	2	F dim	6.8	17.8	30.6	73.6	+1.2
III ? 5.7, 6.0. ?	13.9	14.1	III c 8841	3	K=H 1.2	2	F Bright	7.0	28.2	30.4	63.2	+0.3
	13.4	14.0	II	3 3	K=H K=H	1	F Fl	6.7	28.0	30.7	63.4	+0.5
	13.6	16.7	II ?	3 2	K=H K=H	1	F —	6.8	33.4	30.6	58.0	-0.7
Peculiar spectrum.	13.4	17.1	II a c 8842	3	K=1.2 H ?	3	F Bright Red	6.7	34.2	30.7	57.2	- 0.5
	13.5	20.1	I ? ?	H	K=H	1	F Fl ?	6.8	40.2	30.6	51.2	- 1.1
	12.4	11.1	II	8	H	2	F	6.2	22.2	31.2	69.2	+1.7
	12.4	16.4	I ?	5 4	K=H K=H	1	F —	6.2	32.8	31.2	58.6	-0.3
	12.8	18.0	I	4 5	H K=H	1	— Fl	6.4	36.0	31.0	55.4	- 0.6

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Mean of

	No.	R. A.	Dec.	Mag.	H.	V	H'	Red. of Π.m. stars to 1900				Br.	Cow. Br.
Π.m.	1464	6	55.7	+18	53	7.1	89.9	27.5	90.4	6	58.3	+18	49	6.7 6.7	6.3
Π.m.	1405	6	47.4	+18	40	7.9	89.4	27.4	90.5	6	50.0	+18	37	7.0 7.0	6.6
	1734	7	19.4	+19	20	7.2	31.4	27.3	29.7	7	22.0	+19	15	7.0 7.1	6.7
Π.m.	~~1540~~	~~7~~	~~24.3~~	~~+29~~	~~29~~	~~8.0~~	~~33.3~~	~~37.5~~	~~29.4~~					7.2 7.2	6.8
Π.m.	1650	7	4.8	+19	10	7.8	30.6	27.4	30.1	7	7.4	+19	6	7.0 7.0	6.6
Π.m.	1629	7	1.4	+19	4	8.0	30.4	27.4	30.4	7	4.0	+19	0	6.8 6.8	6.4
Π.m.	1408	6	47.7	+18	59	7.7	89.5	27.3	90.6	6	50.3	+18	56	7.0 7.0	6.6
Π.m.	1535	7	19.1	+29	42	7.6	32.2	37.3	29.9	7	21.9	+29	37	6.9 6.8	6.4
Π.m.	1489	7	6.9	+29	30	8.0	30.7	37.3	29.5	7	9.7	+29	26	6.6 6.7	6.3
Π.m.	1454	6	36.4	+29	44	8.3	89.2	37.3	89.8	6	59.3	+29	40	7.0 7.0 7.2 7.3	6.6 6.9
	1329	6	55.9	+29	32	6.0	90.7	37.3	91.8	6	57.2	+29	31	6.4 6.3	5.9
Π.m.	1591	6	55.0	+19	25	7.3	89.8	27.4	90.7	6	57.6	+19	21	7.1 7.0	6.6
Π.m.	1795	7	16.3	+20	17	7.5	31.3	27.3	29.8	7	19.0	+20	12	6.7 6.9	6.5
Π.m.	1511	7	11.7	+29	60	7.5	31.5	37.4	29.4	7	14.6	+29	55	6.6 6.7	6.3
Π.m.	1751	7	7.2	+20	6	7.7	30.8	27.4	30.2	7	9.9	+20	2	6.6 6.8	6.4
Π.m.	1451	6	56.0	+29	56	8.5	89.2	37.3	89.9	6	58.9	+29	52	7.2 7.1	6.7
Π.m.	1357	6	45.5	+30	0	7.8	89.1	37.3	90.2	6	48.4	+29	57	7.0 7.0	6.6
	1400	7	19.9	+20	30	5.7	32.9	27.3	31.2	7	21.1	+20	27	6.0 5.6	
Π.m.	1798	7	17.0	+20	48	7.0	31.4	27.4	29.9	7	19.7	+20	43	6.6 6.7	6.3
	1781	7	14.5	+20	49	8.5	31.3	27.4	30.0	7	17.2	+20	44	7.2 7.2	6.8
Π.m.	~~1775~~	~~7~~	~~13.4~~	~~+20~~	~~42~~	~~6.0~~	~~30.2~~	~~27.3~~	~~28.9~~					6.5 6.2	5.8
	1384	7	14.9	+20	39	5.0	32.9	27.4	31.5	7	16.1	+20	38	6.9 6.6	6.2
	1349	7	3.5	+30	26	4.6	31.7	37.4	32.0	7	4.8	+30	25	5.8 5.4 6.2 5.8	
Π.m.	1442	7	2.2	+30	42	7.8	30.2	37.4	29.7	7	5.1	+30	38	6.8 6.7	6.3
Π.m.	1413	6	55.7	+30	34	7.3	89.1	37.4	89.8	6	58.6	+30	30	7.3 7.1	6.7
	1334	6	57.0	+20	45	4.0	91.2	27.5	91.7	6	58.2	+20	43	5.2	4.8
Π.m.	1651	6	49.2	+20	40	7.8	89.4	27.5	90.5	6	51.9	+20	37	6.9 6.9	6.5
	1371	7	10.4	+31	11	5.9	32.6	37.4	30.9	7	11.7	+31	9	5.9 5.5	
Π.m.	1503	6	57.1	+21	12	8.2	89.8	27.4	90.1	6	59.8	+21	8	7.0 6.9	6.5
Π.m.	1472	6	53.6	+21	2	7.9	89.6	27.4	90.2	6	56.3	+20	59	7.0 7.0	6.6

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Plate 1062.

	V	H	Type	No. lines	K	Focus	Other lines.	V	Ec.	V	Ec.	Correc.
	12.4	20.5	II a	2	K=H K=H	F	F, Fcen.	6.2	41.0	31.2	50.4	-1.2
	12.1	21.7	III	2	K=H K=H	F	F?	6.0	43.4	31.4	48.0	-1.3
?	11.4	6.2	II a	3	K=H	2	F, cen.	5.7	12.4	31.7	79.0	+1.9
	11.1	6.6	II	3	2 K=H K=H		F	F?	5.6	13.2	31.8	78.2	+1.8
	11.4	7.9	I		H N	1	F	—	5.7	15.8	31.7	75.6	+1.8
	11.5	13.9	I		H	K=H K=H	F, cen.	—	5.8	27.8	31.6	63.6	+0.3
	11.9	14.4	II	2	2 K=H K=H		F	F?	6.0	28.8	31.4	62.6	+0.1
	11.1	21.4	II a	2	K=H K=H		F, cen.	F cen.	5.6	42.8	31.8	48.6	-1.3
	10.6	6.5		9	K=H	4	F		5.3	13.0	32.1	78.4	+1.1
	10.4	7.7	I	6	6 K=H	1	F	F?	5.2	15.4	32.2	76.0	+3.3
	10.5	9.8		10	K=H	4	F		5.2	19.6	32.2	71.8	+1.2
?	10.4	10.3	II	3	K=H	5	F, cen.		5.2	20.6	32.2	70.8	
	10.9	11.4	IV	7	7 N	2 1	F	—	5.4	22.8	32.0	68.6	+1.7
	10.0	13.1	I		H K=H	K=H	F	—	5.0	26.2	32.4	65.2	+0.9
	10.5	13.3	I		6 N	2 1	F	F?	5.2	26.6	32.2	64.8	+0.7
	10.8	18.1	I	4	H K=H	1	F	—	5.4	36.2	32.0	55.2	-0.7
	10.8	23.0		8		2	F		5.4	46.0	32.0	45.4	-1.8
	9.9	13.6	II	3	2 K=H K=H		F	F?	5.0	27.2	32.4	64.2	+0.8
	9.2	16.6		8		2	F		4.6	33.2	32.8	58.2	-0.5
	9.6	18.2	II a	3	3 K=H K=H	2	F, cen.	F cen.	4.8	36.4	32.6	55.0	-1.5
	9.5	19.9	II	2	2 K=H K=H		F	?	4.8	39.8	32.6	51.6	-1.2
	9.3	21.3	I	7	N	2 2	F	F?	4.6	42.6	32.8	48.8	-3.0
	9.1	23.1	III	3	3 K=H K=H		F	F	4.6	46.2	32.8	45.2	-3.9
	9.6	24.0	I	6	K=H	1	F	—	4.8	48.0	32.6	43.4	-2.1
	8.5	7.9	II	3	2 K=H K=H		F	F?	4.2	15.8	33.2	75.6	+2.8
	8.4	8.3		7		2	F		4.2	16.6	33.2	74.8	+1.7
	8.2	11.6	II	3	3 K=H	K=H	F	F	4.1	23.2	33.3	68.2	+1.7
	8.3	14.1	II a	3	3 K=H K=H		F	F cen.	4.2	28.2	33.2	63.2	+0.5

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Mean of 4

	No.	R. A.	Dec.	Mag.	H.	V.	H'	Red. of D.M. stars to 1900				Br.	Cor. Br.
D.M.	1437	6 48.2	+21	9	7.8	89.2	27.4	90.4	6	50.9	+21 3	6.7 6.7	6.3
D.M.	1428	6 45.7	+21	20	7.3	89.1	27.3	90.4	6	48.3	+21 17	7.0 6.9 7.1 7.0	6.5 6.6
	1402	7 20.6	+21	41	5.3	33.0	27.4	31.1	7	31.8	+21 39	5.5	5.1
D.M.	1596	7 18.2	+21	50	6.8	31.4	27.4	29.6	7	20.9	+21 45	6.6 6.6	6.2
	1589	7 15.5	+21	44	8.0	31.3	27.4	28.0	7	18.2	+21 39	6.8 6.7	6.3
D.M.	~~1574~~	~~7 17.4~~	~~+31~~	~~54~~	~~7.5~~	~~33.2~~	~~34.6~~	~~29.9~~					
	1505	7 2.3	+31	36	8.2	30.1	37.4	29.8	7	5.2	+31 32		
D.M.	~~1542~~	~~7 4.2~~	~~+21~~	~~04~~	~~7.7~~	~~32.0~~	~~27.4~~	~~31.7~~				7.0 7.0	6.6
D.M.	1528	7 1.5	+21	29	7.5	30.3	27.5	30.2	7	4.2	+21 25	6.7 6.5	6.1
D.M.	1428	6 46.3	+21	44	7.4	89.1	27.3	90.4	6	49.0	+21 41	6.4 6.4	6.0
	1405	7 21.4	P 32	1	42	34.4	37.3	30.3	7	22.7	+32 59	5.0	4.6 7 19.8 +32 4
D.M.	1545	7 16.8	+32	11	7.2	32.2	37.4	28.9	7	19.7	+32 6	6.5 6.5	6.1
	1377	7 13.0	+22	12	3.6	32.6	27.4	31.4	7	14.2	+22 10	4.8	4.4
Saturn.												B.	B
D.M.	1527	7 8.2	+31	57	6.7	31.0	37.4	28.3	7	11.1	+31 53	6.3 6.3	5.9
D.M.	1502	7 4.1	+32	22	7.0	30.2	37.4	28.3	7	7.0	+32 18	6.9 6.9	6.5
D.M.	1500	7 3.7	+32	12	6.8	30.3	37.4	29.6	7	6.6	+32 8	6.4 6.5	6.1
D.M.	1471	6 53.4	+21	60	8.0	89.6	27.4	90.3	6	56.1	+21 57	6.9 6.9	6.5
	1293	6 44.4	+21	55	5.2	90.4	27.3	92.2	6	~~49.0~~ 45.6	+21 53	5.5	5.1
	1609	7 3.4	+22	31	8.0	30.6	27.5	30.3	7	6.1	+22 27		
D.M.	~~1492~~	~~7 1.4~~	~~+32~~	~~27~~	~~7.3~~	~~28.6~~	~~37.4~~	~~28.0~~				7.1 7.0	6.6
	1338	6 38.1	+22	49	5.8	91.3	27.4	91.8	6	59.3	+22 47	5.9	5.5
D.M.	1460	6 51.9	+32	35	6.8	88.3	37.4	89.8	6	54.8	+32 32	6.4 6.5	6.1
D.M.	1531	6 49.5	+22	40	7.3	89.2	27.5	90.4	6	52.2	+22 37	7.0 7.0	6.6
D.M.	1433	6 44.7	+32	41	7.0	87.3	37.3	90.3	6	47.6	+32 38	6.4 6.1	5.7
	1285	6 41.9	+32	44	5.7	88.1	37.3	92.0	6	43.1	+32 43	6.6 6.6 6.8 6.8	6.2 6.4 5 40.2 +32 46
D.M.	1484	6 40.5	+22	28	7.5	88.5	27.3	90.6	6	43.3	+22 25	7.0 6.8	6.4
	1526	7 16.6	+33	9	7.5	32.4	37.4	28.8	7	19.5	+33 4		
D.M.	~~1498~~	~~7 14.8~~	~~+23~~	~~13~~	~~6.5~~	~~30.6~~	~~27.4~~	~~28.8~~				6.9 6.8	6.4
	1388	7 16.3	+23	11	6.1	32.9	27.4	31.2	7	17.5	+23 9	6.0	5.6
D.M.	1497	7 7.8	+33	21	7.0	31.0	37.5	29.3	7	10.7	+33 17	6.8 6.8	6.4
D.M.	1486	7 1.9	+33	21	7.3	30.1	37.6	29.6	7	4.8	+33 17	6.8 6.8	6.4

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Plate 1062.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
7.2	10.5	I	6	H K=H K=H	F	—	3.6	21.0	33.8	70.4	+2.3
7.1	18.1	I?	3	N N	F	—	3.6	36.2	33.8	55.2	-1.5
7.6	18.7	I	7	5 N N	F		3.8	37.4	33.6	54.0	-1.1
7.2	20.0	II?	3	3 K=H K=H	F	F	3.6	40.0	33.8	51.4	-2.5
7.3	22.7	III	3	2 K=H	F	—	3.6	45.4	33.8	46.0	-2.1
7.9	24.0	I	7	6 N N	F		3.0	48.0	33.4	43.4	-2.4
6.9	15.3	III		K=H							
6.3	13.4	I?	9	K=H	F		3.2	26.8	34.2	64.6	+0.5
6.5	15.7	III	3	2 K=H K=H	F	F	3.2	31.4	34.2	60.0	-0.5
6.2	17.9	II?	3	K=H	F		3.1	35.8	34.3	55.6	-0.7
6.0	21.4	III	3	2 K=H K=H	F	F	3.0	42.8	34.4	48.6	-1.8
6.6	21.8	I	13	K=2H?	F		3.3	43.6	34.1	47.8	-3.6
5.4	11.4	I	6	6 N N	F	F	2.7	22.8	34.7	68.6	+1.1
5.0	12.5	I	7	6 N N	F	F	2.5	25.0	34.9	66.4	+0.7
5.5	15.3	II	3	2 K=H K=H	F	—	2.8	30.6	34.6	60.8	-0.3
5.6	16.2	II	3	3 K=H K=H	2	F F	2.8	32.4	34.6	59.0	-0.7
5.5	18.6	I? I	4	H K=H N		— —	2.8	37.2	34.6	54.2	-1.1
4.9	6.0	III	2	2 K=H K=H	F	—	2.4	12.0	35.0	79.4	+2.7
III ? 5.7	6.0	III	3	K=H	2	F	2.2	16.8	35.2	74.6	+1.9
4.6	20.4	I? I	3	3 N N		— —	2.3	40.8	35.1	50.6	-1.5
4.5	20.7	a? IIa	2	2 K=H K=H		seen seen	2.2	41.4	35.2	50.0	-1.8
3.4	16.8	a? IIa	2	2 K=H K=H		seen seen	1.7	33.6	35.7	57.8	-0.9
3.7	18.0	I	4	N N	F	—	1.8	36.0	35.6	55.4	-0.9
3.8	17.9	II?	3	2 K=H K=H	F	F?	1.9	35.8	35.5	55.6	-0.9
3.8	21.1	a?	3	K=H	2	F seen	1.9	42.2	35.5	49.2	-1.9
3.1	22.6	I I	6	5 K=H N		F?	1.6	45.2	35.8	46.2	-2.4
3.0	13.3	I	6	6 N N		F —	1.5	26.6	35.9	64.8	+0.6
3.0	14.7	II	3	2 K=H K=H		F —	1.5	29.4	35.9	62.0	0.0
2.8	19.2	I	7	2		F	1.4	38.4	36.0	53.0	-1.2
1.0 1.5	2.4	19.5	II?	3	K=H	1	F	1.4	39.0	36.2	52.4	-1.5

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Mean 4

	No.	R.A.	Dec.	mag.	H.	V.	H'	Red. of D.M. Stars to 1900			Br.	Cor. Br.
D.M.	1506	7 10.5	+33 52	7.2	31.5	07.5	29.2	7	13.4	+33 47	6.6 6.8	6.2
D.M.	1454	6 52.2	+33 53	7.5	88.4	37.5	89.9	6	55.2	+33 50	6.9 6.8	6.4
D.M.	1566	6 51.9	+23 40	8.0	89.3	27.5	90.4	6	54.6	+23 37	6.6 6.5	6.1
D.M.	1433	6 47.5	+33 53	6.3	87.5	37.5	90.0	6	50.5	+33 50	6.5 6.5	6.1
D.M.	1518	6 43.2	+23 47	6.5	88.6	27.4	90.7	6	45.9	+23 44	6.9 6.8 7.2 7.1	6.4 6.7
D.M.	1504	6 40.4	+23 22	7.6	88.4	27.4	90.8	6	43.1	+23 19	6.6 6.4	6.0
—	1533	6 56.7	+34 2	6.6				7	1.7	+ 33 58	7.15	
	1355	7 5.2	+24 20	5.8	32.0	27.5	31.5	7	6.3	+24 17	5.9	5.5
	1341	6 59.5	+34 11	6.1	90.9	37.4	91.4	7 6	0.9	+ 34 9	6.8 6.7 7.1 7.0	6.3 6.6 57.9 +34 13
	1326	6 55.1	+24 23	5.3	90.9	27.5	91.6	6	56.4	+ 24 21	5.8	5.4
D.M.	1451	6 45.9	+24 26	6.8	88.7	27.4	90.5	6	48.7	+24 23	7.0 6.9 7.0 7.0	6.5 6.6
	1295	6 44.9	+34 6	3.7	88.5	37.4	92.1	6	46.2	+34 5	4.6	4.2
D.M.	1592	7 8.0	+24 47	7.5	30.8	27.5	29.7	7	10.7	+24 43	6.7 6.6	6.2
D.M.	1576	7 5.6	+24 57	7.3	30.6	27.5	31.3	7	8.4	+24 53	6.4 6.4	6.0
D.M.	1534	6 58.7	+34 43	8.0	89.3	37.5	89.6	7	1.7	+34 39	7.0 7.0	6.6
	1339	6 58.2	+34 40	5.7	90.6	37.5	91.3	6	59.6	+34 38	6.3 6.1	5.7
	1491	6 52.0	+24 41	8.3	89.2	27.5	90.3	6	54.8	+24 38	7.3 7.0	6.6
D.M.	~~1493~~	~~6 53.1~~	~~+24 33~~	~~8.0~~	~~90.3~~	~~27.4~~	~~91.4~~					
D.M.	1665	7 19.9	+24 57	7.6	31.9	27.4	29.2	7	22.6	+24 52	7.0 7.0 7.2 7.2	6.6 6.8
	1387	7 16.2	+25 17	5.0	33.0	27.5	31.1	7	17.4	+25 15	5.9 5.5 6.1 5.7	
D.M.	1509	6 48.1	+25 8	7.5	88.9	27.4	90.4	6	50.9	+25 5	7.2 7.0	6.6
Dm	1502	6 47.4	+25 11	7.5	88.8	27.4	90.6	6	50.2	+25 8	7.3 7.1	6.7
D.M.	1545	6 55.1	+35 45	8.1	88.7	37.5	89.6	6	58.1	+35 41	7.0 7.1	6.7
D.M.	1542	6 53.2	+25 38	7.0	89.2	27.4	90.1	6	56.0	+25 35	6.7 6.4	6.0
D.M.	1545	6 53.5	+25 33	7.5	89.2	27.5	90.1	6	56.3	+25 30	7.0 7.0	6.6
D.M.	1496	6 46.4	+25 33	6.2	88.6	27.5	90.5	6	49.2	+25 30	6.1	5.7
Dm	1469	6 43.0	+25 50	7.0	7.8.8	~~27.4~~		6	45.8	+25 47		
~~D.M.~~	~~1460~~	~~6 42.0~~	~~+25 55~~	~~7.2~~	~~89.2~~	~~27.5~~	~~89.6~~	~~6~~	~~44.8~~	~~+25 52~~	6.6 6.5	6.1
D.M.	1609	7 3.9	+25 59	7.2	30.5	27.5	29.9	7	6.7	+25 55	6.5 6.5	6.1
D.M.	1594	7 0.7	+25 58	7.0	30.1	27.5	30.1	7	3.5	+25 54	6.9 7.0	6.6
D.M.	1411	6 50.5	+26 6	6.5	88.9	27.5	90.1	6	53.3	+26 3	6.0	5.6
D.M.	~~1485~~	~~6 49.8~~	~~+26 16~~	~~6.5~~	~~88.8~~	~~27.5~~	~~90.3~~	~~6~~	~~52.0~~	~~+26 13~~		

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F. w. f.c. 6.2 . 5.9

F. ch. 6.7

April 16, 1887.

Plate 1063.

	V	H	Type	No. Lines	Y	Focus	Other Lines	V.	H.	V.	EE	Correc.
8 40	22.7	20.0	III ?	2	K=H	1	—	11.4	400	46.1	51.1	-4.7
	21.1	8.6	I	1		1	—	10.6	17.2	46.9	73.9	+6.0
	21.6	8.9	II ?	2	2 K=H K=H	1	— —	10.8	17.8	46.7	73.3	+3.6
	21.4	14.9	I	1		1	F	10.7	29.8	46.8	61.3	+0.1
	21.0	19.8	III	3	3 K=H K=H	1	F F'	10.5	38.6	47.0	52.5	-4.1
	21.8	19.5	I	1		2	F	10.9	39.0	46.6	52.1	-2.2
	20.8	9.8	II ?	3	K=H	2	F	10.4	19.6	47.1	71.5	+3.3
?	20.0	12.9	II a	3851 2	K=H	2	F seen	10.0	25.8	47.5	65.3	+1.9
	20.0	13.6	II ?	3	3 K=H K=H	1	F F'	10.0	27.2	47.5	63.9	+1.3
?	20.3	18.8	II a	3	2 K=H K=H	1	F seen	10.2	37.6	47.3	53.5	-2.2
	19.1	10.2	II ?	3	2 K=H K=H	1	F —	9.6	20.4	47.9	70.7	+3.0
	19.1	12.7	I	3	5 K=H	1	— F	9.6	25.4	47.9	65.7	+2.1
	19.2	13.8	I		K=H	1	F	9.6	27.6	47.9	63.5	+1.1
	19.7	15.2	I I ?	4	3 K=H	1	F ?	9.8	30.4	47.7	60.7	-0.3
	19.0	16.5	I ?	9	2		F	9.5	33.0	48.0	58.1	-1.5
?	19.4	16.9	II a	3885 1	3 K=H K=H	1	F seen	9.7	33.8	47.8	57.3	-1.1
	18.9	9.1	I	I ?	3 K=H	1	— —	9.4	18.2	48.1	72.9	+5.7
	18.4	18.9	III	3	3 K=H K=H	1	F F'	9.2	37.8	48.3	53.3	-2.4
	18.6	20.3	II	II	3 2 K=H K=H	1	F F'	9.3	40.6	48.2	50.5	-3.5
	17.9	6.8	I ?	I	5 3 K=H	1	F	9.0	13.6	48.5	77.5	+5.4
	17.9	8.6	I		?	3	F	9.0	17.2	48.5	73.9	+6.3
	17.3	9.6	I		K=H	2	F	8.6	19.2	48.9	71.9	+5.4
	17.2	11.3	III ?	3	2 K=H K=H	1	F —	8.6	22.6	48.9	68.5	+2.4
?	17.5	12.5	II a ?	3954 II a	2 K=H K=H	1	F seen	8.8	25.0	48.7	66.1	+2.4
	17.4	13.6	I	I	6 K=H	1	F —	8.7	27.2	48.8	63.9	+1.3
	17.3	15.0	II	II	3 3 K=H K=H	1	F F'	8.6	30.0	48.9	61.1	0.0
	17.5	20.9	I		?	2	F	8.8	41.8	48.7	49.3	-3.9
	17.6	21.2	I ?		K=H	1	F	8.8	42.4	48.7	48.7	-4.2

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Mean 3

	No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of Stars to 1900			Br.	Corr Br
D.M.	1202	6 44.6	+46	0	6.8	84.6	57.4	89.3	6	47.9	+45 57			
D.M.	1270	7 17.6	+46	48	6.5	34.8	57.4	28.8	7	20.9	+46 43		6.7	6.4
D.M.	1621	7 14.6	+36	05	7.5	32.4	47.4	28.7	7	17.6	+36 30		7.0 7.0	6.7
D.M.	1571	6 59.7	+36	49	6.8	89.5	47.5	89.4	7	27	+36 45		6.3	6.0
D.M.	1205	6 46.2	+46	52	6.5	34.8	57.4	88.9	6	49.5	+46 49		6.7 6.5 7.0 6.8	6.2 6.5
	1304	6 47.7	+46	26	5.9	86.7	57.3	88.9	6	49.1	+46 25		5.9	5.6
	1382	7 14.0	+36	59	5.3	33.6	47.4	30.3	7	15.4	+36 57		6.2	5.9
	1363	7 7.0	+47	28	5.6	32.8	57.5	30.9	7	8.4	+47 25		5.8 7.0	5.5
D.M.	1413	7 2.8	+47	31	7.2	30.0	57.5	28.7	7	6.1	+47 27		6.9 6.9	6.6
D.M.	1628	6 49.6	+37	17	7.5	87.2	47.5	89.4	6	52.6	+37 14		6.7 6.7	6.4
	1629	6 49.7	+37	17	7.7	87.3	47.5	89.5	6	52.8	+37 14			
D.M.	1706	7 11.7	+37	56	7.1	32.1	47.5	29.1	7	14.7	+37 51		7.1 7.0	6.7
D.M.	1420	7 5.6	+47	53	7.2	31.0	57.5	28.9	7	9.0	+47 49		6.9 6.9	6.6
D.M.	1411	7 2.4	+47	52	6.8	30.0	57.5	28.9	7	5.8	+47 48		6.5	6.2
D.M.	1660	6 58.8	+37	40	6.5	89.2	47.5	89.5	7	1.8	+37 36		6.8 6.8	6.5
D.M.	1391	6 54.3	+47	58	6.8	87.3	57.5	89.8	6	57.7	+47 54		5.8	5.5
D.M.	1645	6 54.5	+37	48	7.0	88.3	47.5	89.4	6	51.6	+37 44		6.8 7.0	6.7
D.M.	1449	7 16.4	+47	56	7.8	34.6	57.3	28.8	7	19.7	+47 51		6.8 6.8	6.5
D.M.	1656	6 49.2	+38	15	6.5	87.0	47.4	89.4	6	52.3	+38 12		6.6 6.4 6.8 6.7	6.1 6.4
D.M.	1641	6 45.7	+38	5	6.6	86.3	47.4	89.8	6	48.8	+38 2		6.8 6.9	6.6
D.M.	1773	7 20.4	+38	29	6.8	34.0	47.5	28.6	7	23.4	+38 24		6.9 7.0	6.7
	1401	7 20.0	+48	26	5.5	37.2	57.4	30.9	7	24.5	+48 24		5.5	5.2
D.M.	1522	7 15.0	+48	50	7.7	34.2	57.4	28.8	7	18.4	+48 45		6.3	6.0
D.M.	1731	7 9.0	+38	56	7.4	31.6	47.5	29.2	7	12.1	+38 52		7.0 6.9 7.2 7.1	6.6 6.8
D.M.	1500	7 6.4	+48	43	7.8	31.4	57.5	29.0	7	9.8	+48 39		6.8 6.9	6.6
D.M.	1489	7 3.0	+48	44	7.6	30.2	57.4	28.9	7	6.4	+48 40		6.6 6.5	6.2
D.M.	1693	6 59.3	+38	50	7.5	89.3	47.4	89.3	7	2.4	+38 46		7.0 7.0	6.7
	1299	6 45.8	+38	39	6.1	87.6	47.4	91.5	6	47.1	+38 38		6.1	5.8
	1298	6 45.0	+38	35	6.3	87.4	47.4	91.6	6	46.3	+38 34		6.4	6.1

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V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
16.4	5.7	I	8	K=H	2	F	8.2	11.4	49.3	79.7	+9.6
16.4	6.2	I	7	H	2	F	8.2	12.4	49.3	78.7	+6.0
16.6	6.6	II ?	3	K=H	K=H 1 1	F F	8.3	13.2	49.2	77.9	+8.7
16.9	7.8	I	5	K=H	N 1 1	F —	8.4	15.6	49.1	74.5	+5.1
16.4	8.1	I	4	H	K=H 1 1	F F	8.2	16.2	49.3	74.9	+7.2
16.4	10.0	III	3	2	K=H	K=H 1 1	F F ?	8.2	20.0	49.3	71.1	+3.3
16.7	11.7	III b	3	3	K=H	K=H 1 1	F F	8.4	23.4	49.1	67.7	+2.3
16.0	14.1	III te	3	K=H	K=H 2 1	F bright diff	8.0	28.2	49.5	62.9	+0.6
16.6	19.9	I	7	6	H N	2 1	F —	8.3	39.8	49.2	51.3	-4.9
? 16.6	21.3	II a	3		K=H	2	F diff.	8.3	42.6	49.2	48.5	-4.3
16.6	22.2	III ?	3	K=H		2	F	8.3	44.4	49.2	46.7	-7.5
16.0	24.0	I	4	H	K=H 1 1		F —	8.0	48.0	49.5	43.1	-6.3
15.7	8.0	III	3	2	K=H	K=H 1 1	F —	7.8	16.0	49.7	75.1	+4.9
15.9	9.5	I	12	H	4		F	8.0	19.0	49.5	72.1	+5.7
15.6	12.2	I	11	K=2H	? 3		F	7.8	24.4	49.7	66.7	+2.7
15.5	15.9	II ?	3	3	K=H	K=H 1 1	F F	7.8	31.8	49.7	59.3	-0.6
15.5	19.0	I	3	H	K=H	1 1	— —	7.8	38.0	49.7	53.1	-2.5
15.4	22.4	II a ? 3858	3	3	K=H	K=H 1 1	F diff. F	7.7	44.8	49.8	46.3	-5.3
? 14.9	8.5	II a 3859	3	K=H		2	F diff.	7.4	17.0	50.1	74.1	+6.9
14.1	11.0	I	6	K=H		1	F	7.0	22.0	50.5	69.1	+4.5
14.5	14.3	II	3 2	K=H	K=H 1 1		F —	7.2	28.6	50.3	62.5	+0.6
14.3	19.9	I	7	K=2H	K=5H 1		F F	7.2	39.8	50.3	51.3	-5.3
13.8	7.9	II ?	2	K=H	K=H 1 1		— F ?	6.9	15.8	50.6	75.3	+7.6
13.2	9.4	III b 3860	3	K=1.5H	?	2	F diff.	6.6	18.8	50.9	72.3	+4.1
13.5	12.3	I ?	4	6	H	K=H 1 1	— F	6.8	24.6	50.7	66.5	+2.7
13.4	17.0	III	3	3	K=H	K=H 1 1	F F	6.7	34.0	50.8	57.1	-1.5
13.8	18.2	I	4	*3	H	N 1 1	F —	6.9	36.4	50.6	54.7	-2.3
13.2	17.3	II a 3860a	2	K=H	K=H	1 1	F ? diff.	6.6	34.6	50.9	56.5	-2.3

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Mean 3

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of D.M. Stars to 1900				Cow Br.	Br.
D.M.	1653	7	27.1	+49	5	6.4	38.5	57.3	28.9	7	30.5	+48	59	6.1	6.4
D.M.	1958	7	22.1	+39	11	7.0	34.5	47.4	28.5	7	25.2	+39	6	6.2	6.5
D.M.	1549	7	24.3	+48	60	7.0	37.5	57.3	28.8	7	27.7	+48	55	6.4	6.7 6.7
D.M.	1760	7	17.8	+38	57	7.1	33.4	47.4	28.3	7	20.8	+38	52	6.7	7.0 7.1
D.M.	1603	7	19.7	+49	10	7.5	35.9	57.4	28.7	7	23.1	+49	5	6.3	6.6 6.6
D.M.	1927	7	12.3	+39	16	7.3	32.3	47.5	29.0	7	15.4	+39	11	6.7 6.9	7.0 7.2 7.2
D.M.	1908	7	7.8	+39	9	6.6	31.2	47.6	28.9	7	10.9	+39	5	6.2 6.4	6.5 6.7 6.7 6.8
	1348	7	3.4	+39	31	5.2	31.6	47.5	31.0	7	4.7	+39	30	5.7 6.1	6.0 6.4
D.M.	1568	6	43.7	+49	4	7.0	83.5	57.4	88.4	6	47.1	+49	1	6.2	6.5 6.5
D.M.	1771	6	43.8	+39	2	6.3	85.6	47.3	89.9	6	46.2	+38	59	5.8	6.1
	1271	6 X	38.5	+48	54	5.3	82.9	57.2	90.4	6	40.0	+48	53	5.7 6.0	6.0 6.3
D.M.	1736	6	36.0	+39	7	7.0	84.0	47.1	90.3	6	39.1	+39	5	6.3	6.6 6.7
D.M.	1945	7	17.5	+39	37	7.0	33.5	47.4	28.6	7	20.6	+39	32	6.8 7.0	7.1 7.3 7.2 7.5
	1392	7	17.7	+49	27	6.6	36.7	57.4	31.0	7	19.2	+49	25	4.6	4.9
	1367	7	9.4	+49	41	4.8	33.8	57.5	31.1	7	10.9	+49	38	4.9	5.2
D.M.	1590	6	55.9	+49	41	7.5	87.7	57.5	88.3	6	59.3	+49	37	6.6	6.9 6.9
D.M.	1799	6	48.8	+37	43	7.3	86.8	47.5	89.3	6	51.9	+39	40	6.4	6.7 6.7
D.M.	1754	6	39.8	+39	38	7.3	84.6	47.3	89.9	6	42.9	+39	35	6.4	6.7 6.7
	1404	7	20.9	+49	55	5.4	37.9	57.3	31.0	7	22.3	+49	53	5.4	5.7
	1379	7	13.1	+50	22	6.6	35.1	57.4	30.6	7	14.6	+50	20	6.2	6.5
D.M.	1803	7	1.2	+40	17	7.7	29.8	47.5	29.2	7	4.3	+40	13	6.5	6.8 6.7
D.M.	1367	6	43.4	+50	11	7.5	83.2	57.4	88.5	6	46.9	+50	8	6.3	6.6 6.6
D.M.	1441	7	20.9	+50	26	8.0	36.7	57.3	28.9	7	24.3	+50	21	6.5	6.8 6.8
	1386	7	15.8	+40	54	5.3	34.6	47.5	30.5	7	17.2	+40	52	5.9 6.1	6.2 6.4
D.M.	1411	7	7.2	+50	45	7.8	31.8	57.6	29.1	7	19.7	+50	41	6.6	6.9 6.9
D.M.	1783	6	53.9	+40	48	7.0	87.9	47.5	89.4	6	54.0	+40	44	6.5 6.6	6.8 6.9 7.0 7.1
D.M.	1770	6	50.6	+40	33	7.3	87.0	47.5	89.3	6	53.7	+40	30	6.4	6.7 6.9
D.M.	1383	6	51.3	+50	52	8.5	83.9	57.5	88.2	6	54.8	+50	49	6.7	7.0 7.2
D.M.	~~1783~~	~~6~~	~~53.9~~	~~+40~~	~~48~~	~~7.0~~									

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Plate 1063.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
13.5	21.9	I	4	H	1	K=H 1 1	F	—	6.8	43.8	50.7	47.3	-7.5 5.1
13.4	22.4	I	7	5	1	K 1	F	—	6.7	44.8	50.8	46.3	-8.1
12.9	5.6	? II	3	2	1	H K=H 1 1	F	—	6.4	11.2	51.1	79.9	+10.5
12.6	7.1	I	6	6	1	H 2 1	F	—	6.3	14.2	51.2	76.9	+5.9
12.8	11.7		8		1	K=2 H 2	F		6.4	23.4	51.1	67.7	+2.4
12.4	19.0	I	8		1	K=H H 1	F	F	6.2	38.0	51.3	53.1	-4.7
12.6	20.7	? II a?	3	2	1	K=H K=H 1 1	F	diff	6.3	41.4	51.2	49.7	-4.2
11.6	7.5	III	3	3	1	H K=H 1 1	F	F	5.8	15.0	51.7	76.1	+7.5
11.7	9.8	I	5	5	1	K=H K=H 1 1	F	F	5.8	19.6	51.7	71.5	+3.9
11.5	12.1	I ? I	4	H	1	K=H 1 1	—	—	5.8	24.2	51.7	66.9	+3.0
11.8	13.9	b? III	3	3	1	K=H K=H 2 2	F	diff F	5.9	27.8	51.6	63.3	+1.2
11.3	19.2	I? IV	3	3	1	K=H 1 1	F	F	5.6	38.4	51.9	52.7	-3.1
11.6	20.1	a II	3	3	1	K=H 2 1	F	diff F	5.8	40.2	51.7	50.9	-5.9
11.4	21.5	III a	3	2	1	K=H K=H 1 1	F	diff	5.7	43.0	51.8	48.1	-5.1
11.0	21.8	b?	3	3	1	K=H ? 2	F	diff	5.5	43.6	52.0	47.5	-5.3
11.4	23.0	I	6	4	1	K=H 1 1	F		5.7	46.0	51.8	45.1	-9.0
10.5	7.1	III ?	3	2	2	K=H K=H 1 1	F	—	5.2	14.2	52.3	76.9	+6.3
10.3	X8.5	I	6	6	1	K=H 2 2	F	F	5.2	37.0	52.3	54.1	+7.5
10.7	10.4	III	3	3	1	K=H 1 1	F	F	5.4	20.8	52.1	70.3	+5.3
10.3	12.7	b III	3	3	1	K=H K=H 1 1	F	diff F	5.2	25.4	52.3	65.7	+2.4
10.4	18.2	III	3	2	1	K=H K=H 1 1	F	—	5.2	36.4	52.3	54.7	-2.4
10.8	18.4	? III	3	3	1	K=H K=H 1 1	F	F	5.4	36.8	52.1	54.3	-2.4
10.0	18.6	I	10	8	1	K=2 H ? N 2 2	F	F ?	5.0	37.2	52.5	53.9	-2.7
10.1	23.5	I	3	3	1	H N 1 1	F	—	5.0	47.0	52.5	44.1	-6.7
9.1	10.1	I	5	4	1	H N 1 1	F	—	4.6	20.2	52.9	70.9	+3.9
9.2	10.7	III	3	3	1	K=H K=H 1 1	F	F	4.6	21.4	52.9	69.7	+3.5
9.5	13.5	I ? I ?	6	H	1	K=2 H N 1 1	F	—	4.8	27.0	52.7	64.1	+1.7
9.0	16.3	I	8		1	H 2	F		4.5	32.6	53.0	58.5	-1.5

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Mean 3

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of Stars to 1900				Corr. Br.	Br.	
D.M.	1732	6	41.0	+40	33	7.5	84.8	47.4	89.9	6	44.2	+40	30	6.6	6.9	6.9
D.M.	1349	6	35.1	+50	31	7.3	79.9	57.2	88.0	6	38.6	+50	29	6.2	6.5	6.5
D.M.	1452	7	28.3	+50	50	7.2	39.5	57.2	29.0	7	31.7	+50	44	6.5	6.8	7.0
D.M.	1669	7	20.2	+41	10	6.7	34.4	47.5	28.6	7	28.3	+41	5	6.0	6.3	6.5
	1369	7	9.7	+41	6	5.8	33.1	47.5	30.7	7	11.1	+41	4	5.4	5.7	
D.M.	1258	6	45.6	+51	10	8.0	83.6	57.4	88.3	6	49.1	+51	7	6.3	6.6	6.7
D.M.	1549	6	44.0	+41	4	7.4	85.4	47.4	89.6	6	47.2	+41	1	6.7	7.0	6.9
D.M.	1327	7	22.7	+51	37	6.5	37.7	57.4	30.2	7	26.2	+51	32	6.4 6.7	6.7 7.0	6.9 7.2
D.M.	1646	7	13.4	+41	40	7.3	33.0	47.5	29.1	7	16.5	+41	35	6.5	6.8	6.7
D.M.	1309	7	8.1	+51	45	7.7	32.2	57.6	29.2	7	11.6	+51	41	6.7	7.0	7.2
	1352	7	4.0	+51	37	5.6	31.8	57.5	30.6	7	5.6	+51	36	6.1 6.5	6.4 6.8	6.5 6.7
D.M.	1558	6	47.7	+41	34	6.6	86.1	47.5	89.1	6	50.9	+41	51	6.5 6.6	6.8 6.9	6.7 6.9
D.M.	1249	6	42.0	+51	40	7.5	82.2	57.5	88.1	6	45.6	+51	37	6.0	6.3	6.6
D.M.	1546	6	41.6	+41	44	7.8	84.6	47.4	89.7	6	44.8	+41	41	6.7	7.0	7.1
	1287	6	42.3	+41	56	5.0	85.9	47.4	91.2	6	43.7	+41	54	5.6 5.8	5.9 6.1	
D.M.	1229	6	32.6	+51	36	7.3	78.6	57.3	87.6	6	36.2	+51	34	6.4	6.7	6.4
D.M.	1722	7	20.5	+42	11	7.0	34.7	47.4	28.4	7	23.7	+42	6	6.6 6.9	6.9 7.2	7.1 7.5
D.M.	1217	7	19.7	+52	17	7.0	36.7	57.5	28.2	7	23.2	+52	12	6.0	6.3	6.3
D.M.	1205	7	13.6	+52	10	6.1	34.4	57.6	29.1	7	17.1	+52	5	6.2 6.6	6.5 6.9	6.5 7.0
	1365	7	8.2	+52	21	6.0	33.6	57.6	31.2	7	9.7	+52	18	6.1 6.4	6.4 6.7	6.5 6.7
D.M.	1635	6	50.2	+42	16	7.8	86.6	47.5	89.0	6	53.4	+42	13	6.7 7.0	7.0 7.3	7.3 7.6
D.M.	1632	6	49.7	+42	4	7.6	86.5	47.5	88.9	6	52.9	+42	1	6.4 6.6	6.7 6.9	6.8 7.0
D.M.	1629	6	49.0	+42	29	6.5	86.2	47.5	88.9	6	52.2	+42	26	5.7	6.0	6.1
D.M.	1600	6	35.9	+42	24	7.0	82.9	47.4	89.6	6	39.1	+42	22	6.5	6.8	7.0
D.M.	1704	7	12.5	+42	56	7.7	32.7	47.5	28.8	7	15.7	+42	51	6.4	6.7	6.8
D.M.	1699	7	10.8	+42	55	6.5	32.2	47.5	28.7	7	14.0	+42	50	6.4 6.8	6.7 7.1	6.8 7.1
D.M.	1184	7	3.3	+52	47	7.0	30.3	57.6	28.6	7	6.9	+52	43	6.1	6.4	6.6
D.M.	1165	6	54.1	+52	57	6.7	86.7	57.5	88.2	6	57.7	+52	53	5.6	5.9	

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April 13, 1887.

Plate 1063.

	V	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V	H.	Correc.
	9.7	18.1	III	III	3	F		4.7	36.2	52.8	54.9	-3.6
	9.1	24.1	I	?I	5	F	—	4.6	42.2	52.9	48.9	-4.9
	9.0	28.1	II	II	2	F	—	4.5	40.2	53.0	50.9	-6.0
	8.6	20.3	I	I	5	F	—	4.3	40.6	53.2	50.5	-4.1
	7.0	14.1	I		2	F		3.5	28.2	54.0	62.9	+0.7
	7.9	17.2	I			F		4.0	34.4	53.5	56.7	-2.5
	7.8	22.7	III			F		3.9	45.4	53.6	45.7	-9.3
	7.4	23.2	II	a 3865		F	recn	3.7	46.4	53.8	44.7	-6.7
?	6.3	6.4	I	d?	2	F	recn	3.2	12.8	54.3	78.3	+10.8
	6.3	11.0	II	II	2	F	—	3.2	22.0	54.3	69.1	+5.1
	6.2	15.1	II	a? IIa 3866	2	F	recn	3.1	30.2	54.4	60.9	-0.1
	6.6	15.4	III	III	2	F	—	3.3	30.8	54.2	60.3	-0.4
	6.1	22.8	II	II	2	F	—	3.0	45.6	54.5	46.5	-9.6
	5.8	14.1	I		2	F		2.9	28.2	54.6	62.9	+1.1
	5.0	17.5	I	b? 3867	2	F		2.5	35.0	55.0	56.1	-3.0
	5.9	17.6	III	III	2	F	—	3.0	35.2	54.5	55.9	-2.3
	5.4	19.6	II	a? IIa 3868	2	F	recn	2.7	39.2	54.8	51.9	-4.1
	5.0	20.8	I		2	F		2.5	41.6	55.0	49.5	-5.3
	4.2	10.9	I		3	F		2.1	21.8	55.4	69.3	+3.6
	4.0	11.4	I		4	F		2.0	22.8	55.5	68.3	+4.8
	4.4	12.0	II	? II	2	F	? —	2.2	24.0	55.3	67.1	+2.5
	4.7	12.2	I	? I	H	?	—	2.4	24.4	55.1	66.7	+3.6
	4.6	19.1	I		4	F		2.3	38.2	55.2	52.9	-3.6
	3.9	12.9	II	? II	2	F	—	2.0	25.8	55.5	65.3	+1.8
	3.5	14.6	I	? I	3	F	—	1.8	29.2	55.7	61.9	+0.6
	3.0	19.9	III			F		1.5	39.8	56.0	51.3	-4.5
	2.7	7.5	III	III	2	F	—	1.4	15.0	56.1	76.1	+9.7
	3.1	21.2	III	3868	2	F	recn	1.6	42.4	55.9	48.7	-8.1
	2.8	17.3	I	I	H	F	? —	1.4	34.6	56.1	56.5	-2.1
	2.3	19.4	I		2	F		1.2	38.8	56.3	52.3	-4.2

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Mean 3

Cou.

No.	R. A.	Dec.	MAG.	H.	V.	H'	Red. of Stars to 1900			Bv	Br
D.M. 1152	6 48.2	+52 44	6.8	84.4	57.4	88.0	6 51.8	+52 41		6.5 6.9	6.8 7.2 7.3
D.M. 1613	6 42.3	+42 47	7.8	84.5	47.4	89.4	6 45.5	+42 44		6.6	6.9 7.1
D.M. 1140	6 41.3	+52 50	8.2	81.5	57.3	87.5	6 44.9	+52 47		6.7	7.0 7.2
D.M. 1615	6 44.4	+43 7	7.5	85.0	47.4	89.1	6 47.6	+43 4		6.2	6.5 6.7
D.M. 1598	7 1.6	+44 4	6.7	29.8	47.6	29.1	7 4.8	+44 0		5.9	6.2
D.M. 1094	6 50.9	+53 34	7.4	85.3	57.6	87.8	6 54.5	+53 31		6.3	6.6
D.M. 1058	6 32.5	+53 26	6.5	77.9	57.3	87.2	6 36.1	+53 24		6.4 6.7	6.7 7.0
1269	6 38.1	+43 42	5.4	84.5	47.4	91.2	6 39.5	+43 40		5.3	5.6
D.M. 1167	7 27.7	+54 13	7.0	40.5	57.4	39.7	7 31.3	+54 7		5.7	6.0
D.M. 1137	7 12.0	+54 22	8.0	34.0	57.6	28.9	7 15.6	+54 17		6.7	7.0 7.1
D.M. 1587	6 58.6	+44 29	7.5	88.8	47.6	88.9	7 1.8	+44 25		6.5	6.8 6.8
D.M. 1584	6 57.7	+44 15	7.0	88.5	47.5	88.9	7 0.9	+44 11		6.4 6.7	6.7 7.0 7.0
D.M. 1061	6 31.4	+54 15	7.5	77.0	57.2	86.6	6 35.1	+54 13		6.5	6.8 6.9
D.M. 1119	7 1.4	+54 42	6.8	29.6	57.6	28.5	7 5.1	+54 38		5.9	6.2
D.M. 1155	6 49.4	+55 2	7.0	84.4	57.5	87.4	6 53.1	+54 59		5.7	6.0
D.M. 1589	6 51.5	+44 39	7.7	86.7	47.6	89.0	6 54.8	+44 36		6.7 7.0 7.3	7.0 7.3 7.4
D.M. 1554	6 43.8	+44 50	8.4	85.0	47.5	89.1	6 49.1	+44 47		6.7	7.0 7.2
D.M. 1359	6 42.5	+45 1	7.0	84.1	47.5	89.4	6 45.8	+44 58		6.4	6.7
1376	7 12.6	+45 27	5.6	34.4	47.5	30.8	7 14.1	+45 24		5.5	5.8 7 10.8 +45 29
1378	7 13.1	+55 30	5.2	35.9	57.5	31.1	7 14.7	+55 28		4.7	5.0 7 11.0 +55 33
D.M. 1415	7 7.5	+45 22	7.6	31.5	47.6	29.0	7 10.8	+45 18		6.7	7.0 7.2
D.M. 1185	7 8.0	+55 9	8.0	32.4	57.6	28.8	7 11.7	+55 5		6.1	6.4 6.7
1310	7 6 48.9	+45 17	4.7	87.1	47.6	90.7	6 50.4	+45 14		4.7	5.0
D.M. 1408	7 5.1	+45 39	7.0	30.9	47.6	29.1	7 8.4	+45 35		6.7	7.0 6.8
D.M. 1174	6 59.6	+55 51	7.2	88.8	57.6	88.2	7 3.3	+55 47		6.5	6.8 6.6
D.M. 1202	6 44.6	+46 0	6.8	84.4	47.5	89.9	6 47.9	+45 57		6.4 6.6	6.7 6.9
1425	7 27.0	+56 21	6.1	42.0	57.4	32.3	7 28.4	+56 0		6.0	6.2 6.5
~~D.M. 1422~~ 1267-8	~~6 36.1~~ 6 38.1	~~+55 51~~ +55 49	~~6.0~~ 6.5	~~78.5~~ 80.5	~~57.4~~ 84.4	~~86.6~~ 88.6	6 39.9	+55 49		5.5	5.8
D.M. 1218	6 52.1	+46 10	7.5	86.6	47.6	88.7	6 55.4	+46 7		6.5	6.8 6.8
1304	6 47.7	+46 26	5.9	86.5	47.6	90.7	6 49.1	+46 25			6 45.8 +46 28

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F. in. to c. 7.6 6.5

F. to c. ~~6.5~~ 6.6

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Plate 1110.

	V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
?	21.4	15.2	II a 3870	k?	K=H	1	F seen,	10.7	30.4	21.7	20.6	-0.1
	20.4	14.2	III	3 3	K=H K=H	1	F. F	10.2	28.4	22.2	22.6	+0.0
	20.9	16.5	I	7	K=.2H	2		10.4	33.0	22.0	18.0	-0.1
	20,3	18.7	I	9	K=.8H	4	F.	10.2	37.4	22.2	13.6	-0.9
?	20.0	20.2	III fc? 3871	3	K=~~2~~ 2.0 H ?	5	F, bright seen	10.0	40.4	22.4	10.6	
	18,5	17.2	I	6	K=.5H	1	—	9.2	34.4	23.2	16.6	-0.6
	16.1	22.2	I ?		K=H	1	F.	8.0	44.4	24.4	6.6	-1.9
	15.5	7.7	III ?	3	K=1.5 H	2	F.	7.8	15.4	24.6	35.6	+1.9
	15.8	10,1	I	7		1	F.	7.9	20.2	24.5	30.8	+1.3
	14,3	14.7	I	6		1	— A?	7.2	29.4	25.2	21.6	00
	14,5	17.2	III	3	K=H	2	F.	7.2	34.4	25.2	16.6	-0.7
?	14.2	18,8	~~II~~ d ?		?	1	F. ~~seen~~	7.1	37.6	25.3	13.4	-0.6
?	13.4	16,7	II a 3872	3	~~K=H ?~~	1	F, seen	6.7	33.4	25.7	17.6	-0.3
	12,8	12,4	I	7		2	F.	6.4	24.8	26.0	26.2	+0.5
	11.5	19,8	I	10	K=.2H	4	F.	5.8	39.6	26.6	11.4	-0.7
	10.5	10.7	II a 3873	3	K=H K=H	1	F F? seen,	5.2	21.4	27.2	29.6	+0.7
III ? 6.3, 6.6.	10,7	11.7	III fc? 3874	3	K=H	2	F. bright seen	5.4	23.4	27.0	27.6	+1.1
	10.3	13.3	III	3 8	K=H K=H	1	F F	5.2	26.6	27.2	24.4	+0.3
	? 10.7	12.6	I d?	6		2	F. seen	5.4	4.52	27.0	25.8	-2.5
III ? 5.5, 5.8	9.1	9.7	III II 3875	2	K=H K=H	1	Bright	4.6	19.4	27.8	31.6	
	9,0	16,1	III fc	3	K=H	2	F, seen	4.5	32.2	27.9	18.8	-0.5
	9,3	16.7	II a 3876	3	K=H	1	F. seen	4.6	33.4	27.8	17.6	-0.6
	8.4	7.6	III fc? 3877	8	K=3.0 H ?		F. bright seen	4.2	15.2	28.2	35.8	+2.7
	8.7	14.5	III	3	K=H	1	F.	4.4	29.0	28.0	22.0	+0.3
	7.4	6.5	III I	2	K=H	1	—	3.7	13.0	28.7	38.0	
	8.4	14.7	I	10	K=.2H	2	F.	4.2	29.4	28.2	21.6	+0.1
	6.6	8.6	III I 3878	3	K=H	1	F. seen	3.3	17.2	29.1	33.8	+2.5
	4.0	15,6	I	6	K=H	1	F.	2.0	31.2	30.4	19.8	-0.1
III ? 6.3, 6.7.	4,0	22.5	III b? 3879	3	K=H	1	F.	2.0	45.0	30.4	6.0	-3.1
	2.7	12.2	III	3	K=H	1	F.	1.4	24.4	31.0	26.6	+1.2
	2.7	19.5	I	4		1	F.	1.4	39.0	31.0	12.0	-1.9

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Means 8

Corr.

	No.	R.A.	Dec.	Mag.	H.	V.	H'.	Rd. of Stars to 1900		Bv.	Br.
	1402	7 20.6	+21	41	5.3	51.0	32.4	51.1	7 21.8 + 21 39	5.8	6.6
	1413	7 23.1	+12	15	5.0	51.5	22.4	51.5	7 24.2 + 12 13	5.9 6.3	6.7 7.1 6.7 7.1
	1393	7 18.2	+11	54	5.4	51.2	22.3	51.3	7 19.4 + 11 53	5.6	6.4
	1377	7 13.0	+22	12	3.6	50.4	32.4	51.3	7 14.2 + 22 10	4.3	5.1
Saturn										B	B
	1388	7 16.3	+23	11	6.1	50.7	32.4	51.3	7 17.5 + 23 9	5.8	6.6
	1355	7 5.2	+24	20	5.8	49.6	32.3	51.5	7 6.3 + 24 17	6.0	6.8
	1457	7 37.2	+24	41	3.6	52.6	32.5	50.7	7 38.4 + 24 38	5.0	5.8
D.Tr.	1730	7 30.4	+24	34	7.0	50.6	32.5	49.3	7 33.1 + 24 28		
D.Tr.	1743	7 29.7	+14	23	6.5	49.9	22.3	49.2		5.9	6.7
D.Tr.	1579	7 20.6	+15	25	7.0	50.0	22.6	50.0	7 23.2 + 15 20	5.8	6.6 6.6
	1387	7 16.2	+25	17	5.0	50.6	32.5	51.3	7 17.4 + 25 15	5.5 5.7	6.3 6.5
D.Tr.	1541	7 11.9	+15	26	6.8	49.5	22.5	50.1	7 14.5 + 15 21	6.0	6.8
D.Tr.	1564	7 16.2	+15	48	7.0	49.6	22.5	49.9	7 18.8 + 15 43	5.8	6.6
	1421	7 26.8	+16	5	5.0	51.6	22.5	51.1	7 27.9 + 16 3	5.0	5.8
	1373	7 11.2	+16	45	3.6	50.8	22.6	51.5	7 12.4 + 16 43	4.0	4.8
D.Tr.	1623	7 28.8	+17	13	8.0	50.2	22.4	49.5	7 31.4 + 17 7	6.2	7.0 7.2
	1430	7 26.5	+27	10	4.2	51.9	32.6	50.8	7 29.8 + 27 7	5.3 5.9	6.1 6.7
	1415	7 24.8	+17	20	5.6	51.4	22.5	51.1	7 26.0 + 17 18	6.0 6.2	6.8 7.0 6.8 7.1
	1351	7 3.9	+27	4	5.5	49.1	32.5	51.6	7 5.2 + 27 2	5.5 6.2	6.3 7.0 7.1 7.5
	1440	7 32.6	+17	58	5.2	52.0	22.6		7 33.7 + 17 55		
	1394	7 18.3	+28	2	4.0	50.5	32.5	51.0	7 19.5 + 28 0	4.5 4.8	5.1 5.6
D.Tr.	1374	7 15.5	+27	55	6.9	48.9	32.5	49.5	7 18.3 + 27 50	5.8	6.6
	1459	7 38.0	+28	19	1.1	53.2	32.5	50.5	7 39.2 + 28 16	B	B
	1412	7 22.4	+28	10	5.1	51.4	32.6	51.1	7 23.6 + 28 7	5.7 6.0	6.5 6.8
	1463	7 39.2	+18	48	5.1	52.2	22.5		7 46.3 + 18 45	6.4 6.7	7.2 7.5
	1409	7 21.9	+28	23	5.1	51.3	32.6	51.2	7 23.1 + 28 19	4.7 5.5	5.3 6.3
	1453	7 35.8	+29	10	4.1	53.0	32.5	50.5	7 37.0 + 29 7	5.8	6.6
	1400	7 19.9	+20	30	5.7	51.1	22.5	51.2	7 21.1 + 20 27	6.0	6.8
	1349	7 3.5	+30	26	4.6	48.5	32.4	51.6	7 4.8 + 30 25	5.8 6.1	6.6 6.9
	1426	7 27.5	+31	13	5.4	51.9	32.6	50.7	7 28.8 + 31 11	6.1 6.4	6.9 7.2
	1371	7 10.4	+31	11	5.9	49.4	32.6	51.3	7 11.7 + 31 9	5.7	6.5

7 23.4 + 17 23

7 8.8 + 31 13

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F. nw. 4c. 8.0 6.8

F. ch. 6.8

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Plate 1111.

V	H	Type.	Nos. lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
22.5	19.3	I	4	K=H	1	—	11.2	38.6	41.3	12.6	-3.1
22.4	19.7	I	3		1	—	11.2	39.4	41.3	11.8	-2.1
20.2	10.5	II a	22	K=H	1	F. seen	10.1	21.0	42.4	30.2	+2.1
20.6	12.8	I	11			F.	10.3	25.6	42.2	25.6	+1.1
20.8	15.0	I	9	K=½H	2	F.	10.4	30.0	42.1	21.2	0.0
18.3	12.7	I	6	K=H	1	F.	9.2	25.4	43.3	25.8	+1.5
16.3	9.4	II	32	K=H	1	F.	8.2	18.8	44.3	32.4	+3.0
16.6	21.3	I	4		1	—	8.3	42.6	44.2	8.6	-5.4
15.3	11.0	I a?	9	K=H	2	F. seen	7.6	22.0	44.9	29.2	+2.1
14.3	11.3	III	23	K=H	1	F. seen	7.2	22.6	45.3	28.6	+2.1
14.0	17.9	I	7	K=½H	1	F.	7.0	35.8	45.5	15.4	-2.5
12.3	7.3	I	4		1	—	6.2	14.6	46.3	36.6	+7.2
12.3	12.7	III ?	2	K=H	1	—	6.2	25.4	46.3	25.8	
11.5	15.5	I	6	K=1.8H	1	F.	5.8	31.0	46.7	20.2	-0.6
11.0	17.8	III	3	K=H	1	F.	5.5	35.6	47.0	15.6	-1.7
? 11.0	22.9	II a?	3	K=H	1	F. seen	5.5	45.8	47.0	5.4	-4.9
10.0	19.7	II	3	K=H	1	F.	5.0	39.4	47.5	11.8	-4.7
9.0	6.6	III	19	K=H	1	F.	4.5	13.2	48.0	38.0	+8.3
9.3	8.2	III	9		1	F.	4.6	16.4	47.9	34.8	+4.3
? 9.1	20.5	II a?	2	K=H	1	F? seen	4.6	41.0	47.9	10.2	-5.4
8.2	11.2	III	3	K=H	1	F.	4.1	22.4	48.4	28.8	+3.7
8.3	15.2	I	8		3	F.	4.2	30.4	48.3	20.8	-0.5
? 8.7	23.2	II a	3	K=H	1	F. seen	4.4	46.4	48.1	4.8	-8.1
7.5	16.3	I	6	?	1	F.	3.8	32.6	48.7	18.6	-1.2
7.0	12.5	I	8	K=1.5H	2	F.	3.5	25.0	49.0	26.2	+2.4
6.8	14.0	I	5	K=H	1	—	3.4	28.0	49.1	23.2	+0.6
6.3	16.0	I	9		4	F.	3.2	32.0	49.3	19.2	-1.1
? 5.3	15.0	II a	13	K=H	2	F. seen	2.6	30.0	49.9	21.2	0.0
5.7	18.6	I	9	K=.2H	3	F.	2.8	37.2	49.7	14.0	-3.7

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1887phae.proj..838

Mean of 4

	No.	R.A.	Dec.	Mag.	I.	V.	I'	Red of Stars to 1900	Br.	Conv. Rv
	1369	7 9.7	+41	6	58	48.3	52.3	51.4	7 11.1 + 41 4	. . . .
	1371	7 10.4	+31	11	59	49.8	42.4	51.9	7 11.7 + 31 9	6.9 6.5 7 8.8 +31 13
D.M.	1599	7 30.6	+32	20	7.0	51.6	42.4	49.5	7 33.5 + 32 14	7.2 7.2 6.8
	1423									
	1424	7 26.9	+32	9	1.6	52.5	42.5	51.4	7 28.2 + 32 7	B. B
	1405	7 21.4	+32	1	42	51.4	42.4	51.4	7 22.7 + 32 59	5.3 4.9
D.M.	1711	7 25.7	+43	20	6.5	51.1	52.5	49.3	7 28.9 +43 15	7.0 6.6
D.M.	1658	7 33.3	+34	20	6.5	52.1	42.5	49.1	7 36.2 +34 14	7.0 7.0 6.6
D.M.	1578	7 1.6	+44	4	6.7	44.2	52.4	49.6	7 4.8 +44 0	7.1 6.7
	1436	7 31.3	+34	52	47	53.3	42.5	51.2	7 32.7 + 34 49	5.8 5.4
	1434	7 30.7	+35	20	5.6	53.3	42.5	51.2	7 32.0 + 35 17	6.9 6.9 6.5 7.1 7.0 6.7
	1376	7 12.6	+45	27	5.6	48.4	52.4	50.9	7 14.1 + 45 24	6.4 6.0 7 10.8 +45 29
D.M.	1323	7 4.6	+46	18	6.8	56.2	52.5	49.0	7 4.8 +46 12	6.9 6.5
	1427	7 21.9	+46	27	5.8	53.3	52.6		7 29.3 +46 24	7.3 7.7 6.9
	1270	7 17.0	+46	48	6.5	48.6	52.6	49.2	7 20.9 +46 43	6.8 7.3 6.4
H.M.	1273	7 18.3	+46	38	6.5	49.3	52.4	49.7		
	1382	7 14.0	+36	59	5.3	49.6	42.5	51.3	7 10.4 + 36 57	6.4 6.7 6.0 6.3
D.M?	1571	6 59.7	+36	49	6.8	105.5	42.3	110.4	7 2.7 +36 45	6.9 6.5
	1363	7 7.0	+47	28	5.6	46.4	52.5	51.1	7 8.4 + 47 25	6.3 5.9
	1480	7 46.0	+47	52	5.8	59.2	52.4	50.9	7 47.5 + 47 50	6.9 6.5 7.3 6.9
X	1460	7 38.6	+37	48	5.5	55.0	42.4	50.7	7 40.0 + 37 46	6.9 6.5 7.4 7.0 7 37.0 +37 52
D.M.	1411	7 2.4	+47	52	6.8	43.4	52.5	48.8	7 58 +47 48	7.1 6.7
	1439	7 32.4	+48	24	5.8	54.8	52.5	51.1	7 33.8 + 48 22	6.7 6.3 6.9 6.5 7 30.5 +48 28
	1401	7 20.0	+48	26	5.5	50.4	52.6	50.9	7 21.5 + 48 24	5.6 5.2 7 18.1 +48 29
D.M.	1391	6 54.3	+47	58	6.8	100.7	52.4	108.8	6 57.7 +47 54	6.7 6.3
D.M.	1522	7 15.0	+48	50	7.7	47.6	52.6	48.8	7 18.4 +48 45	6.6 6.2
D.M.	1653	7 27.1	+49	5	6.4	52.1	52.6	49.7	7 30.5 +48 59	6.2 5.8
D.M.	1958	7 22.1	+39	11	7.0	50.1	42.6	49.5	7 25.2 +39 6	6.8 6.4
	1392	7 17.7	+49	27	4.6	49.7	52.6	50.6	7 19.2 + 49 25	4.8 4.4
	1404	7 20.9	+49	55	5.4	50.9	52.5	50.9	7 22.3 + 49 53	6.3 5.9
	1367	7 9.4	+49	41	4.8	46.6	52.5	50.3	7 10.9 + 49 35	5.3 4.9

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Plate IIII.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
5.9	21.8	III	1	J1	1	F.	3.0	43.6	49.5	7.6	-4.8
4.3	17.4	II?	2	K=H	1	—	2.2	34.8	50.3	16.4	-2.5
3.6	10.5	I	8	J1	2	F.	1.8	21.0	50.7	30.2	+4.9
3.3	16.9	III?	3	K=H	1	F.	1.6	33.8	50.9	17.4	-1.3
2.8	19.3	I	5	K=H	1	—	1.4	38.6	51.1	12.6	-3.0

F. w. & c. F. ch.

8.0 7.4 Plate IIV3 7.4

	22.5	13.7	I	5	J1	1	—	11.2	27.4	26.3	26.3	+0.1
	21.2	21.1	I	9	K=,8H	4	F.	10.6	42.2	26.9	11.5	-1.1
	20.5	12.9	III	3	K=H	1	F.	10.2	25.8	27.3	27.9	+0.7
?	18.4	8.7	III?	3887 x3	K=2.5H?	?	F, rem	9.2	17.4	28.3	36.3	+2.3
	18.2	15.7	I	6	J1	2	F.	9.1	31.4	28.4	22.3	-0.3
	18.8	17.3	III	3888 b 3	K=H	2	F. rem	9.4	34.6	28.1	19.1	-0.9
	19.0	17.8	I?	4	K=H	1	—	9.5	35.6	28.0	18.1	+1.1
	16.5	9.7	III	3889 h 3	K=H	2	F. rem	8.2	19.4	29.3	34.3	+2.1
	13.9	16.9	II	3890 a 2	K=H	1	F? rem	7.0	33.8	30.5	19.9	-0.5
	12.6	13.3	III	x3	K=H	1	F.	6.3	26.6	31.2	27.1	+0.7
	12.4	20.6	I	4	J1	1	F.	6.2	41.2	31.3	12.5	-2.4
	13.7	23.6	III	3	K=H	1	F.	6.8	47.2	30.7	6.5	-3.7
	11.0	15.9	I	9	K=,8H	3	F.	5.5	31.8	32.0	21.9	-0.5
?	11.7	16.5	II	3891 a? 3	K=H	1	F, rem	5.8	33.0	31.7	20.7	-0.3
	10.8	13.6	I?	3892	J1	?	F.	5.4	27.2	32.1	26.5	+0.6
?	10.6	20.0	II	a? x3	K=H	3	F. rem	5.3	40.0	32.2	13.7	-1.2
?	10.2	22.2	III	? 3893 x3	K=2.0 7.2 H?	?	F. rem	5.1	44.4	32.4	9.3	
	8.6	18.4	I		J1	1	—	4.3	36.8	33.2	16.9	-0.9
	5.7	9.0	III	3894 he 3	K=1.5 1.7 H?	2	F. bright? rem	2.8	18.0	34.7	35.7	+1.7
	5.4	11.8	I	7	K=H	2	F.	2.7	23.6	34.8	30.1	+1.7
	4.5	18.4	I II?	2	K=H	1	F.?	2.2	36.8	35.3	16.9	-1.1

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Mean 4

No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of Phm. stars to 1900		Br.	Cor. Br.
1348	7 3.4	+39 31	5.2	47.0	42.5	51.8	7	4.7 + 39 30	6.8 / 7.2	6.4 / 6.8
1379	7 13.1	+50 22	6.6	47.9	52.6	50.4	7	14.6 + 50 20	7.2	6.8
1448	7 35.0	+50 42	5.2	56.0	52.5	51.1	7	36.5 + 50 40	5.3	4.9
1386	7 15.8	+40 54	5.3	49.6	42.5	50.9	7	17.2 + 40 52	6.8 / 7.2	6.4 / 6.8
1369	7 9.7	+41 6	5.8	48.3	42.5	51.3	7	11.1 + 41 4	6.5	6.1
1421	7 26.8	+16 5	5.0	54.2	27.3	54.1	7	27.9 + 16 3	Y	
1373	7 11.2	+16 45	3.6	53.4	27.4	54.5	7	12.4 + 16 43	5.2	
1430	7 28.5	+27 10	4.2	54.3	37.4	53.6	7	29.8 + 27 7	6.8 / 7.2	
1459	7 38.0	+28 19	1.1	55.4	37.5	53.1	7	39.2 + 28 16	B.	
1409	7 21.9	+28 23	5.1				7	23.1 + 28 19		
~~1412~~	~~7 22.4~~	~~+28 10~~	~~5.1~~	~~53.8~~	~~37.3~~	~~54.1~~	~~7~~	~~23.6 + 28 7~~	6.2	
1394	7 18.3	+28 2	4.0	52.9	37.4	53.8	7	19.5 + 28 0	6.1 / 6.3	
Phm. 1374	7 15.5	+27 55	6.9	51.1	37.4	52.2	7	18.3 + 27 50	7.0	
1453	7 35.8	+29 10	4.1	55.2	37.4	53.1	7	37.0 + 29 17	6.5 / 6.8	
1400	7 19.9	+20 30	5.7	53.7	27.5	54.2	7	21.1 + 20 27	7.1	
1426	7 27.5	+31 13	5.1	54.1	37.5	53.4	7	28.8 + 31 11	6.9 / 7.2	
1371	7 10.4	+31 11	5.9	51.6	37.4	54.0	7	11.7 + 31.9	6.8	78.8+31.13
1349	7 3.5	+30 26	4.6	50.7	37.2	54.4	7	4.8 + 30 25	6.6 / 6.9	
1405	7 21.4	+32 1	4.2	53.2	37.5	53.7	7	22.7 + 32 59	5.2	
1402	7 20.6	+21 41	5.3	53.6	27.5	53.9	7	21.8 + 21 39	6.5	
1423 / 1424	7 26.9	+32 9	1.6	54.1	37.6	53.5	7	28.2 + 32 7	B.	
1377	7 13.0	+22 12	3.6	53.0	27.5	54.2	7	14.2 + 22 10	5.0	
Saturn.									B.	
1388	7 16.3	+23 11	6.1	53.1	27.5	54.0	7	17.5 + 23 9	6.9	
1457	7 37.2	+24 41	3.6	55.2	27.5	53.5	7	38.4 + 24 38	5.6 / 5.8	
1436	7 31.3	+34 52	4.7	54.9	37.6	53.2	7	32.7 + 34 49	6.4	
1387	7 16.2	+25 17	5.0	53.0	27.5	54.1	7	17.4 + ~~56~~ 23 ~~28~~ 15	7.0	

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F. nw. & c. 8.0 7.1 F. ch. 7.1

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Plate 1155.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	Ef.	V.	Ef.	correc.
21.1	10.4	I	4	H1	1	—	10.6	20.8	26.8	53.7	+0.7
20.6	14.4	I	8	K=.2H	2	F.	10.3	28.8	27.1	45.7	+0.3
20.2	22.1	III	b 3895 x 9	K=H1		F. neu	10.1	44.2	27.3	30.3	-2.4
18.9	9.0	II?	2	K=H	1	—	9.4	18.0	28.0	56.5	+2.1
18.6	10.0	III	2	K=H	1	F.?	9.3	20.0	28.1	54.5	+1.8
18.3	17.9	III	3896 3	K=2.5H?		F. neu	9.2	35.8	28.2	38.7	-1.1
? 16.5	9.0	II	a 3897 3	K=H	1	F. neu.	8.2	18.0	29.2	56.5	+1.1
16.5	18.8	III	b 3898 3	K=H	2	F.	8.2	37.6	29.2	36.9	-1.5
14.6	13.3	I	7	H1	2	F.	7.3	26.6	30.1	47.9	+0.3
13.5	18.2	I	I 5	H1	K=H1	— —	6.8	36.4	30.6	38.1	-0.6
17.4	17.7	III	2	K=H	1	—	8.7	35.4	28.7	39.1	
11.0	7.7	II	3	K=H	1	F.	5.5	15.4	31.9	59.1	+1.5
12.2	22.2	II?	3	K=H	1	F.	6.1	44.4	31.3	30.1	-3.3
10.5	22.4	I	9	H1		F. light	5.2	44.8	32.2	29.7	-3.6
8.0	15.4	I	5	H1	1	F.	4.0	30.8	33.4	43.7	-0.3
8.2	16.6	III	III x 9 2	K=H, K=H		F.	4.1	33.2	33.3	41.3	-0.9
7.1	13.2	II	? 3	K=H1		F.	3.6	26.4	33.8	48.1	+0.6
? 5.8	18.4	III	bc 3899 3	K=H	3	F. Bright neu	2.9	36.8	34.5	37.7	-0.9
5.2	20.3	I	? 5	K=H	1	F.	2.6	40.6	34.8	33.9	-2.9
5.9	20.8	I	4	K=H	1	—	3.0	41.6	34.4	32.9	-1.5
4.0	10.6	I	3	H1	1	—	2.0	21.2	35.4	53.3	+1.3

F. nw. & c. 8.1 7.1 Plate 1156. F. ch. 7.1

17.6	19.0	III	x 9	K=H1		F.	8.8	38.0	43.4	36.0	-4.1
17.2	23.1	I	6	H1	2	F.	8.6	46.2	43.6	27.8	-7.3
16.3	20.0	I	4	H1	1	—	8.2	40.0	49.0	34.0	-5.3
15.2	23.7	I	8	H1	3	F.	7.6	47.4	49.6	26.6	-9.3
? 14.4	2 21.5	II	a 3900 3	K=H	2	F. neu	7.2	5 48.0	50.0	1 28.0	-7.9
13.1	17.9	I	7	H1	2	F.	6.6	35.8	50.6	38.2	-3.0

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	No.	R. A.	Dec.	Mag.	H.	V.	H'	Red. of Stars to 1900			Br.
D.Tr.	1612	7 53.2	+16 50	6.4	74.0	27.4	73.3	7 55.8	+16 43		6.9
	1481	7 46.2	+27 5	4.9	75.0	37.4	74.7	7 47.4	+27 2		6.1
	1430	7 28.5	+27 10	4.2	72.7	37.3	75.1	7 29.8	+27 7		6.7 7.1
D.Tr.	1536	7 56.8	+27 56	7.5	74.8	37.3	72.7	7 59.6	+27 49		7.0
	1505	7 56.1	+28 8	5.0	76.1	37.4	74.3	7 57.4	+28 5		7.0 7.2
	1459	7 38.0	+28 19	1.1	73.8	37.5	74.9	7 39.2	+28 16		B
D.Tr.	1911	7 56.4	+19 14	7.0	74.4	27.4	73.3	7 58.0	+19 7		6.8
	1453	7 35.8	+29 10	4.1	73.4	37.4	74.9	7 37.0	+29 7		6.4 6.7
	1436	7 48.7	+20 13	5.3	75.3	27.5	74.8	7 49.8	+20 9		6.0
D.Tr.	1893	7 36.6	+20 39	6.5	73.0	27.4	73.6	7 38.4	+20 33		6.9 7.0
	1463	7 39.2	+18 48	5.1	74.6	27.5		7 40.3	+18 45		7.0 7.5
	1511	8 0.7	+21 56	5.2	16.1	27.4	14.6	8 1.8	+21 53		6.8
	1426	7 27.5	+31 13	5.4	71.9	37.3	70.2	7 28.8	+31 11		6.9
	1423 1424	7 26.9	+32 9	1.6	71.7	37.4	75.3	7 28.2	+32 7		B
D.Tr.	1601	7 41.7	+33 36	6.5	72.5	37.6	72.8	7 44.6	+33 30		6.7
D.Tr.	1812	7 39.9	+23 30	6.5	73.1	27.6	73.6	7 42.6	+23 24		7.0 7.4 7.2 7.5
Dm.	1806	7 47.4	+24 1	6.7	73.8	27.6	73.2	7 50.1	+24 53		7.0
	1457	7 37.2	+24 41	3.6	74.0	27.6	74.9	7 38.4	+24 38		5.4 5.7
	1436	7 31.3	+34 52	4.7	71.9	37.5	74.8	7 32.7	+34 49		6.9
Dm.	1730	7 30.4	+24 34	7.0	72.0	27.6	73.5	7 33.1	+24 28		6.9
D.Tr.	1816	7 53.0	+25 29	7.0	74.2	27.5	72.9	7 55.7	+25 22		7.1

Mean 7 Cow. Br.

	1439	7 32.4	+48 24	5.8	70.4	57.2	74.5	7 33.8	+48 22		6.9 7.3 6.2 6.6 — 7 30.5 +48 28
	1401	7 20.0	+48 26	5.5	66.2	57.0	73.5	7 21.5	+48 24		6.0 5.3 — 7 18.1 +48 29
D.Tr.	1653	7 27.1	+49 5	6.4	67.1	57.3	72.4	7 30.5	+48 59		6.5 5.8
	1392	7 17.7	+49 27	4.6	65.1	57.0	74.4	7 19.2	+49 25		5.1 4.4
	1404	7 20.9	+49 55	5.4	65.9	57.1	73.8	7 22.3	+49 53		6.3 5.6
	1448	7 35.0	+50 42	5.2	70.8	57.3	73.8	7 34.5	+50 40		5.5 4.8

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Plate 1156.

V	H	Type	No. lines	K	Focus	Other lines	V.	Ec.	V.	Ec.	correc.
11.7	19.7	I	3	H	1	—	5.8	39.4	51.4	34.6	-3.5
10.9	10.3	I	9	H	3	F	5.4	20.6	51.8	53.4	+5.4
9.8	21.9	III	3	K=H	1	F	4.9	43.8	52.3	30.2	-8.1 -5.4
8.0	21.2	II	3	K=H	1	F	4.0	42.4	53.2	31.6	-5.1
7.1	5.9	I	d? 6	?	2	F	3.6	11.8	53.6	62.2	+11.1
7.5	9.9	I	6	K=H	1	—	3.8	19.8	53.4	54.2	+6.0
6.2	19.2	I	4	K=H	1	—	3.1	38.4	54.1	35.6	-5.3
5.9	15.6	II	2	K=H	1	—	3.0	31.2	54.2	42.8	-0.7
3.2	23.7	I	7	K=H	2	F	1.6	47.4	55.6	26.6	-11.3

F. nw. 8 c. F. cl.

6.7 6.6 Plate 1172. 7.7

22.4	12.1	II	2	K=H	1	—	11.2	24.2	21.1	66.9	+0.7
20.7	15.2	II	3	H=H?	2	F	10.4	30.4	21.9	60.7	0.0
19.4	17.2	II	II? 3 2	K=H	K=H	1 1	F? F?	9.7	34.4	22.6	58.7	-0.0
18.4	18.5	I	4			1	—	9.2	37.0	23.1	54.1	-0.6
18.8	15.8	III	? 2	K=H		1	—	9.4	31.6	22.9	59.5	
17.7	12.0	III	III 3 2	K=H	K=H	1 1	F —	8.8	24.0	23.5	67.1	+0.5
17.7	12.6	I	5	H		2	—	8.8	25.2	23.5	65.9	+0.6
17.6	16.4	I	8	H		3	F	8.8	32.8	23.5	58.3	-0.1
17.4	19.1	III	III 19	2	K=H	K=H 1	F —	8.7	38.2	23.6	52.9	-0.6
16.5	8.3	II	? IIa 3900a 2	2	K=H	K=H 1 1	F? seen	8.2	16.6	24.1	74.5	+0.9
16.6	14.8	II	a? IIa 3901 3	3	K=H	K=H 2 1	F F seen	8.3	29.6	24.0	61.5	0.0
16.6	16.9	III	? III 2	2	K=H	K=H 1 1	F ? —	8.3	33.8	24.0	57.3	-0.3
16.9	18.3	III	III 33	1	K=H	K=H 1 1	F F	8.4	36.6	23.9	54.5	-0.9
16.8	20.6	I	6	H		2	F	8.4	41.2	23.9	49.9	-1.3
15.4	5.8	I	6	K=H		1	F	7.7	11.6	24.6	79.5	+2.5
15.9	9.5	I	8	H		2	F	8.0	19.0	24.3	72.1	+1.5
16.3	9.7	II	II 2	2	K=H	K=H 1 1	F? F?	8.2	19.4	24.1	71.7	+1.3
15.8	13.0	I	6	K=H		2	F	7.9	26.0	24.4	65.1	+0.3

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Mean 7

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of Stars to 1900				Bz.	Bz.
D.M.	1699	7 30.2	+41 80	6.6	69.6	47.3	73.1	7	33.3	+41	24	6.9	6.2
	1509	7 59.4	+51 51	4.8	80.0	57.2	74.6	8	2.0	+51	48	5.8	4.6
	1217	7 19.7	+52 17	7.0	63.5	57.2	71.6	7	23.2	+52	12	6.9 7.0	6.2
D.M.	1734	~~7 24.0 +42 24 7.1 67.8 47.3 73.2~~										7.1 7.2	6.4
D.M.	1711	7 25.7	+43 20	6.5	68.1	47.3	73.2	7	28.9	+43	15	6.3	5.6
	1540	8 14.7	+53 36	5.8	26.5	57.2	15.4	8	16.2	+53	33	6.0	5.3
Dw	1778	7 57.1	+43 41	6.3	76.9	~~47.5~~ 76.7		8	0.2	+43	34		
~~D.M.~~	~~1821~~	~~8 00 +53 40 7.0 19.8 57.3 12.8~~						~~8~~	~~3.5~~	~~+53~~	~~32~~	6.8	6.1 5.7+43.6
D.M.	1167	7 27.7	+54 13	7.0	66.1	57.3	71.4	7	36.3	+54	7	6.8	6.1
D.M.	1177	7 39.7	+54 29	6.3	70.9	57.5	71.6	7	48.3	+54	23	6.9	6.2
	1378	7 13.1	+55 30	5.2	60.5	57.1	71.8	7	14.7	+55	28	5.7	5.0 7 11.6+55 33

Mean 5

~~Mean 4~~

D.M.	1792	8 6.0	+21 7	7.0	30.2	32.3	29.5	8	8.6	+20	59	7.1	6.7 6.6
	1511	8 0.7	+21 56	5.2	31.1	32.3	31.1	8	1.8	+21	53	6.3	6.1 6.0
D.M.	1754	7 55.5	+12 35	6.9	89.9	22.3	89.9	7	58.0	+12	28	7.2 7.0	6.6 6.5
	1817	7 52.8	+13 4	7.4	89.8	22.3	90.4	7	55.3	+12	57		
D.M.	1816	~~7 52.5 +13 3 7.3 89.5 22.2 90.1~~										6.7	6.3 6.2
	1508	7 59.2	+22 59	6.2	90.8	32.4		8	0.4	+22	56	7.3 7.6	6.9 6.5
D.M.	1868	8 6.3	+13 30	7.2	30.3	22.3	29.5	8	8.8	+13	22	7.1 7.4	7.3 6.9 6.8
	~~1508~~	~~7 59.2 +22 59 6.2~~						~~8~~	~~0.4~~	~~+22~~	~~56~~		
D.M.	1913	8 5.1	+23 35	6.5	30.3	32.4	29.7	8	7.8	+23	27	6.6	6.2 6.1
	1507	7 58.4	+13 28	5.1	91.2	22.3	91.3	7	59.5	+13	25	5.7	5.3 5.2
D.M.	1811	7 51.5	+13 37	6.5	89.7	22.3	90.3	7	54.0	+13	30	7.0 7.1 7.4 7.4	6.7 6.6 7.0 6.9
D.M.	1879	8 13.8	+14 5	7.3	30.4	22.3	29.5	8	16.3	+13	57	7.1 7.1	6.7 6.6
D.M.	1831	8 0.6	+14 4	6.5	30.2	22.4	30.2	8	3.1	+13	56	6.8 6.6	6.2 6.1
D.M.	1817	7 56.0	+14 5	7.7	89.8	22.4	90.1	7	58.5	+13	58	7.2 7.3 7.5 7.3	6.8 6.7 6.9 6.8
D.M.	1866	7 52.4	+23 60	6.5	89.0	32.4	89.9	7	55.1	+23	53	6.8 6.9 7.0 7.1	6.5 6.4 6.7 6.6
D.M.	1806	7 47.4	+24 1	6.7	88.6	32.4	89.9	7	50.1	+23	54	6.6	6.2 6.1
	1561	8 21.5	+24 33	5.9	33.1	32.3	30.6	8	22.7	+24	28		
	~~1562~~	~~8 21.9 +14 36 5.9 33.5 22.3 30.8~~										6.5	6.2 6.0
	1537	8 13.4	+24 21	5.7	32.4	32.4	30.9	8	14.6	+24	20	6.0	5.6 5.5
D.M.	1907	8 11.4	+24 16	8.2	30.8	32.5	29.5	8	14.1	+24	8	7.1 7.2	6.8 6.7
D.M.	1850	8 4.3	+14 27	6.8	30.3	22.3	30.0	8	6.8	+14	19	6.6	6.2 6.1

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Plate 1172, Other

V	H	Type	No. Lines	K	Focus	Lines.	V.	H.	V.	H.	Correc.
14.7	6.7	II a 3902	3	K=H	1	F, Rem	7.4	13.4	24.9	77.7	+2.4
14.6	13.7	I γ	N		2	F.	7.3	27.4	25.0	63.7	+0.1
14.8	14.1	?II	2	2	K=H	K=H 1 1	F. ? —	7.4	28.2	24.9	62.9	+0.1
13.1	14.1	II a 3902a	3	3	K=H	K=H 2 2	F. F Rem b.b	7.8	28.2	25.7	62.9	+0.3
13.9	17.6	II	2	2	K=H	K=H 1 1	F.? F. l	7.0	35.2	25.3	55.9	−0.5
13.8	18.0	I	8	N		2	F.	6.9	36.0	25.4	55.1	−0.9
13.3	18.3	?	3	K=H		1	F.	6.6	36.6	25.7	54.5	−1.1
12.5	10.2	II?	2	K=H		1	F.?	6.2	20.4	26.1	70.7	+0.7
12.5	14.2	III	III	2	2	K=H K=H 1 1	F.? —	6.2	28.4	26.1	62.7	+0.3
12.3	20.3	III b 3903	III	3	3	K=H K=H 1 1	F. Rem F	6.2	40.6	26.1	50.5	−0.9
11.6	9.8	I	7	N		1	F.	5.8	19.6	26.5	71.5	+0.7
11.3	10.3	II	II	2	2	K=H K=H 1 1	F.? —	5.6	20.6	26.7	70.5	+1.5
11.2	10.7	I			N	1	—	5.6	21.4	26.7	69.7	+1.2
11.7	11.8	I	V	6	N	N 1 1	— —	5.8	23.6	26.5	67.5	+0.6
11.6	17.2	I	4	6	N	N 1 1	— —	5.8	34.4	26.5	56.7	−0.7
11.0	18.1	I	8	N		2	—	5.5	36.2	26.8	54.9	−0.6
11.5	18.3	I	I	4	N	K=H 1 1	— —	5.8	36.6	26.5	54.5	−0.6
11.8	21.8	?	I	3	N	K=H 1 1	— —	5.9	43.6	26.4	47.5	−1.1
11.4	23.3	III	III	3	2	K=H K=H 1 1	F. F. l	5.7	46.6	26.6	44.5	−2.5
10.0	6.8	I	7	N		2	F.	5.0	13.6	27.3	77.5	+2.7
10.8	12.8	?II	3	3	K=H	K=H 1 1	F. F	5.4	25.6	26.9	65.5	+0.5
10.8	13.3	?II	2	2	K=H	K=H 1 1	— —	5.4	26.6	26.9	64.5	+0.3
10.9	19.6	III	III	1	3	K=H 1 1	F. F.	5.4	39.2	26.9	51.9	−0.7
10.5	21.6	I		10	K=2	H 3	F.	5.2	43.2	27.1	47.9	−2.3
9.7	6.6	II		2	K=H	1	F.?	4.8	13.2	27.5	77.9	+1.3
9.4	7.1	?II	2	2	K=H	K=H 1 1	— —	4.7	14.2	27.6	76.9	+1.2
9.6	9.9	II a 3904	3	K=H		2	F. Rem	4.8	19.8	27.5	71.3	+1.8
9.1	16.2	I	7	N	1	2	F.	4.6	32.4	27.7	58.7	+0.5

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Mean 5

~~Mean 4~~

	No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of Stars to 1900				Cor. Br.	Cor. Br.	
D.M	1920	8	18.0	+25	1	6.5	31.4	32.4	29.0	8	20.7	+24 52		6.7	6.3	6.2
D.M	1775	8	~~18~~ 38	+15	4	6.3	30.2	22.4	30.1	8	6.3	+14 56		6.5	6.1	6.0
D.M	1839	8	2.0	+14	56	7.9	30.2	22.3	30.1	8	4.5	+14 48		7.2 7.2	6.8	6.7
	1517	8	3.2	+25	52	6.8	31.4	32.5	31.1	8	4.4	+25 50		6.5 6.4	6.0	5.9
D.M	1734	7	54.5	+15	21	6.8	89.7	22.4	90.2	7	57.0	+15 14		7.2 7.1	6.7	6.6
D.M	1816	7	53.0	+25	29	7.0	89.0	32.4	89.9	7	55.7	+25 22		6.3	5.9	5.8
	1498	7	53.6	+25	43	5.9	90.2	32.3	91.3	7	54.8 53.7	+25 40 *		6.8 7.0	6.4 6.6	6.3 6.5
D.M	1679	8	10.1	+16	7	6.5	30.4	22.3	29.7	8	12.7	+15 59		7.1	6.7	6.6
	1728	8	1.4	+26	16	6.8	29.8	32.5	29.5	8	4.1	+26 18		7.3 7.1 7.6 7.3 6.7 6.5 7.0 7.1	6.7 6.9 6.4 6.7	6.6 6.8 6.3 6.6
D.M	~~1864~~	~~8~~	~~1.0~~	~~+25~~	~~59~~	~~8.0~~	~~29.4~~	~~32.2~~	~~29.1~~							
	1487	7	50.2	+16	6	5.9	90.8	22.3	91.7	7	51.3	+16 3				
D.M	1687	8	10.9	+16	34	7.5	30.5	22.4	29.8	8	13.5	+16 26		6.5	6.1	6.0
D.M	1762	8	10.2	+26	47	7.1	30.8	32.4	29.3	8	12.9	+26 39		6.9 6.9	6.5	6.4
D.M	1760	8	9.4	+26	53	7.0	30.8	32.5	29.6	8	12.1	+26 45		6.9	6.6	6.4
D.M	1669	8	6.8	+16	31	7.5	30.4	22.3	29.8	8	9.4	+16 23		6.8 6.7	6.3	6.2
	1707	7	54.5	+26	40	7.5	81.0	32.5	81.7	7	57.2	+26 33				
D.M	~~1713~~	~~7~~	~~56.8~~	~~+26~~	~~31~~	~~8.2~~	~~91.2~~	~~32.3~~	~~91.9~~					~~7.6~~ 6.6	6.2	6.1
D.M	1612	7	53.2	+16	50	6.4	89.4	22.3	90.0	7	55.8	+16 43		6.0	5.6	5.5
	1611	7	52.8	+16	34	8.3	89.4	22.4	90.0	7	55.4	+16 27				
D.M	~~1612~~	~~7~~	~~53.2~~	~~+16~~	~~50~~	~~6.4~~	~~89.8~~	~~22.6~~	~~90.4~~					7.1 7.0	6.6	6.5
D.M	1580	7	45.7	+16	25	7.0	89.3	22.3	90.4	7	48.3	+16 18		7.0 6.8	6.4	6.3
D.M	1656	7	40.9	+26	37	7.0	87.5	32.3	90.0	7	43.7	+26 31		7.1 7.0 7.3 7.2	6.6 6.8	6.5 6.7
	1551	8	19.5	+27	20	5.5	33.1	32.3	30.4	8	20.7	+27 16				
	~~1548~~	~~8~~	~~19.0~~	~~+17~~	~~27~~	~~6.2~~	~~32.6~~	~~22.4~~	~~31.4~~					5.9	5.5	5.4
D.M	1662	8	4.8	+16	57	6.6	30.4	22.4	29.9	8	7.4	+16 49		6.7 6.7	6.3	6.2
D.M	1659	8	3.6	+16	57	7.5	30.2	22.4	29.9	8	6.2	+16 49		7.3 7.3 6.8 6.8 7.2 7.3	6.9 6.4	6.8 6.3 6.7
	1491	7	51.7	+16	49	6.3	90.9	22.2	91.6	7	52.9	+16 47		5.6	5.2	
	1481	7	46.2	+27	5	4.9	89.4	32.3	91.7	7	47.4	+27 2		5.6	5.2	5.1
	1548	8	19.0	+17	27	6.2	32.2	22.2	30.9	8	20.1	+17 23				
D.M	~~1842~~	~~8~~	~~17.6~~	~~+17~~	~~32~~	~~6.2~~	~~30.8~~	~~22.3~~	~~29.5~~					6.5	6.1	6.0
D.M.	1836	8	16.5	+17	40	7.0	30.7	22.4	29.5	8	19.5	+17 32		7.3 7.3	6.9	6.8
	1536	8	12.8	+27	37	5.1	32.6	32.4	30.8	8	14.0	+27 33		5.9	5.5	5.4
D.M	1536	7	58.8	+27	56	7.5	89.2	32.5	89.7	7	59.6	+27 49		6.2	5.8	5.7

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Plate 117 2.

	V	H	Type	No. Lines	K	Forms	Other lines	V.	H.	V.	H.	Correc.
	9.4	18.4	III	3	3	K=H K=H 1	F. F.	4.7	36.8	27.6	54.3	−0.6
	8.1	7.1	III	3	3	K=H K=H 1	F. F	4.0	14.2	28.3	76.9	+2.9
	8.6	12.2	a 3905	2	2	K=H 1	F. 2 cm	4.3	24.4	28.0	66.7	+0.6
?	8.8	13.1	a 3906	3	3	K=1,2 H 2	F 2 cm,	4.4	26.2	27.9	64.9	+0.3
	8.6	17.2	b 3907	3	1.2	K=H 2	F. 2 cm	4.3	34.4	28.0	56.7	−0.6
	8.0	21.7	I	7	7	H 1 1	F.	4.0	43.4	28.3	47.7	−1.2
	7.2	7.8		6		H 1	F.	3.6	15.6	28.7	75.5	+1.2
	7.7	23.1	d ?	6		H 1	F.	3.8	46.2	28.5	44.9	−3.0
	6.0	14.6	II ?	2	2	K=H K=H 1	F. ? F. ?	3.0	29.2	29.3	61.9	+0.1
	6.4	16.6	I	9		H 2	F.	3.2	33.2	29.1	57.9	−0.3
	6.3	18.6	I	5		H 1	F.	3.2	37.2	29.1	53.9	−0.7
	4.9	13.0	I	9		H 2	F.	2.4	26.0	29.9	65.1	+0.7
	4.5	17.9	? I	4	3	H 1 1	— —	2.2	35.8	30.1	55.3	−0.6
	4.3	20.9	I	9		H 2	F.	2.2	41.8	30.1	49.3	−1.2
	5.4	22.7	III	3	2	K=H K=H 1	F.	2.7	45.4	29.6	45.7	−1.3
	2.5	9.4	? III	3	1,2	K=H K=H 1	F. F. ?	1.2	18.8	31.1	72.3	+1.2
	2.6	12.2	?	2	2	K=H 1	F.	1.3	24.4	31.0	66.7	+0.6
1 0	2.0	16.7	I	4	4	H 1 1	— —	1.0	33.4	31.3	57.7	−0.5

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Mean 5

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of Stars to 1900		Cow. Pv	Cow. Bv	Cow. Combs.
	1499	7	53.9	+17	39	6.0	90.7	22.3	91.3	7	55.1 + 17 35	6.2	6.6 6.6	6.1
												6.5	6.9 6.8	6.4
	1549	8	19.2	+28	17	5.9	33.4	32.3	32.5	8	20.1 + 28 14	6.4	6.8 6.7	6.3
												6.8	7.0 7.2	6.7
D.M.	1882	8	5.9	+18	6	7.4	30.3	22.4	29.7	8	8.5 + 17 58	6.1	6.5	6.0
	1521													
	1522	8	5.3	+18	1	4.7	31.5	22.4	31.2	8	6.5 + 17 57	5.4	5.8	5.3
	1505	7	56.1	+28	8	5.0	90.5	32.4	91.1	7	57.4 + 28 5	5.6	6.0	5.5
												5.9	6.3	5.8
D.M.	1497	7	44.4	+28	25	7.1	87.8	32.4	89.0	7	47.2 + 28 18	6.2	6.6 6.6	6.1
	1544	8	16.5	+18	43	5.9	32.1	22.3	30.9	8	17.7 + 18 40	6.0	6.4	5.9
D.M.	1482	7	41.0	+28	33	7.3	87.2	32.4	90.2	7	43.8 + 28 27	6.3	6.7	6.2
D.M.	1696	8	0.6	+29	31	6.7	29.8	32.5	29.7	8	3.4 + 29 23	6.5	6.9 6.8	6.4
D.M.	1911	7	56.4	+19	14	7.0	89.6	22.4	89.9	7	58.0 + 19 7	5.8	6.2	5.7
D.M.	1896	7	52.1	+19	14	7.0	89.3	22.4	90.0	7	54.7 + 19 7	6.2	6.6	6.1
	1526	8	5.7	+30	1	5.6	31.7	32.4	31.0	8	6.9 + 29 57	5.3	5.7	5.2
D.M.	1976	7	52.4	+20	12	7.0	88.2	22.4	88.8	7	55.0 + 20 5	6.5	6.9 7.0	6.4
	1486	7	48.7	+20	13	5.3	90.5	22.4	91.7	7	49.8 + 20 9	5.4	5.8	5.3
D.M.	1854	7	43.5	+19	42	6.5	88.9	22.4	90.2	7	46.1 + 19 35	6.5	6.9 7.0	6.4
												6.7	7.1 7.2	6.6
	1538	8	13.4	+21	6	5.9	32.2	22.3	31.0	8	14.5 + 21 4			
D.M.	1792	8	6.0	+21	7	7.0	30.4	22.4	29.8	8	8.6 + 20 59	6.5	6.9	6.4
D.M.	1758	7	55.9	+21	26	7.0	89.3	22.4	89.8	7	58.5 + 21 19			

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F.w.4c. 7.3 6.8

F. ch. 7.4

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Plate 1173.

				No. lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
1	20	21,5	17,8	2	K=H K=H 1	—	3907a Seen	10.8	35.6	41.6	54.8	-2.1
		20,0	9.2	2	K=H 1	—		10.0	18.4	42.4	72.0	+4.7
		19,9	12,0	2	K=H K=H 1	—	—	10.0	24.0	42.4	66.4	+1.3
		19,3	13,8	2	K=H K=H 1	—	—	9.6	27.6	42.8	62.8	+0.6
		19,9	14,7	2	K=H K=H 1	—	F?	10.0	29.4	42.4	61.0	+0.1
		19,4	15,0	2	K=H 1	—		9.7	30.0	42.7	60.4	0.0
		20,8	22,5	4	K=H 1	—	—	10.4	45.0	42.0	45.4	-3.6
		18,6	6.4	4	H 1	—		9.3	12.8	43.1	77.6	+4.3
?		18,3	13,0	3908 b	H 1	F seen		9.2	26.0	43.2	64.4	+1.7
		18,2	16,9	0	H 1	—		9.1	33.8	43.3	56.6	-0.9
		18,8	19,7	2	K=H K=H 1	—	F?	9.4	39.4	43.0	51.0	-2.3
III	5.8, 6.3.	17,8	10,1	3909 b?	K=H? 2	F	seen	8.9	20.2	43.5	70.2	+4.1
		17,8	15,7	7	H 2	±		8.9	31.4	43.5	59.0	-0.6
		17,2	18,8	2	K=H K=H 1	F?		8.6	37.6	43.8	52.8	-3.0
		17,7	22,4	3910 a	H 1	F	seen	8.8	44.8	43.6	45.6	-0.7
		17,3	23,9	2	K=H 1	F?		8.6	47.8	43.8	42.6	-4.8
		16,2	15,2	3	K=H 1	—	—	8.1	30.4	44.3	60.0	-0.3
		16,6	16,9	3	H 1	—		8.3	33.8	44.1	56.6	-1.5
		16,4	18,9	2	K=H K=H 1	—	F?	8.2	37.8	44.2	52.6	-3.3
		14,2	8,4	3	K=H K=H 1	—	F	7.1	16.8	45.3	73.6	+3.7
		14,2	10,7	2	K=H K=H 1	—	F? seen	7.1	21.4	45.3	69.0	+2.3
		13,4	14,5	3	K=H K=H 2	F	F	6.7	29.0	45.7	61.4	+0.5
		13,5	17,8	3	K=H? 1	F	F	6.8	35.6	45.6	54.8	-1.5
		13,5	20,3		H 2	F?		6.8	40.6	45.6	49.8	-2.9
		12,2	7,2	2	K=H K=H 1	—	—	6.1	14.4	46.3	76.0	+4.8
		12,7	8,6	3	K=H 2	F		6.4	17.2	46.0	73.2	+5.7
		12,6	10,2	3	? 1	F?		6.3	20.4	46.1	70.0	+2.7
		12,6	11,4	4	K=H 1	—		6.3	22.8	46.1	67.6	+2.1

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Mrau 3

	No.	R.A.	Dec.	Mag.	Et.	V.	H'	Red. of D.M. Stars to 1900			cov. Bv	Br.
D.M.	1771	7 51.6	+41 48	7.0	87.2	52.6	89.3	7	34.6	+41 41		7.1 7.2
D.M	1860	8 14.9	+42 28	8.6	33.3	52.5	28.6	8	18.0	+42 20		7.0
D.M	1859	8 14.9	+42 28	6.5	33.3	52.5	28.6	8	18.0	+42 20		7.3
D.M.	1704	8 6.7	+32 38	7.5	30.7	42.6	29.4	8	9.5	+32 30		7.1 7.4
D.M	1695	8 2.6	+32 55	6.7	30.2	42.5	29.6	8	5.5	+32 47		7.0 7.1
D.M	1690	8 0.3	+32 38	6.8	29.7	42.6	29.6	8	3.1	+32 30		6.8 7.0
D.M	1819	7 59.4	+42 52	6.7	89.4	52.6	89.4	8	2.5	+42 45		7.0 7.3
D.M	1676	7 40.8 *	+31 58	7.0	85.8	42.4	89.4	7	43.7	+31 52 * H 48 ? See Misc. Mem. Book 8, p 105.		7.1 7.1
D.M	1703	8 20.1	+33 11	6.7	32.9	42.5	28.6	8	22.3	+33 2		7.0
D.M	1783	8 4.8	+43 28	7.2	30.8	52.7	29.1	8	1.9	+43 20		6.5
D.M	1636	7 55.9	+33 26	6.8	88.7	42.5	89.6	7	57.8	+33 19		6.6
D.M	1622	7 48.3	+33 3	7.3	87.7	42.4	90.0	7	51.2	+32 56		6.8 6.9 7.1
	1539	8 14.6	+43 35	4.4	34.8	52.5	30.7	8	16.9	+43 31		6.5 6.4
D.M	1770	7 57.1	+43 41	6.3	88.5	52.6	89.1	8 7	0.2	+43 34		6.2
D.M	1754	7 48.5	+43 54	7.5	86.1	52.5	89.1	7	51.7	+43 47		6.7 6.8
D.M	1601	7 41.7	+33 36	6.5	86.5	42.4	90.2	7	44.6	+33 30		6.9
—	1466	7 39.8	+33 43	5.4	87.6	42.3	92.4	7	41.6	+33 40		6.8 7.9
D.M	1753	7 59.0	+34 28	7.2	89.4	42.6	89.7	8	1.9	+34 21		6.9 7.1
D.M	1707	7 53.8	+44 15	7.3	87.6	52.5	89.1	7	57.0	+44 8		6.9
D.M	1693	7 48.1	+44 22	6.5	85.9	52.6	89.2	7	51.3	+44 15		6.7 6.8 7.0 7.0
	1545	8 17.4	+35 25	6.1	34.2	42.5	30.5	8	18.7	+35 22		6.9 7.0 7.3 7.3 8 15.8 +35 30
D.M	1802	8 10.2	+35 30	7.5	31.6	42.6	29.3	8	13.1	+35 22		6.9 7.1
D.M	1767	8 0.7	+35 54	6.5	29.7	42.6	29.2	8	3.6	+35 46		6.6 6.7
D.M	1731	7 52.5	+35 48	6.5	88.1	42.6	89.6	7	55.4	+35 41		7.0 7.2 7.3 7.5
D.M	1705	7 46.2	+36 48	6.5	86.8	42.6	89.7	7	49.2	+35 41		6.3
D.M	1826	8 18.8	+36 22	6.9	33.2	42.5	28.4	8	21.7	+36 13		7.1 7.4 7.3 7.5
	1550	8 19.3	+46 3	6.2	36.5	52.4	30.8	8	20.7	+46 0		6.6 817.5+46 8
D.M	1774	8 11.4	+36 14	7.3	31.8	42.5	29.1	8	14.3	+36 6		6.8
D.M	1785	8 8.5	+36 10	7.3	31.2	42.5	29.1	8	11.4	+36 2		6.8

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Plate 1173.

V	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V,	H.	Correc.
?	12.4	20.9	I			F.	6.2	41.8	46.2	48.6	-5.4
	12.5	21.6	I			F. F	6.2	43.2	46.2	47.2	-6.1
	11.6	15.4	I ? I	3	H	— —	5.8	30.8	46.6	59.6	-0.3
	11.8	16.1	II a? 3911 II	2	K=H	F.?	5.9	32.2	46.5	58.2	-0.6
	10.4	7.7	II ? II ?	2	K=H	— —	5.2	15.4	47.2	75.0	+6.9
	10.4	14.0	I ? I	3	H	— —	5.4	28.0	47.0	62.4	+0.9
?	9.4	6.1	I d?			F.	4.7	12.2	47.7	78.2	+5.3
?	9.5	6.5	I d?			F.	4.8	13.0	47.6	77.4	+8.7
	9.2	19.9	III b 3912	3	K=H	2 F.	4.6	39.8	47.8	50.6	-4.9
	9.6	20.0	III III	3	K=H	F. F	4.8	40.0	47.6	50.4	-5.1
	9.1	23.8	III	3	K=H	2 F.	4.6	47.6	47.8	42.8	-5.5
	7.8	13.7	I			—	3.9	27.4	48.5	63.0	+1.2
	7.2	15.4	II II a 3912 a	2 3	K=H	— F.	3.6	30.8	48.8	59.6	-0.3
	6.8	6.6	I	4	K=H	1 —	3.4	13.2	49.0	77.2	+8.7
	6.9	14.1	III	2	K=H	1 F.?	3.4	28.2	49.0	62.2	+0.6
	6.3	15.3	I	3	N	1 —	3.2	30.6	49.2	59.8	-0.5
	5.8	20.0	I I	3	N	1 1 — —	2.9	40.0	49.5	50.4	-3.5
	4.5	8.9	III ?	2	K=H	1 —	2.2	17.8	50.2	72.6	+6.6
	3.8	6.5	III ?	2	K=H	1 —	1.9	13.0	50.5	77.4	+6.1
	3.4	23.1	I	8	K=H	3 F.	1.7	46.2	50.7	44.2	-8.7

F. m. & c. F. ch.

8.0 7.3 Plate 1150 7.3

	20.0	14.7	I	7	K=½H	2 F.	10.0	29.4	27.4	19.5	+0.1
?	19.5	17.6	II a 3918	2	K=H	2 F.?	9.8	35.2	27.6	13.7	-0.9
?	18.8	21.5	II a 3914	3	K=H	2 F.	9.4	43.0	28.0	5.9	-1.1
III ? 5.8, 6.3.	17.5	6.1	III b 3915	3	K=1.5H	2 F.	8.8	12.2	28.6	36.7	+1.5
	17.4	16.2	I	6	K=½H	1 —	8.7	32.4	28.7	16.5	-0.3
?	16.2	6.0	III b 3916	3	K=1.5H	3 F.	8.1	12.0	29.3	36.9	+3.6

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	No.	R. A.	Dec.	Mag.	H.	V.	H'	Pad. of H.H. Stars to 1900	Br.
D.M	1323	7 41.6	+46	18	6.8	83.4	52.5	88.8	7 44.8 +46 12	6.4
D.M	1320	7 40.0	+46	9	7.1	83.2	52.4	89.3	7 43.2 +46 3	6.6 6.7
D.M	1746	7 58.3	+36	39	7.7	89.1	42.4	89.4	8 6.3 +36 32	7.1 7.3
D.M	1740	7 56.6	+36	42	7.0	88.8	42.6	89.4	7 59.6 +36 35	6.9 6.9
D.M	1583	8 20.5	+47	15	7.0	35.9	52.4	29.0	8 23.7 +47 6	7.2 7.2
D.M	1545	8 1.7	+47	22	7.2	29.7	52.8	28.8	8 4.9 +47 14	7.0 7.0
D.M	1870	8 21.9	+37	45	6.5	34.1	42.5	28.8	8 24.8 +37 36	6.0
D.M	1592	8 24.3	+47	37	6.2	37.3	52.4	28.6	8 27.5 +47 28	6.3
	1480	7 46.0	+47	52	5.8	85.8	52.5	90.7	7 47.5 +47 50	6.3 6.7
	1479	7 45.8	+47	44	6.3	85.8	52.5	90.9	7 47.2 +47 38	6.7 6.9 7.0 7 43.9+47 45
	1460	7 38.6	+37	48	5.5	86.2	42.4	91.7	7 40.0 +37 46	6.5 7.0 7 37.0+37 52
D.M.	1621	8 3.0	+48	43	6.5	30.4	52.6	29.2	8 6.3 +48 35	6.4
D.M	1861	~~8~~ 7 58.2	+38	60	6.8	89.0	42.6	89.3	~~8~~ 8 1.2 +38 ~~49~~ 53	6.9 6.9
D.M	1743	8 24.6	+49	2	6.5	37.8	52.4	29.1	8 27.8 +48 53	6.5
D.M	2065	8 1.7	+39	10	6.5	29.9	42.6	29.3	8 4.7 +39 2	6.8 7.0
D.M	1706	7 57.8	+49	26	6.8	88.4	52.6	88.9	8 1.1 +49 19	6.7
D.M	2031	7 46.1	+39	40	7.0	86.1	42.6	89.6	7 49.1 +39 33	6.8 7.0
D.M	1542	8 17.8	+50	11	7.8	35.6	52.4	29.0	8 21.1 +50 2	7.2
	~~2065~~	~~8 21.5~~	~~+40~~	~~32~~	~~7.2~~	~~34.5~~	~~42.4~~	~~28.4~~	~~8 24.5 +40 23~~	
D.M	2066	8 21.6	+40	42	6.8	34.6	42.6	27.5	8 24.6 +40 33	6.9
	1448	7 35.0	+50	42	5.2	81.2	52.4	89.9	7 36.5 +50 40	5.6

Mean 5

1551	8 19.5	+27	20	5.5	48.9	37.3	48.8	8 20.7 +27 16	5.7 6.2
1536	8 12.8	+27	37	5.1	48.0	37.4	48.9	8 14.0 +27 33	5.5 6.0
{1521 1522}	8 5.3	+18	1	4.7	48.3	27.4	49.4	8 6.5 +17 57	5.5 6.0
1602	8 37.9	+18	36	4.3	50.1	27.4	48.6	8 39.1 +18 31	5.5 6.0 5.8 6.3
1544	8 16.5	+18	43	5.9	48.9	27.4	49.2	8 17.7 +18 40	6.2 6.7
1605	8 39.4	+29	12	4.2	51.4	37.3	47.8	8 40.6 +29 7	5.1 5.6 5.2 5.7

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Plate 1150.

V	H	Type	No. Lines	K	Found	Other Lines.	V.	H.	V.	H.	Corrc
14.6	7.9	II?	2	K=H K=H	1	— —	7.3	15.8	30.1	33.1	+1.3
14.4	8.1	III II?	2	K=H K=H	1	F —	7.2	16.2	30.2	32.7	+1.3
14.7	8.2	I	4	H	1	—	7.4	16.4	30.0	32.5	+1.3
14.7	8.4	II?	2	K=H K=H	1	— —	7.4	16.8	30.0	32.1	+1.2
14.6	20.6	I	6	H	2	—	7.3	41.2	30.1	7.7	-2.3
13.9	8.3	I	3	H K=.8H	1	— —	7.0	16.6	30.4	32.3	+1.3
13.2	11.9	III	2	K=H	1	F?	6.6	23.8	30.8	25.1	+0.6
11.0	7.0	I	7	H	3	F	5.5	14.0	31.9	34.9	+1.8
10.8	23.4	II	3	K=H	2	F	5.4	46.8	32.0	2.1	-1.9
10.0	9.0	II?	4	K=H	1	F	5.0	18.0	32.4	30.9	+2.7
8.6	13.7	II	2	K=H	1	—	4.3	27.4	33.1	21.5	+0.6
7.8	20.6	I?	4	K=H	1	—	3.9	41.2	33.6	7.7	-1.3
6.1	17.5	I	5	H	2	—	3.0	35.0	34.4	13.9	-0.7
6.0	12.6	I	5	K=.8H	2	—	3.0	25.2	34.4	23.7	+0.7
5.9	13.9	I	6	K=.8H	1	—	3.0	27.8	34.4	21.1	+0.3
5.9	10.5	I	3	H	3	—	3.0	21.0	34.4	27.9	+1.2
5.1	14.8	I	4	K=H	1	—	2.6	29.6	34.8	19.3	-0.0

F. nw. & c.

F. ch.

Dark plate. Read to measure. 5.6 5.4

Plate 1194

6.6

?	22.0	10.0	III	A?	2	K=H	2	F?	11.0	20.0	46.4	88.4	+1.8
	22.5	14.7	II	?	2	K=H	1	—	11.2	29.4	46.2	79.0	+0.3
	22.2	17.3	I	?	2	K=H	1	—	11.1	34.6	46.3	73.8	-1.2
	22.4	18.5	II		2	K=H	1	—	11.2	37.0	46.2	71.4	-1.9
	21.0	11.8	I		6	H	2	F	10.5	23.6	46.9	84.8	+1.8
	21.0	12.3	II	a?	2	K=H	1	—	1.05	24.6	46.9	83.8	+1.5
	21.4	14.5	III	I?	4	H K=H	5	K=H	10.7	29.0	46.7	79.4	+0.3
	19.1	7.4	II		2	K=H	1	F?	9.6	14.8	47.8	93.6	+1.9
	19.8	8.0	III?		x2	K=H	1	—	9.9	16.0	47.5	92.4	+1.5

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Mean 5

	No	R.A.	Dec.	Mag.	H.	V.	H'	Red. of D.M. stars to 1900			Con. Br.
D.M	2175	8 32.6	+20 5	7.7	48.4	27.4	47.1	8	35.2	+19 56	6.7 7.2 7.5
Dm.	2172	8 32.4	+20 14	7.1	48.6	27.4		8	35.0	+20 5	6.7 6.9 7.4
~~Dm 2171 =~~	~~1592~~	~~8 33.6~~	~~+19 58~~	~~Cum~~	~~49.8~~	~~27.2~~	~~48.5~~	~~8~~	~~34.7~~	~~+19 54~~	
Dm	2166	8 32.6	+20 10	7.3	48.4	27.6					
~~D.M~~	~~2174~~	~~8 32.4~~	~~+20 14~~	~~7.2~~	~~48.5~~	~~27.5~~	~~47.2~~	~~8~~	~~34.6~~	~~+19 55~~	
Dm 2171 =	1592	8 33.6	+19 58	Cum	50.0	27.4		8	34.7	+19 54	6.3 6.8
D.M	2150	8 31.5	+20 3	7.2	48.3	27.4	47.1	8	34.1	+19 54	6.8 7.3 7.5
	1526	8 5.7	+30 1	5.6	46.9	37.3	49.2	8	6.9 7.0	+30 29 57	5.3 5.8
	2158	8 31.8	+20 31	7.0	48.4	27.5	47.1	8	34.4	+20 22	6.4 6.9 7.0
D.M	2159	8 31.8	+20 29	7.3	48.4	27.5	47.1	8	34.4	+20 20	
	1572	8 25.8	+20 51	5.5	49.6	27.4	49.0	8	26.9	+20 47	6.4 6.9 6.8 7.3
	1597	8 36.3	+21 55	4.8	50.3	27.4	48.5	8	37.5	+21 50	4.7 5.2
	1511	8 0.7	+21 56	5.2	47.5	27.3	49.4	8	1.8	+21 53	6.0 6.5
D.M.	1776	8 31.3	+32 28	6.5	49.3	37.5	46.6	8	34.1	+32 19	6.4 6.9
D.M	1703	8 20.1	+33 11	6.7	47.5	37.5	46.9	8	22.9	+33 2	6.5 7.0
D.M	1913	8 5.1	+23 35	6.5	46.3	27.5	47.6	8	7.8	+23 27	6.5 7.0
	1537	8 13.4	+24 24	5.7	48.4	27.4	49.1	8	14.6	+24 20	5.7 6.2
	1567	8 24.4	+24 29	5.8	49.6	27.5	48.9	8	25.6	+24 25	6.0 6.5
	1561	8 21.5	+24 33	5.9	49.3	27.6	49.0	8	22.7	+24 28	6.2 6.7
D.M.	1955	8 27.5	+24 33	7.0	48.5	27.6	47.3	8	30.2	+24 24	6.6 7.1 7.3
	1552	8 19.5	+24 56	6.3	49.1	27.5	49.1	8	20.7	+24 52	6.6 7.1
	1591	8 32.8	+46 16	5.6	52.8	57.3	48.4	8	34.1	+46 11	6.4 6.7
	1550	8 19.3	+46 3	6.2	48.7	57.2	48.4	8	20.7	+46 0	8 17.5 46.8
D.M.	1794	8 11.4	+36 14	7.3	46.0	47.3	47.2	8	14.3	+36 6	6.6
D.M.	1785	8 8.6	+36 10	7.3	45.5	47.4	47.4	8	11.4	+36 2	6.9
	1576	8 27.1	+36 50	5.7	50.7	47.3	48.9	8	28.3	+36 46	6.0
	1571	8 25.6	+36 50	6.1	50.2	47.3	48.7	8	26.9	+36 46	6.8
D.M.	1825	8 18.5	+36 36	7.5	47.5	47.3	47.2	8	31.4	+36 27	7.1 6.9
D.M.	1903	8 36.3	+37 48	7.0	51.1	47.4	46.2	8	39.2	+37 39	6.7 6.7
D.M.	1899	8 34.9	+37 26	7.0	50.9	47.3	46.4	8	37.8	+37 17	7.0

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Plate 1194.

V	H	Type	No. Lines	K	Focus	Other Lines.	V.	Ef.	V.	Ef.	Correc.
19.9	9.4	III ?	2	K=H	1	—	10.0	18.8	47.4	89.6	+5.4
19.8	10.3	III ? III	x2 2	K=H K=H	1 1	— F?	9.9	20.6	47.5	87.8	+2.9
19.5	11.3	III II	2 2	K=H K=H	1 1	— —	9.5	22.6	47.6	85.8	+3.6
19.5	12.4	III d?	—	K	2	[illegible]	9.8	24.8	47.6	83.6	+2.5
19.4	13.2	III	6	K	2	F?	9.7	26.4	47.7	82.0	+1.1
18.0	12.6	III h? 3919 III?	3	K=H K=H	2 1	F seen F	9.0	25.2	48.4	83.2	+1.5
17.4	19.4	II a? 3920	3	K	2	F seen	8.7	38.8	48.7	69.6	-4.5
16.9	6.2	II Id? I	3	K=H	1	—	8.4	12.4	49.0	96.0	+6.0
16.0	8.8	II a? 3921	3	K=H	1	F seen.	8.0	17.6	49.4	90.8	+6.6
16.0	9.6	I ? I	3	K=H	1 1	— F	8.0	19.2	49.4	89.2	+5.5
16.8	12.4	I ?	4	K	2	—	8.4	24.8	49.0	83.6	+2.7
16.3	14.1	II a? 3921a	2	K=H	1 1	— seen	8.2	28.2	49.2	80.2	+0.6
16.0	19.7	III	x2 3	K=H	1	— F	8.0	39.4	49.4	69.0	-5.1
16.5	20.9	III ?	2	K=H	1	F?	8.2	41.8	49.2	66.6	-4.1
16.8	22.3	II ?	3	K=H	1	F	8.4	44.6	49.0	63.8	-5.1
15.4	12.2	II IIa 3921b	2 3	K=H	1 1	— F seen	7.7	24.4	49.7	84.0	+2.7
15.4	13.6	II IIa 3921c	2 2	K=H	1 1	— seen	7.7	27.2	49.7	81.2	+1.5
15.4	12.9	I ? I	2 3	K	1	— —	7.7	25.8	49.7	82.6	+2.3
15.8	21.0	I ?	4	K=H	1	—	7.9	42.0	49.5	66.4	-6.3
14.6	10.7	III III	x2 3	K=H	1 1	— F	7.3	21.4	50.1	87.0	+3.0
14.0	13.4	II a 3922	3 3	K=H	2 2	F seen	7.0	26.8	50.4	81.6	+1.1
14.6	14.5	II a? 3923	2	K=H	1	F? seen	7.3	29.0	50.1	79.4	+0.6
14.2	15.0	III III	2 2	K=H	1 1	— F?	7.1	30.0	50.3	78.4	+0.0
14.4	17.5	II ? II ?	2 3	K=H	1 1	— F	7.2	35.0	50.2	73.4	-1.8
14.3	23.4	III III	2 3	K=H	1 1	F? F	7.2	46.8	50.2	61.6	-6.0
13.7	9.6	I I	3 3	K	1 1	— —	6.8	19.2	50.6	89.2	+3.9
13.6	13.3	I ?	6	K	2	—	6.8	26.6	50.6	81.8	+1.2
13.2	16.5	I I	4 7	K=H	K=H 2	F	6.6	33.0	50.8	75.4	-1.1

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Mrau 3

No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of D.M. stars to 1900				Br.
D.M. 1606	8 32.9	+47 25	6.5	51.7	57.4	46.3	8	36.1	+47 16		6.8
D.M. 1885	8 29.0	+37 32	7.5	49.6	47.4	46.7	8	31.9	+37 23		6.0 7.0 7.0 7.2
D.M. 1597	8 27.4	+47 36	8.0	50.0	57.4	46.4	8	30.6	+47 27		6.9 7.0
D.M. 1592	8 24.3	+47 37	6.2	49.1	57.4	46.6	8	27.5	+47 28		6.3
D.M. 1870	8 21.9	+37 45	6.5	48.3	47.5	47.2	8	24.8	+37 36		6.0
1570	8 25.1	+38 26	6.0	50.3	45.4	48.8	8	26.5	+38 22		6.5 6.6 6.7 6.7
D.M. 1621	8 3.0	+48 43	6.5	41.8	57.4	46.3	8	6.3	+48 35		6.2
D.M. 2160	8 41.4	+37 0	8.0	53.8	47.4	47.8	8	44.3	+38 50		6.9 6.9
D.M. 1766	8 35.5	+49 23	7.5	53.1	57.4	46.5	8	38.7	+49 14		6.6
D.M. 1759	8 33.1	+49 24	6.8	52.3	57.4	46.8	8	35.3	+49 15		6.5 6.7
D.M. 1743	8 24.6	+49 2	6.5	49.4	57.4	46.7	8	27.3	+48 53		6.1
D.M. 2106	8 19.7	+39 22	7.8	47.9	47.6	47.3	8	22.7	+39 13		7.1 7.0
D.M. 1711	8 1.6	+49 23	7.0	41.0	57.4	46.1	8	4.9	+49 15		7.1 6.9 7.4 7.2
D.M. 2065	8 1.7	+39 10	6.5	43.5	47.4	47.6	8	4.7	+39 2		6.7 6.8
D.M. 1861	7 58.2	+38 60	6.8	102.8	47.4	107.9	8	1.2	+38 53		6.9
D.M. 1745	8 25.2	+49 44	7.5	49.6	57.4	46.9	8	28.4	+49 35		7.0 6.9
D.M. 1740	8 20.7	+49 49	8.1	47.9	57.5	46.4	8	24.0	+49 40		7.0 7.0
D.M. 1742	8 22.8	+49 45	8.3	48.6	57.5	46.3	8	26.1	+49 36		7.1 7.2
D.M. 1706	7 57.8	+49 26	6.8	99.8	57.3	106.1	8	1.1	+49 19		6.6
D.M. 2083	8 28.4	+40 8	7.5	49.8	47.4	46.8	8	31.4	+39 59		6.8 6.8 7.0 7.0
D.M. 2065	8 21.5	+40 32	7.2	48.3	47.5	47.2	8	24.5	+40 23		6.5 6.5
~~2066~~	~~8 21.6~~	~~+40 32~~	~~7.2~~	~~48.3~~	~~47.5~~	~~47.2~~	~~8~~	~~24.6~~	~~+40 33~~		
D.M. 1542	8 17.8	+50 11	7.8	46.8	57.5	46.2	8	21.1	+50 2		6.8
D.M. 2050	8 17.1	+40 22	7.5	47.1	47.5	47.1	8	20.1	+40 15		7.0 7.0 7.2 7.2
D.M. 2027	8 10.3	+40 20	7.1	45.3	47.5	47.1	8	13.3	+40 12		6.9 6.8
D.M. 1989	7 54.9	+40 9	6.3	101.7	47.4	107.7	7	58.0	+40 2		6.8 6.9 7.0 7.0
D.M. 2091	8 31.3	+40 32	7.8	50.5	47.3	46.6	8	34.3	+40 23		6.8 6.9
D.M. 2066	8 21.6	+40 42	6.8	48.2	47.5	47.0	8	24.6	+40 33		6.5
D.M. 2037	8 13.0	+40 57	7.2	46.0	47.5	47.1	8	16.0	+40 46		6.5 6.5

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	V	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H.	Correc.
	13.4	18.9	I? I	3 4	K=H	1 1	— F?	6.7	37.8	50.7	70.6	-2.7
	12.8	13.4	II? II	2 2	K=H	K=H 1 1	— —	6.4	26.8	51.0	81.6	+1.8
	12.2	14.7	II II	2 2	K=H	K=H 1 1	— —	6.1	29.4	51.3	79.0	+0.5
	12.9	19.4	I I	4 4	H	N 1 1	— —	6.4	38.8	51.0	69.6	-3.1
	11.9	11.9	III III	2 2	K=H	K=H 1 1	— F?	6.0	23.8	51.4	84.6	+2.3
	11.5	17.1	II? II	2 2	K=H	K=H 1 1	— —	5.8	34.2	51.6	74.2	-2.4
	11.8	19.4	III? III	2 2 3	H	K=H K=H 1 1	— F	5.9	38.8	51.5	69.6	-3.3
	11.0	20.7	I	8	H	4	F	5.5	41.4	51.9	67.0	-6.5
	10.2	15.7	III?	3	K=H	2	F	5.1	31.4	52.3	77.0	-0.6
	10.4	22.9	II? II?	2 2	K=H	K=H 1 1	— —	5.2	45.8	52.2	62.6	-6.1
	9.7	19.9	II II?	2 2	K=H	K=H 1 1	— F?	4.8	39.8	52.6	68.6	-5.5
	9.1	21.4	III	3	K=H	2	F	4.6	42.8	52.8	65.6	-5.1
	8.8	7.0	II? III?	2 2 3	H	K=H 1 1	F —	4.4	14.0	53.0	94.4	+9.5
	8.0	6.5	a? 3924	2	H	K=H 1	Detm	4.0	13.0	53.4	95.4	+10.1
	8.6	8.8	a? 3925 II	2 2	K=H	K=H 1 1	Detm	4.3	17.6	53.1	90.8	+5.1
	8.6	11.2	III	2	K=H	1	F?	4.3	22.4	53.1	86.0	+4.5
	8.2	11.4	III	2	K=H	1	—	4.1	22.8	53.3	85.6	+4.3
	8.9	11.5	a? 3926 IIa	2 3	K=H	K=H 2 2	F? Focus sum 4.4		23.0	53.0	85.4	+2.7
	8.1	19.3	I	2	H	2	—	4.0	38.6	53.4	69.8	-3.5
?	7.3	11.6	1 3927 3	2	K=2.0 H	2	F, sum 3.6		23.2	53.8	85.2	+4.1
	7.9	13.3	III	2	K=H	1	F?	4.0	26.6	53.4	81.8	+2.1
	7.8	15.9	I	9	K=2K	3	F	3.9	31.8	53.5	76.6	-0.7
?	7.9	16.4	1c 3928 ?	3	K=H	2	F Bright?	4.0	32.8	53.4	75.6	-1.7
	7.6	19.7	III	2	K=H	1	—	3.8	39.4	53.6	69.0	-5.7
	7.5	22.1	I	6	H	2	—	3.8	44.2	53.6	64.2	-5.9
?	6.3	5.9	1 3929	2	K=H	2	F, sum 3.2		11.8	54.2	96.6	+7.8
	6.6	8.4	II	2 2	K=H	K=H 1 1	— F?	3.3	16.8	54.1	91.6	+5.5
	6.0	14.0	I	6	H	2	—	3.0	28.0	54.4	80.4	+1.2

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	No.	R.A.	Dec.	MAG.	H.	V.	H'	Red of D.M. stars to 1900			Br.
D.M.	2015	8 6.5	+40 47	8.0	44.3	47.5	47.0	8	9.5	+40 39	6.8 7.0
D.M.	1431	8 21.4	+51 6	7.5	48.2	57.5	46.4	8	24.7	+50 57	6.9 7.0
D.M.	1422	8 17.1	+51 22	8.0	46.5	57.5	46.0	8	20.5	+51 14	7.0 7.2
D.M.	1804	8 5.1	+41 1	7.3	43.9	47.4	47.0	8	8.0	+40 53	6.7 6.7
D.M.	1853	8 25.4	+41 31	7.0	49.2	47.5	46.9	8	28.4	+41 22	7.0 7.1 7.3 7.5
D.M.	1407	8 9.2	+51 43	8.0	43.4	57.5	45.8	8	12.6	+51 35	6.9 6.9
D.M.	1805	8 5.2	+41 34	7.6	44.0	47.5	47.3	8	8.3	+41 26	7.0 7.0 7.1 7.1
	1509	8 59.4	+51 51	4.8	100.8	57.3	107.3	8	4.0	+51 48	4.9
D.M.	1859	8 14.9	+42 28	6.5	46.3	47.6	46.9	8	18.0	+42 20	6.5 6.9
D.M.	1806	7 55.5	+42 4	7.8	101.3	47.3	107.4	7	58.6	+41 57	7.0 7.3
D.M.	1282	7 59.7	+52 33	7.5	99.5	57.4	105.0	8	3.1	+52 25	6.8 6.7
D.M.	1819	7 59.4	+42 52	6.7	102.2	47.5	107.3	8	2.5	+42 45	6.5 6.9
D.M.	1343	8 42.6	+52 54	6.8	56.6	57.3	47.1	8	45.9	+52 44	6.7 6.6
D.M.	1291	8 44.4	+53 21	7.3	57.4	57.4	47.3	8	47.7	+53 11	6.6
D.M.	1847	8 34.0	+43 13	7.2	51.6	47.5	46.5	8	37.0	+43 4	7.0 7.0
	1585	8 30.4	+53 8	6.0	52.8	57.4	48.3	8	31.8	+53 4	6.4 6.6
D.M.	1269	8 28.2	+53 25	6.6	51.0	57.5	46.7	8	31.6	+53 16	6.6 6.9
D.M.	1834	8 26.5	+43 5	6.5	49.5	47.5	46.8	8	29.6	+42 56	6.5 6.6
D.M.	1783	8 4.8	+43 28	7.2	43.4	43.4	47.5	8	7.9	+43 20	6.1
	1581	8 29.1	+53 49	5.6	52.6	57.4	48.5	8	30.9	+53 45	6.0 6.2
D.M.	1259	8 21.7	+53 35	6.4	48.3	48.3	57.6	8	25.1	+53 26	6.3 6.5
	1540	8 14.7	+53 36	5.8	46.5	57.5	47.2	8	16.2	+53 33	
	~~1539~~	~~8 14.6~~	~~+43 35~~	~~4.4~~	~~46.4~~	~~47.5~~	~~47.1~~				
	1539	8 14.6	+43 35	4.4	47.4	47.6	49.1	8	15.9	+43 31	5.2
	~~1542~~	~~8 14.7~~	~~+53 36~~	~~5.8~~	~~47.5~~	~~57.6~~	~~49.2~~				5.7 6.2
D.M.	1221	8 0.0	+53 40	7.0	39.4	57.5	46.1	8	3.5	+53 32	6.6
D.M.	1770	7 57.1	+43 41	6.3	101.3	47.5	107.2	8	9.2	+43 34	6.0
	1616	8 43.9	+44 11	5.2	55.7	47.4	47.9	8	45.3	+44 6	6.2 6.4
D.M.	1784	8 35.4	+44 11	7.5	52.2	47.5	46.7	8	38.5	+44 2	7.0 6.8
D.M.	1231	8 19.6	+54 36	7.2	47.6	57.6	46.4	8	23.1	+54 27	~~7.2~~ 6.0

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Plate 1194.

V	H	Type	No. Lines	K	Focus	Other Lines.	V.	Ex.	V.	Ex.	Correct.
6.8	15.0	II	? I ? 3 H	K=H	1	— F?	3.4	30.0	54.0	78.4	0.0
6.4	14.5	II	2	K=H	1	F?	3.2	29.0	54.2	77.4	+0.7
6.3	15.5	II	2	K=H	1	—	3.1	31.0	54.3	77.4	-0.7
7.0	16.9	II	a 3930 2	K=H	2	F? sem.	3.5	33.8	53.9	74.6	-2.3
6.6	21.6	II	2	K=H	1	F?	3.3	43.2	54.1	65.2	-8.1
6.2	23.2	II	? 2	K=H	1	—	3.1	46.4	54.3	62.0	-6.9
5.0	17.4	I	? 7	K=H	2	F	2.5	34.8	54.9	73.6	-3.3
5.9	17.5	III	III 2 3	K=H K=H	11	F?	3.0	35.0	54.4	73.4	-3.0
5.0	19.6	II	2	K=H	1	—	2.5	39.2	54.9	69.2	-5.9
5.6	22.1	II	d? 4	K=H	1	—	2.8	44.2	54.6	64.2	-8.7
4.1	13.8	I	? 15	K=H		—	2.0	27.6	55.4	80.8	+1.5
3.7	12.4	I	I? 33	K=H	11	—	1.8	24.8	55.6	83.6	+2.3
3.0	6.1	III	2	K=H	1	—	1.5	12.2	55.9	96.2	+3.1
2.4	10.1	III	h 3931 3	K=1.5H?	2	F, sem.	1.2	20.2	56.2	88.2	+4.5
2.9	14.8	II	? 2	K=H	2	—	1.4	29.6	56.0	78.8	+0.3
3.5	20.0	II	2	K=H	2	F?	1.8	40.0	55.6	68.4	-6.6

F. m. 4c.

F. cl.

Plate 1158.

8.0	7.0						7.0				
22.4	6.5	I	5	H	1	—	11.2	13.0	21.4	60.6	+1.1
21.2	18.3	I	6	H	3	—	10.6	36.6	22.0	37.0	-0.7
20.3	11.2	I	8	K=1.2H	3	F,	10.2	22.4	22.4	51.2	+0.5
19.8	16.7	I	4	H	1	—	9.9	33.4	22.7	40.2	-0.1
19.7	6.3	III	2	K=H	1	—	9.8	12.6	22.8	61.0	+2.1
18.9	18.5	II	a? 3932 2	K=H	1	sem.	9.4	37.0	23.2	36.6	-0.5
15.2	9.5	I	6	H	2	—	7.6	19.0	25.0	54.6	+1.5
13.6	11.9	I	8	K=1.2H	2	F	6.8	23.8	25.8	49.8	+0.5
13.0	11.7	I	6	K=H	1	—	6.5	23.4	26.1	50.2	+0.5
8.4	10.1	I	3	H	1	—	4.2	20.2	28.4	53.4	+1.8
8.5	12.9	III	3	K=H	1	F	4.2	25.8	28.4	47.8	+0.7

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	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900			Br.
D.M.	1225	8 16.0	+54	7	7.8	46.0	57.5	46.0	8	19.5	+53 59	6.8 6.7
D.M.	1228	8 17.8	+54	20	7.3	46.8	57.5	46.1	8	21.3	+54 11	6.5
D.M.	1223	8 14.1	+54	23	7.5	45.1	57.5	45.8	8	17.6	+54 15	6.8
D.M.	1217	8 9.4	+54	1	6.9	43.2	57.5	45.5	8	12.9	+53 53	6.0
D.M.	1195	7 53.3	+54	4	7.0	96.5	57.4	104.6	7	56.8	+53 57	6.5
D.M.	1707	7 53.8	+44	15	7.3	100.2	47.3	107.1	7	57.0	+44 8	6.9
D.M.	1265	8 7.2	+55	X 3	6.7	42.0	57.5	45.3	8	10.7	+54 58	6.2
D.M.	1215	8 7.1	+54	34	6.5	42.1	57.6	45.1	8	10.6	+54 26	6.7 6.6 7.0 7.0
D.M.	1208	7 59.9	+54	58	6.7	99.1	57.5	105.0	8	3.4	+54 50	6.6
D.M.	1190	7 51.4	+54	32	7.3	95.6	57.3	104.3	7	54.9	+54 25	6.7
D.M.	1283	8 20.0	+55	25	7.5	47.6	57.4	46.1	8	23.5	+55 16	6.6
D.M.	1601	8 24.2	+45	41	7.0	49.0	47.5	46.7	8	27.3	+45 32	7.0 7.0 6.9 7.1
D.M.	1649	8 42.3	+45	51	6.5	54.5	47.3	46.4	8	45.4	+45 41	
	1591	8 32.8	+46	16	5.6	53.0	47.5	48.5	8	34.1	+46 11	
	1550	8 19.3	+46	3	6.2	48.9	47.4	48.6	8	20.7	+46 0	6.6 6.4 8 17.5 +46.8
D.M.	1254	7 58.0	+55	41	7.0	98.0	57.5	104.6	8	1.6	+55 39	6.4

Mean 10

											Cor.	Br.
	1659	9 1.3	+11	9	5.0	14.3	224	132	9	2.3	+11 4	6.5 5.5
	1597	8 36.3	+21	55	4.8	72.9	32.5	73.6	8	37.5	+21 50	5.4 4.4
	1639	8 51.9	+12	19	4.3	74.3	22.5	73.8	8	53.0	+12 15	5.5 4.5
	1607	8 40.4	+12	33	5.8	73.8	22.5	73.9	8	41.5	+12 28	6.9 5.9
	1661	9 2.5	+22	31	5.2	15.1	32.3	13.0	9	3.6	+22 27	7.0 6.0 7.3 6.3
	1598	8 36.6	+13	7	5.6	73.6	22.5	74.1	8	37.7	+13 3	7.0 6.0
	1646	8 55.8	+24	56	5.6	74.8	32.5	73.3	8	56.9	+24 51	6.1 5.1
	1634	8 50.6	+15	47	5.2	74.4	22.6	73.9	8	51.7	+15 43	6.2 5.2
	1630	8 50.9	+16	2	5.6	74.3	22.5	73.8	8	52.0	+15 55	6.6 5.6
	1643	8 54.7	+28	22	5.8	74.9	32.6	73.1	8	55.9	+28 18	6.9 5.9 6.9 5.9
	1626	8 48.5	+28	23	5.2	74.3	32.6	73.6	8	49.7	+28 19	7.1 6.1

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April 25, 1887.

Plate 1158.

	V	H	Type	Lines	K	Focus	Other Lines		V.	H.	V.	H.	Correc.
?	8,0	17,8	III	bc 3933	2	K=H	2	F, bright	4.0	35.6	28.6	38.0	-0.6
	7,5	11,5	I	?	3	K	1	—	3.8	23.0	28.8	50.6	+0.6
	7,6	14,2	III	2	K=H	1	—		3.8	28.4	28.8	45.2	+0.3
?	6,7	15,0	I	b? 3934	K	1			3.4	30.0	29.2	43.6	0.0
?	6,9	16,8	III	bc 3935	3	K=H	3	F, bright	3.4	33.6	29.2	40.0	-0.7
	5,2	19,8	I	?	4	K	1	—	2.6	39.6	30.0	34.0	-0.9
	4,4	20,0	I	4	K	1	—		2.2	40.0	30.4	33.6	-0.9
	3,1	13,6	III	2	K=H	1	—		1.6	27.2	31.0	46.4	+0.6

F. nw. 8c. 8.0 7.2 F. clv. 7.2

Plate 1159.

?	20,5	11,2	III	a 3936	3	K=H	3	F, bright	10.2	22.4	32.2	50.3	+2.7
	20,0	19,2	III	?	2	K=H	1	—	10.0	38.4	32.4	34.3	-1.9
	19,3	10,3	I			K	1	—	9.6	20.6	32.8	52.1	+2.3
	19,0	11,2	III	?	2	K=H	1	—	9.5	22.4	32.9	50.3	+1.7
	19,0	14,1	I		6	K=,5H	1	—	9.5	28.2	32.9	44.5	+0.8
	19,0	8,8	III	?	2	K=H	1	—	9.5	17.6	32.9	55.1	+2.9
	18,6	7,5	III		2	K=H	1	—	9.3	15.0	33.1	57.7	+3.7
	18,1	12,3	I		8	K=,2H	2	F	9.0	24.6	33.4	48.1	+1.3
	17,4	6,5	I		6	N	2	F	8.7	13.0	33.7	59.7	+3.1
	17,5	15,0	I	?	4	K=H	1	—	8.8	30.0	33.6	42.7	0.0
	16,8	14,5	III		3	K=H	1	F	8.4	29.0	34.0	43.7	+0.5
	16,0	7,3	III	?	2	K=H	1	—	8.0	14.6	34.4	58.1	+4.2
	13,0	13,6	I		6	K=,2H	1	—	6.5	27.2	35.9	45.5	+0.7
	12,4	11,7	I		5	K=,2H	1	—	6.2	23.4	36.2	49.3	+1.8
	12,6	11,9	I		4	N	1	—	6.3	23.8	36.1	48.9	+2.7
	12,9	12,8	III		2	K=H	1	—	6.4	25.6	36.0	47.1	+1.9
	12,6	18,2	III		2	K=H	1	F?	6.3	36.4	36.1	36.3	-2.7
	11,1	21,2	I		7	N	2	F	5.6	42.4	36.8	30.3	-3.7

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1887phaeq.proj.:0030F

Mean 10

	NO.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of D.M. stars to 1900				Bv.	cor. Bv
	1602	8	37.9	+18 36	4.3	73.5	22.6	74.1	8	39.1	+18 31	6.0 6.5	5.0 5.5
D.M.	2090	8	50.1	+18 52	6.8	73.1	22.7	72.5	8	52.7	+18 42	7.1	6.1
	1622	8	45.5	+28 47	6.2	73.9	32.6	73.6	8	46.7	+28 43	7.0 7.4	6.0 6.4
D.M.	2110	8	42.5	+19 23	6.5	72.5	22.8	72.5	8	45.1	+19 13	7.0	6.0
	1605	8	39.4	+29 12	4.2	73.0	32.6	73.7	8	44.6	+29 7	5.5 5.9	4.5 4.9
	1592	8	33.6	+19 58	cum.	73.2	22.6	74.1	8	34.7	+19 54	6.9	5.9
	2149	8	31.4	+20 18	7.0	71.4	22.5	72.3	8	34.0	+20 9	7.1	6.1
~~D.M.~~	~~2158~~	~~8~~	~~31.8~~	~~+20 31~~	~~7.0~~	~~71.5~~	~~22.7~~	~~72.7~~				7.0 7.4	6.0 6.4
	1625	8	46.9	+31 2	5.5	74.1	32.6	73.5	8	48.2	+30 55		

Mean 7

													cor. Bv
	1641	8	52.8	+42 15	4.2	75.2	52.4	72.5	8	54.2	+42 11	4.9	4.2
D.M.	1776	8	31.3	+32 28	6.5	69.7	42.5	71.6	8	34.1	+32 19	7.0	6.3
D.M.	1829	8	52.5	+32 49	6.3	73.1	42.4	70.8	8	55.3	+32 39	6.7	6.0
	1640	8	52.2	+32 53	5.7	74.6	42.1	72.9	8	53.4	+32 49	6.9 7.1	6.2 6.4
	1619	8	45.2	+32 56	5.7	73.1	42.1	73.1	8	46.4	+32 51	6.5	5.8
D.M.	1837	8	56.0	+32 57	6.8	73.6	42.5	70.7	8	58.8	+32 47	7.1	6.4
D.M.	1810	8	59.2	+33 8	6.7	74.2	42.4	70.5	9	2.0	+32 57	7.2	6.5
	1631	8	49.6	+33 22	5.5	74.2	42.4	72.9	8	50.8	+33 18	6.0	5.3
	1671	9	6.0	+43 43	5.2	19.0	52.4	11.9	9	7.3	+43 38	5.7	5.0
D.M.	1765	8	41.5	+33 51	6.3	71.5	42.6	71.5	8	44.3	+33 41	7.1	6.4
	1616	8	43.7	+44 11	5.2	72.9	52.6	72.4	8	45.3	+44 7	6.6 6.9	5.9 6.2 8+42.2+44 17
D.M.	1949	8	59.9	+34 29	6.5	74.5	42.5	70.3	9	2.7	+34 18	7.0	6.3
D.M.	1883	8	44.8	+36 6	6.1	72.0	42.6	71.3	8	47.7	+36 5 56	6.5	5.8
D.M.	1889	8	49.3	+36 22	6.7	72.7	42.6	70.9	8	52.1	+36 12	6.8	6.1
D.M.	1463	8	49.6	+46 19	7.2	73.4	52.6	70.7	8	52.7	+46 19	6.8	6.1
	1628	8	48.8	+46 6	5.9	74.4	52.5	72.5	8	50.1	+46 1	7.0 7.3	6.3 6.6
	1591	8	32.8	+46 16	5.6	69.2	52.6	71.9	8	34.1	+46 11	6.6 7.0	5.9 6.3
	1576	8	27.1	+36 50	5.7	69.5	42.4	73.2	8	28.3	+36 46	6.0	5.3
	~~1571~~	~~8~~	~~25.6~~	~~+36 50~~	~~6.1~~	~~68.0~~	~~42.4~~	~~71.7~~					

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Plate 1,59.

	T	H	Type	No. Lines	K	Focus	Other lines.	V.	H.	V.	H.	
	11.0	21,8	II a? 3787	2	K=H	1	rem	5.5	43.6	36.9	29.1	-4.2
	10,2	17,4	II	x2	K=H	1	—	5.1	34.8	37.3	37.9	-1.3
	9.9	10,5	II	12	H	1	F	5.0	21.0	37.4	51.9	+4.5
	9,8	20,4	I	4	K=H	1	—	4.9	40.8	37.5	31.9	-5.3
	9,3	22,5	II	5	H	1	—	4.6	45.0	37.8	25.7	-4.9
	8,3	12,1	I	12	K=H	1	F	4.2	24.2	38.2	48.5	+2.7
?	7,0	8,7	II b? 3938	3	K=H	2	F, rem.	3.5	17.4	38.9	55.3	+4.2
?	7,1	10,1	II a 3939	2	K=H	1	F, rem	3.6	20.2	38.8	52.5	+5.1
?	4,6	10,7	II a? 3940	2	K=H	1	rem,	2.3	21.4	40.1	51.3	+3.0
340	3,7	12,7	I	5	K=H	1	—	1.8	25.4	40.6	47.3	+1.7

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1997phae.proj:_ssdF

Mean 7

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of Stars to 1900	Br.	Cor. Br.
	1571	8 25.6	+36 50	6.1						
~~D.Tm~~	1836	8 24.1	+36 56	6.8	69.2	42.3	73.4	8 26.9 +36 46 .	7.0	6.3
D.Tm	1899	8 34.9	+37 26	7.0	69.7	42.5	71.0	8 37.8 +37 17 .	7.2	6.5
	1645	8 55.4	+47 38	3.7	76.4	52.6	71.9	8 56.9 +47 34 .	4.0	3.3
D.Tm	1592	8 24.3	+47 37	6.2	65.1	52.5	70.4	8 27.5 +47 28 .	7.0	6.3
D.Tm	1870	8 21.9	+37 45	6.5	66.9	42.4	71.8	8 24.8 +37 36 .	6.4	5.7
	1638	8 51.0	+48 31	3.2	75.2	52.7	72.5	8 52.4 +48 27 .	4.0	3.3
	1653	8 58.9	+38 56	4.7	76.3	42.4	72.1	9 8 0.2 +38 51 .	6.2 / 6.5	5.5 / 5.8
	1649	8 57.1	+49 0	5.7	77.3	52.6	72.2	8 58.5 +48 55 .	6.3	5.6
D.Tm	2138	8 52.3	+40 16	6.5	73.7	42.6	70.7	8 55.2 +40 6 .	7.1	6.4
	1627	8 48.7	+40 40	5.8	74.1	42.5	72.4	8 50.1 +40 35 .	6.9	6.2

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F. m.tc. 6.8 6.3

F. cl. 6.8

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Plate 1175.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	correc.
17h 0	22.2	7.7	II	5	K=.5H	1	—	11.1	15.4	26.1	73.7 66.5	+1.2
	22.0	19.1	I	7	K=.2H	2	—	11.0	38.2	26.2	50.9 49.4	-0.7
*	22.2	19.3	I?	4?	H	2	—	11.1	38.6	26.1	50.5 49.3	-0.6
	21.4	7.2	II?	3940a 2	K=H	K=H	1 1	—	2 cm	10.7	14.4	26.5	74.7 66.5	+2.5
?	21.8	14.3	a?	3941 2	K=H		1	cm.	10.9	28.6	26.3	60.5 59.3	+0.2
	21.4	15.0	I	4	K=.8H	K=H?	1 1	—	—	10.7	30.0	26.5	59.1 59.9	0.0
?	20.7	6.7	II	3942 3	K=2.0H?		2	F. cm.	10.4	13.4	26.8	75.7 66.5	+2.7
	20.0	13.9	a	3943 2	K=1.2H?		2	F? cm	10.0	27.8	27.2	61.3 61.1	+0.5
	20.4	17.8	I?	I 4	H	K=H	K=H 1 1	—	—	10.2	35.6	27.0	53.5 46.3	-1.1
	20.3	19.8	I	3944 4	H		1 1	—	—	10.2	39.6	27.0	49.5 47.3	-1.5
	19.9	7.7	a	2	K=H		1	cm		10.0	15.4	27.2	73.7 66.5	+1.2
	19.1	17.1	I	4	H		1 1	—	—	9.6	34.2	27.6	54.9 54.7	-0.7
	19.0	19.3	III	3945 2	3	K=H	K=H 1 1	—	F	9.5	38.6	27.7	50.5 49.3	0.7
	19.4	21.9	a?	II 2	2	K=H	K=H 1 1	cm	—	9.7	43.8	27.5	45.3 36.1	-2.4
	18.4	10.0		3	K=H		2	F.		9.2	20.0	28.0	69.1 64.9	+1.8
	18.5	15.2	?	II 2	3	K=H	K=H 1 1	—	F	9.2	30.4	28.0	58.7 56.6	-0.1
	18.0	20.8	I	3946 5			1 1	—	—	9.0	41.6	28.2	47.5 44.3	-1.1
	18.5	21.1	a?	II a 2	2	K=H	K=H 1 1	F	F. cm	9.2	42.2	28.0	46.9 39.7	-1.1
	17.8	9.0		3	K=H		1	F.		8.9	18.0	28.3	71.1 58.9	+1.1
	17.3	12.3	I	6			2	—		8.6	24.6	28.6	64.5 57.3	+0.5
	17.5	15.9	I	7			2	F.		8.8	31.8	28.4	57.3 60.1	-0.5
	17.5	16.9	I	7	K=.2H		2	F.		8.8	33.8	28.4	55.3 48.1	-0.7
	17.0	18.3	III	2	2	K=H	K=H 1 1	—	—	8.5	36.6	28.7	52.5 45.3	-0.6
	17.5	19.6	III	? 3	K=H		2	F.		8.8	39.2	28.4	49.9 42.7	-1.8
	17.2	22.3	III	3	2	K=H	K=H 1 1	F	F?	8.6	44.6	28.6	44.5 37.3	-1.3
	16.2	8.2	III	2	2	K=H	K=H 1 1	—	—	8.1	16.4	29.1	72.7 65.5	+2.7
	16.0	9.9	II	3946a II a 2		K=H	K=H 1 1	—	2 cm	8.0	19.8	29.2	69.3 62.1	+1.9
	16.7	18.7		8			2	F.		8.4	37.4	28.8	51.7 44.5	-0.7

* Small portion of spectrum appears on plate.

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1887phae.proj...gaif

Mean 1

	No.	R. A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900		Br.	Br. cor
D.M.	2027	9	132	+15	5-9	6.7	28.6	27.1	29.8	9	15.7 + 15 48	6.7	6.6
	1635	8	50.9	+16	2	5.6	89.1	27.0	89.8	8	52.0 + 15 58	6.2	6.1
	1634	8	50.6	+15	47	5.2	89.2	26.9	89.8	8	51.7 + 15 43		
D.M.	1938	9	15.7	+26	31	7.0	30.1	37.2	27.6	9	18.3 + 26 20	7.1	7.0
D.M.	1901	8	59.4	+26	12	7.3	88.0	37.1	87.8	9	2.1 + 26 1	6.7	6.6
D.M.	1901	8	58.1	+16	26	7.5	88.1	27.1	88.1	9	0.6 + 16 15	6.9	6.8
	1692	9	17.7	+26	42	4.6	31.1	37.1	28.4	9	18.8 + 26 37	5.9 6.2	5.8 6.1
	1660	9	1.7	+27	7	6.0	29.5	37.1	29.0	9	3.0 + 27 3	6.2	6.1
D.M.	1877	8	51.4	+26	60	7.3	87.0	37.2	88.1	8	58.1 + 26 50	6.6	6.5
D.M.	1866	8	46.8	+26	58	7.2	86.4	37.2	87.9	8	49.5 + 26 48	6.7	6.6
D.M.	2065	9	13.4	+17	13	6.8	28.8	37.2	27.6	9	15.9 + 17 2	7.0	6.9
D.M.	1990	8	53.6	+17	40	7.5	87.8	37.3	88.5	8	56.1 + 17 30	6.9	6.8
	1973	8	47.2	+17	47	6.5	85.8	27.3	86.5	8	49.7 + 17 37	6.7	6.6
D.M.	[illegible]											6.9	6.8
	1674	8	42.1	+27	22	7.5	85.9	37.1	88.3	8	44.8 + 27 12		
D.M.	1685	8	45.7	+27	28	7.5						6.9	6.8
D.M.	1729	9	9.1	+28	12	6.7	29.1	37.2	27.3	9	1.8 + 27 51	6.7	6.6
	2004	8	51.6	+17	58	8.0	88.0	27.2	88.1	9	0.1 + 17 47		
D.M.	1696	8	395	+28	9	7.8						7.0	6.9
D.M.	2075	8	45.7	+18	5	7.5	87.3	27.1	88.4	8	48.3 + 17 55	6.7	6.6
D.M.	1966	8	45.0	+17	55	7.7	87.2	27.1	88.3	8	47.5 + 17 45	6.8	6.7
	1682	9	12.3	+18	13	6.6	30.3	27.1	29.2	9	13.4 + 18 8	6.7	6.6
D.M.	2138	9	3.8	+18	38	6.8	29.4	27.2	27.9	9	6.3 + 18 27	6.4	6.3
D.M.	1683	8	55.5	+28	28	6.5	87.3	37.3	87.8	8	58.2 + 28 18	6.0	5.9
	1643	8	54.7	+28	22	5.8	88.5	37.2	89.2	8	55.9 + 28 18	5.8	5.7
D.M.	2093	8	51.0	+18	42	7.0	87.6	37.2	88.2	8	53.5 + 18 32	7.1 7.5	7.0 7.4
	1626	8	48.5	+28	23	5.2	87.7	37.2	89.5	8	49.7 + 28 19	6.1 6.4	6.0 6.3
D.M.	2057	8	42.5	+18	32	7.0	87.1	27.1	88.4	8	45.1 + 18 22	6.8 7.1	6.7 7.0
D.M.	1890	9	13.2	+29	7	7.8	29.6	37.2	26.9	9	15.9 + 28 56	6.9 7.1	6.8 7.0
D.M.	1883	9	9.3	+29	11	7.0	29.1	37.2	27.2	9	12.0 + 29 0	7.2	7.1
D.M.	2090	8	50.1	+18	52	6.8	87.5	27.3	88.2	8	52.7 + 18 42	6.8	6.2

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Plate 1175.

			No. Lines	K	Focus	Other Lines					Correc.
	16,6	20,9	III?	3	K=H	2	F	8.3	41.8	28.9	47.3 ~~41.1~~	-2.1
	16,7	21.0	III III	2 2	K=H K=H	1 1	— —	8.4	42.0	28.8	47.1 ~~39.9~~	-2.3
	16.8	21.4	a. 3944 IIa	3 2	K=H K=H	1 1	F. seen F? seen	8.4	42.8	28.8	46.3 ~~39.1~~	-1.1
	16.8	23.4	III II	2 2	K=1.2H ? K=H	1 1	F? F?	8.4	46.8	28.8	42.3 ~~35.1~~	-3.1
	15,8	7,7	II II	2 2	K=H ? K=H	1 1	— —	7.9	15.4	29.3	73.7 ~~66.5~~	+1.3
	15.1	8.2	~~I~~ II 3947a	2 2	K=H K=H	1 1	— seen	7.6	16.4	29.6	72.7 ~~65.5~~	+1.3
	15.7	9.3	II II	2 2	K=1.2H ?	K=H 1	— —	7.8	18.6	29.4	70.5 ~~63.3~~	+1.1
	15.7	10.2	a? 3948 ~~II~~ IIa	2 ~~2~~	K=H ~~K=H~~	1 1	F? seen seen	7.8	20.4	29.4	68.7 ~~61.5~~	+0.9
	15.6	22,3	I 6	N	2	—		7.8	44.6	29.4	44.5 ~~37.3~~	-1.3
	15,6	23,5	b? 3949 ~~X~~	3	K=H	3	F. seen	7.8	47.0	29.4	42.1 ~~34.9~~	-3.5
	14,2	14,3	b? 3950 ~~1~~	3	K=1.2H	2	F seen	7.1	28.6	30.1	60.5 ~~53.3~~	+0.3
	14,5	15,2	II	2	3 K=H	K=H 1 1	— F	7.2	30.4	30.0	58.7 ~~51.5~~	0.0
	13,6	6,3	?	~~X~~ 2	~~K=H~~	1	—	6.8	12.6	30.4	76.5 ~~69.3~~	+1.8
	13,3	16,1	~~I~~ II? II	2 3	K=H	K=H 1 1	— F	6.6	32.2	30.6	56.9 ~~49.7~~	-0.8
	13,2	16,3	3950a IIa?	2	K=H	K=H 1 1	— F?	F seen 6.6	32.6	30.6	56.5 ~~49.3~~	-0.6
	13,0	18,5	II	3	K=H	2	F	6.5	37.0	30.7	52.1 ~~44.9~~	-1.5
	13,5	20,7	II?	2 3	K=H	K=H 1 1	F? F	6.8	41.4	30.4	47.7 ~~40.5~~	-1.1
	13,5	21.1	III	2 2	K=H	K=H 1 1	— F?	6.8	42.2	30.4	46.9 ~~39.7~~	-2.5
	12,6	10,4	I	3 H	N	K=H 1 1	— —	6.3	20.8	30.9	68.3 ~~61.1~~	+1.9
	12,3	20.1	3951 b	3	K=H	2	F seen	6.2	40.2	31.0	48.9 ~~41.7~~	-2.3
	11,5	13,1	II	2 2	K=H	K=H 1 1	— —	5.8	26.2	31.4	62.9 ~~55.7~~	+0.9
	11.9	13.6	II	2 2	K=H	K=H 1 1	— —	6.0	27.2	31.2	61.9 ~~54.7~~	+0.6
	11.1	14,4	III	1 2 2	K=H	K=H 1 1	— F?	5.6	28.8	31.6	60.3 ~~53.1~~	+0.3
	11,8	23,9	II?	2	K=H	K=H 1 1	F? F?	5.9	47.8	31.3	41.3 ~~34.1~~	-4.2
	11,9	24,3	? I	6 4	K=.5H	K=H 1 1	— F?	6.0	48.6	31.2	40.5 ~~33.3~~	-1.9
	10.9	11,6	I	7	K=.2H	2	F	5.4	23.2	31.8	65.9 ~~58.7~~	0.7 +1.5
	9,5	13,1	~~X~~ III	4	K=H	1	—	4.8	26.2	32.4	62.9 ~~55.7~~	+0.5
?	9,4	13,6	~~I~~ ? 3952	2	K=H	2	seen	4.7	27.2	32.5	61.9 ~~54.7~~	+0.3

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Mean 1

	No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of Stars to 1900	Cou. Bv.	Bv.
	1622	8 45.5	+28 47	6.2	87.3	37.1	89.4	8 46.7 + 28 43	6.1 6.4	6.3 6.5 ✓
D.m	1659	8 43.8	+28 48	6.5	85.8	37.2	88.1	8 46.5 + 28 38	6.8 7.2	6.9 7.3 6.9 7.3
D.m	2069	8 44.4	+18 44	7.0	87.2	37.1	88.3	8 47.0 + 18 34	6.7	6.8 6.9
D.m	1647	8 38.4	+28 42	7.0	85.4	37.1	88.5	8 41.1 + 28 32	6.6	6.7 6.7
D.m	2201	9 13.6	+19 22	7.5	29.0	27.3	27.7	9 16.1 + 19 11	7.2	7.3 7.5
D.m	2198	9 12.5	+19 44	7.5	28.9	27.3	27.6	9 15.0 + 19 33	7.0	7.1 7.4
	2194	9 10.1	+19 24	8.0	28.7	27.2	27.6	9 12.6 + 19 13	7.0	7.1 7.3
? D.m	~~2187~~	~~9 8.3~~	~~+19 25~~	~~7.0~~						
? D.m	2187	9 8.3	+19 25	7.0	28.7	27.2	27.8	9 10.8 + 19 14	6.7	6.8 6.8
D.m	2110	8 42.5	+19 23	6.5	87.1	27.2	88.4	8 45.1 + 19 13	6.0	6.1
	1605	8 39.4	+29 12	4.2	86.4	37.0	89.9	8 40.6 + 29 7	5.0 5.2	5.1 5.3
	1657	9 0.7	+30 9	5.4	29.3	37.3	29.0	9 2.0 + 30 3	5.6 5.8	5.7 5.9
? D.m	2153	8 57.2	+19 60	8.0	87.6	27.2	87.6	8 59.8 + 19 4 59	7.0	7.1 7.3
D.m	2818	9 16.6	+20 25	6.3	29.2	27.2	27.4	9 19.1 + 20 14	6.7 6.8	6.8 6.9
? D.m	2260	8 55.5	+20 39	8.2	87.7	27.2	88.0	8 58.1 + 20 29	7.0	7.1 7.4
? D.m	1808	8 54.4	+30 41	7.3	87.0	37.3	87.6	8 57.1 + 30 31	6.9	7.0 7.3
D.m	1795	8 49.2	+30 48	6.5	86.2	37.3	87.7	8 51.9 + 30 38	5.7	5.8
? D.m	2232	8 45.6	+20 31	7.2	87.0	27.3	88.1	8 48.2 + 20 21	6.6	6.7 6.7
? D.m	1781	8 43.3	+30 23	7.0	85.3	37.2	88.0	8 46.0 + 30 13	6.8 7.0	6.9 7.1 6.8 7.0
? D.m	1839	9 8.3	+30 58	7.7	29.1	37.3	27.2	9 14.0 + 30 47	6.7	6.8 6.9
	1625	8 46.9	+31 2	5.5	87.1	37.2	89.4	8 48.2 + 30 58	5.8 6.0	5.9 6.1
	1664	9 3.4	+31 28	6.5	29.6	37.3	28.7	9 6.1 + 31 17	6.8	6.9 6.8
D.m	1941	9 0.9	+31 18	7.5	28.1	37.3	27.5	9 3.6 + 31 7	7.0	7.1 6.9
? D.m	1934	8 58.8	+31 48	6.7	87.6	37.4	87.3	9 1.6 + 31 37	7.0 7.4	7.1 7.5 7.0 7.5
? D.m	1876	8 36.4	+31 13	6.3	84.2	37.1	88.4	8 39.2 + 31 4	6.4	6.5 6.5
? D.m	1909	8 38.0	+21 8	7.0	86.6	27.1	88.5	8 40.6 + 20 58	6.5	6.6 6.6
? D.m	1991	9 5.3	+21 53	6.3	28.5	27.3	27.8	9 7.9 + 21 42	5.9	6.0
	~~2063~~	~~9 8.7~~	~~+31 53~~	~~7.6~~						
? D.m	2063	9 2.0	+22 35	6.5	28.2	27.4	27.7	9 4.6 + 22 24	6.4 6.5	6.5 6.6
	1661	9 2.5	+22 31	5.2	29.7	27.2	29.4	9 3.6 + 22 27	5.9 6.0	6.0 6.1

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Plate 1175.

	V	H	Type	No. Lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
	9.0	17.0	I	9	K=.2H	3	F,	4.5	34.0	32.7	55.1 ~~47.9~~	- 0.7
	9.3	17.5	II ?2 2	K=H	K=H	1 1	— F!	4.6	35.0	32.6	54.1 ~~46.9~~	- 1.1
	9.8	19.2	III	2	K=H	K=H	1 1	— F	4.9	38.4	32.3	50.7 ~~43.5~~	- 1.1
	8.9	8.5	I	5	N	2	F,	4.4	17.0	32.8	72.1 ~~64.9~~	+3.1
?	8.5	14.2	II a 3953	2	K=H	2	F! ?	4.2	28.4	33.0	60.7 ~~53.6~~	+0.5
	8.8	15.5	I	7	K=.5H	2	F,	4.4	31.0	32.8	58.1 ~~50.9~~	-0.3
?	8.7	17.8	III b 3954	2	K=H	2	F?	4.4	35.6	32.8	53.5 ~~46.3~~	- 1.2
	8.7	18.2	III ? III	2 2	K=H	K=H	1 1	— —	4.4	36.4	32.8	52.7 ~~45.5~~	- 1.5
	8.6	18.7	I	56	K=H	K=H	1 2	— F	4.3	37.4	32.9	51.7 ~~44.5~~	-1.8
?	8.0	19.7	a 3955 IIa	7 2	K=2.5H	K=H 1	F,		4.0	39.4	33.2	49.7 ~~42.5~~	-2.3
	8.6	20.7	I	9	K=.2H	3	—		4.3	41.4	32.9	47.7 ~~40.5~~	-2.7
	9.0	24.3	I ? I	4	H	K=H	1 1	— F!	4.5	48.6	32.7	40.5 ~~33.3~~	-4.7
	7.5	7.9	II	2	2	K=H	K=H 1 1	— —	3.8	15.8	33.4	73.3 ~~66.1~~	+3.6
	7.5	8.6	III	2	K=H		1 —		3.8	17.2	33.4	71.9 ~~64.7~~	+3.1
	7.3	9.7	III	2 3	K=H	K=H	1 7 —		3.6	19.4	33.6	69.7 ~~62.5~~	+1.3
	7.6	10.2	II ? II	2	K=H	K=H	1 1 —		3.8	20.4	33.4	68.7 ~~61.5~~	+1.2
	7.8	10.8	II ? II	2 2	K=H	K=H	1 1 — F!		3.9	21.6	33.3	67.5 ~~60.3~~	+1.1
?	7.6	14.5	a ? 3956	3	K=1.2H	?	2 F,		3.8	29.0	33.4	60.1 ~~52.9~~	+0.1
	7.9	15.5	II	2 2	K=.5H	K=H ?	1 1 — —		4.0	31.0	33.2	58.1 ~~50.9~~	-0.1
	7.8	16.2	II	3 3	K=1.2H	K=H	1 1 F — F		3.9	32.4	33.3	56.7 ~~49.5~~	-0.6
	7.8	18.9	I	9	K=.2H	3	F,		3.9	37.8	33.3	51.3 ~~44.1~~	-1.9
	7.0	19.0	II ? 2	2	K=H	K=H	1 1 — —		3.5	38.0	33.7	51.1 ~~43.9~~	-2.1
	6.4	7.9	II ?		N		1 —		3.2	15.8	34.0	73.3 ~~66.1~~	+3.9
	6.1	10.0	II	2	K=H		1 —		3.0	20.0	34.2	69.1 ~~61.9~~	+1.3
	6.5	10.4	III	III x2	3	K=H	K=H 1 — F		3.2	20.8	34.0	68.3 ~~61.1~~	+2.4 +1.2
	6.9	14.7	! II	2	2	K=H	1 — —		3.4	29.4	33.8	59.3 ~~52.1~~	+0.1
	6.8	14.9	? II	2	2	K=H	K=H 1 — —		3.4	29.8	33.8	58.9 ~~51.7~~	0.0
	6.9	21.6	II a 3957	3	K=H		2 F,		3.4	43.2	33.8	45.9 ~~38.7~~	-3.5
?	5.8	14.0	II a 3958	3	K=1.2H	1	2 F,		2.9	28.0	34.3	61.1 ~~53.9~~	+0.6

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Mean 1

No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900.	Br.	Cor. Br.
DM	1829	8 52.5	+32 49	6.3	86.5	37.3	87.2 8 55.3 + 32 39	5.4	5.3
Dm	1825	8 51.4	+32 39	8.0	86.4	37.2	87.5 8 54.2 + 32 29	7.0 6.9	6.9
D.m	~~1829~~	~~8 52.6~~	~~+32 49~~	~~6.3~~				7.0 7.6 7.2	6.9 7.1
D.m	2029	8 48.7	+22 25	6.7	87.1	27.3	88.2 8 51.3 + 22 15	6.4	6.3
D.m	1865	9 12.9	+32 52	7.0	29.9	37.3	26.8 9 15.6 + 32 41	6.3	6.2
D.m	1810	8 59.2	+33 8	6.7	87.6	37.3	87.1 9 2.0 + 32 57	6.0	5.9
D.m	1837	8 56.0	+32 57	6.8	87.0	37.4	87.3 8 58.8 + 32 47	5.7 5.9	5.6 5.8
	1640	8 52.2	+32 53	5.7	87.8	37.3	89.0 8 53.4 + 32 49	7.1 7.3	7.0 7.2
D.m	1816	8 49.8	+32 55	7.7	86.2	37.3	87.7 8 52.6 + 32 45	6.4 6.5	6.3
D.m	~~1811~~	~~8 48.4~~	~~+32 60~~	~~7.2~~					
	1811	8 48.4	+32 60	7.2	85.8	37.3	87.6 8 51.2 + 32 50		
D.m	~~1816~~	~~8 49.8~~	~~+32 55~~	~~7.7~~					
D.m	1779	8 46.0	+33 18	7.7	85.4	37.3	87.7 8 48.8 + 33 8	6.5 6.7	6.4
	1619	8 45.2	+32 56	5.7	86.6	37.2	89.3 8 46.4 + 32 51	5.5	5.4
D.m	1782	8 35.3	+32 35	6.8	83.9	37.1	88.6 8 38.1 + 32 26	6.6 6.6	6.5
	~~2088~~	~~9 13.8~~	~~+23 23~~	~~7.8~~					
D.m	1852	9 14.4	+33 33	7.5	30.2	37.4	26.6 33.8 9 17.1 + 33 22	6.9 7.0	6.8
D.m	1848	9 12.7	+33 32	6.8	29.9	37.3	26.8 33.0 9 15.4 + 33 21	6.5 6.8	6.4 6.7
D.m	2072	9 9.5	+23 41	6.5	28.9	2 87.3	27.6 9 12.1 + 23 30	6.9 7.1	7.0 7.3 6.9 7.2
D.m	2068	9 8.3	+23 31	7.9	28.7	27.3	27.5 9 10.9 + 23 20		
D.m	~~2067~~	~~9 7.1~~	~~+23 24~~	~~7.8~~					
D.m	2067	9 7.1	+23 24	7.8	28.7	27.3	27.6 9 9.7 + 23 13	7.3 7.4	7.2
D.m	~~2062~~	~~9 6.6~~	~~+23 19~~	~~7.8~~				7.1 7.3	7.0
D.m	2048	8 59.1	+23 34	6.5	88.1	27.4	88.0 9 4.7 + 23 23	6.3	6.2
D.m	2040	8 56.6	+23 26	7.0	87.6	27.4	87.7 8 59.2 + 23 16	7.0 7.0	6.9
D.m	1800	8 54.4	+33 27	7.5	86.8	27.3	87.4 8 57.2 + 33 17		
D.m	~~2035~~	~~8 55.0~~	~~+23 11~~	~~7.8~~				6.6 6.6	6.6
	1631	8 49.6	+33 22	5.5	87.4	37.3	89.3 8 52.8 + 33 18	5.2	5.1
D.m	1784	8 47.7	+33 49	7.5	85.7	37.3	87.8 8 50.5 + 33 39	7.0 6.9	6.9
D.m	1985	9 14.6	+34 6	7.7	30.4	37.3	34.3 9 17.4 + 33 55		
D.m	~~2080~~	~~9 16.0~~	~~+24 12~~	~~7.0~~				6.9 6.8	6.8
D.m	2068	9 8.9	+24 15	7.3	28.9	27.2	27.6 9 11.5 + 24 4	6.9 6.8	6.8
D.m	1969	9 8.5	+34 7	7.4	29.3	37.3	26.9 9 11.3 + 33 56	6.8 6.8	6.7
D.m	~~2065~~	~~9 7.8~~	~~+24 7~~	~~7.0~~				7.0 7.0	6.9
D.m	2045	8 58.6	+23 59	8.2	88.0	27.3	87.9 9 1.2 + 23 44	7.2 7.0	7.1
D.m	~~1805~~	~~8 57.1~~	~~+33 56~~	~~7.6~~					
D.m	~~2018~~	~~8 59.1~~	~~+23 34~~	~~6.5~~					
D.m	1806	8 57.7	+33 56	7.8	87.5	37.3	87.5 9 0.5 + 33 45	7.0 7.0	6.9
D.m	1765	8 41.5	+33 51	6.3	84.7	37.2	88.2 8 44.3 + 33 41	6.3	6.2
D.m	1949	8 59.9	+34 29	6.5	87.9	37.4 88.5	87.3 9 2.7 + 34 18	6.0	5.9

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Plate 1175.

	r	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	correc.
	5.6	18.4	I? I	X5 3	X K=H	1 N 1	F —	2.8	36.8	34.4	45.1 52.3	-0.9
	5.9	21.7	X II? II 2	2	K=H K=H	1 1	— —	3.0	43.4	34.2	38.5 45.7	-3.6
?	4.7	8.9	III bc 3995.9	2	K=1.5H	3	F, sum. Bright	2.4	17.8	34.8	64.1 71.3	+3.3
	4.2	11.3	II ?	3	K=H	1	F	2.1	22.6	35.1	57.3 66.5	+2.1
	4.7	16.6	I	10	N	3	F	2.4	33.2	34.8	48.4 55.9	-0.6
	4.6	19.5	II? II 2	2	K=H	K=H 1	— —	2.3	39.0	34.9	42.9 50.1	-1.3
	3.0	7.2	II ?	2	K=H	1	—	1.5	14.4	35.7	67.5 74.7	+2.4
	3.0	8.3	II ?	2	K=H	1	—	1.5	16.6	35.7	65.3 72.5	+1.9
	3.4	8.9	III II	2 2	K=H	K=H 1	— —	1.7	17.8	35.5	64.1 71.3	+3.5
	3.5	18.7	III II	x2 2	X K=H	K=H 1	— —	1.8	37.4	35.4	44.5 51.7	-2.1
	3.4	21.4	II II	2 2	K=H	K=H 1	— —	1.7	42.8	35.5	39.1 46.3	-3.7
	2.7	10.1	I	8	K=.5H	2	F	1.4	20.2	35.8	61.7 68.9	+2.7
	2.4	14.3	I	4	N	1	—	1.2	28.6	36.0	53.3 60.5	+0.3
	2.4	20.1	I	6	N	2	F	1.2	40.2	36.0	41.7 48.9	-2.9
	2.0	18.2	I	7	K=.5H	2	—	1.0	36.4	36.2	45.5 52.7	-1.8

F. m. to c. 6.5 6.0

F. cl. 6.6

Plate 1176

?	22.4	7.4	II h 3960	3	K=2.0H	2	F, sum.	11.2	14.8	46.3	73.3	+6.9
	22.9	10.2	I X	X? ? N	X	2 2	— —	11.4	20.4	46.1	67.7	+2.7
	22.5	17.5		6 N	2	—		11.2	35.0	46.3	53.1	-2.3
	22.3	18.3	I	6 N	2	—		11.2	36.6	46.3	51.5	-1.9 -3.0
	22.6	18.4	III	2 K=H	1	—		11.3	36.8	46.2	51.3	-3.0
?	22.3	18.5	II a? 3961	2	K=H	1	sum	11.2	37.0	46.3	51.1	-3.1
	22.8	20.2	I	6 N	2	—		11.4	40.4	46.1	47.7	-3.0
	21.3	14.4	I? II	2 2	K=H	K=H 1	1 — —	10.6	28.8	46.9	59.3	+0.3
	21.6	15.5	I	4 K=H	1	—		10.8	31.0	46.7	57.1	-0.3
	21.9	23.9	II ?	2 K=1.2H?	2	—		11.0	47.8	46.5	41.3	-8.3
	20.8	7.0	II	3 K=H	1	F		10.4	14.0	47.1	74.1	+5.1

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1887phaed.proj.-.838f

Mean 1

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. to 1900.	Corr Bv.	Br.
D.M.	2022	8 50.3	+24 32	7.5	87.1	27.3	88.0	8 52.9 + 24 22	6.9	7.0 6.8
D.M.	1898	8 40.8	+34 14	7.3	84.2	37.2	87.8	8 43.6 + 34 4	7.0	7.1 7.1
	1685	9 13.7	+34 54	34	31.5	37.3	28.2	9 15.3 + 34 49	5.0 5.7	5.1 5.8
D.M.	1766	9 6.3	+35 14	6.3	28.9	37.3	26.8	9 9.1 + 35 3	6.4 6.6	6.5 6.7
	1646	8 55.8	+24 56	5.6	89.0	27.3	89.6	8 56.9 + 24 51	5.2	5.3
D.M.	2013	8 47.7	+25 1	7.0	86.7	27.3	85.4	8 50.4 + 24 51	6.5	6.6 6.7
	1691	9 16.5	+25 42	6.4	30.9	27.2	28.5	9 17.8 + 25 36	7.0	7.1
D.M.	2084	9 12.7	+25 47	7.0	29.3	27.3	27.4	9 15.3 + 25 36	7.1	7.2
D.M.	1980	9 12.3	+35 34	7.8	30.1	37.3	26.6	9 15.1 + 35 23	7.0	7.1 7.0
D.M.	1905	8 48.0	+35 34	7.5	85.4	37.4	87.5	8 50.8 + 35 24	7.0 7.3	7.1 7.0 7.4 7.2
D.M.	1878	8 41.6	+35 36	7.0	84.4	37.3	88.1	8 44.4 + 35 26	6.6	6.7 6.8
D.M.	1971	9 9.5	+35 58	6.7	29.7	37.4	27.0	9 12.3 + 35 47	5.6	5.7
D.M.	1901	8 59.4	+26 12	7.3	88.0	27.4	87.7	9 2.1 + 26 1		
D.M.	1883	8 44.8	+36 6	6.1	85.0	37.3	87.9	8 47.7 + 35 56		
D.M.	1889	8 49.3	+36 22	6.7	85.7	37.4	87.5	8 52.1 + 36 12		

Mean 5

	No.	R.A.	Dec.	Mag.	H	V	H'	Red. to 1900.	Corr Bv.	Br.
	1696	9 20.9	+46 8	5.6	35.7	57.3	28.8	9 22.1 + 46 2	5.7 6.0	6.2 6.5
D.M.	1971	9 9.5	+35 58	6.7	29.9	47.4	27.2	9 12.2 + 35 24		
D.M.	1463	8 49.6	+46 19	7.2	84.6	57.5	86.9	8 52.7 + 46 9		
	1889	8 49.3	+36 22	6.7	85.9	47.6	87.8	8 52.1 + 36 12	5.8	6.3
~~D.M.~~	~~1628~~	~~8 48.8~~	~~+46 6~~	~~5.9~~	~~85.4~~	~~57.3~~	~~88.4~~			
	1628	8 48.8	+46 6	5.9	85.6	57.4	88.6	8 52.1 + 46 1		
D.M.	1463	8 49.6	+46 19	7.2	84.0	57.4	87.1	8 52.7 + 46 9	6.2	6.7
D.M.	1883	8 44.8	+36 6	6.1	85.2	47.5	88.2	8 47.7 + 35 56		
D.M.	1916	8 59.4	+36 54	7.3	88.2	47.5	87.9	9 2.2 + 36 43	6.5	7.0 7.0
D.M.	1905	8 56.5	+36 46	6.8	87.5	47.4	87.8	8 59.3 + 36 36	6.3	6.8
	1591	8 32.8	+46 16	5.6	80.6	57.3	88.9	8 34.1 + 46 11	6.0	6.5
D.M.	1984	9 17.7	+37 6	7.3	31.7	47.5	26.6	9 20.5 + 36 55	6.4	6.9

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Plate 1176.

				No. Lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
	20.6	7.9	I	5	K=H	2	F	10.3	15.8	47.2	72.3	+4.5
	20.4	10.2	I	8	H	5	F	10.2	20.4	47.3	67.7	+2.7
	20.0	10.8	I	5	?	1	—	10.0	21.6	47.5	66.5	+1.2
	20.2	11.4	I	7	H	2	—	10.1	22.8	47.4	65.3	+3.5
✓	19.9	12.7	II	II 2	2	K=H K=H	1	— F?	10.0	25.4	47.5	62.7	+2.1
✓	19.2	14.6	III	III ?2	2	K=H K=H	1	— —	9.6	29.2	47.9	58.9	+0.5
	19.8	16.1	I	12	H	5	F		9.9	32.2	47.6	55.9	-1.2
✓	19.8	20.4	II	IIa? 2 (3961a)	2	K=H K=H	1	— F? 2 em	9.9	40.8	47.6	47.3	-3.3
	19.8	23.1	II	II?	2	K=H?	1	—	9.9	46.2	47.6	41.9	-8.1
	19.8	24.0	II	2	K=H	1	—	9.9	48.0	47.6	40.1	-5.7
	19.1	23.3	II	a? (3962)	2	K=H	1	2em	9.6	46.6	47.9	41.5	-5.3
	18.2	8.3	I	I? H		K=H	1	—	9.1	16.6	48.4	71.5	+6.7
✓	18.6	16.2	II	II 2	2	K=H K=H	1	— —	9.3	32.4	48.2	55.7	-1.2
✓	18.4	16.3	II	II II 2	2	K=H K=H	1	F? F?	9.2	32.6	48.3	55.5	-0.7
	18.0	17.5	I	10	K=,5H	5	F		9.0	35.0	48.5	53.1	-2.4
✓	18.8	17.4	III	III x2 3	K=H	K=H	1	F F	9.4	34.8	48.1	53.3	-1.5
✓	17.3	6.3	II	II a? (3962a) 2	2	K=H K=H	1	— 2em	8.6	12.6	48.9	75.5	+9.0
?	17.6	9.5	II	a (3963) 3		K=H	2	F 2em	8.8	19.0	48.7	69.1	+3.6
	17.0	9.9	II	2		K=H	1	F?	8.5	19.8	49.0	68.3	+5.3
✓	17.7	10.4	II	? IIa? (3963a) 2	2	K=H K=H	1	— 2em	8.8	20.8	48.7	67.3	+3.0
✓	17.5	12.1	II	? IIa? (3963b) 2	2	K=H K=H	1	— 2em	8.8	24.2	48.7	63.9	+2.7
	17.6	15.0	II	a (3964) 2	2	K=H	2	2em	8.8	30.0	48.7	58.1	0.0
✓	17.8	15.1	III	III 2	2	K=H K=H	1	— F?	8.9	30.2	48.6	57.9	0.0
?	17.3	15.1	III	I-c (3965) 3		K=H	3	F, 2em, bright	8.6	30.2	48.9	57.9	-0.0
?	17.0	15.5	II	a (3966) 2	2	K=1.2H	2	F? 2em	8.5	31.0	49.0	57.1	-0.6
✓	17.5	18.5	II	II 3	3	K=H K=H	1	F F	8.8	37.0	48.7	51.1	-2.3
✓	17.2	21.9	I	I 5	5	H	1	— —	8.6	43.8	48.9	44.3	-4.7
?	16.8	11.9	II	a (3967) 3		K=H	2	F 2em	8.4	23.8	49.1	64.3	+2.1

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Mean 5

Red. of stars to 1900

	No.	R.A.	Dec.	Mag.	H.	V.	H'						Cow. By	Cow. Br.
D.M.	1978	9	15.4	+37	13	7.0	31.2	47.5	26.7	9	18.2	+ 37 2	6.0	6.5
	1681	9	11.4	+37	19	3.8	31.8	47.5	29.1	9	12.6	+ 37 14	3.9	4.4
D.M.	1660	9	9.5	+47	34	7.2	31.1	57.6	26.9	9	12.5	+ 47 23	5.9	6.4
	1678	9	9.4	+47	19	5.5	32.2	57.4	28.7	9	10.8	+ 47 14	6.1	6.6
D.M.	1650	9	3.9	+47	35	7.5	29.3	57.6	27.2	9	7.0	+ 47 24	6.6	7.1 6.9
D.M.	1642	8	58.2	+47	60	7.7	87.4	57.6	86.9	9	1.3	+ 47 49	6.4 6.6	6.9 7.1 6.9 7.0
	1645	8	55.4	+47	38	3.7	87.6	57.5	88.8	8	56.9	+ 47 34	B	B
D.M.	1919	8	44.0	+37	36	6.9	84.8	47.5	88.1	8	46.9	+ 37 26	6.3	6.8 6.7
D.M.	1606	8	32.9	+47	25	6.5	79.1	57.3	87.2	8	36.1	+ 47 16	6.1	6.6
D.M.	1871	8	34.9	+37	26	7.0	82.9	47.3	88.6	8	37.8	+ 37 17	6.1	6.6
D.M.	1903	8	36.3	+37	48	7.0	82.9	47.4	88.2	8	39.2	+ 37 39	6.0	6.5
D.M.	1773	9	17.3	+48	24	7.5	33.9	57.5	27.2	9	20.3	+ 48 13	6.2	6.7
D.M.	1716	8	53.3	+48	14	8.0	86.7	57.5	87.9	8	56.4	+ 48 4	6.5	7.0 7.2
D.M.	1993	8	54.3	+38	24	7.3	86.9	47.6	87.6	8	57.2	+ 38 14	6.3	6.8 6.8
	1636	8	51.0	+48	31	3.2	86.0	57.5	88.4	8	52.4	+ 48 27	B	B
D.M.	1986	8	51.3	+38	10	6.5	86.1	47.6	87.6	8	54.2	+ 38 0	6.3 6.7	6.8 7.2 6.8 7.0
D.M.	1780	~~8~~ 9	23.0	+48	48	7.3	35.6	57.4	26.6	~~8~~ 9	~~26.2 + 48 39~~ 26.0	+ 48 36	6.6	7.1 7.0
D.M.	2025	9	11.9	+ 38	48	6.7	30.9	47.6	27.3	9	14.7	+ 38 37	5.3	5.8
D.M.	1833	9	12.6	+49	2	7.3	32.4	57.5	27.1	9	15.7	+ 48 51	6.3	6.8
	2021	9	9.4	+ 38	43	8.5	30.2	47.5	27.2	9	12.2	+ 38 32	6.8	7.3 7.4
? D.M.	~~2022~~	~~9~~	~~11.1~~	~~+38~~	~~23~~	~~7.8~~	~~31.9~~	~~47.2~~	~~28.9~~					
D.M.	1744	9	5.8	+48	49	7.8	30.0	57.6	27.3	9	8.9	+ 48 38	6.5	7.0 6.9
D.M.	1999	8	57.6	+ 38	51	7.2	87.6	47.6	87.6	9 8	0.5	+ 38 40	5.9	6.4
D.M.	1998	8	57.4	+38	39	8.0	87.6	47.5	87.6	9 8	0.3	+ 38 28	6.5 6.8	7.0 7.3 7.1 7.4
	1653	8	58.9	+38	56	4.7	89.1	47.5	89.1	~~8~~ 9	0.2	+ 38 51	4.7 5.1	5.2 5.6
	1649	8	57.1	+49	0	5.7	88.1	57.5	88.7	8	58.5	+ 48 55	5.1	5.6
D.M.	1981	8	48.5	+ 38	49	7.2	85.5	47.6	87.8	8	51.4	+ 38 39	6.3	6.8 6.6
D.M.	1961	8	39.7	+38	53	6.8	83.5	47.5	88.2	8	42.6	+ 38 43	6.1	6.6 6.5
D.M.	2223	9	5.8	+ 39	13	7.0	29.6	47.6	27.5	9	8.7	+ 39 2	6.0	6.5

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April 29, 1887.

Plate 1476.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	corrn.
	16.7	16.2	III	III ?2	2	K=H	K=H	—	—	8.4	32.4	49.1	55.7	-0.7
	16.5	19.0	III	III 3	3	K=H	K=H	F.	F.	8.2	38.0	49.3	50.1	-2.7
	16.0	21.9	I	5	N	1		—		8.0	43.8	49.5	44.3	-7.1
	16.0	22.7	I	d? I ?3	5	K=H		F.	F	8.0	45.4	49.5	42.7	-8.1
	15.6	10.8	II	II 2	2	K=H	K=H	—	—	7.8	21.6	49.7	66.5	+2.7
	15.6	13.2	III	III 3	2	K=H	K=H	F.	F.	7.8	26.4	49.7	61.7	+1.8
	15.5	14.4	III	III 2	2	K=H	K=H	—	—	7.8	28.8	49.7	59.3	+0.7
	15.8	18.6	II	II ?II 2	2	K=H	K=H	—	—	7.9	37.2	49.6	50.9	-3.7
	15.5	19.9	I	? I 4	5	K=H	K=H	F.	—	7.8	39.8	49.7	48.3	-3.5
	14.8	6.5	I	7	N	2		—		7.4	13.0	50.1	75.1	+9.0
	14.5	8.8	I	I ?I 4	H 4	K=H		—	—	7.2	17.6	50.3	70.5	+6.6
	14.6	9.5	II	IIa 2	2	K=H	K=H	—	seen	7.3	19.0	50.2	69.1	+3.9
	14.8	10.0	I	6	N	2		F.		7.4	20.0	50.1	68.1	+5.4
	14.6	13.6	I	I ?I 4	H 3	K=H		—	F	7.3	27.2	50.2	60.9	+1.1
	14.4	14.1	II	?II 3	3	K=H	K=H	F.	—	7.2	28.2	50.3	59.9	+0.9
	14.2	16.2	I	6	N	2		F.		7.1	32.4	50.4	55.7	-1.3
	14.5	16.7	II	II 2	3	K=H	K=H	—	F.	7.2	33.4	50.3	54.7	-1.9
?	14.7	16.9	II	a ? 3968 3		K=H		2	F	seen.	7.4	33.8	50.1	54.3	-1.3
	13.6	8.0	III	III	2	K=H	K=H	—	F.	6.8	16.0	50.7	72.1	+7.7
	13.6	9.1	III	III ?	2	K=H	K=H	—	—	6.8	18.2	50.7	69.9	+4.3
	13.4	9.3	III	III 2	2	K=H		—	—	6.7	18.6	50.8	69.5	+4.3
	13.4	9.5	I	I 6	5	K=H	K=H	—	F.?	6.7	19.0	50.8	69.1	+7.5
	13.2	13.5	I	7	N	2		F.		6.6	27.0	50.9	61.1	+1.7
	13.5	15.4	III	III 2	2	K=H	K=H	—	—	6.8	30.8	50.7	57.3	-0.5
?	13.8	18.9	II	a 3969 3		K=H		2	F.	seen	6.9	37.8	50.6	50.3	-2.7
?	12.5	11.5	I	I ?I 4	H 4	K=H	K=H	—		6.2	23.0	51.3	65.1	+2.4
	12.5	15.5	II	IIa 3970 3	3	K=H	K=H	2	F.	seen	6.2	31.0	51.3	57.1	-0.6
	12.3	17.0	II	a 3971 IIa 2	2	K=H	K=H	F?	F. ?	seen	6.2	34.0	51.3	54.1	-1.5

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Mean 5

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900		Cou. Bv	Bv.
	2193	8 54.5	+39 18	7.0	86.9	47.7	87.6	8 57.4	+ 39 8	6.5	7.0 7.2 7.3
? D.M.	1801	8 53.1	+49 6	6.5	87.8	57.5	87.0			6.7	
D.M.	2174	8 47.0	+39 22	7.8	85.0	47.6	87.7	8 49.9	+ 39 12	6.6	7.1 7.3
D.M.	1766	8 35.5	+49 23	7.5	79.3	57.4	86.4	8 38.7	+ 49 14	7.0	7.5 7.6
D.M.	1759	8 33.1	+49 24	6.8	78.5	57.4	86.6	8 36.3	+ 49 15	6.0	6.5
D.M.	2226	9 8.5	+39 49	7.5	30.1	47.6	27.4	9 11.4	+ 39 38	6.0	6.5 6.6
D.M.	1815	9 2.5	+49 48	7.7	28.9	57.6	27.1	9 5.6	+ 49 37	6.5	7.0 7.1
D.M.	1809	8 58.9	+49 54	7.5	87.7	57.7	87.0	9 2.1	+ 49 43	6.3	6.8 6.9
D.M.	1784	8 45.7	+49 38	7.8	82.9	57.5	86.6	8 48.9	+ 49 28	6.5	7.0 7.2
D.M.	2164	8 44.8	+39 48	7.0	84.6	47.6	88.1	8 47.7	+ 39 38	6.8	7.3 7.5
D.M.	1657	9 23.4	+50 5	6.8	36.4	57.5	28.4	9 26.5	+ 49 53	6.7	7.2 7.3
D.M.	1640	9 17.1	+50 20	8.0	34.7	57.5	28.1	9 20.2	+ 50 9	6.3	6.8 6.9
D.M.	2194	9 12.1	+40 16	6.8	31.1	47.6	27.2	9 15.0	+ 40 5	5.8	6.3
D.M.	1633	9 12.6	+50 8	6.8	32.6	57.5	27.2	9 15.7	+ 49 57	6.5	7.0 7.0
D.M.	2167	9 1.6	+40 24	7.5	28.8	47.7	27.7	9 4.5	+ 40 13	6.4	6.9 6.8
D.M.	1614	8 59.8	+50 25	7.7	88.0	57.6	87.1	9 3.2	+ 50 14	5.6	6.1
D.M.	1601	8 52.9	+50 32	7.2	85.3	57.6	86.6	8 56.1	+ 50 22	6.5	7.0 7.0
	1599	8 51.4	+50 17	8.2	84.8	57.5	86.7	8 54.6	+ 50 7	6.3	6.8 6.8
? D.M.	1603	8 53.3	+50 12	7.0	X	57.6				5.7	6.2
D.M.	2138	8 52.3	+40 16	6.5	86.1	47.7	87.4	8 55.2	+ 40 6	To be measured	
D.M.	1644	9 19.1	+50 39	7.7	35.1	57.4	27.4	9 22.2	+ 50 28	6.5	7.0 7.0
D.M.	2197	9 13.3	+40 51	7.5	31.5	47.6	27.2	9 16.2	+ 40 40	5.5	6.0
D.M.	2195	9 12.2	+40 54	6.8	30.8	47.6	26.5	9 15.1	+ 40 43	6.6	7.1 7.3
D.M.	1635	9 14.8	+50 54	7.5	33.8	57.6	26.3	9 17.9	+ 50 43	6.8	7.5 7.6
D.M.	1488	9 1.8	+51 3	6.5	28.8	57.6	27.1	9 5.0	+ 50 52	6.5	7.0 7.2
D.M.	1607	8 55.5	+50 52	8.1	86.3	57.7	88.8	8 58.7	+ 50 42	6.4	7.0 7.2
	1627	8 48.7	+40 40	6.8	86.5	47.6	89.2	8 50.1	+ 40 35	6.7	7.3 7.5
D.M.	1881	9 6.9	+41 24	8.1	29.9	47.6	27.5	9 9.8	+ 41 13	6.6	7.1 7.3
D.M.	1478	8 55.1	+51 24	6.8	86.1	57.6	86.7	8 58.3	+ 51 14	7.0	7.5 7.6
D.M.	1901	8 52.2	+41 31	7.7	86.2	47.7	87.7	8 55.0	+ 41 21	6.0	6.5
										6.0	6.5 6.6
										6.5	7.0 7.1
										6.3	6.8 6.9
										6.5	7.0 7.1
										6.5	7.0 7.2
										6.8	7.3 7.5
										6.7	7.2 7.3
										6.3	6.8 6.9
										5.8	6.3
										6.5	7.0 7.0
										6.4	6.9 6.8
										5.6	6.1
										6.5	7.0 7.0
										6.3	6.8 6.8
										5.7	6.2
										To be measured	
										6.5	7.0 7.0
										5.5	6.0
										6.6	7.1 7.3
										6.8	7.5 7.6
										6.5	7.0 7.2
										6.9	7.4 7.4
										6.1	6.6 6.7
										6.2	6.7 6.8
										6.0	6.5 6.5
										5.4	5.9
										6.5	7.0 7.1
										6.7	7.2 7.3
										5.3	5.8
										6.5	7.0 7.1
										5.5	6.0 6.2
										5.9	6.4 6.6

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Plate 1176.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	correct.
	12.7	18.0	I	5	N 12	—	F?	6.4	36.0	51.1	52.1	-3.3
	12.2	21.0	IIa	2	K=H K=H 1 1	—	seen	6.1	42.0	51.4	46.1	-3.6
	11.5	7.2	II	2	K=H K=H 1 1	—	—	5.8	14.4	51.7	73.7	+5.9
	11.9	7.5	III	2	K=H 1	—	—	6.0	15.0	51.5	73.1	+5.5
?	11.5	10.7	a 3972	2	K=H 2	F?	seen	5.8	21.4	51.7	66.7	+4.9
	11.0	14.5	I	10	K=.2H 4	F		5.5	29.0	52.0	59.1	+0.6
?	10.4	7.0	a 3973	3	K=2.0H ? 5	F	seen	5.2	14.0	52.3	74.1	+9.3
	10.8	9.5	II ?	3	K=H 2	F		5.4	19.0	52.1	69.1	+6.1
	10.7	11.3	II ?	2	K=H K=H 1 1	—	—	5.4	22.6	52.1	66.5	+4.5
	10.8	15.0	IIa 3974	2	K=1.2H ? 1 1	seen	seen	5.4	30.0	52.1	58.1	0.0
	10.6	17.3	a 3975	3	K=H 5	F	seen	5.3	34.6	52.2	53.5	-1.7
	10.7	19.1	I ?	4	H K=H K=H 1 1	—	F?	5.4	38.2	52.1	49.9	-3.0
	10.0	20.4	III	2	3 K=H K=H 2 2	F?	F	5.0	40.8	52.5	47.3	-4.2
	10.8	23.2	III ?	3	3 K=H K=H 1 1	F	F	5.4	46.4	52.1	41.7	-9.6
	9.6	6.5	I	9	N 4	F		4.8	13.0	52.7	75.1	+9.7
	9.9	10.9	II	2	2 K=H K=H 1 1	—	—	5.0	21.8	52.5	66.3	+3.1
	9.2	10.9	I	8	K=H 2	F		4.6	21.8	52.9	66.3	+4.7
	9.2	11.7	III ?	2	2 K=H K=H 1 1	—	—	4.6	23.4	52.9	64.7	+2.5
	9.4	14.0	a 3976	2	K=H 1	seen		4.7	28.0	52.8	60.1	+1.1
	9.3	19.2	III	3	K=H K=H 1 2	F	F	4.6	38.4	52.9	49.7	-4.5 9.
	8.8	6.9	I ?	5	K=H 1	—		4.4	13.8	53.1	74.3	+9.7
	8.4	7.5	I	4	H K=H 1	F?		4.2	15.0	53.3	73.1	+6.0
	8.3	11.9	II	2	2 K=H K=H 1 1	—	—	4.2	23.8	53.3	64.3	+3.8
	8.7	12.7	III	2	2 K=H K=H 1 1	—	F?	4.4	25.4	53.1	62.7	+2.7
	8.2	13.9	II	2	2 K=H K=H 1 1	—	—	4.1	27.8	53.4	60.3	+0.9
	8.4	18.6	I	8	N 2	—		4.2	37.2	53.3	50.9	-4.3
	8.2	23.4	III	3	K=H 1	F		4.1	46.8	53.4	41.3	-9.2 10.
	7.0	6.5	IIa 3976a	2	K=H K=H 1 1	—	seen	3.5	13.0	54.0	75.1	+10.5 +11.0

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Mean 5

	NO.	R.A.	Dec.	MAG.	H.	V.	H'	Rect. of stars to 1900	Cor. Bv.	Cor. Br.
D.m	1460	8 46.9	+51 18	7.2	82.9	57.7	86.2	8 50.1 + 51 8	5.8	6.3 6.3
D.m	1877	8 44.5	+41 28	7.5	83.5	47.6	87.1	8 44.5 + 41 18	6.5	7.0 7.0
D.m	1963	9 18.5	+41 49	7.3	32.9	47.6	27.0	9 21.4 + 41 38	6.4	6.9 6.9
D.m	1961	9 17.6	+41 39	7.3	32.6	47.6	27.1	9 20.5 + 41 28	6.6 7.0	7.1 7.5 7.1 7.5
D.m	1495	9 10.6	+51 53	6.5	32.0	57.7	27.1	9 13.8 + 51 42	5.5	6.0
	1656	9 0.4	+52 5	4.4	29.4	57.6	28.8	9 1.9 + 52 0	4.2	4.7
	1709	9 24.8	+52 13	3.2	38.8	57.4	29.5	9 26.3 + 52 8	3.5	4.0
D.m	1389	9 14.9	+52 12	6.7	33.9	57.6	27.8	9 18.1 + 52 1	5.9	6.4
D.m	1380	9 9.1	+52 14	8.2	31.7	57.6	27.2	9 12.3 + 52 3	6.7	7.2 7.3
D.m	1362	8 56.9	+52 13	7.3	86.9	57.6	86.9	9 0.1 + 52 3	6.6	7.1 6.9
	1641	8 52.8	+42 15	4.2	87.4	47.5	89.1	8 54.2 + 42 11	3.9	4.4
D.m	1944	8 46.1	+42 14	7.0	84.3	47.6	87.3	8 49.1 + 42 4	6.4	6.9 6.8
D.m	1935	8 42.6	+42 33	6.2	83.4	47.6	87.6	8 45.6 + 42 23	5.9 6.3	6.5 6.8 6.5 6.7
D.m	1443	8 30.1	+51 56	7.0	76.5	57.4	86.1	8 33.4 + 51 47	6.0 6.3	6.5 6.8 6.5 6.9
	1715	9 26.6	+52 36	4.6	39.6	57.4	29.9	9 28.0 + 52 30	4.4	4.9
	1490	9 8.7	+42 40	8.3	30.5	47.6	27.4	9 11.6 + 42 29	6.7	7.2 7.2
D.m	1330	9 10.3	+53 4	7.0	32.1	57.7	28.4	9 13.5 + 52 53	5.5	6.0
D.m	1897	9 6.5	+43 2	7.5	29.9	47.6	27.4	9 9.4 + 42 50	6.4 6.7	6.9 7.2 7.3 7.5
D.m	1371	9 0.0	+52 59	8.0	28.0	57.7	26.9	9 3.2 + 52 48	6.3	6.8
Dm.	1343	8 42.6	+52 54	6.8	81.0	57.5		8 45.9 + 52 44		
D.m	1358	8 52.5	+52 56	8.2	90.9	57.4	95.3	8 55.8 + 52 40	5.8	6.3 6.5
D.m	1347	9 23.8	+53 4	7.5	37.6	57.5	27.9	9 26.7 + 52 52	6.1	6.6
D.m	1915	9 18.2	+43 23	6.8	33.2	47.6	27.2	9 21.1 + 43 12	6.1	6.6
D.m	1326	9 7.1	+53 31	8.7	30.9	57.7	27.1	9 10.3 + 53 20	6.5 6.4 6.7	7.0 7.2 6.9 7.0 7.2 7.3
D.m	1320	9 4.5	+53 18	8.0	29.9	57.7	27.2	9 7.7 + 53 7	6.7	7.2 7.3
D.m	1885	9 0.6	+43 32	5.2	28.4	57.6	27.5	9 3.6 + 43 21	5.6	6.1
D.m	1291	8 44.4	+53 21	7.3	81.6	57.6	85.9	8 47.7 + 53 11	5.7 6.1	6.2 6.6
	1558	8 30.4	+53 8	6.0	77.2	57.2	87.2	8 31.8 + 53 4		
D.m	1272	8 28.5	+53 13	6.4	76.3	57.3	85.5	8 31.9 + 53 4		
D.m	1350	9 25.6	+53 57	8.2	38.6	57.5	28.1	9 28.8 + 53 45	6.6	7.1 7.3

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April 29, 1887.

Plate 1176.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
7.9	12.6	I	9	N	3	F,	3.0	25.2	53.5	62.9	+1.9
7.4	15.7	II	2 2	K = H K=H	1	F, F?	3.7	31.4	53.8	56.7	-0.6
7.0	19.4	II	2 2	K = H K=H	1	— —	3.5	38.8	54.0	49.3	-3.6
7.9	23.4	III	2	K = H	1	F?	4.0	46.8	53.5	41.3	-10.3
7.0	23.5	III ?	3	K = H	2	F,	3.5	47.0	54.0	41.1	-10.5
6.3	5.9	III ? II	2 2	K = H K=H	1	— F	3.2	11.8	54.3	78.3	+7.9
6.2	12.4	I	9	K=, 2H	4	F,	3.1	24.8	54.4	63.3	+3.3
6.8	18.9	III	2	K = H K=H	1	F, ? —	3.4	37.8	54.1	50.3	-3.1
? 6.8	20.4	III b ? 3 (3977)		K = 1 H ? (1.2)	2	F, rem	3.4	40.8	54.1	47.3	-4.7
5.4	6.4	II ?	2	K = H	1	—	2.7	12.8	54.8	75.3	+10.8
5.6	7.0	III	2 3	K = H K=H	1	— F	2.8	14.0	54.7	74.1	+9.9
5.9	9.6	I	5	K=, 5H	1	—	3.0	19.2	54.5	68.9	+6.6
5.8	15.9	I	10	K=, 2H	3	F,	2.9	31.8	54.6	56.3	-1.1
5.5	18.5	III	2 2	K = H K=H	1	— —	2.8	37.0	54.7	51.1	-3.0
5.4	17.8	II	2 2	K = H K=H	1	— —	2.7	35.6	54.8	52.5	-2.4
5.6	18.7	III	2 2	K = H K=H	1	— —	2.8	37.4	54.7	50.7	-3.1
5.2	20.6	III ? II	2 2	K = H K=H	1	— —	2.6	41.2	54.9	46.9	-7.2
4.3	6.6	I	3	N	1	—	2.2	13.2	55.3	74.9	+7.5
4.2	14.1	II ? IIa ? (3977a)	3 2	K = H K=H	1	F, F, rem	2.1	28.2	55.4	59.9	+1.2
4.5	17.8	I ? I	H 4	K = 2, 5H ? (K=H)	1	— —	2.2	35.6	55.3	52.5	-3.6
4.9	19.0	III	x 2 2	K = H (K=H)	1	— —	2.4	38.0	55.1	50.1	-3.5
4.2	19.0	III ? III	2 3	K = H K=H	1	— F	2.1	38.0	55.4	50.1	-5.3
4.8	21.1	a ? IIa (3978)	2 2	K = H K=H	1	rem rem	2.4	42.2	55.1	45.9	-5.4
3.2	8.1	I ?	3 N		1	—	1.6	16.2	55.9	71.9	+9.0
3.4	10.0	III	2	K = H	1	F, ?	1.7	20.0	55.8	68.1	+4.7
3.4	15.3	I ? I	3 H	4	K=H	1	— —	1.7	30.6	55.8	57.5	-0.5
III ? 6.2, 6.6. ?	3.0	18.5	III b (3979)	3	K=, 5H ?	2	F, rem	1.5	37.0	56.0	51.1	-3.0
	3.6	20.2	III	2	K = H	1	F, ?	1.8	40.4	55.7	47.7	-4.8

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Mean 5

			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900				Cov. Bv	Cov. Br.
			1671	9 6.0	+43 43	5.2	31.2	47.7	29.3	9	7.3	+	43	38	4.5	5.0
			1820	8 53.2	+44 2	8.1	86.6	47.7	87.2	8	58.2	+	43	52	6.2	6.7 6.8
0.9	0.7	? D.m.	~~1305 8 53.6 +53 40 7.0~~													
5.3	3.7	? D.m.	1798	8 45.0	+44 8	7.8	83.8	47.6	87.4	8	48.0	+	43	58	6.5	7.0 7.0
			1269	8 28.2	+53 25	6.6	75.0	57.4	85.3	8	31.6	+	53	16	6.0 6.3	6.5 6.8
10.1	6.7	? D.m.	~~1247 8 34.0 +43 13 7.2~~													
			1581	8 29.4	+53 49	5.6	76.4	57.3	86.9	8	30.9	+	53	45	5.5 5.6	6.0 6.1
10.5	7.1	D.m.	~~1268 8 27.5 +53 53 6.8~~				74.5	57.5	86.0	8	30.9	+	53	44		
11.3	7.9	D.m.	1878	9 22.9	+44 23	7.3	34.7	47.6	26.8	9	25.8	+	44	11	6.5	7.0 7.1
			1675	9 7.6	+54 31	4.9	32.4	57.6	29.1	9	9.0	+	54	26	4.4	4.9
			1804	8 46.4	+44 13	8.3	84.2	47.6	87.3	8	49.4	+	44	3	6.5 6.7	7.0 7.2 7.4
4.9	3.1	D.m.	~~1795 8 45.0 +44 8 7.8~~													
			1616	8 43.9	+44 11	5.2	84.7	47.6	89.4	8	45.3	+	44	6	5.1 5.4	5.6 5.9
10.8	7.8	D.m.	1314	9 26.4	+54 46	7.5	39.2	57.5	28.4	9	29.6	+	54	34	6.6	7.1 7.0
9.9	6.9	D.m.	1312	9 24.1	+54 41	7.4	38.1	57.5	28.2	9	27.3	+	54	29	6.4 6.6	6.9 6.8 7.1 7.2
6.6	4.8	D.m.	1299	9 15.4	+54 39	7.5	34.6	57.6	28.0	9	18.6	+	54	28	6.0	6.5
			1644	8 55.2	+54 45	5.6	87.0	57.7	88.1	8	56.7	+	54	41	4.8	5.3
			1807	8 47.4	+44 59	7.0	84.4	47.8	87.4	8	50.5	+	44	49	6.4 6.6	6.9 6.9 7.0 7.0
4.5	2.9	D.m.	~~1204 8 46.6 +58 58 5.9~~													
			1809	8 49.2	+44 59	8.5	85.8	47.7	87.2	8	52.2	+	44	49	6.7	7.2 7.3
3.6	2.4	D.m.	~~1807 8 47.4 +44 59 7.0~~				83.0	47.7	85.4	8	50.4	+	44	49		
4.8	3.1	D.m.	806	8 46.8	+44 48	8.5	84.2	47.6	87.3	8	49.8	+	44	38	6.6 6.9	7.1 7.3 7.4 7.5
			1254	8 37.0	+54 56	8.6	78.2	57.5	85.4	8	40.4	+	54	46		
7.1	4.9	? D.m.	~~1179 8 36.0 +45 13 7.5~~													
10.9	7.5	D.m.	1726	9 21.2	+45 24	7.2	34.4	47.6	26.9	9	24.1	+	45	12	6.2	6.7
1.2	0.7	D.m.	~~1128 9 21.8 +45 19 7.5~~													
3.6	2.4	D.m.	1319	8 39.6	+55 33	7.8	87.8	57.7	86.6	9	29.7	+	55	22	6.5	7.0 7.0
5.1	3.5	D.m.	1301	8 46.6	+55 24	7.5	82.2	57.6	85.8	8	52.0	+	55	14	6.6	7.1 7.0
			1658	8 46.0	+45 13	8.0	84.0	47.6	87.5	8	49.1	+	45	3	6.3 6.5	6.8 7.0 7.2 7.5
5.3	3.5	D.m.	1297	8 42.2	+55 30	7.5	80.2	57.6	85.5	8	45.6	+	55	20	6.2 6.4	6.7 6.9 6.8 7.0
7.8	5.8	D.m.	1642	8 40.0	+45 13	7.5	82.2	47.6	87.6	8	43.1	+	45	3	6.3	6.8 6.8
9.0	6.3	D.m.	1339	9 21.2	+53 54	7.5	37.4	57.5	28.4	9	24.5	+	55	42	6.5	7.0
6.6	4.7	D.m.	1708	9 11.8	+45 58	6.8	31.8	47.7	27.1	9	14.8	+	45	47	6.2 6.5	6.7 7.0
0.5	0.3	D.m.	1312	8 55.2	+55 58	6.9	85.8	57.7	86.3	8	58.6	+	55	48	6.4	6.9 7.0
			~~1459 8 47.0 +46 12 6.5~~				84.0	47.9	87.0	8	50.1	+	46	2		
			~~1628 8 48.8 +46 6 5.9~~				85.8	47.6	88.8	8	50.1	+	46	1	5.8 6.2	6.3 6.7
6.9	4.8	D.m.	1649	8 42.3	+45 51	6.5	82.7	47.6	87.5	8	45.4	+	45	41	6.0 6.3	6.5 6.8

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April 29, 1887.

Plate 1176.

V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
2,7	7,4	~~III~~ I? (3980)	3	K=½,5H?	2	F, Rum	1.4	14.8	56.1	73.3	+6.9
2,4	8,6	I?	5	K=H	1	—	1.2	17.2	56.3	70.9	+8.4
2,9	12,9	I	5	N	1	—	1.4	25.8	56.1	62.3	+2.5
2,8	17,7	I	8	K=,2H	2	F,	1.4	35.4	56.1	52.7	-2.4
2,8	18,6	I	5	K=,8H	1	—	1.4	37.2	56.1	50.9	-3.1
2 50 2,3	24,1	~~III~~ ?	3	K=H	2	F,	1.2	48.2	56.3	39.9	-8.4

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1887phae.proj..838f

Mean 5

			No.	R. A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900.	Br.	Cor. Br.
9.9	6.9	B	1696	9 209	+46 8	5.6	35.7	47.5	288	9 22.1 + 46.2	6.0 6.4	5.5 5.9
8.4	5.9	D.M.	1388	9 19.4	+56 22	6.6	36.6	57.6	282	9 22.7 + 56.11		
2.5	1.9	D.M.	1375	9 4.2	+56 13	7.5	30.0	57.6	275	9 7.6 + 56.2	6.6	6.1
3.7	2.4	D.M.	1463	8 49.6	+46 19	7.2	85.0	47.7	874	8 52.7 + 46.9	6.0	5.5
4.8	3.1	D.M.	1458	8 46.7	+46 19	7.2	83.9	47.7	870	8 49.8 + 46.9	6.35	6.0
1.2		B.	1591	8 32.8	+46 16	5.6	81.0	47.5	884	8 34.1 + 46.11		

46.9 + 46.3

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1887phae.proj..838F

F. nn. 7 c. 5.2 4.8 F. cl. 6.7

Dark plate. Very hard to measure.

May 7, 1887.

Plate 1197.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	corrected
9 50	21.8	9.1	II	? 2	K=H	1	—	10.9	18.2	21.4	31.5	+0.7
	21.0	12.5	II	a? 3981 1 3	K=H	1	F 2cm	10.5	25.0	21.8	24.7	+0.3
	20.5	19.3	I	? 6	K=½H	1	F.?	10.2	38.6	22.1	11.1	−0.5
	20.9	21.1	I	5	K=H	1	—	10.4	42.2	21.9	7.5	−1.3
	20.2	23.2	II	? 2	K=H	1	—	10.1	46.4	22.2	3.3	−0.9
✓	20.0	13.3	II	2 2	K=HK=H	1 1	— —	10.0	26.6	22.3	23.1	+0.5
	19.4	22.6	II	2	K=H	1	—	9.7	45.2	22.6	4.5	−1.8
	19.2	23.1	III	? 3	K=H	1	F.	9.6	46.2	22.7	3.5	−1.9
✓	18.1	9.4	IIa	? 3981a 2 2	K=HK=H	1 1	— 2cm	9.0	18.8	23.3	30.9	+0.6
	18.4	11.0	I	5	K=H	1	—	9.2	22.0	23.1	27.7	+0.6
✓	17.4	8.2	II	II 2 2	K=HK=H	1 1	— —	8.7	16.4	23.6	33.3	+0.7
	17.5	10.4	II	? 4	K=H	1	—	8.8	20.8	23.5	28.9	+1.2
	17.8	12.7	III	1 3981b 3	K=H	2	F. 2cm	8.9	25.1	23.4	24.3	+0.6
✓	17.4	17.6	II	? II 3 2	K=HK=H	1 1	F. F.?	8.7	35.2	23.6	14.5	−0.5
	17.5	23.9	II	2	K=H	1	—	8.8	47.8	23.5	1.9	−2.3
	16.1	6.3	II	3983 3	K ~~=H~~ ? K		F. 2cm	8.0	12.6	24.3	37.1	+2.4
✓	16.5	9.8	III	? III 2 2	K=HK=H	1 1	— —	8.2	19.6	24.1	30.1	+1.3
	16.2	19.3	II	? 2	K=H	1	—	8.1	38.6	24.2	11.1	−1.2
	15.6	6.7	III	? 2	K=H	1	F!?	7.8	13.4	24.5	36.3	+1.1
✓	14.9	9.5	IIa	3983a 3 2	K=HK=H	1 1	F. F.? 2cm	7.4	19.0	24.9	30.7	+0.6
✓	14.3	10.0	II	II 2 2	K=HK=H	1 1	F!?	7.2	20.0	25.1	29.7	+1.5
	14.9	10.6	I	5	K=H	2	F.	7.4	21.2	24.9	28.5	+0.6
✓	13.0	9.4	II	? II 2 2	K=HK=H	1 1	— F.?	6.5 ~~7.8~~	18.8 ~~21.8~~	25.8	30.9 ~~29.7~~	+1.7 ~~+0.6~~
	13.4	16.4	I	? 3	K=H	1	—	6.7	32.8	25.6	16.9	−0.5
	13.1	17.5	III	2	K=H	1	—	6.6	35.0	25.7	14.7	−0.7
	13.0	17.6	I	6	K=H	2	F.	6.5	35.2	25.8	14.5	−0.5
✓	13.6	20.2	II	II ! 2 2	K=HK=H	1 1	— —	6.8	40.4	25.5	9.3	−1.5
	13.8	20.5	I	II ? 3	K=H	1	F.	6.9	41.0	25.4	8.7	−0.6

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1887phaet.proj..830f

		No.		R. A.	Dec.	Mag.	H.	V.	H'		Red of stars to 1900	Cor. Br	Br.
		2071	9	31.0	+11 26	7.7	49.2	22.3	48.5	9	33.4 + 11 14		6.8
		1711	9	25.5	+11 50	5.2	50.5	22.3	50.2	9	26.6 + 11 45		6.6
		2009	9	10.0	+12 6	7.0	48.6	22.3	49.1	9	12.4 + 11 55		6.7
		1991	9	5.3	+21 53	6.5	47.5 45.7	32.3	48.8	9	7.9 + 21 42		6.5
		1979	9	1.9	+12 10	7.0	48.3 ~~47.0~~	22.3	49.2	9	4.4 + 11 59		6.9
		2000	9	22.21	+22 28	7.0	48.8 32.2	32.5	48.3	9	24.8 + 22 16		7.0 7.0
		2063	9	2.0	+22 35	6.5	47.2 41.7	32.3	49.0	9	4.6 + 22 24		6.8
		1661	9	25	+22 31	5.2	48.7	22.1	50.6	9	3.6 + 22 27		6.4 6.6
		2128	9	20.4	+13 22	6.8	49.2 37.4	22.4	48.6	9	32.6 + 13 10		7.1 7.1
		2117	9	27.1	+13 18	6.5	49.1 36.3	22.5	48.5	9	29.5 + 13 6		6.8
		2139	9	32.7	+13 43	6.9	49.1 41.4	22.4	48.4	9	35.1 + 13 31		7.1 7.2
		2120	9	28.7	+23 41	7.0	49.5 37.5	32.5	48.3	9	31.3 + 23 29		6.9
		1710	9	24.9	+23 30	4.4	50.3	32.4	49.7	9	26.1 + 23 25		6.0 6.4
		2074	9	13.4	+13 43	7.0	48.6 22.7	22.4	49.0	9	15.9 + 13 32		6.9 6.8
		2048	8	59.1	+23 34	6.5	106.9 67.9	32.4	109.2	8	1.7 + 23 23		6.9
		1747	9	39.0	+24 20	3.1	51.6	32.3	49.2	9	40.2 + 24 14		5.0
		2111	9	30.0	+24 12	7.8	49.6 38.2	32.4	48.3	9	32.6 + 24 0		7.0 7.3 7.2 7.5
		2068	9	8.9	+24 15	7.3	47.5 47.0	32.4	48.7 18.2	9	11.5 + 24 4		7.0
		1744	9	37.2	+14 34	5.7	50.6	22.4	49.5	9	38.3 + 14 29		6.8 7.0
		2087	9	30.1	+15 0	6.8	49.1 37	22.4	48.5	9	32.6 + 14 48		6.7 6.8
		2127	9	29.5	+25 20	6.5	49.5	32.5	48.0	9	32.1 + 25 8		6.7 6.8
		2077	9	28.0	+15 1	6.8	49.2	22.4	48.6	9	30.5 + 14 49		6.8
		1989	9	30.9	+26 1	6.7	49.7	32.5	48.0	9	33.5 + 25 49		6.9 7.0
		1691	9	16.5	+25 42	6.4	49.3	32.4	49.8	9	17.8 + 25 36		7.0
		2084	9	12.7	+25 47	7.0	47.7	32.4	48.4	9	15.3 + 25 36		7.0 7.4
		2027	9	13.2	+15 59	6.7	48.4	22.5	48.9	9	15.7 + 15 48		6.5
		2065	9	6.0	+25 37	7.0	46.4	32.4	47.9	9	8.1 + 25 26		7.8 7.4
		1677	9	8.6	+15 26	5.6	49.6	22.3	50.2	9	9.7 + 15 22		6.7

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1887phae.proj..838F

May 7, 1887.

Plate 1197.

V	H	Type	No. Lines	Ky	Focus	Other lines	V.	H.	V.	H.	Correc
13,6	21,9	III?	3	K=H	1	F,	6.8	43.8	25.5	5.9	−0.9
Recorded on p. 92.	~~13,2~~	~~9.4~~	~~III~~	~~3?~~	~~K=H~~	~~1~~	~~F,~~	~~6.5~~	~~18.8~~	~~25.8~~	~~30.9~~	~~+1.7~~
12,2	23,5	I?	3	R	1	—	6.1	47.0	26.2	2.7	−2.7
11,8	8,3	III?	III 3	K=H	K=H	1 1	F,	F	5.9	16.6	26.4	33.1	+2.1
11,3	11,3	II?	2	K=H	K=H	1	—	—	5.6	22.6	26.7	27.1	+1.2
11,5	15,9	I	3	K=2,0H	2	Seen	5.8	31.8	26.5	17.9	−0.3
10,8	10,1	III	3	2	K=H	K=H	1 1	F,	F?	5.4	20.2	26.9	29.5	+0.7
10,6	15,5	III?	III 2	3	K=H	K=H	1 1	—	F	5.3	31.0	27.0	18.7	0.0
10,5	17,5	III?	2	K=H	1	F,	5.2	35.0	27.1	14.7	−0.5
10.3	23,0	II	3	K=H	1	F,	5.2	46.0	27.1	3.7	−2.7
9,0	11,8	III	III 2	2	K=H	K=H	1 1	—	—	4.5	23.6	27.8	26.1	+1.1
9,8	12,4	III	III 2	2	K=H	K=H	1 1	—	—	4.9	24.8	27.4	24.9	+0.9
9,0	13,0	I	6	K=H	2	F,	4.5	26.0	27.8	23.7	+0.7
9,4	17,8	II	II 2	2	K=H	K=H	1 1	—	—	4.7	35.6	27.6	14.1	−0.5
8,2	10,6	III	III 3985	2	2	K=H	K=H	1 1	F,	F	4.1	21.2	28.2	28.5	+1.5
8,4	18,6	II	a?	3	K=H	1	F,	Seen	4.2	37.2	28.1	12.5	−0.6
8,8	19,0	II	a? 3986	2	K=H	1	Seen	4.4	38.0	27.9	11.7	−1.3
7,0	12,1	I	6	K=,2H	2	F,	3.5	24.2	28.8	25.5	+1.1
8,1	6,8	III	III 2	2	K=H	K=H	1 1	—	—	4.0	13.6	28.3	36.1	+3.0 ~~3.0~~ ~~+1.3~~
7,5	16,0	I	I 3987	4	4	K=H	K=H	1 1	—	—	3.8	32.0	28.5	17.7	−0.1
7,5	22,0	I	a?	3	K=H	1	F,	Seen	3.8	44.0	28.5	5.7	−1.1
6,1	19,8	~~II~~	~~2~~	~~3~~	~~K=H~~	~~K=H~~	~~1 1~~	~~F?~~	3.0	39.6	29.3	10.1	−0.7
5,7	15,0	III	III 2	2	K=H	K=H	1 1	F?	2.8	30.0	29.5	19.7	0.0
4,3	15,9	III	2	K=H	1	—	2.2	31.8	30.1	17.9	−0.1
4,4	23,1	I	?	3	K=H	1	F,	2.2	46.2	30.1	3.5	−3.3
3,8	7,7	I	6	K=,5H	2	F,	1.9	15.4	30.4	34.3	+3.0
3,5	8,1	I	?	4	K=H	1	—	1.8	16.2	30.5	33.5	+2.9
3,0	9,2	I	4	K=H	1	—	1.5	18.4	30.8	31.3	+1.1

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1887phae.proj..833f

			NO.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900		Br.
2.1	0.9	D.m	2003	9	44	+15 35	7.0	48.2	22.4	49.1	9 6.9 + 15 24	6.8 7.0
~~1.7~~	~~0.9~~	~~D.m~~	~~1989~~	~~9~~	~~30.9~~	~~+26 1~~	~~6.7~~	~~49.7~~	~~32.5~~	~~48.0~~	~~9 33.5 + 25 49~~	
2.7	1.3	D.m	1901	8	59.4	+26 12	7.3	106.4	32.2	109.1	9 2.1 + 26 1	6.8
2.1	0.9	D.m	1991	9	33.3	+26 34	6.5	49.9	32.5	47.8	9 35.9 + 26 22	6.9 7.0 7.1 7.2
1.2	0.6	D.m	1974	9	26.8	+26 50	7.7	49.4	32.4	48.2	9 29.4 + 26 38	6.9 7.0
			1692	9	17.7	+26 42	4.6	49.5	32.5	49.8	9 18.8 + 26 37	5.9 6.2
			1725	9	30.5	+16 59	5.9	50.7	22.4	50.0	9 34.6 + 16 54	6.5 6.7 6.8 6.9
0.1	0.0	D.m	2078	9	17.5	+17 12	6.3	48.5	22.5	48.5	9 20.0 + 17 1	7.0 7.0 7.2 7.3
0.9	0.5	D.m	2065	9	13.4	+17 13	6.8	48.4	22.4	48.9	9 15.9 + 17 2	6.9
			1660	9	1.7	+27 7	6.0	47.7	32.3	50.4	9 3.0 + 27 3	6.8
1.1	0.6	D.m	1779	9	25.6	+27 60	8.0	49.2	32.5	48.1	9 28.2 + 27 48	7.2 7.2 7.3 7.4
0.9	0.5	D.m	1775	9	24.3	+27 39	7.0	49.1	32.5	48.2	9 26.9 + 27 27	7.0 7.2 7.2 7.3
		D.m	1768	9	22.8	+28 2	6.7	48.8	32.5	48.1	9 25.4 + 27 50	6.4
0.9	0.5	D.m	2062	9	12.6	+17 44	7.7	48.2	22.4	48.7	9 15.1 + 17 33	7.8 7.5
1.5	0.7	D.m	1780	9	28.4	+28 25	7.3	49.6	32.5	48.1	9 31.0 + 28 13	7.1 7.3 7.4 7.6
			1682	9	12.3	+18 13	6.6	49.5	22.4	50.1	9 13.4 + 18 8	6.8
1.3	0.6	D.m	1729	9	9.1	+28 2	6.7	47.1	32.4	48.4	9 14.8 + 27 51	6.8
		D.m	1913	9	24.8	+29 1	7.0	49.0	32.5	47.8	9 27.4 + 28 49	6.5
			1802	9	36.8	+28 26	7.3	50.4	32.4	47.4	9 39.4 + 28 14	6.9 7.2 7.3 7.5
~~3.0~~	~~1.3~~	~~D.m~~	~~2258~~	~~9~~	~~35.~~	~~+18 24~~	~~8.0~~					
0.5	0.1	D.m	2183	9	16.6	+18 19	7.0	48.6	22.1	48.7	9 19.1 + 18 8	7.2 7.4
2.7	1.1	D.m	2138	9	3.8	+18 38	6.8	47.8	22.4	48.9	9 6.3 + 18 27	6.6
1.9	0.7	D.m	2187	9	8.3	+19 25	7.0	47.9	22.4	48.6	9 10.5 + 19 14	7.0 7.0
0.0		D.m	2215	9	18.4	+19 42	7.5	48.4	22.5	48.4	9 20.9 + 19 31	7.0 7.1 7.3 7.4
0.5	0.1	D.m	2318	9	16.6	+20 25	6.3	48.4	22.6	48.5	9 19.1 + 20 14	7.1 7.4
			1657	9	0.7	+30 9	5.4	46.9	32.4	50.2	9 2.0 + 30 3	6.4 6.6
			1742	9	36.5	+30 32	5.9	51.9	32.4	48.9	9 37.6 + 30 27	5.8
2.9	1.3	D.m	1898	9	34.3	+30 48	7.2	50.5	32.6	47.6	9 37.0 + 30 36	6.8
2.4	1.1	D.m	2051	9	30.8	+20 57	6.5	49.2	22.5	48.1	9 33.3 + 20 45	6.7

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1887phae.proj..838F

F. m. & c. 5.5 5.3

F: ch. 6.6

Dark plate. May 7, 1887. Read to measure.

Plate 1198.

	V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
✓	19.0	8.3	III ? III	2 2	K=H K=H	1 1	— —	9.5	16.6	42.9	92.9	+3.3
	19.5	8.7	I ?	1	K=H	1	—	9.8	17.4	42.6	92.1	+5.1
	19.1	17.3	II a ? 3988	2	K=H	1	Cen	9.6	31.6	42.8	74.9	−1.1
	18.3	14.9	III ?	2	K=H	1	—	9.2	29.8	43.2	79.7	+0.1
	18.0	17.3	III	3	K=H	1	F.	9.0	34.6	43.4	74.9	−1.1
	18.5	23.0	II ?	2	K=H	1	—	9.2	46.0	43.2	65.5	−4.1
✓	17.5	10.7	II II	2 2	K=H K=H	1 1	— —	8.8	21.4	43.6	88.1	+3.6
	17.4	19.8	I	9	?	3	F.	8.7	39.6	43.7	69.9	−3.9
	16.6	13.5	III	2	K=H	1	F.?	8.3	27.0	44.1	82.5	+0.7
	16.8	16.5	III ?	2	K=H	1	—	8.4	33.0	44.0	76.5	−0.7
?	15.3	17.4	III he 3989	3	K=1,2 H ?	3	F. bright Cen	7.6	34.8	44.8	74.7	−1.2
	15.9	22.5	II	3	K=H	1	F.	8.0	45.0	44.4	64.5	−4.1
	14.4	13.8	I ?	3	H	1	—	7.2	27.6	45.2	81.9	+0.9
	14.4	19.8	II	2	K=H	1	F.?	7.2	39.6	45.2	69.9	−2.5
✓	13.4	6.8	II ? II ?	2 2	K=H K=H	1 1	— —	6.7	13.6	45.7	95.9	+7.2
	13.6	8.6	I ?	1	K=H	2	F.	6.8	17.2	45.6	92.3	+3.6
✓	13.1	9.8	II II	2 2	K=H K=H	1 1	— F.?	6.6	19.6	45.8	89.9	+3.0
✓	13.3	10.0	II II	2 2	K=H K=H	1 1	— —	6.6	20.0	45.8	89.5	+2.9
✓	13.4	12.7	III ? III	2 2	K=H K=H	1 1	— —	6.7	25.4	45.7	84.1	+1.2
✓	13.0	13.0	II ? II ?	2 2	K=H K=H	1 1	— F.?	6.5	26.0	45.9	83.5	+1.2
✓	13.7	13.2	III III	3 3	K=H K=H	2 2	F. F.	6.8	26.4	45.6	83.1	+1.0
	13.2	17.0	III	2	K=H	1	—	6.6	34.0	45.8	75.5	−1.8
	13.2	18.5	I	1	K=H	2	F.	6.6	37.0	45.8	72.5	−1.9
	12.4	11.5	II a 3990	3	K=H	2	F. Cen	6.2	23.0	46.2	86.5	+2.1
	12.8	14.5	III	3	K=1.5/1 H ?	2	F.	6.4	29.0	46.0	80.5	+0.6
	11.7	7.6	II	1	K=H	2	F.	5.8	15.2	46.6	94.3	+6.7
	11.2	12.2	II h ? 3991	3	K=1,2 H ?	3	F. Cen	5.6	24.4	46.8	85.1	+1.7
✓	11.0	12.5	III	2 3	K=H K=H	1 1	F. ? F.	5.5	25.0	46.9	84.5	+1.5

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1987phaa.proj.:838F

Mean 5

	No.	R. A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.		Br.
5.4 3.3	D.M.	1920	9 34.3	+32 56	6.9	50.9	42.4	47.6	9 37.0 +	32 44 .	7.1 6.9 7.2
5.1 3.0	D.M.	2041	9 35.0	+42 43	6.9	52.4	52.5	47.3	9 37.8 +	42 31 .	7.5 7.1 7.4
1.9 1.1	D.M.	1865	9 12.9	+32 52	7.0	47.5	42.5	48.6	9 15.6 +	32 41 .	6.9
0.1 0.0	D.M.	1915	9 18.2	+43 23	6.8	48.0	52.6	47.9	9 21.1 +	43 12 .	7.0 7.2
1.8 1.1	D.M.	1848	9 12.7	+33 32	6.8	47.3	42.5	48.4	9 15.4 +	33 21 .	7.0 7.2
6.6 4.1	D.M.	1810	8 59.2	+33 8	6.7	105.2	42.3	109.3	9 2.0 +	32 57 .	6.8
3.6 2.1	D.M.	1943	9 30.0	+43 48	6.5	51.4	52.6	47.8	9 32.9 +	43 36 .	7.0 7.0
		1671	9 6.0	+43 43	5.2	45.6	52.4	49.5	9 7.3 +	43 38 .	5.6
1.2 0.7	D.M.	1999	9 22.0	+34 17	6.7	49.0	42.6	48.3	9 24.7 +	34 5 .	6.7 7.0
1.2	D.M.	1935	9 14.6	+34 6	7.7	47.6	42.5	48.3	9 17.4 +	33 55 .	7.1
		1685	9 13.7	+34 54	3.4	48.5	42.5	49.7	9 15.0 +	34 49 .	5.5 6.1
6.5 4.1	D.M.	1949	8 59.9	+34 29	6.5	104.9	42.5	109.0	9 2.7 +	34 18 .	6.5
0.9 0.7	D.M.	1726	9 21.2	+45 24	7.2	48.8	52.6	47.9	9 24.1 +	45 12 .	6.8
4.3 2.5	D.M.	1966	9 6.3	+35 14	6.3	45.9	42.4	48.4	9 9.1 +	35 3 .	6.7
7.2 4.6	D.M.	1769	9 41.3	+45 45	8.0	54.9	52.5	47.7	9 44.2 +	45 33 .	7.1 7.2
5.7 3.6	D.M.	2042	9 34.0	+35 41	6.5	51.2	42.5	47.6	9 36.7 +	35 32 .	6.5
4.9 3.0	D.M.	2034	9 31.2	+35 60	7.0	50.8	42.6	47.8	9 33.9 +	35 48 .	7.0 7.0
4.7 2.9	D.M.	2033	9 30.7	+35 53	7.0	50.7	42.5	47.8	9 33.4 +	35 41 .	7.0 7.1
2.1 1.2	D.M.	1734	9 24.6	+45 56	7.7	50.0	52.6	48.8	9 27.7 +	45 42 .	7.0 7.0 7.2 7.2
1.8 1.2	D.M.	1521	9 23.7	+46 9	6.8	49.7	52.7	48.5	9 26.7 +	45 57 .	7.0 7.0
		1707	9 24.3	+35 39	5.5	50.7	42.4	49.7	9 25.5 +	35 33 .	6.5 6.6 7.0 7.0
1.6 1.2	D.M.	1708	9 11.8	+45 58	6.8	45.8	52.6	47.6	9 14.8 +	45 47 .	6.9 7.1
3.0 1.9	D.M.	1971	9 9.5	+35 58	6.7	46.5	42.6	48.4	9 12.3 +	35 47 .	6.0
		1722	9 28.5	+36 22	5.5	51.5	42.6	49.4	9 29.7 +	36 16 .	6.1
		1696	9 20.9	+46 8	5.6	49.9	52.5	49.3	9 22.1 +	46 2 .	6.0 6.3
		1751	9 10.8	+46 35	5.8	56.0	52.4	49.3	9 42.1 +	46 29 .	6.0
		1717	9 26.9	+36 56	4.7	51.3	42.5	49.6	9 28.1 +	36 51 .	5.6 6.0
2.3 1.5	D.M.	1998	9 24.6	+37 8	6.8	49.6	42.6	48.1	9 27.4 +	36 56 .	6.9 7.2 7.2

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Plate 1198.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V	H	corred.
11.1	15.1	II	3	K=H	1	F	5.6	30.2	46.8	79.3	-0.1
11.2	23.6	III ?	2	K=1.2H ?	1	F ?	5.6	47.2	46.8	62.3	-5.3
10.2	12.6	II	6	K=H	2	—	5.1	25.2	47.3	84.3	+2.2
10.8	16.1	II	4	K=H	1	—	5.4	32.2	47.0	77.3	-0.6
10.1	17.7	II	6	H	1	F	5.0	35.4	47.4	74.1	-2.1
10.3	18.2	II	11	H		F	5.2	36.4	47.2	73.1	-1.9
9.5	23.0	II ?	10	K=H		F	4.8	46.0	47.6	63.5	-7.8
8.5	15.0	I II ?		K=H	1	F	4.2	30.0	48.2	79.5	0.0
7.1	9.9	II		?	2	F ?	3.6	19.8	48.8	89.7	+5.3
7.0	12.2	II a 3991 a II a	2	3 K=H	1	K=H 2nm F	3.5	24.4	48.9	85.1	+2.7
7.3	16.6	II ?	2	K=H	1	—	3.6	33.2	48.8	76.3	-1.7
7.7	17.4	II	3	K=H	1	F	3.8	34.8	48.6	74.7	-1.5
7.2	22.9	II	2	K=H	1	F ?	3.6	45.8	48.8	63.7	-5.3
7.0	23.0	III	3	K=H ?	2	F	3.5	46.0	48.9	63.5	-5.4
7.6	24.3	II	8	K=H	4	F	3.8	48.6	48.6	60.9	-9.5
6.3	10.0	III	2 2	K=H K=H	1	— —	3.2	20.0	49.2	89.5	+5.8
6.7	19.7	II	2	K=H	1	F ?	3.4	39.4	49.0	70.1	-3.0
6.8	22.2	II ?	3	K=H	2	F	3.4	44.4	49.0	65.1	-7.5
5.2	13.1	I	5	K=5H	1	F	2.6	26.2	49.8	83.3	+1.9
5.0	16.5	II ?	4	H	1	—	2.5	33.0	49.9	76.5	-1.5
4.0	7.7	II	2 2	K=H K=H	1	— —	2.0	15.4	50.4	94.1	+5.3
4.4	9.3	III	3	K=H	2	F	2.2	18.6	50.2	90.9	+4.1
4.0	11.8	II	2	K=H	1	—	2.0	23.6	50.4	85.9	+2.3
4.8	12.0	III	3	K=H	2	F	2.4	24.0	50.0	85.5	+1.3
4.6	21.7	II	3 2	K=H K=H	1	F ? F ?	2.3	43.4	50.1	66.1	-7.2
3.9	5.7	I	6	K=H	2	—	2.0	11.4	50.4	98.1	+9.9
3.5	10.7	I	7	K=H	2	F	1.8	21.4	50.6	88.1	+3.0
3.4	17.1	II ?	14	K=H	1	—	1.7	34.2	50.7	75.3	-1.5
3.1	19.8						1.6	39.6	50.8	69.9	-5.3

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		NO.	R.A.	Dec.	MAG.	H.	V.	H'	Red. to 1900.	Br.
	D.m	1984	9 17.7	+37 6	7.3	47.9	42.7	48.0	9 20.5 + 37 55	6.8
	D.m	1905	8 56.5	+36 46	6.8	103.7	42.4	109.0	8 59.3 + 36 36	6.9
	D.m	1683	9 24.8	+47 32	6.8	50.0	52.6	47.8	9 27.8 + 47 20	6.5
	D.m	1978	9 15.4	+37 13	7.0	47.6	42.6	48.3	9 18.2 + 37 2	6.5
	D.m	1660	9 9.5	+47 34	7.2	44.9	52.6	47.0	9 12.6 + 47 23	6.6
		1681	9 11.4	+37 19	38	47.8	42.5	49.7	9 12.8 + 37 14	4.1
		1645	8 55.4	+47 38	37	101.4	52.4	109.2	8 56.9 + 47 34	4.0
	D.m	1773	9 17.3	+48 24	7.5	47.3	52.6	47.3	9 20.3 + 48 13	7.0
	D.m	1868	9 33.2	+49 5	6.5	53.0	52.7	47.7	9 36.2 + 48 53	6.3
	D.m	1850	9 26.2	+49 8	7.0	50.6	52.6	47.9	9 29.2 + 48 56	7.0 7.2
	D.m	1833	9 12.6	+49 2	7.3	45.8	52.6	47.5	9 15.7 + 48 51	7.2
	D.m	2025	9 11.9	+38 48	6.7	46.7	42.6	48.2	9 14.7 + 38 37	6.3
	D.m	1999	8 57.6	+38 51	7.2	103.4	42.4	108.7	9 0.5 + 38 40	6.7
		1653	8 58.9	+38 56	4.7	104.9	42.4	110.3	9 0.2 + 38 51	6.0 6.2
		1636	8 51.0	+48 31	3.2	99.6	52.3	109.1	8 52.4 + 48 27	4.0
	D.m	1867	9 32.8	+49 26	7.0	52.8	52.6	47.5	9 35.8 + 49 34	7.2 7.5
	D.m	2223	9 5.8	+39 13	7.0	45.2	42.6	48.2	9 8.7 + 39 2	6.3
		1649	8 57.1	+49 0	5.7	101.5	52.4	109.0	8 58.5 + 48 55	6.1
	D.m	1657	9 23.4	+50 5	6.8	49.6	52.7	47.7	9 26.5 + 49 53	6.4
	D.m	1633	9 12.6	+50 8	6.8	45.6	52.6	47.1	9 15.7 + 49 57	6.6
	D.m	2253	9 37.1	+40 29	7.3	52.5	42.5	47.2	9 39.9 + 40 17	7.2 7.2
		1738	9 34.6	+40 18	5.5	53.2	42.5	49.1	9 35.8 + 40 13	6.4 6.7
	D.m	2226	9 26.3	+40 36	6.8	49.9	42.6	47.6	9 29.1 + 40 24	6.9
		1719	9 27.7	+40 9	5.0	51.7	42.6	50.4	9 28.8 + 40 4	5.8 6.1
	D.m	1608	8 56.3	+50 12	7.5	99.7	52.5	106.9	8 59.5 + 50 2	6.8 6.8
		1765	9 47.9	+50 24	5.3	53.3	52.4	49.4	9 49.2 + 50 17	6.0
		1727	9 31.0	+40 47	5.8	52.4	42.6	49.4	9 32.1 + 40 42	5.7
	D.m	2195	9 12.2	+40 54	6.8	46.4	42.6	47.9	9 15.1 + 40 43	7.0 7.0
	D.m	1488	9 1.8	+50 3	6.5	44.4	52.6	46.3	9 5.8 + 50 53	6.5

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F. m. & c. 8.0 7.1 F. ch. 7.2

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Plate 10 & 5.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Correc.
III 6.7, 6.2. ?	21.8	13.8	Ic 3997	K=H	2	F. bright	10.9	27.6	26.7	45.1	+0.5
	14.6	10.7	III 2	K=H	1	—	7.3	21.4	30.3	51.3	+1.8
	20.2	6.5	I 8	?	4	F.	10.1	13.0	27.5	59.7	+1.3
	15.2	11.1	I ? I ? 3	K=H	N 1	— —	9.1	22.2	28.5	50.5	+1.3
	18.8	23.1	I ? 4	K=H	1	—	9.4	46.2	25.2	26.5	-3.0 -2.7
	17.0	22.1	I 4	N	1	—	8.5	44.2	29.1	28.5	-2.7
	14.0	17.6	I 7	N	2	F.	7.0	35.2	30.6	37.5	-1.1
	13.6	17.9	I ? 4	K=H	1	—	6.8	35.8	30.8	36.9	-2.7 -0.6
	13.1	19.9	I 4	M	1	—	6.6	39.8	31.0	32.9	-1.1
	11.2	10.4	I 5	N	1	— F.?	5.6	20.8	32.0	51.9	+1.1
	11.6	14.9	I 6	K=H	2	—	5.8	29.8	31.8	42.9	0.0
	11.7	15.0	II ? 3992a 2	K=H	K=H 1	— seen	5.8	30.0	31.8	42.7	0.0
	10.5	7.1	IIa 3993 3	K=H	K=H 1	F. seen seen	5.2	14.2	32.4	58.5	+3.6
	10.0	8.9	I 8	N	3	F.	5.0	17.8	32.6	54.9	+1.3
	10.0	10.2	I ? 3	K=H	2	F.	5.0	20.4	32.6	52.3	+2.3
	9.1	12.1	IIa ? 3994H 2	K=H	K=H 1	seen seen	4.6	24.2	33.0	48.5	+1.3
	7.7	20.7	I ? I 3	I	1	—	3.8	41.4	33.8	31.3	-1.5
	8.0	23.1	I ? 3995 3	K=H	1	— F. seen	4.0	46.2	33.6	26.5	-2.1
	6.6	16.6	Ic 3996 3	K=1,2H	? 4	F. bright seen	3.3	33.2	34.3	39.5	-0.6
	6.6	22.9	I I 3	N	1	—	3.3	45.8 !	34.3	26.9	-4.3
	5.4	14.0	I 8	K=1,2H	2	F.	2.7	28.0	34.9	44.7	+0.3
	3.4	7.7	I 8	K=1,2H	4	F.	1.7	15.4	35.9	57.3	+4.2
	3.9	17.8	II 3	K=H	1	F.	2.0	35.6	35.6	37.1	-1.5
III 5.7, 6.2. ?	24.1	13.6	Ic 3997	N	2	F. bright	1.0	27.2	36.6	45.5	+0.5
	2.4	20.6	II ? 2	K=H	1	F.	1.2	41.2	36.4	31.5	-3.3
*	16.5	16.7	II ? 2	K=H	2	F.?	8.8	33.4	28.8	39.3	
*	15.1	13.9	II ? 2	K=H	1	F.?	7.6	27.8	30.0	44.9	
*	12.0	13.6	III ? 12 ?	K=H	1	—	6.0	27.2	31.6	45.5	

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Mean 3 Conv.

	NO.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900			
	1760	9	45.9	+26	34	4.1	73.5	37.5	73.0	9	47.1 + 26 29
	1777	9	52.7	+30	13	5.9	74.1	37.5	72.3	9	53.9 + 30 8
	1793	10	0.8	+17	21	3.6	13.8	27.5	12.5	10	4.9 + 17 16
D.m	1824	9	30.2	+28	28	6.5	72.4	37.6	71.1	9	32.8 + 28 15
D.m	1768	9	22.8	+28	2	6.7	69.0	37.4	72.0	9	25.4 + 28 50
~~D.m~~	~~1770~~	~~9~~	~~23.6~~	~~+27~~	~~28~~	~~8.0~~	~~69.3~~	~~37.9~~	~~72.5~~		
D.m	1913	9	24.8	+29	1	7.0	69.0	37.5	71.7	9	27.4 + 28 49
	1742	9	36.5	+30	32	5.9	71.7	37.5	72.8	9	37.6 + 34 27
	1898	9	34.3	+30	47	7.2	70.1	37.6	72.8	9	37.0 + 30 35
~~D.m~~	~~2266~~	~~9~~	~~35.3~~	~~+20~~	~~51~~	~~6.5~~	~~71.1~~	~~27.6~~	~~71.7~~		
D.m	2351	9	30.8	+20	57	6.5	70.6	27.6	71.7	9	33.3 + 20 45
	1779	9	52.8	+21	55	6.5	73.6	27.5	72.5	9	39 55.3 + 21 42
	1755	9	43.3	+21	44	6.0	73.1	27.5	73.1	9	44.2 + 21 39
D.m	2053	9	41.3	+31	45	6.7	71.3	37.6	74.3	9	44.0 + 31 32
D.m	1982	9	59.9	+32	19	6.5	74.1	37.5	70.5	10	2.5 + 32 6
	1784	9	56.1	+22	33	5.6	73.9	27.6	72.6	9	57.2 + 22 26
	1783	9	54.1	+32	31	6.0	74.5	37.5	72.2	9	55.3 + 32 26
D.m	1920	9	48.0	+33	4	6.5	72.2	37.7	70.9	9	50.7 + 38 51
D.m	2120	9	28.7	+23	41	7.0	70.1	27.5	71.6	9	31.3 + 23 29
	1710	9	24.9	+23	30	4.4	71.1	27.5	73.2	9	26.1 + 23 25
	1747	9	39.0	+24	20	3.1	72.2	27.6	72.8	9	42.2 + 24 14
D.m	1998	9	22.0	+34	17	6.7	67.8	37.6	72.1	9	24.7 + 34 5
	1757	9	45.1	+24	58	5.3	73.1	27.7	72.8	9	46.3 + 24 53
	1792	10	0.4	+35	50	4.6	15.8	37.5	11.6	10	1.6 + 35 4 84
D.m	2042	9	34.0	+35	44	6.5	69.6	37.7	71.1	9	36.7 + 35 32
?	1760	9	45.9	+26	34	4.1	73.1	27.6	72.6	9	47.1 + 26 29
	1722	9	28.5	+36	22	5.5	69.7	37.6	73.0	9	29.7 + 36 16

Br.	
5.8	6.1
6.3	6.6
6.5	~~6.8~~
6.9	7.2
4.3	4.6
6.7	7.0 7.0
6.7	7.0
6.5	6.8
5.5	5.8
6.7	7.0
6.5	6.8
6.7	7.0 6.8
6.2	6.5
6.6	6.9 6.9
6.2	6.5 6.6
5.1	5.4
5.8	6.1
6.6	6.9 6.9
6.7	7.0
5.8	6.1
6.5	6.8
4.2	4.5
4.6	4.9
6.7	7.0
7.0	7.3
5.5	5.8
4.8	5.1
6.4	6.7
.	. . . .
.	. . . .

Not to be identified

"	6.8
"	6.5
"	6.9

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F. ww. 8c. 8.0 7.4 F. ch. 7.4

May 7, 1887.

Plate 1086.

Y	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H.	Correc.
22.0	7.0	I	6	K=1,√H	3	—	11.0	14.0	45.9	56.1	+4.8
21.3	19.9	II ?	2	K=H	1	F.?	10.6	39.8	46.3	30.3	-2.7
21.6	21.8	I ?	4	K=H	1	—	10.8	43.6	46.1	26.5	-6.3
20.9	14.9	II a	8998 2	K=H	2	F. diff	10.4	29.8	46.5	40.3	+0.3
20.3	20.5	III b	8979 3	K=1,2H?	2	F. diff	10.2	41.0	46.7	29.1	-3.3
19.1	19.7	I	5	K=H	1	—	9.6	39.4	47.3	30.8	-4.7
17.2	13.3	I	3	N	1	—	8.6	26.6	48.3	43.5	+1.1
16.2	16.8	I	6	N	2	—	8.1	33.6	48.8	36.5	-1.8
15.6	9.8	II ?	2	K=H	1	—	7.8	19.6	49.1	50.5	+3.4 +2.5
14.2	19.9	I	3	N	1	—	7.1	39.8	49.8	30.3	-5.3
13.5	12.7	I	40	K=1,2H	3	F.	6.8	25.4	50.1	44.7	+2.4
13.6	17.3	III b?	4000 3	K=H	1	F. diff	6.8	34.6	50.1	35.5	-1.7
13.8	19.9	II a	4001 2	K=H?	2	— diff	6.9	39.8	50.0	30.3	-3.5
13.1	19.8	II a	4002 3	K=H	1	F. diff	6.6	39.6	50.3	30.5	-3.5
12.8	11.7	I	6	N	1	—	6.4	23.4	50.5	46.7	+3.6
12.7	18.6	I	9	K=1,√H	2	F.	6.4	37.2	50.5	32.9	-2.7
11.6	7.0	I ?	5	K=H	1	—	5.8	14.0	51.1	56.1	+9.0
11.0	11.4	II a	4003 3	K=H	3	F. diff.	5.5	22.8	51.4	47.3	+2.5
10.3	23.6	II a	4004 3	K=H	1	F. diff	5.2	47.2	51.7	22.9	-9.7
9.1	16.4	II ?	2	K=H	1	—	4.6	32.8	52.3	37.3	-1.1
9.1	19.1	I	10	N	4	F.	4.6	38.2	52.3	31.9	-4.9
? 9.9	19.7	II a	4005 9	K=1,2H	√	F. diff.	5.0	39.4	51.9	30.7	-5.3
9.8	22.3	II bc?	4006 2	K=H	1	bright? diff	4.9	44.6	52.0	25.5	-8.3
8.3	9.9	I	√	N	1	—	4.2	19.8	52.7	50.3	+6.0 +4.4
8.0	23.5	I	6	K=H	1	F.	4.0	47.0	52.9	23.1	-9.9
? 6.4	10.3	II a	4007 3	K=H	2	F. diff.	2.7	20.6	54.2	49.5	+5.9
6.2	14.0	I	10	K=1,2H	4	F.	2.6	28.0	54.3	42.1	+1.2
4.6	16.6	I	6	K=1,2H	2	—	2.3	33.2	54.6	36.9	-2.1

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Mean 3

		No.	R.A.	Dec.	MAG.	H.	V.	H'	Red of stars to 1900					Cor. Bv	Cor. Br.
		1792	10	01	+35	50	46	144	168	9.6	10	1.6	+35 44	5.2	5.5
		1722	9	28.5	+36	22	55	68.3	47.0	71.0	9	29.7	+36 16	6.6	6.9
	?	1696	9	20.9	+46	8	56	64.5	56.9	70.8	9	22.1	+46 2	6.6	6.9
		1751	9	40.8	+46	35	53	70.6	57.0	70.3	9	42.1	+46 29	5.7	6.0
		1717	9	26.9	+36	56	47	67.9	47.1	71.2	9	28.1	+36 51	5.7 / 6.0	6.0 / 6.3
47	29	D.m	1683	9	24.8	+47	32	68	64.2	57.1	68.9	9	27.8	+47 20	6.5	6.8
18	11	D.m	2076	9	43.6	+38	36	6.3	70.2	47.2	69.1	9	46.3	+38 24	6.5	6.8
18	11	D.m	1868	9	33.2	+49	5	6.5	66.8	57.2	68.6	9	36.2	+49 53	5.7	6.0
			1909	9	54.9	+49	17	7.2	74.5	57.1	69.1	9	57.8	+47 47	7.0	7.3
54	36	D.m	~~1904~~	~~9~~	~~51.2~~	~~+49~~	~~19~~	~~7.7~~							
53	35	D.m	1657	9	23.4	+50	5	6.8	63.2	57.2	68.5	9	26.5	+50 53	6.4	6.7
24	15		1765	9	47.9	+50	24	5.3	73.3	57.2	70.9	9	49.2	+50 17	4.9	5.2
25	17	?	1738	9	34.6	+40	18	5.5	69.2	47.1	70.9	9	35.8	+40 13	6.3 / 6.6	6.6 / 6.9
53	35		1719	9	27.7	+40	9	5.0	67.5	47.1	71.0	9	28.8	+40 4	5.9	6.2
53	35	D.m	2226	9	26.3	+40	36	6.8	65.9	47.2	69.4	9	29.1	+40 24	6.5	6.8
36	23	D.m	1702	9	49.3	+50	50	7.0	72.7	57.2	69.1	9	52.3	+50 37	5.9	6.2
41	27	?	1727	9	31.0	+40	47	5.3	68.2	47.2	70.9	9	32.1	+40 42	5.0	5.3
89	60	? D.m	1585	10	4.5	+51	13	6.5	18.5	57.0	9.5	10	7.4	+51 0	6.2	6.5
			~~2053~~	~~10~~	~~23.2~~	~~+41~~	~~23~~	~~8.6~~							
41	25		1771	9	52.3	+41	38	5.2	73.1	47.1	70.6	9	51.6	+41 32	5.3	5.6
97	66	D.m	1495	9	10.6	+51	53	6.5	57.8	57.1	67.5	9	13.8	+51 48	6.2	6.5
15	11	? D.m	2041	9	35.0	+42	43	6.9	68.8	47.3	68.9	9	37.8	+42 31	6.7	7.0
49	33		1715	9	26.6	+52	36	4.6	64.8	57.2	69.7	9	28.0	+52 30	4.3	4.6
53	36		1709	9	24.8	+52	13	3.2	64.2	57.2	69.5	9	26.3	+52 8	3.7	4.0
83	55	D.m	1489	9	14.9	+52	12	6.7	59.5	57.1	63.8	9	18.1	+52 1	6.5 / 6.6	6.8 / 6.9
			1384	9	55.6	+53	3	6.5	65.4	57.2	69.4	9	58.6	+58 50	5.9	6.2
69	41	D.m	~~2079~~	~~9~~	~~56.5~~	~~+42~~	~~42~~	~~6.9~~							
99	67	D.m	1330	9	10.3	+53	4	7.0	57.3	57.1	67.2	9	13.5	+58 53	6.2	6.5
59	41		1785	9	56.6	+54	28	5.7	77.2	57.2	71.3	9	58.0	+54 23	5.7	6.0
12	09		1756	9	44.0	+54	38	4.7	72.0	57.2	70.8	9	45.4	+54 32	3.9	4.2
19	13	D.m	1345	9	33.1	+53	2	6.7	66.3	57.3	68.4	9	36.3	+54 50	5.9	6.2
			~~2075~~	~~9~~	~~32.1~~	~~+44~~	~~18~~	~~7.4~~							

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Plate 1086.

V	H	Type	No. Lines	K	Focus	Other Lines		V.	H.	V.	H.	Correc
4.8	24.5	I		N	3	F		2.4	49.0	54.5	21.1	-11.9
1.3	15.0	II	4008 a	2	K=H	2	Rem	0.6	39.0	56.3	40.1	0.0
1.5	20.4	I?	2	N	1	—		0.8	40.8	56.1	29.3	-7.2 -6.1
1.9	21.9	II?	3	K=H	1	F		1.0	43.8	55.9	26.3	-6.1

F. m. 7 c. F. ch.

8.0 7.2

Plate 1114.

7.2

19.4	14.6	I?	9	N	1	F		9.7	29.2	22.6	61.4	0.0
19.4	17.0	I	4	K=H	1	—		9.7	34.0	22.6	56.6	-0.6
18.2	19.3	I	6	N	1	—		9.1	38.6	23.2	52.0	-0.4
16.6	10.7	I?	7	K=H	4	F		8.3	21.4	24.0	69.2	+1.1
14.5	21.9	I	1	K=H	1	—		7.2	43.8	25.1	46.8	-2.1
13.0	8.1	I?	3	N	1	—		6.5	16.2	25.8	74.4	+1.1
III ? 6.3, 6.7	11.5	2.1	4009 bc?	2	K=H	1	F?	bright Rem	5.8	42.8	26.5	47.8	-2.1
	9.8	15.0	II	9	N	4	—		4.9	30.0	27.4	60.6	-0.0
	8.6	10.1	I	4	N	1	—		4.3	20.2	28.0	70.4	+1.8
	4.9	11.1	I	5	N	1	—		2.4	22.2	29.9	68.4	+1.5
	4.3	9.2	II	4010 a?	2	K=H	1	Rem	2.2	18.4	30.1	72.2	+1.2
12 40 ?	3.6	9.1	III	4011 bc	3	K=3.0 H?	4	F	bright Rem	1.8	18.2	30.5	72.4	+1.2
	1.7	24.6	II?	3	K=H	3	F		7.8	49.2	24.5	41.4	-2.4

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Mean 3

	No.	R.A.	Dec.	MAG.	Ec.	V.	H'.	Red. of stars to 1900.		Cov. Bv	Bp.
4.9 8H	? 1675	9 7.6	+54 31	4.9	56.6	56.9	68.5	9	9.0 + 54 26	V 4.6	4.9
8.0	1751	9 40.8	+46 35	5.3	70.8	47.2	70.8	9	42.1 + 46 29		
7.1 5.1	D.Th 1388	9 19.4	+56 22	6.6	60.2	57.2	67.4	9	22.7 + 56 11	V	
	~~1681 9 33.7 +46 9 6.8~~									19.V + 6.3	
8.9 6.1	? 1696	9 20.9	+46 8	5.6	64.7	47.1	70.8	9	22.1 + 46 2		

	1797	10 2.0	+12 33	1.4	31.2	22.3	31.2	10	3.1 + 12 28	B.	
	1784	9 56.1	+22 33	5.6	90.1	32.3	90.7	9	57.2 + 22 26	6.9	
	1775	9 51.8	+13 0	5.3	90.4	22.1	90.8	9	52.9 + 12 56	6.5	
X	1811 / 1812	10 10.0	+24 1	3.6	31.4	32.3	30.3	10	14.1 + 23 55	5.1	
	1757	9 45.1	+24 58	5.3	88.9	32.2	91.0	9	46.3 + 24 53	6.8	
	1828	10 15.4	+13 35	6.2	31.6	22.1	30.5	10	16.5 + 13 29	H.P. 1828 7.0	
	~~B.Th 2192 10 14.1 +15 42 6.3 30.3 22.2 29.2~~									6.0 / 6.6	
	1760	9 45.9	+26 34	4.1	88.7	32.4	90.8	9	47.1 + 26 29		
	1793	10 0.8	+17 21	3.6	30.8	22.3	30.8	10	1.9 + 17 16	4.7	
	D.Th 1867	10 10.0	+28 8	6.7	30.2	32.4	28.4	10	12.6 + 28 55	7.1	
	1808	10 9.4	+29 54	5.4	31.6	32.3	30.1	10	10.6 + 29 48	6.2	
	1821	10 13.3	+20 5	5.0	31.7	22.3	30.5	10	14.3 + 19 59	6.4	
	1823 / 1824	10 13.4	+20 27	2.2	31.6	22.2	30.4	10	14.4 + 20 21	4.5 / 4.9	
	1747	9 39.0	+24 20	3.1	88.0	32.1	30.4	9	40.2 + 24 14	5.0	

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F. m. & c. 8.0 7.H

F. ch. 7.H

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Plate 1115.

	T	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
12 30	21.3	9.4	ii ?	2	K=H	1	—	10.6	18.8	42.0	70.8	+4.3
	21.8	18.5	II a H012	2 3	K=H	1	F.? fine	10.9	37.0	41.7	52.6	-2.5
	20.4	7.5	I	4	I_1	1	—	10.2	15.0	42.4	74.6	+6.0
III ? 5.4, 5.8. ?	20.8	9.4	III Lc H013	2	K=H ?	3	F. ? Right piece	10.4	18.8	42.2	70.8	+4.5
	20.0	17.6	II !	2	K=H	1	—	10.0	35.2	42.6	54.4	-1.2
	18.2	11.5	I	10	N	4	F.	9.1	23.0	43.5	66.6	+2.7
	16.2	7.3	I	7	K=½H	2	F.	8.1	14.6	44.5	75.0	+4.2
	16.4	8.a	III	2	K=H	1	—	8.2	16.0	44.4	73.6	+3.6
	16.0	8.5	I	4	I_1	1	—	8.0	17.0	44.6	72.6	+3.5
√ √	13.5	11.4	III III	2 2	K=H K=H	1 1	— —	6.8	22.8	45.8	66.8	+1.9
	13.6	15.0	I	9	K=½H	3	F.	6.8	30.0	45.8	59.6	0.0
√ √	13.1	18.2	III ? III H014	2 2	K=H K=H	1 1	— —	6.6	36.4	46.0	53.2	-2.9
?	11.8	21.4	II a H015	2	K=1.2H	2	F.? fine	5.9	42.8	46.7	46.8	-6.0
	10.5	6.8	III b ?	2	K=2.0H	2	F. ?	5.2	13.6	47.4	76.0	+5.3
√ √	8.0	16.3	III ? III	2 2	K=H K=H	1 1	— —	4.0	32.6	48.6	57.0	-0.7
	8.1	20.8	I	5	K=.5H	1	—	4.0	41.6	48.6	48.0	-3.7
	7.3	11.0	III	x 2	X	K=H	1 —	3.6	22.0	49.0	67.6	+1.2
	7.0	23.1	I	7	N	1	F.	3.5	46.2	49.1	43.4	-8.4
	6.2	8.2	I ?	H	K=H	1	—	3.1	16.4	49.5	73.2	+7.1
?	5.9	6.1	I d ?	4	?	1	scrawl	3.0	12.2	49.6	77.4	+6.0
	4.6	18.7	I	6	N	2	F.	2.3	37.4	50.3	52.2	-4.1
	4.0	17.7	I	5	N	1	—	2.0	35.4	50.6	54.2	-3.0
	3.1	13.0	I ?		K=H ?	1	—	1.6	26.0	51.0	63.6	+2.1
	2.1	18.6	I ?	3	N	2	F.	1.0	37.6	51.6	52.0	-2.7

F. m. & c. 8.0 7.3

F. ch. 7.3

Plate 1087.

	20.4	7.7	I		K=H	1	—	10.2	15.4	27.1	34.7	+2.5
	18.4	18.7	I	6	N	1	—	9.2	37.4	28.1	12.7	-1.3

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Mean 7

			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.				Corr. Bv	Bv
4.3	2.5	D.m	2076	10	13.6	+41 57	6.5	32.4	52.6	28.1	10	16.3 + 41 44		6.3	7.0
2.5	1.5	?	1771	9	50.3	+41 38	5.2	87.3	52.5	89.8	9	51.6 + 41 32		5.8	6.5
6.0	3.6	D.m	2123	10	18.9	+42 20	7.0	33.9	52.5	27.9	10	21.6 + 42 6		6.0	6.7
4.5	2.7		1827	10	15.2	+42 6	3.1	34.0	52.5	29.5	10	16.4 + 42 0		5.0 5.8	5.7 6.5
2.1	1.2		1783	9	54.1	+32 31	6.0	89.3	42.5	90.5	9	55.3 + 32 26		6.1	6.8
2.7	1.8		1810	10	9.9	+43 31	3.6	32.9	52.6	30.2	10	11.6 + 43 25		3.6	4.3
6.7	4.2		1834	10	19.0	+34 25	5.1	33.6	42.5	29.4	10	20.2 + 34 18		5.1	6.8
6.0	3.6		1832	10	17.2	+34 19	5.9	33.2	42.5	29.6	10	18.4 + 34 13		6.4 6.5	7.1 7.4
5.5	3.5		1830	10	16.2	+34 31	5.9	33.2	42.5	29.7	10	17.4 + 34 25		6.1	6.8
3.1	1.9	D.m	2122	10	7.7	+35 54	6.8	30.5	42.7	28.6	10	10.3 + 35 41		6.5 6.8	7.2 7.5 {7.8 7.6}
0.0			1792	10	0.4	+35 50	4.6	30.4	42.6	30.4	10	1.6 + 35 44		4.4	5.1
2.9	1.8	D.m	1566	9	48.8	+46 6	6.6N	85.2	52.7	88.1	9	51.7 + 45 53		6.5 6.8	7.2 7.5 {7.8 7.6}
6.0	3.9		1751	9	40.8	+46 35	5.3	83.6	52.5	89.6	~~10~~ 9	42.1 + 46 29		5.6	6.3
7.9	5.3		1840	10	20.9	+37 19	4.4	34.5	42.5	29.2	10	22.1 + 37 13		5.0 5.3	5.7 6.0
1.2	0.7	D.m	2096	9	55.2	+38 46	6.5	87.8	42.8	88.5	9	57.9 + 38 33		6.5 6.8	7.2 7.5 {7.8 7.6}
5.7	3.7	D.m	2076	9	43.6	+38 36	6.3	85.2	42.6	88.9	9	46.4 + 38 24		6.4	7.1
4.2	2.7		1818	10	12.0	+49 0	6.2	34.0	52.6	29.8	10	~~11.8~~ 13.2 + 48 ~~47~~ 53		6.4 6.8	7.1 7.5
8.4	4.3	D.m	1868	9	33.2	+49 5	6.5	79.5	52.6	87.9	9	36.2 + 48 53		5.9	6.6
7.1	4.8		1838	10	20.7	+49 27	6.4	37.1	52.5	30.0	10	24.9 + 49 21		6.4	7.1
9.3	6.0		1845	10	23.1	+39 34	5.8	35.3	42.6	29.3	10	24.2 + 39 26		5.7	6.4
4.1	2.5		1765	9	47.9	+50 24	5.3	85.3	52.7	89.4	9	49.2 + 50 17		4.8	5.5
3.0	1.9	D.m	1702	9	49.3	+50 50	7.0	84.7	52.8	87.7	9	52.3 + 50 37		6.1	6.8
2.1	1.5	D.m	1585	10	4.5	+51 13	6.5	30.5	52.8	28.4	10	7.4 + 51 0		6.4	7.1
4.5	2.7	?	1771	9	50.3	+41 38	5.2	87.9	42.6	90.6	9	51.6 + 41 32			

Mean 5

														Corr. Bv	Bv
2.5	1.2		1883	10	36.5	+26 38	5.6	51.9	37.2	49.4	10	37.6 + 26 51		6.0	6.5
1.3	0.6	D.m	1867	10	10.0	+28 8	6.7	47.4	37.3	48.7	10	12.5 + 27 55		6.4	6.9

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Plate 1087.

T	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	
19.7	24.2	I	7	H	3	F	9.8	48.4	27.5	1.7	-1.5
17.8	18.6	I	4	K=H	K=H11	—	8.9	37.2	28.4	12.9	-0.7
17.7	19.9	II	2	K=H	K=H11	—	8.8	39.8	28.5	10.3	-0.9
? 14.6	18.2	II	a 4016 2	K=H	2	F? seen.	7.3	36.4	30.0	13.7	-0.6
14.7	19.5	I	8	H	2	F	7.4	39.0	29.9	11.1	-1.8
13.7	6.7	I	4	K=H	1	—	6.8	13.4	30.5	36.7	+1.7
13.9	18.1	III	bc 4017 3	K=2.0H	? 4	F, bright seen	7.0	36.2	30.3	13.9	-0.6
11.8	6.8	I	7	H	2	—	5.9	13.6	31.4	36.5	+3.7
11.1	20.6	II	II 2	K=H	K=H11	— F?	5.6	41.2	31.7	8.9	-1.2
9.4	9.9	II	b 4018 ? 3	K=H	2	F seen	4.7	19.8	32.6	30.3	+2.4
10.0	22.8	~~II~~ ?	~~2~~ 2	K=H	~~K=H11~~	—	5.0	45.6	32.3	4.5	-3.7
8.7	12.9	I	5	H	1	—	4.4	25.8	32.9	24.3	+1.1
7.0	7.3	I	6	?	2	F	3.5	14.6	33.8	35.5	+2.1
7.4	19.3	II	2	3 K=H	K=H11	— F	3.7	38.6	33.6	11.5	-1.1
6.8	19.5	I	? 9	K=H	4	F	3.4	39.0	33.9	11.1	-1.2
6.0	15.4	I	4	K=.8H	2	—	3.0	30.8	34.3	19.3	-0.3
6.1	16.0	III	? 2	K=H	1	—	3.0	32.0	34.3	18.1	-0.5
5.8	16.5	I	6	H	1	—	2.9	33.0	34.4	17.1	-0.7
3.5	12.3	I	8	K=.2H	2	F	1.8	24.6	35.5	25.5	+1.5
3.0	22.9	I	9	K=H	2	F	1.5	45.8	35.8	4.3	-4.7

F.m. 8c. 8.0 7.1

F. ch. 7.2

Plate 1088.

23.0	22.7	I	6	K=H	2	—	11.5	45.4	46.0	64.1	-4.5
21.0	9.2	I	5	K=H	2	F	10.5	18.4	47.0	91.1	+5.4
III ? 5.8, 6.2. 20.4	14.6	II	b 4019 3	K=H	2	F seen	10.2	29.2	47.3	80.3	+0.3
18.2	6.4	II	? II 4020 2	K=H	1	—	9.1	12.8	48.4	96.7	+5.7 +8.9
17.8	10.1	II	a? 2	K=H	1	seen	8.9	20.2	48.6	89.3	+3.1
17.0	12.1	I	2	K=H	1	—	8.5	24.8	49.0	74.7	-2.4
20.9	11.1	~~III~~ I	4 3	K=H	1	—	10.4	22.2	49.9	87.3	

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Mean 5

	NO.	R.A.	Dec.	Mag.	Ec.	V.	Ec'	Red. of stars to 1900.		Cou. Bv.	Br.
	1793	10 08	+17	21	3.6	49.2	27.1	50.7	10	1.9 + 17 16	3.5 4.0
1.3 0.7	2345	10 11.1	+18	26	7.2	48.3	27.3	49.0	10	12.6 + 18 13	6.6 7.1 7.3
	1809	10 9.7	+18	20	6.6	49.5	27.1	50.4	10	10.8 + 18 14	6.5 7.0 7.2
	1821	10 13.3	+20	5	5.0	49.7	27.4	50.3	10	14.3 + 19 59	5.2 5.7
	1808	10 9.4	+29	54	5.4	48.4	37.3	49.2	10	10.6 + 29 48	5.3 5.8
3.6 1.7	2514	10 36.4	+20	31	6.8	49.8	27.3	48.1 51.5	10	38.8 + 20 17	6.5 7.0
	1823 1824	10 13.4	+20	27	2.2	49.6	27.4	50.2	10	14.4 + 20 21	13 3.5 B 4.0
	1886	10 39.2	+31	19	5.4	52.8	37.2	49.1	10	40.3 + 31 12	5.2 5.7
2.5 1.2	2165	10 6.5	+21	54	6.5	47.7	27.5	48.9	10	9.0 + 21 41	6.5 7.0 7.0
	1872	10 32.0	+32	36	4.8	51.8	37.3	49.4	10	33.1 + 32 30	5.4 5.9 5.5 6.0
3.7 1.8	1982	9 59.9	+32	19	6.5	105.5	37.3	109.2	10 9	3.2 + 32 6	6.5 7.0 7.0
	1852	10 24.0	+33	0	5.7	50.8	37.4	49.7	10	26.2 + 32 54	5.7 6.2
	1884	10 36.9	+23	49	5.1	51.5	27.3	49.3	10	38.0 + 23 42	4.8 5.3
2.1 1.1	2207	10 9.3	+23	50	6.5	47.9	27.5	49.0	10	11.9 + 23 37	6.4 6.9 6.8
	1812	10 10.0	+24	1	3.6	49.0	27.4	50.2	10	11.1 + 23 55	3.8 4.3
	1834	10 19.0	+34	24	5.1	49.3	37.4	50.1	10	20.2 + 34 18	4.7 5.2
	1832	10 17.2	+34	19	5.9	49.2	37.3	49.7	10	18.4 + 34 13	6.6 7.1 7.0 7.5
	1830	10 16.2	+34	31	5.9	47.2	37.1	49.9	10	17.4 + 34 25	5.9 6.4
	1860	10 26.7	+35	36	5.5	51.3	37.4	49.8	10	27.8 + 35 31	5.3 5.8
	1792	10 0.4	+35	50	4.6	46.2	37.3	50.9	10	1.6 + 35 44	4.9 5.4

	1792	10 0.4	+35	50	4.6	45.8	47.3	50.3	10	1.6 + 35 44		
	1882	10 36.5	+46	56	5.3	54.9	57.1	49.5	10	37.7 + 46 44		6.1
	1840	10 20.9	+37	19	4.4	50.1	47.5	49.8	10	22.1 + 37 13		6.0
	2179	10 40.1	+38	26	7.0	52.9	47.4	47.2	10	42.7 + 38 6		7.0 7.1
8.7 5.7	1897	10 45.1	+48	27	7.8						10 40 + 3	
	1873	10 32.3	+38	32	5.8	52.5	47.4	49.4	10	33.4 + 38 26		6.9
	1818	10 12.0	+49	0	6.2	46.8	57.5	49.2	10	13.2 ~~14.8~~ + 48 55 ~~47~~		7.0 7.2
	1866	10 29.4	+36	57	6.3	51.6	47.4	10	30.6	+36 51		7.3 7.4

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Plate 1088.

		No.	Type	Lines	K	Found Lines	Other	V.	H.	V.	Ec.	Correc.
	16,0	13,7	I	6	N	2	—	8.0	27.4	49.5	82.1	+2.9
	16,0	14,7	?	2	K=H	1	—	8.0	29.4	49.5	80.1	+0.5
	13,0	12,6	I	8	K=2H	3	F	6.5	25.2	51.0	84.3	+1.8
	12,8	13,8	III ? III	2	K=H	K=H 1	— —	6.4	27.6	51.1	81.9	+0.8 +1.5
	12,6	14,0	II	2	K=H	1	—	6.3	28.0	51.2	81.5	+1.1 +1.7
?	12,7	19,1	a? 4021	2	K=H	1	F? Fine	6.4	38.2	51.1	71.3	-4.7
III ? 5.8, 5.5, 6.5.	11,0	16,6	bc 4022	3	K=H? 1.5 1	3	F bright seen	5.5	33.2	52.0	76.8	-1.2
	11,4	16,6	III	3	K=H	1	F	5.7	33.2	51.8	76.3	-1.2
	11,0	8,0	II ? II	2	2 K=H	K=H 1	— —	5.5	16.0	52.0	93.5	+5.4
	10,8	14,8	I	6	K=2H?	2	F	5.4	29.6	52.1	79.9	+0.1
	10,2	17,1	I	5	K=H	1	—	5.1	34.2	52.4	75.3	-1.8
	10,9	17,4	III	2	K=H	1	—	5.4	34.8	52.1	74.7	-2.7
	9,3	7,1	III	2	K=H	1	—	4.6	14.2	52.9	95.3	+9.3
	9,4	12,2	?	2	K=H	1	—	4.7	24.4	52.8	85.1	+3.3
	8,4	7,2	III	2	K=H	1	—	4.2	14.4	53.3	95.1	+9.5
	8,3	18,4	I	12	K=2H	4	F	4.2	36.8	53.3	72.7	-2.7
	9,0	21,6	I	6	K=H	K=H 1	F F	4.5	43.2	53.0	66.3	-7.8
	9,6	23,6	I ? I	4	H H K=H	K=H 1	— —	4.8	47.2	52.7	62.3	-6.7
	7,8	10,7	a? 4023	2	K=H	1	seen	3.9	21.4	53.6	88.1	+5.1
	6,8	11,4	III	3	K=H	1	F	3.2	22.8	54.3	86.7	+4.5
	6,9	13,0	I	6	N	1	—	3.4	26.0	54.1	83.5	+2.4
	6,4	17,0	?	2	K=H	1	—	3.2	34.0	54.3	75.5	-2.5
	5,5	16,9	III	2	K=H	1	—	2.8	33.8	54.7	75.7	-2.4 -1.7
	5,9	17,8	II ? II	2	K=H	K=H 1	— —	3.0	35.6	54.5	75.9	-2.4 -3.5
?	6,0	21,6	a 4024	3	K=H	1	Faint	3.0	43.2	54.5	66.3	-8.3
	4,3	7,3	III	3	K=H	1	F	2.2	14.6	55.3	91.9	+9.9
	2,4	8,5	I I	3	N	1	— —	1.2	17.0	56.3	92.5	+6.0
?	2,0	14,0	a? 4025	2	K=H?	2	F	1.0	28.0	56.5	81.5	+1.2

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			No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900.		Br.
1.3	0.9		1845	10 23.1	+39 34	5.8	50.5	47.6	49.6	10	24.2 + 39 26	5.9
0.5	0.3		1838	10 20.7	+49 27	6.4	50.1	57.4	49.6	10	21.9 + 49 21	6.7
2.4	1.8		1857	10 26.2	+41 3	5.1	51.4	47.5	49.6	10	27.5 + 40 57	5.3
			2097	10 21.6	+41 13	7.5	49.2	47.6	48.4	10	24.3 + 40 59	6.9 7.2 7.3
1.5	0.9	D.m	[illegible]									7.0 7.5 7.5
			1605	10 21.2	+51 19	6.2	49.2	57.6	48.1	10	24.0 + 51 5	
1.2	0.7	D.m	[illegible]									6.9
4.7	3.0	D.m	1885	10 4.5	+51 13	6.5	42.7	57.6	47.4	10	7.4 + 51 0	6.8
			1827	10 45.2	+42 6	3.1	48.4	47.6	49.6	10	16.4 + 42 0	5.3 5.9
1.8	1.2	D.m	2076	10 13.6	+41 57	6.5	46.8	47.7	48.0	10	16.8 + 41 44	6.5
7.9	5.4	D.m	2145	10 37.0	+42 4	7.2	53.0	47.6	47.6	10	39.6 + 41 50	7.1 7.2
		Dm	2123	10 18.9	+42 20	7.0	48.5	47.7		10	21.6 +42 6	
0.3	0.1	D.m	2093	10 19.2	+41 57	7.5	48.8	47.4	48.7	10	21.9 + 41 43	6.3 6.4
2.1	1.8	D.m	2114	10 12.4	+42 34	6.7	46.6	47.7	48.4	10	15.1 + 42 21	6.7
2.7	1.9	D.m	1473	10 9.8	+52 8	6.7	44.6	57.5	47.3	10	12.7 + 51 55	7.0 7.3
		Dm	1579	10 44.0	+52 50	6.5	58.2	57.4	48.9	10	46.7 + 52 36	
9.3	6.5	?	1900	10 45.4	+53 9	6.5	59.6	57.8	50.3			7.1
3.3	2.3	D.m		10 27.3	+52 52	6.9	51.7	57.6	48.4	10	30.1 + 52 38	7.2
9.5	6.5	?	1899	10 45.4	+53 13	6.6	59.8	57.4	50.3	10	46.5 + 53 6	7.0 7.4
			1900	10 45.4	+53 9	6.5	59.8	57.4	50.3	10	46.5 + 53 3	
4.1	2.7		1810	10 9.9	+43 31	3.6	46.7	47.7	49.4	10	11.0 + 43 25	4.1
			1384	10 55.6	+53 3	6.5	98.8	57.5	106.6	9	58.3 + 52 49	
7.8	5.4	D.m	[illegible]									6.5 6.6
10.1	6.7	D.m	2079	9 54.5	+42 42	6.9	101.7	47.5	108.4	9	57.3 + 42 29	7.1 7.3
5.1	3.5	D.m	1427	10 32.3	+53 44	7.0	53.7	57.6	48.6	10	35.1 + 53 30	7.0
4.5	3.0		1871	10 31.7	+54 17	5.8	54.5	57.5	50.0	10	33.5 + 54 12	7.0 7.3
2.4	1.7	D.m	1381	10 24.6	+54 14	6.8	50.7	57.6	48.2	10	27.5 + 54 0	6.3
2.5	1.7		1819	10 12.5	+54 24	6.5	46.5	57.6	49.0	10	13.8 54 18	7.0
			1367	10 11.1	+54 56	6.5	44.9	57.7	47.3	10	14.1 + 54 43	7.0 7.4
2.3	1.7	D.m	[illegible]									
		Dm	1973	10 10.0	+44 46	6.5	45.6	47.8	48.0	10	12.8 + 44 23	7.3 7.3
3.3	2.3		[illegible]									
8.3	5.7	?	1785	9 56.6	+54 28	5.7	99.8	57.5	108.1	9	58.0 + 54 23	6.3
			1901	10 46.3	+55 13	5.4	60.9	57.4	51.0	10	47.6 + 55 7	6.8 7.2
8.5	6.0	D.m	1659	10 36.8	+46 19	7.0	53.8	47.5	47.5	10	39.5 + 46 5	
1.2	0.9		1844	10 22.9	+56 36	4.9	50.9	57.6	49.7	10	24.3 + 56 30	

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F.m. 8c. 8.0 7.5 F.ch. 7.5

May 9, 1887.

Plate 1123.

Y	H	Type	No. Lines	K	Focus	Other Lines	V.	H	V	H	correc.
22.9	7.5	I	5	N	2	—	11.4	15.0	21.0	57.8	+1.5
22.3	13.7	I	5	N	1	—	11.2	27.4	21.2	42.4	+0.1
17.4	16.4	I	7	K=1.2H?	2	F	8.7	32.8	23.7	37.0	−0.5
14.2	10.9	I	8	N	3	F	7.1	21.8	25.3	48.0	+1.2
12.6	11.3	I?	2	N	1	—	6.3	22.6	26.1	47.2	+1.1
11.1	16.5	I	5	N	1	—	5.6	33.0	26.8	36.8	−0.6
3.2	7.7	I	7	N	2	F	1.6	15.4	30.8	54.4	+1.5
2.5	15.3	I	7	N	2	—	1.2	30.6	31.2	39.2	−0.1

F.m. 8c. 8.0 7.4 Plate 1124 F.ch. 7.4

22.9	9.8	II?	2	K=H	1	—	11.4	19.6	41.2	49.8	+3.9
22.5	15.0	I	6	N	1	—	11.2	30.0	41.4	39.4	0.0
23.0	19.8	I	5	K=.5H	2	F?	11.5	39.6	41.1	29.8	−3.6
20.0	18.1	III	3	K=H	1	F	10.0	36.2	42.6	33.2	−1.5
20.5	21.9	I?	4	K=H	1	—	10.2	43.8	42.4	25.6	−5.4
20.6	23.9	Fe 4026	3	K=H	2	F	bright lines	10.3	47.8	42.3	21.6	−7.1
21.0	24.0	II?	2	K=H	1	—		10.5	48.0	42.1	21.4	−7.1
19.0	21.0	I?	3	N	1	—		9.5	42.0	43.1	27.4	−2.9
17.6	12.2	I	8	N	3	F		8.8	24.4	43.8	45.0	+2.3
16.9	11.1	III?	2	K=H	1	—		8.4	22.2	44.2	47.2	+2.1
16.2	23.4	I	4	K=H	2	F		8.1	46.8	44.5	22.6	−4.7
15.6	12.2	Fe? 4027	3	K=H	2	F	bright lines	7.8	24.4	44.8	45.0	+1.5
14.8	6.6	Fe 4028	3	K=1.5H?	3	F	bright lines	7.4	13.2	45.2	56.2	+7.5
14.0	20.2	I	6	N	1	F		7.0	40.4	45.6	29.0	−2.5
11.8	15.9	I	7	K=H	2	F		5.9	31.8	46.7	37.6	−0.7
10.6	22.3	III	3	K=2.5H?	2	F		5.3	44.6	47.3	24.8	−4.7
8.3	17.8	III	2	K=H	1	—		4.2	35.6	48.4	33.8	−1.8
6.2	21.3	I	5	K=H	1	—		3.1	42.6	49.5	26.8	−4.3

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Mean 12

C.

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.				Corr. Bl.	Corr. Ru.
	1925	10	55.9	+20	49	4.5	70.9	32.2	69.4	10	57.0 + 20 43		
	1892	10	42.9	+11	11	5.3	70.3	22.4	70.2	10	44.0 + 11 4	6.7	5.5
	1884	10	36.9	+23	49	5.1	69.7	32.5	70.2	10	38.0 + 23 42	6.3	5.1
	1908	10	49.1	+25	23	4.3	70.9	32.5	69.7	10	50.2 + 25 17	5.4	4.2
D.m	2147	10	46.8	+26	15	6.5	69.4	32.5	68.3	10	49.3 + 26 1	7.0	5.8
	1883	10	36.5	+26	58	5.6	69.5	32.6	70.1	10	37.6 + 26 51	6.6	5.4
	1925	10	55.9	+20	49	4.5	71.3	22.4	69.8	10	57.0 + 20 43	5.6	4.4
	1886	10	39.2	+31	19	5.4	69.8	32.5	69.9	10	40.3 + 31 12		
3.9 2.3	1913	10	52.8	+41	4	5.2	72.4	52.5	68.5	10	53.8 + 40 58		
0.0	1886	10	39.2	+31	19	5.4	69.2	42.5	69.2	10	40.3 + 31 12		
3.6 2.1	1857	10	26.2	+41	3	5.1	65.8	52.5	69.4	10	27.6 + 40 57		
2.4 1.5	1872	10	32.0	+32	36	4.8	68.2	42.6	69.7	10	33.1 + 32 30	6.5 6.8	
5.4 3.3 D.m	2123	10	18.9	+12	20	7.0	62.7	52.5	68.1	10	21.6 + 42 6	7.0	
7.1 4.3	1827	10	15.2	+42	6	3.1	63.0	52.4	70.1	10	16.4 + 42 0	5.8 5.5	
7.1 4.2 D.m	2076	10	13.6	+41	57	6.5	61.6	52.5	68.7	10	16.3 + 41 44	7.1	
5.1 2.9	1852	10	25.0	+33	0	5.7	67.0	42.5	69.9	10	26.2 + 32 54	7.0	
2.3 1.5	1903	10	47.1	+43	50	4.9	71.5	52.6	69.2	10	48.2 + 43 43	5.3	
3.1 2.1	1907	10	49.1	+34	9	5.2	71.3	42.6	69.2	10	50.2 + 34 2	7.1 7.4	
7.2 4.7 R	1834	10	19.0	+34	25	5.1	63.8	42.5	70.5	10	20.2 + 34 18	5.8	
2.3 1.5	1902	10	46.6	+34	52	3.9	71.0	42.7	69.5	10	47.7 + 34 45	6.0 6.4	
7.5 4.9	1941	11	2.9	+45	9	3.1	16.1	52.6	8.6	12	4.0 + 45 3	5.2 5.6	
4.8 2.5	1860	10	26.7	+35	36	5.5	67.1	42.6	69.6	10	27.8 + 35 31	6.6	
0.7 0.5	1882	10	36.5	+46	56	5.3	68.3	52.8	69.0	10	37.7 + 46 44	6.5	
6.9 4.7	1840	10	20.9	+37	19	4.4	65.5	42.6	70.2	10	22.1 + 37 13	6.3 6.6	
2.7 1.8	1873	10	32.3	+38	32	5.8	67.9	42.7	69.7	10	33.4 + 38 26	7.2 7.5	
6.6 4.5	~~1838~~	~~10~~	~~20.7~~	~~+39~~	~~25~~	~~6.4~~	~~65.3~~	~~52.5~~	~~69.7~~			6.9	
b	1845	10	23.1	+39	34	5.8	65.7	42.7	70.2	10	24.3 + 39 26		

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May 9, 1887.

Plate 1124.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	corrc.
	5.6	9.4	I	6	K=½H	1	—	2.8	18.8	49.8	50.6	+3.9
	7.4	7.9	II ?	2	K=½H	1	—	3.7	15.8	48.9	53.6	+4.8
?	3.1	10,0	II a	40 29/3	K=½H	1	F. Lines.	1.6	20.0	51.0	49.4	+3.6
N	10	3,3	20,0	I	7	K=.√H	2	F.	1.6	4.00	51.0	29.4	-3.6

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No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900			Br.
1919	10 54.1	+39 57	5.4	729	426	690	10	55.2	+39 45	6.4
1930	10 57.9	+38 53	5.8	737	426	689	10	59.0	+38 47	7.1
1913	10 52.8	+41 4	5.2	728	427	692	10	53.8	+40 58	6.7
1857	10 26.2	+41 3	5.1	662	426	698	10	27.5	+40 57	6.0

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F.m. 9 c. 5.7 5.5 F.ch. 7.4

June 7, 1887.

Plate 1281.

	V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
10 0	22.6	8.4	I ?	X ?	K=H N	3	—	11.3	16.8	21.1	54.7	+1.3
	22.0	14.5	I	6	N	2	—	11.0	29.0	21.4	42.5	0.0
	20.1	13.6	III	2	K=H K=H	1	— F.?	10.0	27.2	22.4	44.3	+0.1
	19.7	9.4	a ? IIa	2	K=H K=H	1	scen scen	9.8	18.8	22.6	52.7	+0.7
	18.6	11.3	III	2	K=H	1	—	9.3	22.6	23.1	48.9	+0.9
	18.4	21.8	X I ? I	3	N	1	—	9.2	43.6	23.2	27.9	-0.7
	17.9	6.4	? III	2	K=H K=H	1	—	9.0	12.8	23.4	58.7	+1.1
	17.8	7.1	I ? I ?	5	K=H K=H	1	—	8.9	14.2	23.5	57.3	+1.1
	17.8	15.8	I	6	N	1	— F.	8.9	31.6	23.5	39.9	0.0
	17.1	17.1	I	8	N	3	F.	8.6	34.2	23.8	37.3	-0.6
	17.6	20.3	I ? I	4	K=H K=H	1	—	8.8	40.6	23.6	30.9	-0.7
	16.6	6.1	I ?	4	N	1	—	8.3	12.2	24.1	57.3	+2.5
	16.6	13.9	II	2	K=H	1	F.?	8.3	27.8	24.1	43.7	-0.3
	16.5	21.6	II ? II	2	K=H K=H	1	—	8.2	43.2	24.2	28.3	-1.8
	15.0	15.8	III ?	2	K=H	2	F.?	7.5	31.6	24.9	39.9	-0.1
	15.6	20.7	II ? II	2	K=H K=H	1	—	7.8	41.4	24.6	30.1	-0.7
	15.0	22.7	III	3	K=H	1	F.	7.5	45.4	24.9	26.1	-1.2
	15.0	10.9	X II ? I ? H	3	K=H N	1	—	7.5	21.8	24.9	49.7	+1.2
	14.0	11.7	I	9	N	4	F.	7.0	23.4	25.4	48.1	+0.9
	14.4	22.2	I ? I H	5	K=H K=H	1	— F	7.2	44.4	25.2	27.1	-2.1
	13.9	5.6	I	5	K=H	1	—	7.0	11.2	25.4	60.3	+2.9
	13.2	8.6	III	12	2 X K=H	K=H 1	F.?	6.6	17.2	25.8	54.3	+0.9
	13.4	18.7	II ? X II ?	2	K=H K=H	1	—	6.7	37.4	25.7	34.1	-0.6
	12.2	6.5	III	2	K=H	1	—	6.1	13.0	26.3	58.5	+2.7
	12.5	11.2	III	13	K=H	1	F.	6.2	22.4	26.2	49.1	+1.2
?	12.6	12.1	II a 4031	2	K=H	2	F. scen	6.3	24.2	26.1	47.3	+0.9
	11.8	8.0	I ?	3	N	1	—	5.9	16.0	26.5	55.5	+2.3
	11.8	10.5	II ? II	2	K=H K=H	1	—	5.9	21.0	26.5	50.5	+0.6

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Mean 3

			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Cor. Br.	Br.
1.3	0.7		1925	10	55.9	+20 49	4.5	72.7	32.1	71.4	10	57.0+20 43
0.1	0.0		1892	10	42.9	+11 11	5.3	71.9	22.2	71.9	10	44.0+11 4
0.3	0.1	D.m	2266	10	43.5	+12 21	6.8	70.7	22.4	70.6	10	43.9+12 7
1.3	0.7	D.m	2284	10	52.1	+12 29	6.5	70.9	22.3	70.2	10	54.5+12 15
0.9	0.5		1910	10	49.9	+23 0	6.2	72.5	32.3	71.8	10	50.9+22 54
1.7	0.7	D.m	2274	10	26.4	+13 8	7.8	70.0	22.3	70.7	10	28.8+12 54
2.3	1.2	D.m	2350	10	58.2	+13 21	7.8	71.0	22.4	69.9	11	0.6+13 7
2.1	1.1	D.m	2348	10	56.9	+13 28	6.5	71.1	22.4	70.0	10	59.3+13 14
1.3	0.8	D.m	2302	10	38.7	+13 30	6.5	70.3	22.4	70.3	10	41.1+13 16
0.6	0.3		1884	10	36.9	+23 49	5.1	71.1	32.4	71.7	10	38.0+23 42
1.3	0.7	D.m	2280	10	29.3	+13 37	7.3	69.9	22.4	70.6	10	31.7+13 23
2.5	1.2	D.m	2318	10	57.9	+24 7	6.5	72.1	32.4	69.5	11	2.3+23 52
0.3	0.1	D.m.	2279	10	42.8	+24 11	6.8	70.6	32.5	70.9	10	45.3+23 57
1.8	0.9	D.m.	2244	10	25.8	+24 6	7.0	69.0	32.3	70.8	10	28.3+23 52
0.3	0.1		1889	10	40.1	+14 51	5.7	71.7	22.3	71.8	10	42.2+14 43
1.5	0.7	D.m.	2266	10	28.5	+14 33	7.6	69.9	22.4	70.6	10	30.9+14 19
2.3	1.2		1856	10	25.8	+14 45	5.7	71.2	22.3	72.1	10	26.9+14 39
1.2	0.6	D.m.	2291	10	49.4	+24 55	7.7	71.2	34.4	70.0	10	54.8+24 41
0.9	0.5		1908	10	49.1	+25 23	4.3	72.5	32.4	71.6	10	52.2+25 17
2.1	1.1	D.m.	2260	10	24.3	+25 11	6.8	68.7	32.4	70.8	10	26.8+24 57
2.9	1.3		1938	11	2.4	+25 20	5.6	13.6	32.3	10.7	10	3.5+25 12
1.9	0.9	D.m.	2276	10	38.8	+15 48	8.0	71.0	22.4	70.1	10	56.2+15 34
1.1	0.6	D.m.	2236	10	32.7	+15 42	8.2	70.1	22.4	70.7	10	35.1+15 30
2.7	1.3	D.m.	2176	10	59.3	+26 19	7.2	72.3	32.4	69.6	11	1.7+26 4
1.2	0.6	D.m	2152	10	48.7	+26 16	7.0	71.1	32.5	69.9	10	51.2+26 2
2.9	1.5	D.m	2147	10	46.8	+26 15	6.5	71.0	32.5	70 69.1	10	49.3+26 1
2.3	1.1	D.m.	2171	10	55.9	+26 34	6.8	71.9	32.5	69.6	10	58.4+26 20
1.3	0.6	D.m.	2191	10	50.0	+16 32	7.3	71.0	22.4	70.5	10	52.4+16 18

Cor. Br.	Br.
5.3	5.6
6.7 7.0	7.0 7.3 7.2 7.5
6.5	6.8 6.9
6.7 7.0	7.0 7.3
	10 48.5+23 8
6.9	7.2 7.2
6.8 7.1	7.1 7.2 7.4
6.4	6.7 6.7
6.2	6.5 6.6
4.9	5.2
6.7	7.0 7.0
6.2	6.5
6.2	6.5
6.5	6.8 6.9
5.9 6.1	6.2 6.4
6.7	7.0 7.1
6.2 6.6	6.5 6.9
	10 24.5+14 53
7.0	7.3 7.4
4.4	4.7
6.4	6.7 6.8
5.6	5.9
6.8 7.1	7.1 7.4 7.2 7.4
6.8 7.2	7.1 7.5 7.4
6.4	6.7
6.3 6.6	6.6 6.9
5.9	6.2
6.3	6.6
6.9	7.2 7.8

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June 7, 1887.

Plate 1281.

T	H	Type	No. Lines	K	Other Lines	V.	H.	V.	H.	correc.
11.1	19.4	—	3	K=H	1	F	5.6	38.8	26.8	32.6	-0.7
10.8	17.3	I	9	K=1.5H	2	F	5.4	34.6	27.0	36.9	-0.7
9.1	14.4	III	? III 1 3	K=H	K=H 1	F	F	4.6	28.8	27.8	42.7	0.0
9.6	18.3	II	4032 4031a II a 2 2	K=H	K=H 1 1	Fdim	dim	4.8	36.6	27.6	34.9	-0.5
8.5	8.6	II	? II 2 2	K=H	K=H 1 1	—	—	4.2	17.2	28.2	54.3	+1.1
8.5	18.4	I	4032 a ? II a 3 3	K	K=H 1 2	F	Fdim dim	4.2	36.8	28.2	34.7	-1.2
8.8	19.9	I	I? x 4 4	K	K=H 1 1	—	—	4.4	39.8	28.0	31.7	-0.7
7.9	6.2	III	2	K=H	1	—		4.0	12.4	28.4	59.1	+1.5
7.5	10.5	III	III 1 2	K	K=H 1 1	—	F?	3.8	21.0	28.6	50.5	+0.7
7.8	13.0	III	? III 2 2	K=H	K=H 1 1	—	F?	3.9	26.0	28.5	46.5	+0.7
7.7	14.3	II	4033 a 3	K=H	2	F	dim	3.8	28.6	28.6	42.9	+0.3
7.4	18.9	II	4033a IIa x 2 2	K	K=H K=H 1	—	dim	3.7	37.8	28.7	33.7	-0.6
7.1	11.4	III	? 1	K	1	—		3.6	22.8	28.8	48.7	+0.7
6.8	17.0	III	III 2 3	K=H	K=H 1 1	—	F	3.4	34.0	29.0	37.5	-0.3
6.6	17.5	III	? III ? 2 2	K=H	K=H 1 1	—	—	3.3	35.0	29.1	36.5	-0.5
7.0	17.6	III	III 2 2	K=H	K=H 1 1	—	—	3.5	35.2	28.9	36.3	-0.5
6.2	20.6	I	I ? I ? 3 4	K	K=H 1 1	—	—	3.1	41.2	29.3	30.3	-1.1
6.2	23.0	III	III 2 2	K=H	K=H 1 1	—	—	3.1	46.0	29.3	25.5	-3.1
5.6	8.5	III	2	K=H	1	—		2.8	17.0	29.6	54.5	+2.5
III ? 6.3, 6.7	5.8	15.8	III	4034 III 3 3	K=H	? K=H	2 2	F dim	2.9	31.6	29.5	39.9	-0.1
4.3	12.2	II	a ? 4035 2	K=H	1	F?	dim	2.2	24.1	30.2	47.1	+1.2
4.8	14.7	III	2	K=H	1	F?		2.4	29.4	30.0	42.1	+0.1
4.0	16.8	I	? 6	K=H	2	—		2.0	33.6	30.4	37.9	-0.8
4.2	19.5	II	? II ? 2 2	K=H	K=H 1 1	—	—	2.1	39.0	30.3	32.5	+1.1
3.0	8.4	I	7	K	3	F		1.5	16.8	30.9	54.7	+1.3
4.9	23.3	III	III ? 2 2	K=H	K=H 1 1	—	—	2.0	46.6	30.4 31.0	24.9	-3.6
2.4	12.3	III	? 12	K	K=H 1	—		1.2	24.6	31.2	46.9	+1.2
2.3	16.0	I	8	K=.5H	2	F		1.2	32.0	31.2	39.5	-0.5
2.8	21.7	II	II 2 2	K=H	K=H 1 1	—	—	1.4	43.4	31.0	28.1	-1.5

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Mean 3

			No.	R.A.	Dec.	Mag.	H.	V.	H'		Red. of stars to 1900		Cov. Br.	Br.
1.3	0.7		1874	10 32.5	+16 45	6.5	71.3	22.4	72.0	10	33.6	+16 39	✓	6.4 6.7
0.7	0.3		1883	10 36.5	+26 58	5.6	71.1	32.4	71.8	10	37.6	+26 51	✓	5.3 5.6
0.3	0.0	D.M.	2279	10 41.7	+17 55	7.0	70.5	22.5	70.5	10	44.1	+17 41	✓	6.8 7.1 7.2 7.0 7.3 7.5
1.2	0.5	D.M.	2259	10 33.4	+17 38	7.5	70.0	22.4	70.5	10	35.6	+17 24	✓	6.5 6.8 7.2
2.3	1.1	D.M.	2436	10 54.0	+18 7	8.0	71.2	22.3	70.1	10	56.4	+17 53	✓	7.0 7.3 7.4
1.2	0.6	D.M.	1916	10 32.3	+28 16	6.5	70.1	32.5	71.3	10	34.8	+28 2	✓	6.1 6.4 6.5
1.8	0.7	D.M.	2384	10 30.0	+18 2	7.7	69.8	22.4	70.5	10	32.4	+17 48	✓	6.7 7.0 6.9 7.2 7.3
3.3	1.5	D.M.	2452	10 59.1	+18 31	6.5	71.5	22.5	70.0	18	1.5	+18 16	✓	6.8 7.1 7.4
			2427	10 50.0	+18 44	8.0	71.0	22.5	70.3	10	52.4	+18 30	✓	6.9 7.2 7.4 7.2 7.5 7.4
			2429	10 51.4	+18 37	7.0								
0.7	0.3	D.M.	1945	10 44.9	+28 37	8.0	70.9	32.5	70.2	10	47.4	+28 23	✓	6.7 7.0 6.8 7.0 7.3 7.1
0.3	0.1	D.M.	1931	10 41.9	+28 45	6.3	70.5	32.6	70.2	10	44.4	+28 31	✓	5.7 6.0
1.3	0.6	D.M.	2386	10 32.2	+18 49	7.6	70.0	22.5	70.6	10	34.6	+18 35	✓	6.8 7.1 7.2
1.3	0.7	D.M.	2420	10 48.2	+18 55	7.2	71.0	22.5	70.4	10	50.6	+18 41	✓	7.0 7.3 7.2 7.5
0.7	0.3	D.M.	2368	10 36.0	+19 5	6.7	70.0	22.5	70.3	10	38.4	+18 51	✓	6.7 7.0 6.8 7.1 7.4 7.2
0.9	0.5	D.M.	2366	10 35.1	+19 9	7.5	70.1	22.5	70.6	10	37.5	+18 55	✓	6.8 7.1 7.0 7.0 7.3 7.1
0.9	0.5	D.M.	2390	10 34.7	+18 60	7.0	69.9	22.5	70.4	10	37.1	+18 46	✓	6.8 7.1 7.0 7.1 7.4 7.2
2.1	1.1	D.M.	2355	10 28.3	+19 24	8.3	69.5	22.5	70.6	10	30.7	+19 10	✓	6.8 7.1 7.2
1.3	1.5	D.M.	2057	10 21.8	+29 19	7.0	67.8	32.4	70.9	10	24.3	+29 5	✓	6.6 6.9 7.0 6.9 7.3 7.2
2.5	1.2	D.M.	2116	10 55.3	+29 43	7.0	72.3	32.5	69.8	10	57.8	+29 29	✓	6.7 7.0 7.1 7.4
0.5	0.1		1888	10 39.9	+19 32	5.7	71.5	22.4	71.6	10	41.0	+19 25	✓	5.9 6.2 6.1 6.2 6.5 6.4
1.2	0.5	D.M.	2086	10 46.6	+30 25	7.0	71.0	32.6	69.8	10	49.1	+30 11	✓	6.2 6.5
0.1	0.0	D.M.	2072	10 41.0	+30 11	6.5	70.4	32.6	70.3	10	43.5	+29 54	✓	6.4 6.7 6.7 7.0
0.7	0.3	D.M.	2514	10 36.4	+20 31	6.8	70.0	22.5	70.3	10	38.8	+20 17	✓	5.7 6.0
			2509	10 30.7	+20 22	7.9	69.7	22.5	68.6	10	33.1	+20 8	✓	7.1 7.4 7.5
2.3	1.1	? D.M.	~~2538~~	~~10 38.9~~	~~+20 24~~	~~6.8~~								
2.7	1.3		1925	10 55.9	+20 49	7.5	72.7	22.3	71.4	10	57.0	+20 43	✓	4.6 4.9
3.6	1.7	D.M.	2021	10 20.8	+30 29	6.8	67.4	32.5	71.0	10	23.4	+30 15	✓	6.6 6.9 7.0 6.9 7.2 7.2
1.2	0.6	D.M.	2199	10 46.4	+31 20	7.0	71.0	32.5	69.8	10	48.9	+31 6	✓	
0.6	0.1		1886	10 39.2	+31 19	5.4	71.2	32.5	71.7	10	40.3	+31 12	✓	
2.8	1.5	gm.	2210	10 26.0	+21 3	7.5	69.4	22.4	70.9	10	28.5	+20 49	✓	6.7 7.0 6.9

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F.m. 8c. 8.0 7.5 F. ch. 7.5

June 7, 1887

Plate 1136.

V	H	Type	Nebs	K	Focus	Other	V.	H.	V.	H. corrd.
22.6	11.5	I	7	N	3	F.	11.3	23.0	26.2	67.3	+0.6
13.4	17.0	I	7	K=.2H	2	—	6.7	34.0	30.8	56.3	-0.5
12.8	11.7	I	12	K=.2H	4	F.	6.4	23.4	31.1	66.9	+0.7
12.0	24.0	II	4036 4	N	1.2	F?	6.0	48.0	31.5	42.3	-4.1
? 10.6	10.1	II	a 2	K=H	2	F?	5.3	20.2	32.2	70.1	+2.3
III? 6.1, 6.4. 7.6	10.1	III	4037 tc 3	1 K=H	1	F. bright	3.8	20.2	33.7	70.1	+2.4
6.7	19.5	III	12	K=H	1	—	3.4	39.0	34.1	51.3	-2.3
5.4	20.5	III	4038 b? 3	K=H	2	F. diff	2.7	41.0	34.8	49.3	-3.0
4.4	14.1	I	5	N	1	—	2.2	28.2	35.3	62.1	+0.3
4.3	20.1	I	7	N	2	F.	2.2	40.2	35.3	50.1	-1.5

F.m. 8c. 8.0 7.5 F. ch. 7.5

Plate 1137.

20.7	22.9	I	5	K=H	1	—	10.4	45.8	47.1	43.7	-7.5
17.3	10.1	I	5	K=.2H	2	F?	8.6	20.2	48.9	69.3	+3.1
17.2	15.8	I	4	N	1	—	8.6	31.6	48.9	57.9	-0.5
15.3	17.2	I	6	K=H	2	—	7.6	34.4	49.9	55.1	-1.5
14.8	6.3	I	5	N	1	—	7.4	12.6	50.1	76.9	+6.3
? 12.9	17.6	II	4039 a 2	K=H	2	F?	6.4	35.2	51.1	54.3	-1.9
8.2	12.0	III	2	K=H	1	—	4.1	24.0	53.4	65.5	+3.6
7.9	17.2	III?	2	2 K=H	K=H 1	— —	4.0	34.4	53.5	55.1	-1.8
7.4	19.5	III	8	N	3	F.	3.7	39.0	53.8	50.5	-3.7
6.7	9.0	III	2	K=H	1	—	3.4	18.0	54.1	71.5	+5.1
5.4	13.4	II?	4040 2	2 K=H	K=H 1	— —	2.7	26.8	54.8	62.7	+1.9
? 4.9	13.8	III	tc 3	K=H 1.5 1	3	F. bright	2.4	27.6	55.1	61.9	+1.1
4.5	18.6	III	12	K=H	1	—	2.2	37.6	55.3	51.9	-4.9

F.m. 8c. 7.0 6.8 F. ch. 7.3

Plate 1178

22.8	11.4	I	8	K=.2H	4	F.	11.4	22.8	26.2	67.2	+0.6
22.5	14.7	I	?	2	K=H	1	—	11.2 4.8	29.4	26.4 28.2	60.6	0.0

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Mean 13

	No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900				Corr. Br.	Br.
	1951	11	7.9	+16	5	3.5	30.9	27.4	30.3	11	9.0 + 15	59	✓ . ✓
	1925	10	55.9	+20	49	4.5	89.9	27.5	90.4	10	57.0 + 20	43	✓ 4.5 5.8
	1949	11	7.7	+21	11	2.8	31.1	27.6	30.4	11	8.8 + 21	5	✓ 3.0 4.3
	1886	10	39.2	+31	19	5.4	87.2	37.3	91.3	10	40.3 + 31	12	✓ 5.1 6.4
	1959												
	1960	11	11.8	+32	12	3.8	32.0	37.5	29.7	11	12.9 + 32	6	✓ 4.3 5.6 ✓
	1961	11	12.0	+33	45	3.8	32.2	37.6	29.8	11	13.1 + 33	39	✓ 5.0 6.3 ✓ 5.5 6.8
	1907	10	49.1	+34	9	5.2	88.1	37.6	90.4	10	52.2 + 34	2	✓ 5.8 7.1 ✓ 6.0 7.3
	1902	10	46.6	+34	52	3.9	87.6	37.6	90.6	10	47.7 + 34	45	✓ 4.8 6.1 5.2 6.5 ✓
	1938	11	2.4	+25	20	5.6	30.6	27.5	30.3	11	3.5 + 25	12	✓ 5.6 6.9 ✓
	1908	10	49.1	+25	23	4.3	89.3	27.6	90.8	10	52.2 + 25	17	✓ 4.1 5.4 ✓

Mean 12

													Corr. Br.	Br.
7.5	4.9	1882	10	36.5	+46	56	5.3	82.3	57.3	89.8	10	37.7 + 46	44	✓ 5.3 6.5 ✓
4.9	3.1	1962	11	12.6	+38	51	4.8	32.8	47.4	29.7	11	13.7 + 38	44	✓ 4.8 6.0 ✓
0.7	0.5	1930	10	57.9	+38	53	5.8	89.5	47.5	90.0	10	59.0 + 38	47	✓ 5.8 7.0 ✓
2.3	1.5	1919	10	54.1	+39	51	5.4	88.5	47.4	90.0	10	55.2 + 39	45	✓ 5.1 6.3 ✓
9.8	6.3	1980	11	22.6	+40	0	5.2	33.2	47.4	28.9	11	23.7 + 39	54	✓ 5.2 6.4 ✓
2.9	1.9	1913	10	52.8	+41	4	5.2	88.0	47.5	89.9	10	53.8 + 40	58	✓ 5.4 6.6 ✓
3.6	2.4	1953	11	9.1	+53	26	6.2	33.1	57.5	29.5	11	10.3 + 53	19	✓ 5.9 7.1 ✓ 6.2 7.4
2.8	1.8	1916	10	53.5	+43	34	6.1	87.9	47.6	89.7	10	54.7 + 43	27	✓ 5.9 7.1 7.3 6.2 7.4 7.5
5.4	3.7	1903	10	47.1	+43	50	4.9	86.1	47.5	89.8	10	48.2 + 43	43	✓ 4.4 5.6 ✓
7.5	5.1	1967	10	16.3	+44	9	5.1	34.3	47.6	29.2	11	17.4 + 44	2	✓ 5.8 7.0 ✓ 6.1 7.3
1.9	1.3	H.m.	1426	10	3.1	+54	56	7.0	29.9	57.6	28.0	11	5.7 + 54	43	✓ 6.0 7.2 7.4
1.8	1.1		1941	11	2.9	+45	9	3.1	30.5	47.6	29.4	11	4.0 + 45	3	✓ 4.1 5.5 ✓ 4.5 5.7
11.9	3.3		1901	10	46.3	+55	13	5.4	83.9	57.4	88.8	10	47.6 + 55	7	✓ 5.7 6.9 ✓ 6.0 7.2

1.1	0.6	1951	11	7.9	+16	5	3.5	30.7	27.5	30.1	11	9.0 + 15	59	✓ . ✓
5.1	0.2	3176	10	59.3	+26	19	7.2	88.7	37.5	88.7	11	1.9 + 26	4	✓
		H.m.	~~2284~~	~~10~~	~~59.8~~	~~+21~~	~~57~~	~~7.3~~						

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June 7, 1887.

Plate 1178.

V.	K	Type	No. lines	K	Focus	Other Lines,	V.	H.	V.	H.	corrd.
22.0	16.1	II	4	K=H	1	—	11.0	32.2	26.6	57.8	-0.5
22.6	19.4	III	2	K=H	1	—	11.3	38.8	26.3	51.2	-1.3
? 22.6	20.2	II a H0H1	2	K=H	1	Fccm,	11.3	40.4	26.3	49.6	-1.7
✓ ✓ 21.8	13.4	III? x V	2	K=H K=H	1 1	— F1 ?	10.9	26.8	26.7	63.2	+0.3
20.6	5.9	II	3	K=H	2	F	10.3	11.8	27.3	78.2	+1.3
19.3	6.9	II	2	K=H	1	—	9.6	13.8	28.0	76.2	+1.3
19.0	8.5	II ?	4	K=H	1	—	9.5	17.0	28.1	73.0	+1.2
19.0	10.0	II	4	N	1	—	9.5	20.0	28.1	70.0	+1.8
✓ ✓ 19.4	14.1	III III? x	2	K=H K=H	1 1	— —	9.7	28.2	27.9	61.8	+0.1
18.6	11.1	III	2	K=H	1	F1 ?	9.3	22.2	28.3	67.8	+1.5
18.4	15.0	III	x 2	N	1	F1	9.2	30.0	28.4	60.0	0.0
17.5	20.0	III	x 2	N K=H	1	—	8.8	40.0	28.8	50.0	-0.9
17.8	22.2	II a 4042	3	K=H	2	F ccm	8.9	44.4	28.8	45.6	-2.7
15.9	16.4	III	x 2	N K=H	1	—	8.0	32.8	29.6	57.2	-0.6
✓ ✓ 14.0	6.8	II	II 2	2 K=H	K=H 1 1	— —	7.0	13.6	30.6	76.4	+3.6
✓ ✓ 14.0	16.9	III	x 3	3 N	K=H 1 1	F F	7.0	33.8	30.6	56.2	-0.9 -0.3
✓ ✓ 14.8	17.1	III	x 2	2 N	K=H 1 1	— —	7.4	34.2	30.2	55.8	-0.5
✓ 14.6	18.7	III	2	2 K=H	K=H 1 1	— F1?	7.3	37.4	30.3	52.6	-0.7
14.4	20.1	II	2	K=H	1	F1?	7.2	40.2	30.4	49.8	-2.1
14.8	22.5	III	3	K=H	1	F	7.4	45.0	30.2	45.0	-3.1
13.6	6.7	II	2	K=H	1	F1?	6.8	13.4	30.8	76.6	+3.6
✓ ✓ 13.7	11.4	I II ? II?	x 2	2 N	K=H 1 1	— F1?	6.8	22.8	30.8	67.2	+0.6
13.0	11.6	II	12	K=,2H	✓	F	6.5	23.2	31.1	66.8	+0.6
✓ ✓ 13.6	11.7	II	II 1 2	2 N	K=H 1 1	— F1?	6.8	23.4	30.8	66.6	+0.6
✓ ✓ 13.8	13.9	III	III 1 3	2 K=H	K=H 1 1	F1 F1?	6.9	27.8	30.7	62.2	+0.5
13.6	16.9	II	8	N	4	F	6.8	33.8	30.8	56.2	-0.3
12.7	20.1	II	2	K=H	1	—	6.4	40.2	31.2	49.8	-2.3
12.3	23.8	II	6	?	3	F.?	6.2	47.6	31.4	42.4	-4.1

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Mean 3

Red.				No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900		Br.
0.5	0.5	0.0	D.M.	2171	10 559	+26 34	6.8	88.1	37.6	88.6	10	58.3 + 26 20	6.8
1.3	1.3	0.7	D.M.	2152	10 48.7	+26 16	7.0	87.5	37.6	88.8	10	51.2 + 26 2	
1.7	1.7	0.7	D.M.	2147	10 46.8	+26 15	6.5	87.2	37.5	88.9	10	49.3 + 26 1	
0.3	0.6	0.3	D.M.	2224	11 2.4	+16 41	7.0	29.2	27.6	28.9	11	4.8 + 16 26	7.1 7.3 7.4 7.3
1.3	3.1	1.3		1975	11 19.4	+17 8	5.5	31.2	27.4	29.9	11	20.4 + 17 1	6.3
1.3	2.7	1.3	D.M.	2351	11 16.1	+17 57	7.2	29.9	27.6	28.6	11	18.5 + 17 42	6.9
2.2	2.4	1.2	D.M.	2475	11 12.8	+18 7	7.2	29.8	27.6	28.6	11	15.2 + 17 52	6.9
1.8	1.6	2.7	D.M.	1983	11 10.0	+28 9	6.5	30.0	37.7	28.2	11	12.4 + 27 54	6.9
0.1	0.3	0.1	D.M.	2318	11 1.0	+17 60	6.8	29.2	27.7	29.1	11	3.4 + 17 45	7.0 7.2 7.2 7.4
1.5	1.5	0.6	D.M.	1979	11 7.6	+28 22	6.8	29.8	37.7	28.3	11	10.0 + 28 7	6.7 7.0
0.0	0.0		D.M.	2452	10 59.1	+18 31	6.5	89.1	27.7	89.1	11	1.5 + 18 16	7.0 7.3
0.9	1.8	0.9	D.M.	2420	10 48.2	+18 55	7.2	88.2	27.7	89.1	10	50.6 + 18 41	7.1 7.4
2.7	2.7	1.2	D.M.	1931	10 41.9	+28 45	6.3	86.3	37.7	89.0	10	44.4 + 28 31	6.3
0.6	0.6	0.3	D.M.	2116	10 55.3	+29 43	7.0	88.1	37.7	88.7	10	57.8 + 29 29	7.0 7.4
3.6	3.6	1.5	D.M.	2153	11 17.5	+30 34	7.4	31.1	37.6	27.5 34.7	11	19.9 + 30 19	7.1 7.2
0.9			B.M.	2097	10 53.9	+30 40	6.8	87.7	37.7	88.6	10	56.4 + 30 26	7.0 7.0
~~0.8~~	0.7	0.3		~~1985~~	~~10 55.9~~	~~+20 49~~	~~4.5~~	~~89.1~~	~~27.8~~	~~90.0~~			7.3 7.3
0.5	0.9	0.5	D.M.	2546	10 54.2	+20 18	8.0	88.4	27.7	88.9	10	56.6 + 20 4	7.2 7.3 7.5 7.5
0.7	1.5	2.7	D.M.	2538	10 50.9	+20 24	6.8	88.3	27.7	89.0	10	53.3 + 20 10	7.0 7.2 7.3 7.4
2.1	2.1	0.9	D.M.	2085	10 46.6	+30 25	7.0	86.8	37.6	88.9	10	49.1 + 30 11	6.6
0.1	3.1	1.5	D.M.	2072	10 41.0	+30 11	6.5	86.0	37.6	89.1	10	43.5 + 29 57	6.7 7.0
3.6	3.6	1.7	D.M.	2154	11 17.9	+30 47	6.5	31.3	37.6	27.7	11	20.3 + 30 32	6.7
2.6	1.5	0.6	D.M.	2573	11 6.7	+20 49	7.7	29.5	27.6	28.9	11	9.1 + 20 34	7.1 7.1
1.6	1.5	0.6		1949	11 7.7	+21 11	2.8	30.9	27.7	30.3	11	8.8 + 21 5	B
1.6	1.3	0.6	D.M.	2572	11 6.1	+20 56	7.5	29.5	27.7	28.9	11	8.5 + 20 41	7.0 7.0
0.5	0.5	0.1	D.M.	2111	11 1.2	+30 50	7.2	29.0	37.7	29.5	11	3.7 + 30 35	6.7 7.1 7.2 7.3
0.3	0.7	0.3		1925	10 55.9	+20 49	4.5	89.7	27.6	90.0	10	51.0 + 20 43	4.6
2.3	2.3	0.9	D.M.	2099	10 46.4	+31 20	7.0	86.4	37.7	88.7	10	48.9 + 31 6	7.1
1.1	1.1	1.9		1886	10 39.2	+31 19	5.4	88.8	37.5	90.9	10	40.3 + 31 12	5.3

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June 7, 1887.

Plate 1178.

	τ	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Correct.
	11,8	14,2	III	III 2 2	K=H	K=H	1 1	—	—	5.9	28.4	31.7	61.6	+0.1
	11,1	13,1	III	III? 2 2	K=H	K=H	1 1	—	—	5.6	26.2	32.0	63.8	+0.5
	11,5	14,6	I	I 4 5	N	N	1 1	—	—	5.8	29.2	31.8	60.8	0.0
	11,0	15,7	I	I? I 5	H	K=H	K=H 1 1	F	F?	5.5	31.4	32.1	58.6	-0.8
	10,8	10,0	II	N 4043 2		K=2,0 H?	4	F?	Bright, ?	5.4	20.0	32.2	70.0	+2.3
	10,8	18,6	I	I 3	H	N	K=H 1 1	—	—	5.4	37.2	32.2	52.8	-0.9
	9,4	9,8	II	II 4043a 2		2	K=H K=H 1 1	—	Seen	4.7	19.6	32.9	70.4	+2.4
	9,8	17,9	III	III 1 2 2	K=H	K=H	1	—	—	4.9	35.8	32.7	54.2	-0.6
	9,1	19,7	III	2	K=H		1	—		4.6	39.4	33.0	50.6	-1.1
	9,5	21,6	II	II 2 3	K=H	K=H	1 1	—	F	4.8	43.2	32.8	46.8	-1.5
	8,3	6,0	II	? II ? 2	2	K=H	K=H 1 1	—	—	4.2	12.0	33.4	78.0	+2.4
	8,2	9,5	III	III 1 2	2	K=H	K=H 1	—	F?	4.1	19.0	33.5	71.0	+2.7
	8,5	13,3	I	I? I 4	H	K=H	K=H 1 1	—	—	4.2	26.6	33.4	63.4	+0.5
	8,8	13,6	III	III 2 2	K=H	K=H	1 1	—	—	4.4	27.2	33.2	62.8	+0.6
III? 5.2, 5.4.	7,8	10,0	III	4044 2		K=2,0 H?	3	F	Bright	3.9	20.0	33.7	70.0	+2.5
III? 6.2, 6.4.	7,8	11,1	III	1 3	K=H		2	F		3.9	22.2	33.7	67.8	+0.9
	7,0	12,1	III	III 2 2	K=H	K=H	1 1	—	F?	3.5	24.2	34.1	65.8	+1.5
	7,3	14,6	I	5	N		2	—		3.6	29.2	34.0	60.8	0.0
	6,8	6,7	II	3	K=H		2	F		3.4	13.4	34.2	76.6	+4.5
	6,1	11,6	II	II 2 2	K=H	K=H ?	1 1	—	—	3.0	23.2	34.6	66.8	+0.9
III? 6.0, 6.3.	6,9	19,4	III	4045 1 3		K=H	2	F		3.4	38.8	34.2	51.2	-2.3
	7,0	22,2	I	4		K=H	1	—		3.5	44.4	34.1	45.6	-1.9
	5,8	19,7	III	III 2 2	3	K=H	K=H 1 1	F?	F	2.9	39.4	34.7	50.6	-2.5
III? 5.3, 5.5	5,5	20,4	III	4046 1 3		K=2,0 H?	3	F	bright	2.8	40.8	34.8	49.2	-2.7
	4,7	14,0	I	8		K=1,2 H	2	F		2.4	28.0	35.2	62.0	+0.3
	4,5	19,9	I	8	N		4	F		2.2	39.8	35.4	50.2	-1.3
	2,9	10,0	a	4047 ? 2		K=H	1		Seen	1.4	20.0	36.2	70.0	+1.5
	2,2	12,5	I	? 1 2	N	K=H	1	—		1.1	25.0	36.5	65.0	+1.5

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Mean 3

			No.	R. A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900		Br.
		D.M.	2288	11 07	+21 49	7.8	29.1	27.7	29.0	11	3.1 + 21 34	7.1 7.3 7.4 7.5
		D.M.	2326	11 8.2	+22 7	7.0	29.4	27.7	28.9	11	5.6 + 21 52	7.1 7.2 7.4 7.4
		D.M.	2284	10 58.8	+21 57	7.3	89.0	27.8	89.0	11	2.2 + 21 45	6.7 6.8
		D.M.	2102	10 56.7	+32 13	6.8	88.1	37.7	88.4	10	59.2 + 31 59	6.9 7.1
			1959 1960	11 11.8	+32 12	3.8	31.8	37.6	29.5	11	12.9 + 32 6	4.8
		D.M.	2293	10 50.9	+22 17	7.4	88.1	27.7	89.0	10	53.3 + 22 3	7.0 7.1
		D.M.	2343	11 10.4	+22 59	6.9	30.0	27.7	27.6	11	12.8 + 22 44	7.0 7.0
		D.M.	2296	10 52.3	+22 48	7.0	88.1	27.7	88.7	10	54.7 + 22 34	7.1 7.3 7.5 7.5
			1910	10 49.9	+23 0	6.2	89.3	27.6	90.4	10	~~52.8 + 22 46~~ 50.9 + 22 54	6.8 7.2
		D.M.	2076	10 42.5	+32 48	7.3	85.7	37.6	87.2	10	45.0 + 32 34	6.9 7.0
		D.M.	2349	11 18.5	+23 31	7.0	30.5	27.7	28.1	11	20.9 + 23 16	7.0 7.1
		D.M.	2099	11 11.7	+33 36	7.8	30.7	37.7	28.0	11	14.1 + 33 21	6.9 6.9 7.2 7.1
		D.M.	2313	11 2.6	+23 29	7.5	29.2	27.7	28.7	11	5.0 + 23 14	6.8 7.0
		D.M.	2084	11 2.0	+33 19	7.5	29.2	37.7	28.6	11	4.5 + 33 4	7.0 7.2 7.4 7.5
			1961	11 12.0	+33 45	3.8	32.0	37.7	29.5	11	13.1 + 33 39	5.3 5.7
			1952	11 8.8	+23 45	4.9	31.0	27.7	30.1	11	9.9 + 23 39	6.2 6.6
		D.M.	2206	11 5.5	+34 14	6.8	29.7	37.7	28.2	11	8.0 + 33 59	6.9 6.9 7.1 7.1
		D.M.	2318	10 59.9	+24 7	6.5	89.1	27.7	89.1	11	2.3 + 23 52	6.2
		D.M.	2222	11 18.6	+34 15	6.8	32.0	37.6	27.5	11	21.0 + 34 0	6.6
		D.M.	2332	11 6.4	+24 38	7.8	29.6	27.6	28.7	11	8.8 + 24 23	7.1 7.1
			1907	10 49.1	+34 9	5.2	87.9	37.6	90.2	10	50.2 + 34 2	6.0 6.3
		D.M.	2279	10 42.8	+24 11	6.8	87.2	27.7	89.1	10	45.3 + 23 57	6.3
			1906	10 48.4	+34 40	5.8	87.8	37.6	90.3	10	49.4 + 34 34	6.3 6.5 6.6 6.7
			1902	10 46.6	+34 52	3.9	87.4	37.7	90.1	10	47.7 + 34 45	5.2 5.5
			1938	11 2.4	+25 20	5.6	30.4	27.7	30.1	11	3.5 + 25 12	5.8
			1908	10 49.1	+25 23	4.3	88.9	27.6	90.2	10	50.2 + 25 17	4.8
		D.M.	2189	11 10.0	+26 16	7.3	30.0	27.7	28.5	11	12.5 + 26 1	6.7
		D.M.	2162	11 4.6	+36 36	6.8	29.6	37.7	28.1	11	7.1 + 36 21	

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June 7, 1887.

Plate 1178.

V	H	Type	No. Lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
2,4	16,2	I ?	4	K=H	1	—	1.2	32.4	36.4	57.6	-0.3
2,8	14,8	II	2	K=H	1	—	1.4	29.6	36.2	60.4	0.0
2,8	19,4	III	2	K=H	1	—	1.4	38.8	36.2	51.2	-1.3
3,0	20,3	I	4	K=H	1	—	1.5	40.6	36.1	49.4	-1.7

F. m. & c. F. ch.

Plate 1075.

		7.0	6.6						7.0			
	21,8	17,0	II a	4048 2	2	K=H	2	F?	10.9	34.0	11.2	17.6	-0.0
	21,8	21,3	I	10	2	K=2H	4	F	10.9	42.6	11.2	9.0	-0.9
?	20,2	9,0	II	a? 4049	2	K=H	1		10.1	18.0	12.0	33.6	+0.9
	20,8	11,3	III	?	2	K=H	1	—	10.4	22.6	11.7	29.0	+0.2
✓	20,6	12,1	II	IIa? 4050 4050 a ? 2 2	2	K=H K=H	1	1	10.3	24.2	11.8	27.4	+0.2
✓ ✓	19,8	16,5	III	III	2	3 K=H	K=H	1 1	— F	9.9	33.0	12.2	18.6	0.0
✓ ✓	18,1	8,2	I	II? II	2	2 K=H	K=H	1 1	— —	9.0	16.4	13.1	35.2	+0.5
	18,4	8,5	II	?	2	2 K=H		1	—	9.2	17.0	12.9	34.6	+1.0
✓ ✓	18,7	19,7	II	? II ?	2	2 K=H	K=H	1 1	— —	9.4	39.4	12.7	12.2	-0.3
✓ ✓	17,5	20,9	I	? I	5	N K=H		1 1	— —	8.8	41.8	13.3	9.8	-0.4
	16,7	20,7	III	4051 ?	2	N K=H		2	—	8.4	41.4	13.7	10.2	-0.9
✓ ✓	16,1	20,9	III	III	2	2 K=H	K=H	1 1	F? —	8.0	41.8	14.1	9.8	-0.4
	15,6	9,4	I a	4052 2	2	K=H		1		7.8	18.8	14.3	32.8	+1.0
✓ ✓	14,1	13,2	II	II	2	2 K=H	K=H	1 1	F ? —	7.0	26.4	15.1	25.2	+0.1
✓ ✓	14,4	19,3	I	I? I	H	H K=H	K=H	1 1	— —	7.2	38.6	14.9	13.0	-0.4
	13,0	11,2	I	?	4	1 K=H		1	—	6.5	22.4	15.6	29.2	+0.7
	13,9	22,8	I		4	1 K=H		1	—	7.0	45.6	15.1	6.0	-0.7
	13,6	23,5	I			N	2		—	6.8	47.0	15.3	4.6	-1.7
	12,6	7,6	III	?	2	N K=H		1	—	6.3	15.2	15.8	36.4	+1.5
✓ ✓	12,2	14,2	III	III	1	3 N K=H		1 1	F — F	6.1	28.4	16.0	23.2	0.0
	12,2	19,4	I	?	4	K=H		1	—	6.1	38.8	16.0	12.8	-0.8
	12,0	21,5	I		9	?	4		F	6.0	43.0	16.1	8.6	-1.3

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			No.	R.A.	Dec.	MAG.	H.	V.	H'	Red of stars to 1900		Br.
0.7	0.3	D.m.	2171	10 55.9	+26 34	6.8	88.3	27.8	88.6	10	58.3 + 26 20	
0.1	0.0	D.m.	2176	10 59.3	+26 19	7.2	88.9	27.7	88.9	11	1.7 + 26 4	7.0
2.5	1.3	D.m.	2152	10 48.7	+26 16	7.0	87.5	27.7	88.8	10	51.2 + 26 2	7.0 7.3
3.0	1.5	D.m.	2147	10 46.8	+26 15	6.5	87.4	27.7	89.1	10	49.3 + 26 1	6.4

Mean of Br

			1969	11 17.7	+11 11	4.0	51.7	22.1	51.7	11	18.7 + 11 5	4.9	5.6
			1949	11 7.7	+21 11	2.8	50.3	32.1	51.2	11	8.8 + 21 5	3.6	4.3
0.9	0.4		2010	11 34.6	+22 1	5.5	52.6	32.1	51.7	11	35.6 + 21 54	6.2	6.9
0.5	0.2		2000	11 29.5	+11 35	6.2	52.1	22.0	51.9	11	30.5 + 11 28 30	6.3	7.0
0.4	0.2	D.m.	2372	11 26.7	+11 50	6.7	50.9	22.1	50.7	11	29.0 + 11 35	6.2	6.9 7.0
0.2	0.0		1972	11 18.8	+12 5	5.8	51.8	22.0	51.8	11	19.8 + 11 59	6.4 6.7	7.1 7.4 7.4
1.0	0.5	D.m.	2143	11 34.6	+13 6	7.0	51.0	22.1	51.5	11	36.9 + 12 51	6.6	7.3 7.3
1.0	0.4	D.m.	2375	11 34.6	+23 1	6.5	51.6	32.2	50.6	11	37.0 + 22 46	6.4	7.1
0.7	0.3	D.m.	2319	11 10.8	+12 47	7.0	50.2	32.2	50.5	11	13.2 + 12 32	6.3	7.0 7.0
1.0	0.4	?D.m.	2378	11 8.4	+13 24	7.0	50.2	22.2	50.6	11	10.8 + 13 9	6.2	6.9 6.8
0.9	0.4		1952	11 8.8	+23 45	4.9	50.2	32.2	51.1	11	9.9 + 23 39	6.0 6.3	6.7 7.0
1.0	0.4		1954	11 9.6	+13 58	5.5	51.4	22.0	51.8	11	10.6 + 13 51	6.0 6.3	6.7 6.6 7.0 6.9
1.0	0.4	D.m.	2378	11 32.6	+24 31	6.9	51.4	32.3	50.4	11	35.0 + 24 16	6.3	7.0
0.3	0.1		1990	11 25.6	+15 2	6.1	52.0	22.0	51.9	11	26.6 + 14 55	6.1	6.8 6.8
0.8	0.4	D.m.	2321	11 11.4	+15 4	7.4	50.0	22.3	50.4	11	13.8 + 14 49	6.3	7.0 7.0
0.7	0.3	D.m.	2394	11 28.9	+25 50	6.8	51.3	32.3	50.6	11	31.3 + 25 35	6.3	7.0
1.5	0.7	D.m.	2301	11 4.1	+15 11	6.8	49.7	22.2	50.4	11	6.5 + 14 56	5.9	6.6
1.7	0.7		1938	11 2.4	+25 20	5.6	49.4	32.1	51.1	11	3.5 + 25 12	5.5	6.2
1.5	0.7	D.m.	2250	11 36.7	+26 2	6.2	51.9	32.3	52.4	11	39.1 + 25 47	6.3 6.7	7.0 7.4
0.2	0.0		1983	11 23.5	+16 5	6.0	51.9	22.2	51.9	11	24.5 + 15 59	6.2 6.5	6.9 7.2 7.2
0.8	0.4	?D.m.	2189	11 10.0	+26 16	7.3	48.8	32.4	49.6	11	12.4 + 26 1	6.4	7.1
1.3	0.6		1951	11 7.9	+16 5	6.5	50.9	22.1	52.2	11	9.0 + 15 59	3.8	4.0

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Plate 1075 1078

T	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Corrc.
10,0	16.1	I ?	6	K=H	1	F,	5.0	32.2	17.1	19.4	−0.1
9.4	11,8	I	7	K	2	F	4.7	23.6	17.4	28.0	+0.3
9.6	15,8	IIa IIa H052a	2	K=H	K=H	1 1	—	F, green	5.8	31.6	17.3	20.0	−0.2
8.6	17.0	I ?	4	K		1	—		4.3	34.0	17.8	17.6	−0.2
8.3	18,5	II ?	2	K=H		1	—		4.2	37.0	17.9	14.6	−0.4
8.4	19,3	II	2	K=H		1	—		4.2	38.6	17.9	13.0	~~−0.5~~ −0.4
7.6	11,3	I	6	K=H		2	—		3.8	22.6	18.3	29.0	+0.9
7,5	13.3	I	4	?		1	—		3.8	26.6	18.3	25.0	+0.2
7.9	20,4	IIa? H053	2	K=H		1	green		4.0	40.8	18.1	10.8	−1.2
6.4	8,0	II ?	2	K=H		1	—		3.2	16.0	18.9	36.6	+0.8
6,2	13.8	I H054	2	K=H		1	F? green		3.1	27.6	19.0	24.0	+0.1
5,4	5,9	II a? H055	2	K=H		1	green		2.7	11.8	19.4	39.8	+2.4
5,7	7,6	I	4	K=H		1	—		2.8	15.2	19.3	36.4	+1.9
3,2	14,1	II	2	K=H		1	—		1.6	28.2	20.5	23.4	+0.3
3,1	15,8	II a? H056	2	K=H		1	—		1.6	31.6	20.5	20.0	−0.2
2,4	14,4	II ?	2	K=H		1	—		1.2	28.8	20.9	22.8	+0.2
2,0	21,5	I	12	K=2H			—	F		1.0	43.0	21.1	8.6	−0.9

F. m. & c. F. ch.

7.8 6.3 Plate 1076. 6.3

20,7	9.7	II ?	2	K=H		1	—		10.4	19.4	42.0	31.7	+4.1
20,5	13,4	III	2	K=H	K=H	1 1	—	—	10.2	26.8	42.2	24.3	+1.2
20.7	13,9	II H057	2	K=H	K=H	1 1	—	—	10.4	27.8	42.0	23.3	+0.9
20,0	19,1	a ?	3	K=1,5H		3	F, green		10.0	38.2	42.4	12.9	−1.9
19,5	9,2	a H058	3	K=H		1	F green		9.8	18.4	42.6	32.7	+2.7
17,3	14,0	a? H059	3	K	1.2 1	2	F, green		8.6	28.0	43.8	23.1	+0.7
17,0	18.9	fe H060	3	K=H		2	F, Bright green		8.5	37.8	43.9	13.3	−1.9
16,2	11,2	I	6	K=H		2	—		8.1	22.4	44.3	28.7	+3.1
16,4	16,6	II	3	K=H		1	F		8.2	31.2	44.2	19.9	−0.6

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Mean 7 con.

Red'n of stars to 1900

			No.	R.A.	Decl.	Mag.	H.	V.	H'			Br.	Br.
0.3	0.1		1975	11 19.4	+17 8	5.5	51.6	22.5	51.7	11	20.4 + 17 1	5.3	6.0
0.7	0.3		1998	11 28.5	+17 27	5.7	52.1	22.1	51.8	11	29.5 + 17 21	5.2	5.9
0.2	0.0	?D.m	2021	11 18.1	+27 34	7.0	49.7	32.4	49.9	11	20.5 + 27 19	6.3	7.0 7.0
			~~2022~~	~~11 19.0~~	~~+27 11~~	~~8.0~~						6.5	7.3
0.4	0.2	D.m.	2351	11 16.1	+17 57	7.2	50.1	22.3	50.3	11	18.5 + 17 42	6.1	6.8
0.8	0.4	D.m	2475	11 12.8	+18 7	7.2	49.8	22.3	50.2	11	15.2 + 17 52	6.2	6.9
1.0	0.5	D.m.	1983	11 10.0	+28 9	6.5	48.6	32.4	49.7	11	12.4 + 27 54	6.1	6.8
			~~2343~~	~~N 12.6~~	~~+17 56~~	~~7.8~~							
0.9	0.4		2001	11 30.0	+28 26	5.8	52.6	32.2		11	31.0 + 28 20	5.6	6.3
0.4	0.2	?D.m	2505	11 24.0	+18 34	7.4	50.6	22.4	50.4	11	26.4 + 18 19	6.1	6.8
			~~2012~~	~~11 23.5~~	~~+28 20~~	~~8.1~~							
1.2	0.6	D.m	1979	11 7.6	+28 22	6.8	48.4	32.4	49.6	11	10.0 + 28 7	6.3	7.0
			~~1983~~	~~N 10.0~~	~~+28 9~~	~~6.5~~							
1.8	0.8	D.m	2492	11 35.2	+19 3	7.0	51.2	22.2	50.4	11	37.5 + 18 48	6.3	7.0
0.3	0.1		1986	11 24.2	+19 4	5.7	51.8	22.2	51.7	11	25.3 + 18 58	6.0	6.7
			2216	11 41.1	+29 36	6.8	52.9	32.3		11	42.5 + 29 21	6.2	6.9
2.4	1.1	D.m	~~2214~~	~~11 40.9~~	~~+29 11~~	~~6.8~~						6.4	7.1
1.9	0.9	D.m	2206	11 37.2	+29 28	7.0	52.4	32.3	50.5	11	39.6 + 29 13	6.2	6.9
0.3	0.1	D.m	2163	11 22.4	+30 47	6.8	50.6	32.4	50.3	11	24.8 + 30 32	6.2	6.9
			~~2153~~	~~11 17.5~~	~~+30 34~~	~~7.4~~							
0.2	0.1	?D.m	2154	11 17.9	+30 47	6.5	49.5	32.4	49.7	11	20.3 + 30 32	6.3	7.0
0.2	0.0	?D.m	2270	11 21.6	+31 13	7.0	50.4	32.4	50.2	11	24.0 + 30 58	,	,
1.9	0.9		1949	11 7.7	+21 11	28	50.7	22.2	51.6	11	8.8 + 21 5	,	,
4.1	2.4	D.m	2236	11 34.1	+42 8	6.5	53.5	52.4	49.4	11	36.5 + 41 48	7.0	7.2
1.2	0.7	D.m	2216	11 24.1	+42 16	7.5	50.9	52.5	49.7	11	26.6 + 42 1	7.2	7.3
												7.5	7.6
0.9	0.5	D.m	2214	11 23.0	+42 6	6.8	50.8	52.5	49.9	11	25.5 + 41 51	7.1	7.2
3.1	1.9		1959										
			1960	11 11.8	+32 12	3.8	50.0	42.2	51.9	11	12.9 + 32 6	5.2	
4.7	2.7	?	2013	11 35.4	+32 25	5.7	53.8	42.2	51.1	11	36.4 + 32 18	6.7	
0.7	0.5		1985	11 24.0	+43 50	5.9	52.0	52.4	51.3	11	25.1 + 43 44	6.3	
												5.5	
3.0	1.9		1961	11 12.0	+33 45	3.8	49.8	42.3	51.7	11	13.1 + 33 39	6.0	
3.1	1.9		2005	11 32.0	+44 17	5.5	54.4	52.4	51.3	11	33.0 + 44 10	6.2	
0.6	0.3	D.m	2222	11 18.6	+34 15	6.8	49.8	42.4	50.4	11	21.0 + 34 0	6.8	

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June 7, 1887.

Plate 1076.

V	H	Type	Lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
16.6	16.7	I? 4060	3	K=1.5H?	2	F seen	8.3	33.4	44.1	17.7	-1.3
14.7	9.6	I? 4062	3	K=H	2	F?	7.4	19.2	45.0	31.9	+2.9
14.0	11.5	I	6	K=.2H?	1	F. F?	7.0	23.0	45.4	28.1	+0.3
14.4	14.9	I?		K=H	1	—	7.2	29.8	45.2	21.3	+0.1
14.4	21.3	Ic 4063	2	K=1.5H?	3	F? Bright spec.	7.2	42.6	45.2	8.5	-5.5
13.3	11.1	a? 4064	2	K=H	1	seen	6.6	22.2	45.8	28.9	+3.6
13.8	14.9	III	x 2	2 X	K=H	K=H	1	— —	6.9	29.8	45.5	21.3	+0.1
13.5	17.4	a IIa 4065	x	3	K=H	K=H	1	F	F seen	6.8	34.8	45.6	16.3	-2.1
13.1	6.1	a 4066	2	K=H	1	F? seen	6.6	12.2	45.8	38.9	+5.3
11.4	21.2		x 2	X	K=H	1	—	5.7	42.4	46.7	8.7	-3.7
10.8	13.3	III	x 2	X	K=H	1	F	5.4	26.6	47.0	24.5	+1.1
10.3	14.1	III	1	2	X	K=H	1	— F?	5.2	28.2	47.2	22.9	+0.9
9.9	11.3	a 4067	3	K=H	2	F seen	5.0	22.6	47.4	28.5	+3.6
9.6	12.6	III	x 2	2 X	K=H	K=H	1	— F?	4.8	25.2	47.6	25.9	+1.5
8.0	8.8	Ic 4068	2	K=1.2H?	3	F? Bright spec.	4.0	17.6	48.4	33.5	+6.8
8.7	16.5	IIa? 4068a	2	2	K=H	K=H	1	1 — seen	4.4	33.0	48.0	18.1	-0.9
7.8	13.9		2	K=H	1	—	3.9	27.8	48.5	23.3	+1.1
6.0	13.9	II?	2	K=H	1	—	3.0	27.8	49.4	23.3	+1.1
7.0	18.4		8	K=.2H	3	—	3.5	36.8	48.9	14.3	-2.3
5.8	14.1				1	—	2.9	28.2	49.5	22.9	+1.1
4.8	14.6		8	K=.2H	2	—	2.4	29.2	50.0	21.9	+0.3
4.6	18.5	III	? 2	2	K=H	K=H	1	1 —	2.3	37.0	50.1	14.1	-3.7
3.7	18.5		4			1	—	1.8	37.0	50.6	34.1	+3.7
3.0	17.6	III	? ? 2	2	K=H	K=H	1	1 —	1.5	34.0	50.9	17.1	-1.5
12 30	2.3	11.7		2	K=H	1	—	1.2	23.4	51.2	27.7	+3.6

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			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Br.
1.3	0.9		1967	11 16.3	+44 9	5.1	49.7	52.5	51.0	11 17.4 + 44 2	6.2 6.5
5.9	2.9	?	2011	11 34.8	+34 53	5.8	54.0	42.3	51.1	11 35.7 + 34 46	6.2 6.5
3.0	1.9	D.Tm	1943	11 29.8	+45 32	6.5	52.8	52.5	52.5	11 32.2 + 45 17	6.5 6.6
0.1	0.0	D.Tm	1927	11 20.0	+45 22	6.8	49.8	52.6	49.7	11 22.5 + 45 7	6.8
5.5	3.5	?	1941	11 2.9	+45 9	3.1	45.5	52.4	51.0	11 4.0 + 45 3	5.0 5.3
3.6	2.3	D.Tm	1947	11 31.1	+45 55	6.5	53.3	52.5	49.7	11 33.5 + 45 40	6.7 7.0 7.4
0.1	0.0	D.Tm	1926	11 20.0	+45 41	6.8	49.8	52.6	49.7	11 22.5 + 45 26	7.0 7.4
2.1	1.2	D.Tm	1912	11 12.5	+45 47	6.8	47.3	52.6	49.4	11 15.0 + 45 32	6.6 6.6
8.1	5.3	?	2027	11 43.3	+35 36	5.6	53.5	42.2	50.2	11 44.5 + 35 29	6.4
5.9	3.7	D.Tm	2162	11 4.6	+36 36	6.8	47.0	42.3	50.7	11 7.1 + 36 21	7.0 7.1 7.5
1.7	1.1	D.Tm	2192	11 24.5	+37 2	6.5	51.1	42.4	52.0	11 26.9 + 36 47	7.1 7.5
0.9	0.6	? D.Tm	1880	11 22.5	+47 27	6.8	50.7	52.6	49.8	11 25.0 + 47 12	7.1 7.5
3.6	2.3		2007	11 32.1	+47 30	6.2	54.7	52.5	51.1	11 33.2 + 47 23	6.4
2.3	1.5	D.Tm	2195	11 26.2	+37 38	7.2	51.4	42.4	49.9	11 28.6 + 37 23	7.0 7.4 7.5
6.3	4.1		2018	11 39.7	+48 27	3.9	57.3	52.4	51.0	11 40.8 + 48 20	5.3 5.6
1.5	0.9	D.Tm	2234	11 16.0	+38 1	6.8	49.0	42.4	52.9	11 18.5 + 37 56	7.0 6.8
1.1	0.6	D.Tm	1952	11 23.0	+48 44	6.5	50.8	52.6	49.7	11 25.5 + 48 29	7.0 7.2
1.1	0.7	D.Tm	2062	11 23.2	+49 35	6.5	51.0	52.6	49.9	11 25.7 + 49 20	7.0
3.5	2.3		1962	11 12.6	+38 51	4.8	49.4	42.3	51.7	11 13.7 + 38 44	5.1
1.1	0.6	D.Tm	~~2061 11 22.5 +49 44 7.0~~				50.7	52.6	49.6	11 25.0 + 49 29	7.0
0.5	0.3		1980	11 22.6	+40 0	5.2	51.8	42.4	51.5	11 23.7 + 39 54	5.3 6.9 7.2
3.7	2.4		1955	11 9.9	+50 8	6.0	46.9	52.4	50.6	11 11.6 + 50 2	7.0 7.1
			1862	11 40.2	+50 38	7.0	57.2	52.4	53.5	11 42.1 + 50 23	
3.7	2.4	D.Tm	~~1811 11 10.9 +50 45 8.1~~								6.9
2.1	1.5	D.Tm	2421	11 14.8	+40 59	6.5	48.8	42.5	50.3	11 17.3 + 40 44	7.0 7.3 7.5
3.6	2.3		2004	11 31.4	+51 18	5.7	54.8	52.5	51.2	11 32.4 + 51 10	

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F. m. ☆c. 8.0 7.5 F. ch. 7.5

June 10, 1887.

Plate 1125.

	V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Corrc.
10 15	22.4	10.9	4060 I	√	√	√	K=√H	1	—	11.2	21.8	26.4	48.7	+0.4
	21.1	14.0	II	?	12	√	K=H	1	—	10.6	28.0	27.0	42.5	+0.1
	20.0	20.9	I	3	√		N	1	—	10.0	41.8	27.6	28.7	-0.6
	16.9	22.8	III	½			K=H	1	—	8.4	45.6	29.2	24.9	-1.0
?	13.5	14.7	II	a	4069	3	K=√H	2	F. prec.	6.8	29.4	30.8	41.1	0.0
	11.2	17.9	III	3	√		K=H	1	F	5.6	35.8	32.0	34.7	-0.4
	10.9	7.0	I	?	4	√	K=H	1	—	5.4	14.0	32.2	56.5	+1.2
	10.4	17.2	II	4070 a	?2	√	K=H	1	Diff	5.2	34.4	32.4	36.1	-0.9
	9.2	10.3	III	√	2	√	K=H	1	—	4.6	20.6	33.0	49.9	+1.5
	9.4	17.2	III	?	2		K=H	1	—	4.7	34.4	32.9	36.1	-0.4
	7.1	13.2	III	√	2		K=H	1	—	3.6	26.4	34.0	44.1	+0.5
	6.5	18.1	II	?	√	2	K=H	1	—	3.2	36.2	34.4	34.3	-0.6
	5.8	9.6	III	I	?	√	+H K=H	1	—	2.9	19.2	34.7	57.3	+1.8
	5.6	17.3	I	?	√	√	K=H	1	F	2.8	34.6	34.8	35.9	-0.3
	4.1	13.8	II		3	√	K=H	1	F	2.0	27.6	35.6	42.9	+0.5

F. m. ☆c. 8.0 7.5 Plate 1126 F. ch. 7.5

	20.4	12.1	I	√	4	√	K=H	1	—	10.2	24.2	47.3	46.3	+2.5
	19.8	17.7	II	√	12	√	K=H	1	—	9.9	35.4	47.6	35.1	-2.5
III ? 5.8, 6.2. ?	18.2	15.1	III	4071 a	3	√	K=H	3	F. Bright prec.	9.1	30.2	48.4	40.3	-0.1
	14.8	21.8	I	√	5	√	K=2H	2	F	7.4	43.6	50.1	26.9	-4.9
	7.6	9.4	I	√	5	√	K=H	2	—	3.8	18.8	53.7	51.7	+4.7
	7.4	20.9	II	√	2	√	K=H	1	—	3.7	41.8	53.8	28.7	-4.9
	6.5	12.9	I	√	1N	7	√	√	F	3.2	25.8	54.3	44.7	+2.4
	6.6	18.1	I	√	4	√	K=H	1	—	3.3	36.2	54.2	34.3	-2.5
	4.2	18.3	I	?	4	√	N	√	1	F	2.1	36.6	55.4	33.9	-4.3
	2.6	14.9	III	√	12	√	K=H	√	1	—	1.3	29.8	56.2	40.7	+0.3

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1887phae.proj..838f

No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900		Br.
2041	11 49.5	+16 20	5.4	71.3	27.5	70.9	11 50.6 + 16 12	.	6.7
2026	11 43.1	+16 55	5.8	71.1	27.5	71.0	11 44.1 + 16 48	.	7.0
1998	11 28.5	+17 27	5.7	70.3	27.4	70.9	11 29.5 + 17 21	.	6.6
1986	11 24.2	+19 1	5.7	69.8	27.5	70.8	11 25.3 + 18 58	.	7.2 / 7.5
2022	11 41.8	+20 53	4.6	71.2	27.7	71.2	11 42.8 + 20 46	.	5.8
2010	11 34.6	+22 1	5.5	70.4	27.6	70.8	11 35.6 + 21 54	.	6.8 / 7.2
2055	11 58.6	+22 7	5.7	72.6	27.5	71.4	11 59.2 + 22 1	.	6.8
2013	11 35.4	+32 25	5.7	69.8	37.6	70.7	11 36.4 + 32 18	.	6.9
2174	11 50.7	+33 5	6.7	71.3	37.7	69.8	11 53.0 + 32 50	.	7.2 / 7.4
2375	11 34.6	+23 1	6.5	69.0	27.7	69.4	11 37.0 + 22 46	.	7.2 / 7.5
2031	11 44.9	+34 3	6.1	71.3	37.6	70.8	11 46.0 + 33 56	.	7.1 / 7.5
2378	11 32.6	+24 61	6.9	68.8	27.7	69.4	11 35.0 + 24 16	.	7.3
2279	11 52.5	+34 51	6.6	71.7	37.7	69.9	11 54.8 + 34 36	.	7.2
2011	11 34.8	+34 53	5.8	69.4	37.7	70.2	11 35.7 + 34 46	.	6.7
2027	11 43.3	+35 36	5.6	70.9	37.6	70.4	11 44.5 + 35 29	.	7.0
2039	11 48.9	+47 9	5.8	73.1	57.4	70.6	11 49.9 + 47 2	.	7.0
2040	11 49.0	+47 8		73.2	57.3	70.7	11 50.0 + 47 1	.	
2007	11 32.1	+47 30	6.2	67.5	57.4	70.0	11 33.2 + 47 23	.	7.2
2018	11 39.7	+48 27	3.9	69.9	57.5	70.0	11 40.8 + 48 29	.	5.7 / 6.2
1980	11 22.6	+40 0	5.2	66.2	47.4	71.1	11 23.7 + 39 54	.	5.7
2054	11 56.0	+43 43	5.1	71.8	47.5	70.1	11 57.1 + 43 36	.	6.3
1985	11 24.0	+43 50	5.9	65.8	47.5	70.7	11 25.1 + 43 44	.	6.8
2036	11 47.5	+54 22	2.6	73.3	57.6	70.9	11 48.6 + 54 15	.	B
2005	11 32.0	+44 17	5.5	68.2	47.6	70.7	11 33.0 + 44 10	.	6.5
1997	11 28.5	+55 27	5.8	65.1	57.5	69.4	11 29.6 + 55 20	.	6.7
2020	11 40.5	+56 19	5.3	70.3	57.6	70.0	11 41.6 + 56 11	.	7.0 / 7.4

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1887phae.proj..838f

F.m. & c. 7.8 6.5

F. ch. 6.8

June 10, 1887.

Plate 11759

				No.	Type	lines	K	Focus	Other lines.	V.	H.	V	H.	correc.
✓	22.3	12.6		I	4	H	K=√H	8	1 1	— —	11.2	25.2	26.1	46.5	+ 0.2
	21.8	11.3			7		K=½H	2	F		10.9	22.6	26.4	49.1	+ 0.5
	20.7	14.4			5		K=H	1	—		10.4	28.8	26.9	42.9	+ 0.0
	19.8	11.2			8		K=H	1	—		9.9	22.4	27.4	49.3	+ 0.8
?	19.6	21.2			4	4072	K	2	prem.		9.8	42.4	27.5	29.3	- 0.6
	18.2	10.4			3	?	K=H	1	F		9.1	20.8	28.2	50.9	+ 0.5
	17.6	20.0			7		K=H	2	F		8.8	40.0	28.5	31.7	- 1.2
	17.5	22.7			4		K=H	1	—		8.8	45.4	28.5	26.3	- 0.8
✓	16.4	14.7		II	2	2	K=H	K=H	1 1	— —	8.2	29.4	29.1	42.3	+ 0.1
✓	17.1	16.9		III	2	2	K=H	K=H	1 1	— —	8.6	33.8	28.7	37.9	- 0.4
	16.8	17.4			2		K=H	1	—		8.4	34.8	28.9	36.9	- 0.3
✓	17.0	22.1		? III	2	2	K=H	K=H	1 1	— —	8.5	44.2	28.8	27.5	- 0.8
	16.2	23.2			3		K=H	2	F		8.1	46.4	29.2	25.3	- 1.0
2.	15.5	14.6			3		K=H	1	F		7.8	29.2	29.5	42.5	+ 0.0
	15.8	16.2			5		K	1	F		7.9	32.4	29.4	39.3	- 0.3
✓	15.1	18.8		I ?	I	H	K=H	K=H	1 1	— F ?	7.6	37.6	29.7	34.1	- 0.5
	13.0	15.0		a	4073	3	K=√H	?	3	F prem.	6.5	30.0	30.8	41.7	0.0
	13.0	22.6			3		K=H	1	F		6.5	45.2	30.8	26.5	- 2.3
✓	12.4	12.9		? II	2	2	K=H	K=H	1 1	— —	6.2	25.8	31.1	45.9	+ 0.3
✓	12.4	21.0		III	2	2	K=H	K=H	1 1	F ? —	6.2	42.0	31.1	29.7	- 0.8
	12.2	22.9			2		K=H	1	—		6.1	45.8	31.2	25.9	- 2.3
	10.4	7.4			5		7	2	F		5.2	14.8	32.1	56.9	+ 1.1
	10.7	18.2		a ?	4074	3	K=1.2/1 H	2	F prem.		5.4	36.4	31.9	35.3	- 0.5
✓	9.1	8.6		a ? IIa	4076	2	K=H	K=H	1 1	prem.	4.6	17.2	32.7	54.5	+ 1.0
?	9.8	17.6		a	4076	3	K=H	2	F prem.		4.9	35.2	32.4	36.5	- 0.9
	9.0	17.6			2		K=H	1	—		4.5	35.2	32.8	36.5	~~- 0.4~~ - 0.9
✓	9.4	19.1		II	2	2	K=H	K=H	1 1	— —	4.7	38.2	32.6	33.5	- 1.3
	8.8	10.6		a ?	4074	3	K=H	1	F prem.		4.4	21.2	32.9	50.5	+ 1.4

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1887phae.proj..838f

			No.	R.A.	Dec.	Mag.	H.	V.	H′.	Red. of stars to 1900			Br.
0.5	0.2	Dm.	2307	11 45.3	+16 15	7.0	70.5	27.4	70.3	11 48.0	+16 0		6.9 7.0
0.8	0.3		2041	11 49.5	+16 20	5.4	72.1	27.2	71.6	11 50.6	+16 12		5.8
2.1	0.9		2026	11 43.1	+16 55	5.8	71.9	27.3	71.9	11 44.1	+16 48		6.5
0.8	0.4	Dm.	2070	11 48.9	+27 30	6.8	71.3	37.4	70.5	11 51.2	+27 15		6.9 7.0
1.4	0.6		1998	11 28.5	+17 27	5.7	70.9	27.8	71.5	11 29.5	+17 21		5.8
1.1	0.5	Dm.	2546	11 50.3	+18 17	6.5	71.1	27.4	70.6	11 52.6	+18 2		6.9 7.1
1.7	0.6		2001	11 30.0	+28 26	5.8	70.0	37.2	71.2	11 31.0	+28 20		6.0
1.9	0.8	Dm.	2505	11 24.0	+18 34	7.4	69.4	27.4	70.2	11 26.4	+18 19		6.9
0.1	0.0	Dm.	2214	11 40.9	+29 14	6.8	70.3	37.4	70.2	11 43.3	+28 59		7.2 7.3
0.4	0.2	Dm.	2033	11 35.8	+28 51	7.3	69.6	37.4	70.0	11 38.2	+28 36		7.2 7.3 7.4 7.5
0.6	0.3	Dm.	2492	11 35.2	+19 3	7.0	70.0	27.4	70.3 69.7	11 37.5	+18 48		6.9
1.7	0.8	Dm.	2505	11 25.3	+18 49	7.5	69.5	27.3	70.3	11 27.7	+18 34		7.2 7.3 7.6
2.1	1.0		1986	11 24.2	+19 4	5.7	70.6	27.2	71.6	11 25.3	+18 58		6.6 6.8
0.1	0.0	Dm.	2216	11 41.1	+29 36	6.8	70.3	37.4	70.3	11 43.5	+29 21		6.7
		~~Dm.~~	~~2503~~	~~11 41.4~~	~~+19 39~~	~~7.8~~	~~70.6~~	~~37.4~~	~~70.6~~				
0.3	0.1	Dm.	2206	11 37.2	+29 28	7.0	69.6	37.4	69.9	11 39.6	+29 13		6.7
		~~Dm.~~	~~2210~~	~~11 38.4~~	~~+29 29~~	~~8.5~~	~~70.8~~	~~37.4~~	~~71.1~~				
1.0	0.5	Dm.	2483	11 32.1	+19 48	7.5	69.7	27.4	70.2	11 34.4	+19 33		6.9 7.2
0.0			2022	11 41.8	+20 53	4.6	71.8	27.4	71.8	11 42.8	+20 46		5.2
2.3	1.0	Dm.	2163	11 22.4	+30 47	6.8	67.6	37.3	69.9	11 24.8	+30 32		6.7 7.4
0.6	0.3	Dm.	2367	11 45.0	+21 13	7.2	70.8	27.4	70.5	11 47.3	+20 58		6.9 7.1
1.7	0.8	Dm.	2331	11 27.5	+21 14	6.5	69.5	27.4	70.3	11 29.9	+20 59		6.9 7.1 7.5
2.3	1.1	Dm.	2270	11 21.6	+31 13	7.0	67.4	37.3	69.7	11 24.0	+30 58		6.9
2.4	1.1		2055	11 38.6	+22 7	5.7	73.4	27.3	72.3	11 39.2	+22 1		6.1
1.0	0.5		2010	11 34.6	+22 1	5.5	71.0	27.4	71.5	11 35.7	+22 54		6.1 6.4
2.0	1.0	Dm.	2430	11 54.3	+22 54	6.7	71.5	27.5	70.5	11 56.6	+22 39		6.8 7.0
0.9	0.4		2013	11 35.4	+32 25	5.7	70.6	37.3	71.5	~~11 35.6~~ 36.4	+32 18		5.8
0.9	0.4	Dm.	2375	11 34.6	+23 1	6.5	69.8	27.5	70.2	11 37.0	+22 46		6.6
		~~Dm.~~	~~2179~~	~~11 34.0~~	~~+32 33~~	~~6.0~~	~~69.2~~	~~37.1~~	~~70.1~~				
1.3	0.6	Dm.	2169	11 30.5	+32 42	7.5	68.7	37.4	70.0	11 32.9	+32 27		6.9 7.0
1.4	0.7	Dm.	2174	11 50.7	+33 5	6.7	71.9	37.5	70.5	11 53.0	+32 50		6.5

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June 10, 1887.

Plate 1179.

	V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrd.
	8.5	22.0	III	III 2 2	K=H K=H		— F2	4.2	44.0	33.1	27.7	−2.4
	7.0	6.0	III	III 2 2	K=H K=H		—	3.5	12.0	33.8	59.7	+1.6
	7.4	9.6	III	2 2	K=H		—	3.7	19.2	33.6	52.5	+1.7
	7.0	10.2	III	3	K=H		F	3.5	20.4	33.8	51.3	+1.5
1	6.2	12.5	I	f? 4078 3			F, seen	3.1	25.0	34.2	46.7	+0.8
?	6.7	13.6	II	a 4079 3	K=H		F, seen	3.4	27.2	33.9	44.5	+0.4
	6.0	18.5	I	4	K=H		—	3.0	37.0	34.3	34.7	−0.6
	6.2	18.8	III	III 4080 2 2	K=H K=H		—	3.1	37.6	34.2	34.1	−1.3
	6.3	23.9	II	a? 3	K=H		F, seen	3.2	47.8	34.1	23.9	−3.2
	5.6	7.8	III	? III? 2 2	K=H K=H		—	2.8	15.6	34.5	56.1	+2.5
	5.3	10.0	I	5	K=H		—	2.6	20.0	34.7	51.7	+1.7
III ? 5.9, 6.3	5.0	17.8	II	a 4081 3	K=H	2	F, seen	2.5	35.6	34.8	36.1	−1.0
?	3.6	14.3	II	a 4082 3	K=H	2	F, seen	1.8	28.6	35.5	43.1	+0.3
	3.1	16.7	III	? 2 2	K=H		—	1.6	33.4	35.7	38.3	−0.6
	3.4	20.2	I	3			—	1.7	40.4	35.6	31.3	−1.0
	2.5	11.6	II	II 2	K=H		—	1.2	23.2	36.1	48.5	+1.3 +0.7
	2.6	11.7	II	2	K=H		—	1.3	23.4	36.0	48.3	+1.2

F. sw. 9c.

F. ch.

Plate 1180

	7.5	6.9									7.3	
	22.4	11.5	II	2	K=H		—	11.2	23.0	46.2	48.0	+2.1
	21.1	9.3	III	2	K=H		—	10.6	18.6	46.8	52.4	+3.5
	20.4	12.4	I	6	K=2H	2	—	10.2	24.8	47.2	46.2	+2.4
	28.7	21.1	III	2 2	K=H		—	10.4	42.2	47.0	28.8	−3.7
	19.8	10.0	II	2	K=H		—	9.9	20.0	47.5	51.0	+3.0
	19.8	17.9	II	a 4083	K=H	2	F, seen	9.9	35.8	47.5	35.2	−2.7
?	18.0	15.3	II	c 4084	K=2H	F?		9.0	30.6	48.4	40.4	−0.5
	17.5	20.4	II	3			F	8.8	40.8	48.6	30.2	−5.4
	18.9	6.5	II	?	K=H		—	8.0	13.0	49.4	58.0	+5.9

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1887phaeproj..839f

			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900	Bv.
		Dm.	2123	11	23.4	+33 6	7.0	67.4	37.3	69.8	11 25.8 + 32 51	7.0 7.2
		Dm.	2417	12	0.1	+23 51	7.0	12.1	27.3	10.5	12 2.4 + 23 36	7.3 7.4
		Dm.	2181	11	53.4	+33 46	8.0	72.6	37.5	70.9	11 55.7 + 33 31	7.2 7.3
			2048	11	53.1	+33 50	6.0	73.5	37.3	72.0	11 54.1 + 33 43	7.5 7.5
		Dm.	2268	11	46.3	+34 26	6.8	71.3	37.5	70.5	11 48.6 + 34 11	6.7 7.5
			2031	11	44.9	+34 3	6.1	72.1	37.4	71.7	11 46.0 + 33 56	7.15 11 51.8 + 33 58
		Dm.	2378	11	32.6	+24 31	6.9	69.6	27.5	70.2	11 35.0 + 24 16	6.8
		Dm.	2242	11	30.9	+34 27	6.3	68.5	37.5	69.8	11 33.3 + 34 12	6.2 11 43.6 + 34 11
		Dm.	2222	11	18.6	+34 15	6.8	66.4	37.4	69.6	11 21.0 + 34 0	6.8
		~~Dm.~~	~~2116~~	~~11~~	~~19.4~~	~~+33 56~~	~~7.7~~	~~67.2~~	~~37.1~~	~~70.4~~		7.0 7.0
		Dm.	2284	11	57.7	+34 33	7.3	73.3	37.4	70.8	12 0.0 + 34 18	7.4 7.2
		Dm.	2279	11	52.5	+34 51	6.6	72.5	37.4	70.8	11 54.8 + 34 36	6.5
			2011	11	34.8	+34 53	5.8	70.4	37.4	71.4	11 35.7 + 34 46	7.2 7.4
			2027	11	43.3	+35 36	5.6	71.9	37.4	71.6	11 44.5 + 35 29	7.3 7.5
		Dm.	2250	11	36.7	+26 2	6.2	70.1	27.6	70.7	11 39.1 + 25 47	6.4
		Dm.	2394	11	28.8	+25 50	6.8	69.2	27.5	70.2	11 31.3 + 25 35	7.3
		Dm.	2225	11	48.8	+36 16	6.6	72.0	37.5	70.7	11 54.1 + 36 1	7.0
		~~Dm.~~	~~2270~~	~~11~~	~~48.0~~	~~+26 20~~	~~7.0~~	~~71.2~~	~~27.5~~	~~70.5~~		7.3 7.5
		Dm.	2223	11	48.5	+36 9	6.5	71.9	37.5	70.7	11 50.8 + 35 54	6.8
		Dm.	2225	11	48.8	+36 16	6.6	71.8	47.5	69.7	11 54.1 + 36 1	6.9
			2053	11	55.5	+36 43	5.7	74.1	47.3	70.6	11 57.5 + 36 36	6.8 7.0
			2039	11	48.9		9	73.7	57.4	71.3	11 49.9 + 47 2	11 54.2 + 36 51
			2040		49.0	+47 8	5.8	73.8	57.3	71.4	11 50.0 + 47 1	6.1 7.0
		Dm.	2192	11	24.5	+37 2	6.5	67.7	47.4	70.4	11 26.9 + 36 47	7.4
		Dm.	2238	11	52.7	+37 32	7.8	72.7	47.4	69.7	11 55.0 + 37 17	7.2
			2007	11	32.1	+47 30	6.2	67.9	57.4	70.6	11 33.2 + 47 23	6.1
			2018	11	39.7	+48 27	3.9	70.3	57.4	70.8	11 44.8 + 48 20	4.9 5.2
		Dm.	1952	11	23.0	+48 44	6.5	63.8	57.5	69.2	11 25.5 + 48 29	6.9 7.1
		Dm.	2496	12	21	+39 26	7.0	15.1	47.5	9.2	12 4.4 + 39 11	7.2

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1887phae.proj..838f

June 10, 1887.

Plate 1180.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	correc
15.5	12.6	III	2 2	K=H K=H	1 1	— F1?	7.8	25.2	49.6	45.8	+ 2.4
15.7	20.2	?	2	K=H	1	F?	7.8	40.4	49.6	30.6	- 5.5
15.4	20.4				1	—	7.7	40.8	49.7	30.2	- 5.5 - 3.7
14.6	22.0				3	—	7.3	44.0	50.1	27.0	-5.1
13.5	6.1	?	2	K=H		—	6.8	12.2	50.6	58.8	+ 6.5
13.9	7.1	?	2	K=H	1	—	7.0	14.2	50.4	56.8	+ 5.7
13.8	14.9				1	—	6.9	29.8	50.5	41.2	+ 0.1
12.8	11.3		2	K=H	1	F?	6.4	22.6	51.0	48.4	+2.7
12.3	11.8	III	2 2	K=H K=H	1 1	— —	6.2	23.6	51.2	47.4	+2.3
12.4	15.3	I? I H		K=H	K=H 1 1	— F1?	6.2	30.6	51.2	40.4	- 0.5
12.3	17.9		3	K=H	2	F	6.2	35.8	51.2	35.2	-3.0
12.8	18.2	II? II	2 2	K=H	K=H 1	— —	6.4	36.4	51.0	34.6	- 2.3
11.0	17.1	a 4085	2	K=H	? 1	Deem	5.5	34.2	51.9	36.8	- 1.7
11.0	18.1	III	2 2	K=H	K=H 1 1	— —	5.5	36.2	51.9	34.8	- 3.5
10.7	21.2	II? IIa 4085a	2 2	K=H	K=H 1 1	F? Deem	5.4	42.4	52.0	28.6	- 4.8
9.4	9.4	II	3 2	K=H	K=H 1 1	F —	4.7	18.8	52.7	52.2	+6.6
9.5	11.7	III?	2 2	K=H	1	F?	4.8	23.4	52.6	47.6	+2.4
9.5	23.0	II? II	2 2	K=H	K=H 1 1	F? F?	4.8	46.0	52.6	25.0	-9.3
8.8	16.0	I? I	4 5	K=H	K=H 1 1	— —	4.4	32.0	53.0	39.0	-1.2
7.5	9.6		8	K=½H	3	F?	3.8	19.2	53.6	51.8	+4.5
? 7.1	21.1	a 4086	3	K=H	2	F Deem	3.6	42.2	53.8	28.8	- 5.1
6.7	5.9		2	K=H	1	—	3.4	11.8	54.0	59.2	+ 11.3
6.4	6.8	?	2	K=H	1	—	3.2	13.6	54.2	57.4	+ 10.1
6.4	13.0		11	?		F	3.2	26.0	54.2	45.0	+ 2.4
? 6.4	18.2	I?	9	K=H		F —	3.2	36.4	54.2	34.6	-2.5
? 6.3	23.8	a 4087	2	K=½H	? 2	F Deem	3.2	47.6	54.2	23.4	-7.3
5.1	14.1	III	2 3	K=H	K=H 1 1	— F	2.6	28.2	54.8	42.8	+1.2
4.3	10.4		4	K=H	1	—	2.2	20.8	55.2	50.2	+4.1

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Mean 2

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Br.
2.4 1.7	Dm.	2092	11 47.1	+49 43	7.5	72.3	57.5	69.9	11 49.5 +49 28	7.2 7.2
5.5 3.6	Dm.	2062	11 23.2	+49 35	6.5	73.6	57.4	69.1	11 25.7 +49 20	7.5 7.4
	Dm.	2061	11 22.5	+49 44	7.0	63.3	57.3	68.8	11 24.6 +49 29	6.8 7.0
5.5 3.7	Dm.	2452	11 25.1	+39 40	7.8	65.9	47.7	69.6		6.5 11 22.5 +40
7.5 5.1		1980	11 22.6	+40 0	5.2	66.6	47.3	71.7	11 23.7 +39 54	5.5
9.6 6.5	Dm.	2508	12 3.5	+40 42	7.1	15.7	47.5	9.1	12 5.8 +40 27	6.7
8.4 5.7	Dm.	2501	12 0.8	+40 28	6.8	15.0	47.5	9.3	12 3.1 +40 13	7.2
0.5 0.0	Dm.	1862	11 40.2	+56 38	7.0	70.0	57.5	69.9	11 42.6 +50 33	6.3
4.2 2.7		2046	11 51.0	+41 2	6.4	73.6	47.4	70.9	11 52.1 +40 55	6.6 11 49.8 +41 10
	Dm.	2248	11 48.5	+41 27	6.9	72.1	47.6	69.8	11 50.8 +41 12	7.0 7.3 7.3 7.5 48.6 +41
3.6 2.3		2048	11 51.0	+41 2	6.4	73.6	47.4	70.9		
0.5 0.3	Dm.	1693	11 38.4	+51 22	7.3	69.0	57.6	69.5	11 40.8 +51 7	6.8 6.5
3.0 2.1		2004	11 31.4	+51 18	5.7	67.2	57.5	70.2	11 32.4 +51 10	6.3 6.6
3.5 2.3	Dm.	2218	11 31.2	+41 3	7.0	67.6	47.4	69.9	11 33.6 +40 48	7.4 7.3
2.3 1.7	D.m.	2236	11 34.1	+42 3	6.5	68.3	47.5	70.0	11 36.5 +41 48	6.7
3.5 2.3	D.m.	1677	11 29.3	+51 57	7.3	65.5	57.5	69.0	11 31.8 +51 42	7.0 7.1 7.3 7.3
7.1 4.8	D.m.	2214	11 23.0	+42 6	6.8	65.4	47.5	70.2	11 25.4 +41 51	6.9 6.9
6.6 4.5	D.m.	1608	11 58.2	+52 44	7.2	70.0	57.4	63.4	12 0.5 +52 29	6.7 6.8
3.7 2.4	D.m.	2256	11 48.9	+42 50	7.0	72.3	47.6	69.9	11 51.3 +42 35	7.0 7.3
	Dm.	1558	11 12.8	+52 33	7.2	58.8	57.4	68.1	11 15.4 +52 18	6.8 6.8 11 12.5 +52
9.3 6.3	D.m.	1501	11 [illegible]	[illegible]	[illegible]	[illegible]	61.7	57.6	71.0	
1.2 0.7	D.m.	1506	11 36.0	+53 13	7.0	68.0	57.6	69.2	11 38.4 +52 58	6.7 6.6
6.5 4.5		2054	11 56.0	+43 43	5.1	75.2	47.5	70.7	11 57.1 +43 36	5.5
7.3 5.1		1985	11 24.0	+43 50	5.9	66.2	47.4	71.3	11 25.1 +43 44	6.2
	Dm.	1510	12 10.3	+54 0	6.1	22.1	57.4	10.8	12 12.5 +53 45	6.8 7.2 11 10.4 +54
11.3 7.7		2072	12 8.8	+54 7	6.3	22.4	57.3	12.3	12 9.8 +53 59	6.7
2.4 1.8		2036	11 47.5	+54 22	2.6	73.5	57.6	71.1	11 48.6 +54 15	B.
4.1 2.5		2005	11 32.0	+44 17	5.5	68.4	47.5	70.9	11 33.0 +44 10	5.6
10.8 7.3		1967	11 18.3	+44 9	5.1	63.9	47.4	71.2	11 17.4 +44 2	6.3
12.2 8.7	D.m.	1491	11 42.5	+55 4	6.8	70.7	57.7	69.5	11 46.9 +54 49	7.0 7.3 6.9 7.2
6.0 4.1	D.m.	1983	11 52.9	+45 26	6.8	73.7	47.6	69.6	11 55.2 +45 11	6.9

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Plate 1180.

V	H	Type	Lines	K	Focus	Other Lines	V.	H.	V.	H.	corrn.
4,0	18,4	~~III~~ Ib ? 4088	15	K=H	2	F, perm.	2.0	36.8	55.4	34.2	-.45
4,7	19,9	III	2 2	K=HK=H	1 1	— —	2.4	39.8	55.0	31.2	-.61
4,3	21,9	II	12	K=H	1	—	2.2	43.8	55.2	27.2	-.60
3,4	16,5	III	2 2	K=HK=H	1 1	— —	1.7	33.0	55.7	38.0	-.18
3,4	18,0	a 4089		K=H	1	perm	1.7	36.0	55.7	35.0	-.25
2,5	15,0	I ? 4090	3	K=H	2	F, perm.	1.2	30.0	56.2	41.0	0.0

F.m. 8 c. F. ch.

2,5 6.8 Plate 1077. 7.1

22,5	12,8	II		N	1	—	11.2	25.6	21.1	67.0	+0.1
21,8	13,4	III	2	K=H	1	—	10.9	26.8	21.4	65.8	+0.2
20,0	17,0	II	4	K=H	1	—	10.0	34.0	22.3	58.6	-0.3
18,7	18,2	III	2 2	K=HK=H	1 1	— —	9.4	36.4	22.9	56.2	-0.5
18,5	18,6	II I	2 6	K=HK=H	1 1	— —	9.2	37.2	23.1	55.4	-0.3
18,4	23,7	I	4	K=HK=H	1 1	— —	9.2	47.4	23.1	45.2	-0.7
17,3	15,8	a ? IIa 4091	2	K=HK=H	1 1	F, perm	8.6	31.6	23.7	61.0	-0.0
16,9	10,2	II	5	N	1	—	8.4	20.4	23.9	72.2	+0.8
15,1	7,5	III	32	K=HK=H	1 1	F1 —	7.6	15.0	24.7	77.6	+1.4
15,3	11,6	II f ? 4092	3	K=H	2	F, perm	7.6	23.2	24.7	69.4	+0.6
13,5	8,9	II	6	K=H	2	—	6.8	17.8	25.5	74.8	+1.2
13,0	9,2	? IIa 4092a	2 2	K=HK=H	1 1	— perm	6.5	18.4	25.8	74.2	+1.2
13,6	11,6	II	7	N	3	F1	6.8	23.2	25.5	69.4	+0.3
14,0	24,5	I ?	9	K=√H	√	F1	7.0	49.0	25.3	43.6	-0.8
12,0	7,9	I ?	15	K=H	1	F1	6.0	15.8	26.3	76.8	+1.3
12,3	9,3	I ? I H	3	K=HN	1 1	— —	6.2	18.6	26.1	74.0	+0.6
12,0	21,2	II	7	K=√H	2	F1	6.0	42.4	26.3	50.2	-0.6
11,2	17,9	II		?	2	—	5.6	11.8	26.7	80.8	+2.0
? 11,2	6,0	a 4093	2	K=H	1	perm	5.6	12.0	26.7	80.6	+2.0
11,0	8,0	I	7	K=2H	3	F1	5.5	16.0	26.5	76.6	+1.5

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			No.	R.A.	Dec	Mag.	H.	V.	H'.	Red. of stars to 1900			Br.
4.5	2.9	?	1997	11	28.5	+55	27	5.8	653	574	69.8	11 29.6 + 55 20 .	5.7
6.1	4.3	D.Tr.	1468	11	22.1	+55	10	6.7	61.9	57.6	68.0	11 24.6 + 54 55 .	6.8 {6.7 7.0 7.0}
8.7	6.0	D.Tr.	1928	11	20.0	+45	22	6.8	63.8	47.6	69.8	11 22.5 + 45 7 .	7.0
1.8	1.3	D.Tr.	1481	11	33.9	+55	58	6.5	66.9	57.7	68.7	11 36.4 + 55 43 .	7.0 {7.0 7.3 7.3}
3.9	2.5	D.Tr.	1947	11	31.1	+45	55	6.5	67.1	47.6	69.6	11 33.5 + 45 40 .	6.8
0.9			2020	11	40.5	+56	19	5.3	70.5	57.5	70.5	11 41.6 + 56 11 .	

Mean if Cov.

0.2	0.1		2071	12	7.3	+10	56	5.8	32.9	22.1	32.8	12 8.4 + 10 49 .	Br.	
0.2	0.1		2069	12	6.1	+21	13	5.6	32.9	32.1	32.7	12 7.0 + 21 6 .	6.6 6.9	{7.0 7.3}
0.3	0.1		2055	11	58.6	+22	7	5.7	92.6	32.1	92.9	11 59.2 + 22 1 .	6.1	6.5
0.5	2.2	Dm.	2430	11	54.3	+22	54	6.7	90.7	32.3	91.2	11 56.9 + 22 49 .	6.7 7.0	{7.1 7.4} {7.0 7.2}
0.6	0.3	Dm.	2482	11	53.8	+13	11	7.2	91.0	22.4	91.3	11 54.1 + 12 56 .	6.4	6.8 6.8
1.7	0.7		2030	11	44.7	+12	57	6.0	92.1	22.2	92.8	11 45.8 + 12 50 .	6.4	6.8 6.8
0.2	0.0	Dm.	2491	11	59 0.8	+13	48	7.5	91.4	22.4	92.1	12 2.1 + 13 33 .	6.4	6.8 6.8
0.8	0.4	Dm.	2448	12	12.0	+23	50	6.3	32.4	32.2	32.4	12 14.3 + 23 35 .	5.9	6.3
1.4	0.7	Dm.	2455	12	18.0	+24	44	6.0	33.0	32.3	3 32.2	12 20.3 + 24 29 .	6.6 6.9	{7.0 7.3} {7.0 7.2}
0.6	0.3		2081	12	10.3	+24	37	5.2	33.5	32.2	32.9	12 11.2 + 24 30 .	5.8 6.0	{6.2 6.4}
1.2	0.6		2097	12	16.2	+25	26	5.9	34.0	32.2	32.8	12 17.2 + 25 19 .	5.8	6.2
		Dm.	2495	12	14.1	+25	49	7.5	32.5	32.3	31.3	12 16.4 + 25 34 .		12 14.9 +25 34
1.2	0.5	Dm.	~~2443~~	~~12~~	~~13.8~~	~~+25~~	~~50~~	~~7.2~~	~~32.2~~	~~32.3~~	~~31.0~~			12 14.0 +25 ?
0.6	0.3		2079	12	9.9	+15	34	5.1	33.1	22.4	32.8	12 10.9 + 15 27 .	6.6	7.0 7.2
1.9	0.9		2025	11	42.9	+15	15	2.2	91.9	22.2	92.7	11 44.0 + 15 8 .	4.9	5.3
		Dm.	2345	12	17.2	+26	24	6.3	33.0	32.4	31.7	12 19.5 + 26 9 .	B	B.
1.3	0.7	Dm.	~~2343~~	~~12~~	~~16.8~~	~~+26~~	~~38~~	~~7.0~~	~~32.6~~	~~32.6~~	~~31.3~~			12 19.2 +26. ?
1.2	0.6	Dm.	2362	12	13.5	+16	20	6.5	32.1	22.5	31.5	12 15.8 + 16 5 .	6.3	6.7
1.3	0.6		2041	11	49.5	+16	20	5.4	91.9	22.3	92.5	11 50.6 + 16 12 .	6.8	7.2 7.2
2.0	0.9		2117	12	22.9	+26	35	5.2	34.7	32.2	32.7	12 23.9 + 26 28 .	5.4	5.8
2.0	0.9		2116	12	22.8	+26	34	5.2	34.8	32.2	32.8	12 23.8 + 26 27 .	4.9	5.3
1.5	0.7		2103	12	18.3	+26	16	5.1	34.3	32.3	32.8	12 19.3 + 26 39 .	6.4	6.8
													5.1	5.5

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Plate 1077.

V	H	Type	Lines	K	Focus	Other lines,	V.	H.	V.	H.	corrected	
	11.4	8.1	I	5	5	K=H K=H	1 1	— —	5.7	16.2	26.6	76.4	+1.5
	11.5	8.8	I ?	4	1	3	F		5.8	17.6	26.5	75.0	+1.3
✓	11.1	9.8	I	5	5	K=H K=H	1 1	— —	5.6	19.6	26.7	73.0	+1.1
✓	11.1	10.4	I	4	5	N	1 1	— F?	5.6	20.8	26.7	71.8	+1.0
✓	11.4	13.6	III	2	2	K=H K=H	1 1	— F?	5.7	27.2	26.6	65.4	+0.3
?	10.5	6.1	a H094	2		K=H	1 F? seen		5.2	12.2	27.1	80.4	+2.0
✓	10.8	16.9	III ?	2	2	K=H K=H	1 1	— —	5.4	33.8	26.9	58.8	−0.2
	9.4	6.9	I	8		K=H	3 F		4.7	13.8	27.6	78.8	+1.9
✓	9.9	8.7	a H095 II a	3	3	K=H K=H	1 F	F seen	5.0	17.4	27.3	75.2	+0.7
✓	9.0	9.7	a H096 II a	2	2	K=H K=H	1 F? F?	seen	4.5	19.4	27.8	73.2	+1.2
✓	9.9	9.7	III	2	3	K=H K=H	1 F?	— F?	5.0	19.4	27.3	73.2	+1.2
	9.8	14.2	I	6		K=H	2	—	4.9	28.4	27.4	64.2	+0.0
	9.7	20.4	II ?	2		K=H	1	—	4.8	40.8	27.5	51.8	−1.2
	8.6	7.1	d ?	6		K=H	2	—	4.3	14.2	28.0	78.4	+1.9
✓	8.6	10.8	II	2	2	K=H K=H	1 1	— —	4.3	21.6	28.0	71.0	+1.0
	8.6	14.1	I	6		K=H	2	—	4.3	28.2	28.0	64.4	+0.2
	8.4	20.2	I ?	4		K=H	1	—	4.2	40.4	28.1	52.2	−0.6
	7.9	9.3	f H097	3	1.2 1	K=H	2	F seen	4.0	18.6	28.3	74.0	+0.6
	6.6	6.9	f ? H098	2		K=H	2	F? seen	3.3	13.8	29.0	78.8	+2.0
	6.3	10.4	I ?	4		K=H	1	—	3.2	20.2	29.1	72.4	+1.3
✓	6.8	10.2	II a? H099 II a	2		K=H K=H	1 1	F? seen seen	3.4	20.4	28.9	72.2	+1.2
✓	6.2	13.5	II a H099a	2	2	K=H	1	seen	3.1	27.0	29.2	65.6	+0.4
	5.4	11.1		4		K=H	2	—	2.7	22.2	29.6	70.4	+1.0
	2.7	10.5	I ?	3		K=H	1	—	1.4	21.4	30.9	71.2	+1.2
	2.4	13.4	III ?	2		K=H	1	—	1.2	26.8	31.1	65.8	+0.2

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Mean 4

Red. of stars to 1900.

				No.	R.A.	Dec.	Mag.	H.	V.	H'				Cov.	Br.	Br.
1.5	2.7	Dm.		2343	12	16.8	+26	38	7.0	38.0 (3)	32.3	31.5	12	19.1 +26 23		6.4	6.8 6.7
1.3	0.6			2098	12	16.5	+26	31	4.8	34.1	32.3	31.0	12	~~18.8 +26~~ 17.5 +26 24		5.2	5.6
1.1	0.5	Dm.		2329	12	13.0	+26	49	6.3	32.6	32.4	31.5	12	15.3 +26 34		6.1	6.5 6.6
1.0	0.5	Dm.		2326	12	11.7	+26	49	6.6	32.5	32.4	31.5	12	14.0 +26 34		6.1	6.5 6.6
0.3	0.1			2068	12	5.8	+26	32	5.9	33.0	32.2	32.7	12	6.7 +26 25		6.5 6.8	6.9 6.8 7.2 7.1
2.0	0.9	Dm.		2138	12	21.4	+27	2	6.5	33.6	32.2	31.6	12	23.7 +26 47		6.2	6.6
0.4	0.2	Dm.		2430	11	57.3	+17	6	7.6	91.1	22.5	91.3	12	0.0 +18 51		6.7 7.0	7.1 7.4 7.3 7.5
				2111	12	21.0	+27	29	5.1				12	22.0 +27 22		5.1	5.5
1.9	0.8			~~2109~~	~~12~~	~~20.4~~	~~+27~~	~~56~~	~~5.1~~	~~34.2~~	~~32.6~~	~~32.3~~					
1.4	0.7	Dm.		2469	12	14.7	+17	32	6.8	32.1	22.5	31.4	12	17.0 +17 17		6.1	6.5 6.5
1.2	0.5			2093	12	14.7	+27	44	6.4	34.1	32.2	32.9	12	15.7 +27 37		6.2	6.6 4.6
1.2	0.5			2089	12	14.3	+27	17	5.8	33.7	32.3	32.5	12	15.3 +27 11		6.1 6.4	6.5 6.8 6.5 6.8
0.2	0.0			2064	12	4.4	+17	28	6.3	32.8	22.4	32.8	12	5.5 +17 22		6.1	6.5
1.2	0.6	Dm.		2070	11	48.9	+27	30	6.8	89.7	32.3	90.9	11	51.2 +27 15		6.5	6.9
1.9	0.8			2109	12	20.4	+27	56	5.1	34.6	32.2	32.7	12	~~13.2 +27~~ 21.4 +27 49		5.2	5.6
1.0	0.5	Dm.		2100	12	10.9	+28	7	7.5	32.5	32.4	31.5	12	13.2 +27 52		6.9	7.3 7.4
0.2	0.1			2065	12	4.7	+27	57	5.7	32.9	32.3	32.7	12	5.7 +27 50		5.6	6.0
1.2	0.6	Dm.		2546	11	50.3	+18	17	6.5	90.7	22.5	91.3	11	52.6 +18 2		6.5	6.9
1.4	0.6			2094	12	14.7	+18	27	4.9	33.3	22.4	32.7	12	15.6 +18 20		5.8 6.1	6.2 6.5
2.0	0.7			2110	12	21.0	+28	56	4.7	34.8	32.2	30.2	12	22.0 +28 49		5.5 5.9	5.9 6.1
				2280	12	12.6	+29	16	7.0	32.8	32.5	31.2 (5)	12	14.9 +29 1		6.4	6.8
1.3	0.6	Dm.		~~2166~~	~~12~~	~~12.2~~	~~+28~~	~~58~~	~~6.5~~								
1.2	0.5	Dm.		2106	12	12.2	+28	58	6.5	32.6	32.4	31.4	12	14.5 +28 43		6.5	6.9 6.7
0.4	0.2	Dm.		2265	12	4.6	+29	21	6.7	31.6	32.5	31.2	12	6.9 +29 (2) 6		6.5	6.9 6.7
1.0	0.5			2083	12	10.5	+29	37	5.6	32.7	32.3	31.7	12	12.5 +29 30		5.4	5.8
1.2	0.6	Dm.		2350	12	11.2	+31	4	6.5	32.6	32.5	31.4	12	13.5 +30 49		6.4	6.8
0.4	0.2			2069	12	6.1	+21	13	5.6	32.9	22.4	32.7	12	7.0 +21 6			

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F. m. 8 c.
7.8 6.8

F. ch.
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Plate 1078.

Y	H	Type	Lines	K	Focus	Lines.	V.	H.	V.	H.	correc.
22.7	10.8	I	3	K	1	—	11.4	21.6	41.0	70.7	+1.8
21.3	15.2	? I ? 3	H	K	K=H	1 1	— —	10.6	30.4	41.8	61.9	−0.1
20.5	7.8	II	2	K=H	1	—	10.2	15.6	42.2	76.7	+5.5
? 18.4	9.4	a H100	2	K=H	1	recn.	9.2	18.8	43.2	73.5	+4.8
18.0	10.9	I	4	K=H	1	—	9.0	21.8	43.4	70.5	+2.1
18.9	19.4	a H101	2	K=H	1	recn	9.4	38.8	43.0	53.5	−2.1 (2.6)
17.5	11.8	III	2	K=H	2	F?	8.8	23.6	43.6	68.7	+1.7
17.5	17.3	I	1	K=H	2	F	8.8	34.6	43.6	57.7	−1.9
17.5	18.2	III	2	K=H	1	—	8.8	36.4	43.6	55.9	−1.7
17.1	18.9	III	3	K=H	1	F	8.6	37.8	43.8	54.5	−1.9
16.2	21.1	? II	2	K=H	1	—	8.1	42.2	44.3	50.1	−3.3 −5.3
16.6	22.2	a H102	3	K=H	1	F recn	8.3	44.4	44.1	47.9	−3.9 −6.1
15.0	13.9	III	2 2	K=H K=H	1 1	— —	7.5	27.8	44.9	64.5	+0.6
15.5	18.6	I	6	K=H	1	—	7.8	37.2	44.6	55.1	−1.9
13.8	8.1	II	2	K=H	1	—	6.9	16.2	45.5	76.1	+6.1
14.2	17.8	II	2	K=H	1	—	7.1	35.6	45.3	58.7	−2.4
13.6	22.7	a H103	1 3	K=H	2	F recn	6.8	45.4	45.6	46.9	−4.5
12.7	20.0	a H104	2	K=H	1	recn	6.4	40.0	46.0	52.3	−2.7
12.8	20.1	a H105	2	K=H	1	recn	6.4	40.2	46.0	52.1	−2.9
11.6	17.8	I H106	3	K=H	2	F recn	5.8	35.6	46.6	58.7	−1.7
10.7	7.6	? II	2	K=H	1	—	5.4	15.2	47.0	77.1	+4.5
10.2	18.3	II a? H107	2	K=H	1	recn	5.1	36.6	47.3	55.7	−1.9
10.6	19.5	I	4	K	1	—	5.3	39.0	47.1	53.3	−4.3
10.6	19.6	I	5	K	1	—	5.3	39.2	47.1	53.1	−4.5
9.1	10.4	III	2	K=H	1	F?	4.6	20.8	47.8	71.5	+4.5
9.4	13.0	II a? H107a H108	2 2	K=H K=H	1 1	— recn F?	4.7	26.0	47.7	66.3	+1.9
? 8.0	22.5	I a?	1 3	K=H	3	recn	4.0	45.0	48.4	47.3	−7.5
7.8	10.5	III	2	K=H	1	—	3.9	21.0	48.5	71.3	+2.9

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			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900							Cow Bu Br.
3.0	1.8	Dm	2350	12	11.2	+31 4	6.5	32.8	42.5	31.0	12	13.5	+30	49	·	✓	✓
0.3	0.1	Dm	2331	12	0.7	+31 52	7.2	31.1	42.5	31.2	12	3.0	+31	37	·	✓	7.2 7.3
5.5	3.3		2112	12	21.7	+42 2	7.4	37.3	52.2	31.8	12	22.6	+41	55	·	✓	7.0 12 20.4 +42 10
4.8	2.7		2101	12	17.9	+43 12	5.9	36.7	52.4	31.9	12	18.9	+43	5	·	✓	6.2
3.3	2.1	Dm	2219	12	11.2	+33 33	7.2	33.0	42.6	30.9	12	13.5	+33	18	·	✓	6.7
3.6	2.1	Dm	2174	11	~~48.8~~ 50.7	~~+44~~ +33	~~50~~ 5	~~7.0~~ 6.7	~~87.7~~ 89.5	~~52.0~~ 42.5	~~91.3~~ 91.6	11	53.0	+32	50	·	✓	6.6
2.5	1.7		2082	12	10.5	+33 44	5.1	34.1	42.5	32.4	12	11.5	+33	37	·	✓	6.2 6.5
1.9	1.1		2054	11	56.0	+113 43	5.1	90.6	52.5	92.5	11	57.1	+43	36	·	✓	5.4
2.7	1.7	Dm	2181	11	53.4	+33 46	8.0	89.8	42.6	91.5	11	55.7	+33	31	·	✓	7.2 7.5
3.0	1.9		2048	11	53.1	+33 50	6.0	90.9	42.4	92.8	11	54.1	+33	43	·	✓	7.0 7.3
5.3	3.3	Dm	2268	11	46.3	+34 26	6.8	88.5	42.5	91.8	11	48.6	+34	11	·	✓	11 51.8 +33 58 ✓ ~~DM 11 46.2 +34.21~~ 7.2 ✓
		~~Dm~~	~~2132~~	~~11~~	~~43.0~~	~~+44 28~~	~~8.0~~	~~85.2~~	~~52.6~~	~~90.5~~							
		Dm	2264	11	43.6	+34 11	6.2	88.0	42.5	91.9	11	45.9	+33	56	·	✓	DM. 11 48.5 +34.2 M. 7.3 ? 6.7 ✓
6.1	3.9	~~Dm~~	~~2158~~	~~11~~	~~39.9~~	~~+43 59~~	~~8.0~~	~~84.3~~	~~52.3~~	~~90.4~~							
0.9	0.6	Dm	2321	12	4.2	+35 5	7.0	32.0	42.6	31.4	12	6.5	+34	50	·	✓	7.0 7.3 7.0 7.3 ✓
3.0	1.9	Dm	2279	11	52.5	+34 37	6.6	89.7	52.6	91.6	11	54.8	+34	36	·	✓	6.5 ✓
6.1	3.9	Dm	2038	12	21.1	+45 36	7.0	37.3	52.5	31.2	12	23.3	+45	21	·	✓	7.0 ✓
2.4	1.5	Dm	1983	11	52.9	+45 26	6.8	88.5	52.5	90.9	11	55.2	+45	11	·	✓	6.9 ✓
6.9	4.5		2027	11	43.3	+35 36	5.6	88.7	42.4	93.2	11	44.5	+35	29	·	✓	6.3 ✓
4.7	2.7	Dm	2225	11	48.5	+36 16	6.6	88.8	42.7	91.5	11	51.1	+36	1	·	✓	DM. 11 48.8 +36.8
		~~Dm~~	~~2223~~	~~11~~	~~48.6~~	~~+36 9~~	~~6.6~~	~~88.5~~	~~42.6~~	~~91.2~~							
4.8	2.9	Dm	2223	11	45.5	+36 9	6.5	88.7	42.6	91.6	11	50.8	+35	54	·	✓	DM. 11 48.5 +36.2 ✓ 6.8
2.5	1.7		2053	11	55.5	+36 43	5.7	91.1	42.5	92.8	11	56.5	+36	36	·	✓	6.3 6.6 11 54.2 +36 51
7.1	4.5	Dm	2278	12	20.0	+37 10	7.1	35.2	42.6	30.7	12	22.2	+36	55	·	✓	7.2 ✓
3.1	1.9	Dm	2238	11	52.7	+37 32	7.8	89.3	42.6	91.2	11	54.0	+37	17	·	✓	6.9 ✓
4.3	2.7	?	2040	11	49.0	+47 8	5.8	88.0	52.4	92.3	11	50.0	+47	1	·	✓	6.6 ✓
4.3	2.7	?	2039	11	48.9	+47 9	5.8	88.1	52.5	92.6	11	49.9	+47	2	·	✓	6.3 ✓
4.5	2.8	Dm	1955	12	14.8	+47 59	6.5	35.6	52.6	31.1	12	17.0	+47	44	·	✓	6.8 7.1 ✓
1.9	1.2	?	2075	12	9.3	+47 47	cum.	35.3	52.5	33.4	12	10.3	+47	40	·	✓	7.1 7.1 12 8.0 +47 55 ✓
7.5	5.1		2018	11	39.7	+48 27	3.9	84.7	52.4	92.2	11	40.8	+48	28	·	✓	5.2 5.6 ✓
4.5	2.9	Dm	2324	12	13.0	+38 43	6.5	34.0	42.6	31.1	12	15.3	+38	28	·	✓	7.2 7.6 ✓

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Plate 1078.

r	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrn
7.8	21.4	III ?	x 2	K=H	1	—	3.9	42.8	48.5	49.5	-4.2
6.4	14.7	III ?	x 2	K=H	1	—	3.2	29.4	49.2	62.9	+0.1
5.6	8.4	III H? H109	3	K=½H	2	F? seen	2.8	16.8	49.6	75.5	+4.7
5.8	11.3	III	x 2	K=H	1	—	2.9	22.6	49.5	69.7	+3.7
∫? H 4.4	11.9	III	2	K=½H	K=H	11 —	2.2	23.8	50.2	68.5	+2.1
4.4	15.2	II ?	x 2	K=H	1	—	2.2	30.4	50.2	61.9	-0.1 -0.3
3.9	14.2	II a? H110	2	K=H	1	seen	2.0	28.4	50.4	63.9	+0.6
3.0	19.3	II ?	2	K=H	1	—	1.5	38.6	50.9	53.7	-3.0
2.4	12.2	III	2	K=H	1	—	1.2	24.4	51.2	67.9	+1.9

F. m. f c. F. ck.

Plate 1209.

7.9	6.9								7.2			
20.2	7.8	III	2	K=H	1	—	10.1	15.6	42.2	76.5	+5.5
? 18.0	9.3	II a? H111	2	K=H	2	F? seen	9.0	18.6	43.3	73.5	+4.8
18.8	19.3	II	2	K=H	1	F?	9.4	38.6	42.9	53.5	-3.3
17.8	10.9	III ?	2	K=H	1	—	8.9	21.8	43.4	70.3	+1.9
17.4	11.7	III	3	K=H	2	F	8.7	23.4	43.6	68.7	+1.7
17.4	17.2	II	3	K=½H	3	F	8.7	34.4	43.6	57.7	-1.8
16.0	21.1	II ?	2	K=H	1	—	8.0	42.2	44.3	49.9	-3.3 -3.3
16.4	22.2	I ?	4	K=H	1	—	8.2	44.4	44.1	47.7	-3.9
15.4	18.5	II a? H112	2	K=H	1	seen	7.7	37.0	44.6	55.1	-1.8
13.4	8.0	III ?	x 2	K=H	1	—	6.7	16.0	45.6	76.1	+6.1
14.0	17.7	I	4	K=H	1	—	7.0	35.4	45.3	56.7	-2.4
13.4	22.7	II	2	K=H	2	F?	6.7	45.4	45.6	46.7	-4.5
? 12.6	19.9	II a H113	2	K=H	1	F? seen	6.3	39.8	46.0	52.3	-2.7 -2.7
12.6	20.0	II a? H114	2	K=H	1	seen	6.3	40.0	46.0	52.1	-2.7
11.5	17.7	I H H115	3	K=H	2	F seen	5.8	35.4	46.5	56.7	-1.5
10.5	7.5	II ?	2	K=H	1	—	5.2	15.0	47.1	77.1	+4.8
10.0	18.3	II a H116	x 2	K=H	1	F seen	5.0	36.6	47.3	55.5	-1.9

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			No	R.A.	Dec.	Mag.	H. V.	H'	Red. of stars to 1900.		Br.
6.5	4.7		2034	11 46.1	+38 35	6.4	88.9	42.5	93.1	11 46.9 +38 31	7.0 7.3
0.3	0.1	Dm.	2496	12 2.1	+39 26	7.0	31.5	42.6	31.4	12 4.4 +39 11	7.1 7.2
6.9	4.7		2108	12 19.9	+39 41	5.3	36.7	42.5	32.0	12 21.0 +39 34	6.1 6.5 6.8
3.7	2.4		2087	12 18.8	+49 39	5.6	36.4	52.5	32.7	12 14.9 +49 32	7.1
3.1	2.1	Dm.	2516	12 9.4	+40 23	7.2	33.2	42.6	31.1	12 11.7 +40 8	6.9 6.9
0.3	0.1	Dm.	2501	12 0.8	+40 28	6.8	31.2	42.7	31.3	12 3.1 +40 13	7.2
~~0.3~~	~~0.1~~	~~Dm.~~	~~2050~~	~~12 58.8~~	~~+40 58~~	~~7.0~~	~~89.2~~				
0.9	0.6	Dm.	2505	12 3.5	+40 42	7.1	31.9	42.7	31.3	12 5.8 +40 27	
~~0.9~~	~~0.6~~	~~Dm.~~	~~2505~~	~~12 3.5~~	~~+40 14~~	~~8.0~~	~~30.9~~	~~42.2~~	~~30.3~~		
4.8	3.0		2046	11 51.0	+41 2	6.4	89.6	42.5	92.6	11 52.1 53.3 +40 55 47	7.1
3.2	1.9		2080	12 10.1	+41 20	6.0	34.5	42.5	32.6	12 14.1 +41 13	
5.5	3.5		2112	12 21.7	+42 2	7.4	37.3	52.1	31.8	12 22.6 +41 55 4	7.0 7.3
4.8	2.9		2101	12 17.9	+43 12	5.9	36.5	52.2	31.7	12 18.9 +43 5	6.5
Dm.			2174	11 50.7	+33 5	6.7				11 53.0 +32 50	
~~Dm.~~	~~2256~~		~~11 48.9~~	~~+42 50~~	~~7.0~~	~~87.5~~	~~52.2~~	~~90.8~~	~~11 51.3 +42 35~~		
3.3	1.9	Dm.	2219	12 11.2	+33 33	7.2	33.0	42.5	31.1	12 13.5 +33 18	6.8 6.9 7.1
2.5	1.7		2082	12 10.5	+33 44	5.1	33.9	42.4	32.2	12 11.5 +33 37	6.5 6.8
1.8	1.1		2054	11 56.0	+43 43	5.1	90.4	52.4	92.2	11 57.2 +43 36	5.7
5.3	3.3	Dm.	2268	11 46.3	+34 26	6.8	88.5	42.4	91.8	11 48.6 +34 11	
~~5.3~~	~~3.3~~	~~Dm.~~	~~2132~~	~~11 43.0~~	~~+44 28~~	~~8.0~~	~~85.2~~	~~52.5~~	~~90.5~~		7.2
6.0	3.7	?	2031	11 44.9	+34 3	6.1	89.3	42.2	93.2	11 46.0 +33 56	6.8
2.9	1.8	Dm.	2279	11 52.5	+34 51	6.6	89.5	42.5	91.3	11 54.8 +34 36	6.6
6.1	3.9	Dm.	2038	12 21.1	+45 36	7.0	37.1	52.3	31.0	12 23.3 +45 21	7.0 7.1
2.4	1.5	Dm.	1983	11 52.9	+45 26	6.8	88.3	52.4	90.7	11 55.2 +45 11	7.0
6.9	4.5	?	2027	11 43.3	+35 36	5.6	88.7	42.3	93.2	11 44.5 +35 29	6.1
4.7	2.7	Dm.	2225	11 48.8	+36 16	6.6	88.6	42.6	91.3	11 51.1 +36 1	
~~4.7~~	~~2.7~~	~~Dm.~~	~~2223~~	~~11 48.5~~	~~+36 8~~	~~6.5~~	~~88.3~~	~~42.4~~	~~91.0~~		6.8
4.8	2.9	Dm.	2223	11 48.5	+36 8	6.5	88.3	42.4	91.0	11 50.8 +35 53	7.0
2.5	1.5		2053	11 55.5	+36 43	5.7	90.9	42.5	92.4	11 56.5 57.8 +36 36	6.4 6.6
7.2	4.8	Dm.	2278	12 20.0	+37 10	7.1	35.0	42.4	30.2	12 22.2 +36 55	7.1
3.0	1.9	Dm.	2238	11 52.7	+37 32	7.8	89.3	42.5	91.2	11 55.0 +37 17	7.0

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Plate 1209.

V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Corrd
10,4	19,5	I	5	N	2	—	5.2	39.0	47.1	53.1	-4.3
9,0	10,4	III	2	K=H	1	F.?	4.5	20.8	47.8	71.3	+4.7
7,6	10,4	III	2	K=H	1	—	3.8	20.8	48.5	71.3	+4.5
7,9	18,2	II	2	K=HK=H	1	F. F.?	4.0	36.4	48.3	55.7	-3.3
7,6	21,3	III	2	K=H	1	—	3.8	42.6	48.5	49.5	-4.2
7,8	22,4	III	4417 Fe?	K=2H?	3	F.1 Bright place.	3.9	44.8	48.4	47.3	-7.2
6,4	14,6	II?	2	K=H	1	—	3.2	29.2	49.1	62.9	+0.3
5,4	8,3	III	4418 3	K=H?	2	F. 2nn	2.7	16.6	49.6	75.5	+4.8
5,6	11,2	III	2	K=H	1	F.?	2.8	22.4	49.5	69.7	+3.9
4,2	15,1	III?	2	K=H	1	—	2.1	30.2	50.2	61.9	-0.0
3,8	14,1	I?	2	N	1	—	1.9	28.2	50.4	63.9	+0.6
3,6	21,6	I	4	K=H	1	—	1.8	43.2	50.5	48.9	-7.1
2,8	19,3	III	2	K=H	1	—	1.4	38.6	50.9	53.5	-3.0
2,2	12,1	III	2	K=H	1	—	1.1	24.2	51.2	67.9	+2.1

III ? 4.9, 5.3. ?

3 15

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				No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Br.
				2039	11 48.9	+47 9		87.9	52.4	92.2	11 49.9 +47 2	
	4.8	2.7		2040	11 49.0	+47 8	5.8	88.0	52.3	92.3	11 50.0 +47 1	6.0
	4.7	2.9	Dm	1955	12 14.8	+47 59	6.5	35.6	42.5	30.9	12 17.0 +47 44	6.8 7.1
	4.8	4.5	Dm	2324	12 13.0	+38 43	6.5	33.8	42.5	29.3	12 15.3 +38 28	7.1 7.3
			Dm	~~2326~~	~~12 13.9~~	~~+38 50~~	~~7.3~~	~~34.7~~	~~42.6~~	~~30.2~~		
	3.3	1.9	Dm	1989	11 57.1	+48 34	7.2	87.5	52.5	90.8	11 53.4 +48 19	6.6 6.8
	6.5	4.2		2034	11 46.1	+38 35	6.4	88.7	42.4	92.9	11 46.9 +38 31	6.8
	7.2	4.9		2018	11 39.7	+48 27	3.9	84.5	52.3	91.7	11 40.8 +48 20	4.9 5.3
	0.5	0.3	Dm.	2496	12 2.1	+39 26	7.0	31.3	42.6	31.0	12 4.4 +39 11	7.3
	7.1	4.8		2108	12 19.9	+39 41	5.3	36.5	42.4	31.7	12 21.0 +39 34	6.2 6.5
	3.9	2.5		2087	12 13.8	+49 39	5.6	36.2	52.4	32.3	12 14.9 +49 32	6.7 7.1
	0.1	0.0	Dm.	2501	12 0.8	+40 28	6.8	31.0	42.6	31.0	12 3.1 +40 13	7.2 7.5
	0.9	0.6	Dm	2508	12 3.5	+40 42	7.1	31.7	42.6	31.1	12 5.8 +40 27	7.1
	7.1	4.9	Dm	1862	11 40.2	+50 38	7.0	83.4	52.4	90.5	11 42.6 +50 23	7.1
	4.8	3.0		2046	11 51.0	+41 2	6.4	89.6	42.4	92.6	11 52.1 +40 55	7.0 7.3
	3.0	2.1		2080	12 10.1	+41 20	6.0	34.3	42.4	32.1	12 11.1 +41 13	~~7.3~~ 9.8 + 4 1.0

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F. m. & e. 8.0 7.8 F. ch. 7.9

June 11, 1887.

Plate 1127.

	V	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	corrd.
9 0	21.5	13.6	I	6	K=.2H	2	—	10.8	27.2	26.6	22.3	+0.3
	21.1	15.6	I	5	H	2	—	10.6	31.2	26.8	18.3	-0.1
	21.6	16.4	I	5	K=.5H	2	—	10.8	32.8	26.6	16.7	-0.3
	19.8	14.5	I	6	K=.5H	2	—	9.9	29.0	27.5	20.5	+0.1
	19.5	22.4	I ?	5	K=H	1	—	9.8	44.8	27.6	4.7	-0.7
	18.9	14.8	I	5	K=.8H	2	—	9.4	29.6	28.0	19.9	+0.1
	18.6	21.6	I ?	3	N	1	—	9.3	43.2	28.1	6.3	-1.5
	17.8	17.5	III	H? 4119 2	K=H	2	F? Seen	8.9	35.0	28.5	14.5	-0.3
	16.7	10.7	III	H 4120 2	K=H	2	F? Seen	8.4	21.4	29.0	28.1	+0.5
III ? 6.6, 7.0.	16.8	14.5	III	2	K=H	2	—	8.4	29.0	29.0	20.5	+0.1
	16.2	17.5	III ?	2	K=H	1	—	8.1	35.0	29.3	14.5	-0.7
	15.5	18.5	I	H	N	1	—	7.8	37.0	29.6	12.5	-0.9
	12.8	18.0	I ?	H	K=H	1	—	6.4	36.0	31.0	13.5	-0.9
	12.3	21.4	III	x2	K=H	1	F?	6.2	42.8	31.2	6.7	-0.9
	11.4	8.8	III	2	K=H	1	F?	5.7	17.6	31.7	31.9	+0.9
	11.8	13.2	I	7	K=.2H	2	F	5.9	26.4	31.5	23.1	+0.3
	8.4	10.9	I	7	N	3	F	4.2	21.8	33.2	27.7	+0.6
	7.5	18.0	I	5	K=H	1	—	3.8	36.0	33.6	13.5	-0.5 +0
	7.4	18.7	III	2	K=H	1	—	3.7	37.4	33.7	12.1	-1.2
?	5.4	13.3	III	a 4121 2	K=H	1	Seen.	2.7	26.6	34.7	22.9	+0.3
	5.0	11.4	I ?	3	N1	1	—	2.5	22.8	34.9	26.7	+0.7
	5.7	19.3	III	2	K=H		F?	2.8	38.6	34.6	10.9	-0.7
	4.5	12.6	I	8	K=.2H	2	F	2.2	25.2	35.2	24.3	+0.4
	4.0	16.6	I	5	?	1	—	2.0	33.2	35.4	16.3	-0.3
	2.4	17.5	II ?	2	K=H	1	—	1.2	31.0	36.2	18.5	-0.1
	1.8	13.6	I	3	N	2	—	0.9	27.2	36.5	22.3	+0.3
	2.0	16.4	I	5	K=.5H	2	—	1.0	32.8	36.4	16.7	-0.3

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Mean 8

			No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. of stars to 1900		Cov. Bv.	Br.
0.3	0.1		2117	12 22.9	+26 35	5.2	50.1	37.4	49.8	12 23.9	+26 28	5.7	6.5
			2116	12 22.8	+26 34		50.0	37.4	49.7	12 23.8	+26 27		
0.1	0.0		2103	12 18.3	+26 46	5.1	49.5	37.4	49.6	12 19.3	+26 39	5.8	6.6
0.3	0.1		2098	12 16.5	+26 31	4.8	49.3	37.3	49.6	12 17.5	+26 24	5.9	6.7
0.1	0.0		2111	12 21.0	+27 29	5.1	50.0	37.4	49.9	12 22.0	+27 22	5.6	6.4
1.6	0.7		2064	12 4.4	+17 28	6.3	47.2	27.3	49.9	12 5.5	+17 22	6.0	6.8
0.1	0.0		2109	12 20.4	+27 56	5.1	50.0	37.3	49.9	12 21.4	+27 49	5.7	6.5
1.5	0.7		2065	12 4.7	+27 57	5.7	47.9	37.3	49.4	12 5.7	+27 50	6.1	6.9
0.6	0.3		2094	12 14.7	+18 27	4.9	49.7	27.3	50.0	12 15.6	+18 20	5.3	6.1
												5.6	6.4
1.0	0.5		2137	12 29.1	+19 2	5.0	50.5	27.4	50.0	12 30.1	+18 56	5.2	6.0
												5.6	6.4
0.1	0.0		2110	12 21.0	+28 56	4.7	50.0	37.3	49.9	12 22.0	+28 49	5.8	6.6
												6.2	7.0
0.7	0.3	Dm.	2280	12 12.6	+29 16	7.0	47.6	37.4	48.3	12 14.9	+29 1	6.4	7.2
												6.7	7.5
0.9	0.4	?	2083	12 10.5	+29 37	5.6	47.5	37.4	48.4	12 12.5	+29 30	5.9	6.7
0.9	0.4	Dm.	2350	12 11.2	+31 4	6.5	47.2	37.5	48.1	12 13.5	+30 49	6.3	7.1
1.8	0.9		2069	12 6.1	+21 13	5.6	48.9	27.4	49.8	12 7.6	+21 6	5.7	6.5
												6.1	6.9
1.8	0.9		2152	12 33.2	+21 44	5.4	50.8	27.4	49.9	12 34.2	+21 36	5.9	6.7
												6.2	7.0
0.5	0.3		2119	12 23.7	+21 34	5.7	50.1	27.5	49.8	12 24.7	+21 27	5.0	5.8
1.4	0.6		2136	12 28.9	+23 17	4.9	50.7	27.5	50.1	12 29.9	+23 10	4.2	7.6
1.0	0.5	Dm.	2219	12 12.0	+23 50	6.3	48.0	27.6	47.5	12 14.3	+23 35	5.8	6.6
			2448	12 11.2	+33 33	7.2	47.2	37.4	48.2				
1.2	0.6		2082	12 10.5	+33 44	5.1	47.9	37.4	49.1	12 11.5	+33 37	6.2	7.0
												6.6	7.4
0.6	0.3		2118	12 23.5	+24 46	5.5	50.1	27.5	49.8	12 24.4	+24 39	5.4	6.2
1.3	0.7	Dm.	2523	12 26.4	+25 5	6.3	49.2	27.6	48.5	12 28.6	+24 50	5.7	6.5
1.5	0.7		2081	12 10.3	+24 37	5.2	48.9	27.4	49.6	12 11.2	+24 30	5.2	6.0
												5.6	6.4
0.8	0.4		2125	12 25.0	+25 14	5.5	50.2	27.4	49.8	12 26.0	+25 7	4.8	5.6
0.6	0.3		2097	12 16.2	+25 26	5.9	49.4	27.4	49.7	12 17.2	+25 19	5.7	6.5
0.2	0.1	Dm.	2345	12 17.2	+26 24	6.3	48.2	27.6	48.3	12 19.5	+26 9		
			2116	12 22.8	+26 34		50.0	27.5	49.7	12 23.8	+26 27		
0.5	0.3		2117	12 22.9	+26 35	5.2	50.1	27.5	49.8	12 23.9	+26 28		
0.5	0.3		2098	12 16.5	+26 31	4.8	49.3	27.5	49.6	12 17.5	+26 24		

12h 11.5m 12 10.2 +29 45

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F. in. ✱c. 8.0 7.3 F. ch. 7.3

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Plate 1128.

r	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	Corrn.
21.6	9.1	III	2	K=H	K=H	1	—	10.8	18.2	46.7	91.2	+5.5 +3.5
21.6	9.6	a? 4122	2	K=H		1	Dem	10.8	19.2	46.7	90.2	+3.1
16.5	7.3	H?	4	K=H		1	—	8.2	14.6	49.3	94.8	+8.1
15.1	7.5	III	3	K=H		1	F	7.6	15.0	49.9	94.4	+5.3
15.8	15.0	III	2	K=H		2	F?	7.9	30.0	49.6	79.4	0.0
15.8	16.7	III	2	K=H		1	—	7.9	33.4	49.6	76.0	-1.8
14.3	11.1	H123 w?	2	K=H		1	Dem	7.2	22.2	50.3	87.2	+2.7
14.4	13.9	III	2	K=H		1	—	7.2	27.8	50.3	81.6	+1.2
12.0	10.0	I	4	K=H		1	—	6.0	20.0	51.5	89.4	+3.7
12.5	18.6	III	2	K=H		1	—	6.2	37.2	51.3	72.2	-2.7
11.2	11.9	?	2	K=1.2H?		3	F?	5.6	23.8	51.9	85.6	+3.0
11.1	14.3	III	2	K=H		1	—	5.6	28.6	51.9	80.8	+0.6
10.8	13.5	III	2	K=H		1	—	5.4	27.0	52.1	82.4	+1.7
10.8	15.3	H? 4124 F? H124	2	K=H		2	F light? dem light?	5.4	30.6	52.1	78.8	-0.5
8.8	15.6	~~H? 0.2~~ 15		K=H		1		4.4	31.2	53.1	78.2	-0.5
7.7	13.3	III ?		N		1	—	3.8	26.6	53.7	82.8	+2.1
7.5	17.2	III		N		1	—	3.8	34.4	53.7	75.0	-2.5 ~~-2.5~~
7.5	23.5	I	6	K=H		2	F	3.8	47.0	53.7	62.4	-7.1
5.5	8.2	III ?	2	K=H		1	—	2.8	16.4	54.7	93.0	+5.9
6.9	18.1	III	12	K=H		1	—	3.4	36.0	54.1	73.4	-3.7
6.0	24.2	II	10	?		5	F	3.0	48.4	54.5	61.0	-11.4
3.6	14.5	III ?	2	K=H		1	—	1.8	29.0	55.7	80.4	+0.7

F. in. ✱c. 7.6 6.5 F. ch. 6.8

Plate 1079

22.8	18.0	I	5	N		2	—	11.4	36.0	20.9	36.0	-0.2
22.4	18.2	I 4125	3	5	N	K=H	1	—	11.2	36.4	21.1	35.6	-0.2
21.4	8.2	III te	3	K=3.0		4	F dem light	10.7	16.4	21.6	55.6	+0.5
21.1	19.0	III	12	K=H		1	F?	10.6	38.0	21.7	34.0	-0.6

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Mean 4

Red of stars to 1900.

			No.	R.A.	Dec.	Mag.	H.	V.	H'				Bv.	
		Dm.	1814	12	35.4	+46 40	6.8	53.6	47.5	48.1	12	37.5 +46 25	7.1	7.3
5.5	3.5	?	~~2153~~	12	33.4	+36 38	6.3	51.6	47.4	48.1			7.4	7.5
5.1	3.1	?	2153	12	33.4	+36 38	6.3	52.6	47.4	49.5	12	34.4 +36 21	6.8	12 32.2 +36 46
8.1	5.3		2176	12	43.2	+49 8	6.2	57.8	57.3	49.8	12	44.1 +49 1	6.6	
7.9	5.3		2163	12	39.3	+39 56	5.9	54.3	47.5	49.0	12	40.3 +39 50	6.8	
	0.0		2108	12	19.9	+39 41	5.3	49.9	47.6	49.9	12	21.0 +39 34	6.4 6.7	
1.8	1.1		2087	12	13.8	+49 39	5.6	47.2	57.5	49.0	12	14.9 +49 32	6.9 7.2	
4.2	2.7	Dm.	2551	12	28.7	+40 29	7.0	50.9	47.7	48.2	12	30.9 +40 14	7.0	
1.2	0.7	Dm.	1925	12	21.7	+50 27	7.3	49.5	57.6	48.3	12	23.9 +50 12	7.0 7.4	7.2 7.4
5.5	3.7		2149	12	33.0	+41 32	6.1	53.0	47.5	49.3	12	33.9 +41 25	6.7	
4.1	2.7		2080	12	10.1	+41 20	6.0	47.3	47.5	50.0	12	11.1 +41 13	6.9 7.2	
3.5	3.0		2133	12	28.0	+42 1	4.3	51.8	47.6	48.8	12	29.0 +41 53	5.2	
0.7	0.6		2112	12	21.7	+42 2	7.4	50.3	47.6	49.7	12	22.6 +41 55	6.8	12 20.4 +42 10
1.7	1.2		2123	12	24.3	+52 12	6.3	51.3	57.6	47.6	12	25.3 +52 5	6.8	
0.5	0.3		2102	12	18.2	+52 12	5.0	48.8	57.6	49.3	12	19.2 +52 7	6.0 6.3	
0.7	0.5		2101	12	17.9	+43 12	5.9	49.1	47.6	49.6	12	18.9 +43 5	6.5	
2.1	1.3		2126	12	25.1	+53 43	6.2	51.7	57.5	49.6	12	26.1 +53 37	6.7 6.9	12 23.9 +53 52
		Dm.	1510	12	10.3	+54 0	6.1	44.7	57.8	47.2	12	12.5 +53 45	7.8	
2.3	1.8	D.M.	~~2242~~	12	11.2	+43 54	8.9	46.1	47.7	47.9			7.5	
10.2	7.1		2054	12'	56.0	+43 43	5.1	103.0	47.5	110.1	12'	57.1 +43 36	5.8	
8.3	5.8		2162	12	38.9	+44 45	6.4	55.3	47.6	49.4	12	39.8 +44 39	7.1	
3.7	2.4	?	2072	12	8.8	+54 7	6.3	44.8	57.5	48.5	12	9.8 +53 59	7.1 7.6	
11.4	7.9		2036	11	47.5	+54 22	2.6	95.9	57.4	107.3	11	48.6 +54 15	8	
0.7	0.5	Dm.	1533	12	19.6	+55 58	7.0	48.6	57.8	47.9	12	21.8 +55 43	7.2	
		D.M.	~~2238~~	12	21.1	+45 36	7.0	50.1	47.4	47.6			7.4	12 19.8 +37 H.P.

Mean 0

0.4	0.2		2157	12	35.8	+10 54	5.1	71.8	22.3	72.0	12	36.8 +10 47		
0.5	0.2	Dm.	2484	12	34.3	+11 13	7.0	70.7	22.4	70.9	12	36.6 +10 58	6.9	6.9 6.7
1.0	0.5		2208	12	56.2	+11 36	3.0	72.6	22.3	72.1	12	57.2 +11 30	5.1 5.3	5.1 5.3
0.6	0.3		2152	12	33.2	+21 44	5.4	71.2	32.3	71.8	12	34.2 +21 36	6.8 7.0	6.8 7.0

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Plate 1079.

		Type	No. lines	K	Other Lines.	V.	H.	V.	H.	correc.
	20,8	6,4	II	2	K=H / —	10.4	12.8	21.9	59.2	+1.3
?	20,8	12,5	III:	3	K=H 2 F?	10.4	25.0	21.9	47.0	+0.4
	21,2	23,4	I	5	K=H / —	10.6	46.8	21.7	25.2	-1.2
	19,1	10,0	III	2	K=H / —	9.6	20.0	22.7	52.0	+0.8
	19,0	11,9	II?	2 2	K=H K=H / — —	9.5	23.8	22.8	48.2	+0.5
	19,5	15,4	I	6	K=H 2 —	9.8	30.8	22.5	41.2	0.0
	19,5	20,8	III?	2 2	K=H K=H / / — —	9.8	41.6	22.5	30.4	-0.9
	18,0	18,0	II	2	K=H / —	9.0	36.0	23.3	36.0	+1.0
	18,6	12,3	I?	3	N / —	9.3	24.6	23.0	47.4	+0.2
	18,0	20,9	I	7	N 3 —	9.0	41.8	23.3	30.2	-1.0
	17,6	13,5	III	2	K=H / —	8.8	27.0	23.5	45.0	+0.2
	17,9	19,0	III	III 2 2	K=H K=H / / — —	9.0	38.0	23.3	34.0	-0.7
	16,4	15,0	I	4	N 2 —	8.2	30.0	24.1	42.0	0.0
	15,3	14,7	I	6	N 2 —	7.6	29.4	24.7	42.6	0.0
	14,7	16,2	II	2	K=H / F?	7.4	32.4	24.9	39.6	-0.1
	14,6	21,5	I	6	N / F	7.3	43.0	25.0	29.0	-1.2
	14,0	22,6	I	7	N 2 F	7.0	45.2	25.3	26.8	-1.5
	14,8	23,3	II	H126 a 2	K=H 2 F? Lcen	7.4	46.6	24.9	25.4	-1.6
	13,8	14,6	II	2	K=H / —	6.9	29.2	25.4	42.8	+0.0
	12,4	15,4	III	III 2 2	K=H K=H / / F? F?	6.2	30.8	26.1	41.2	-0.0
	12,0	16,8	II	H127 a? 2	K=H / Lcen	6.0	33.6	26.3	38.4	-0.4
	11,4	13,0	I	5	K=2H 2 —	5.7	26.0	26.6	46.0	+0.2
	11,1	17,0	II	H128 a? / 2	K=H / Lcen	5.6	34.0	26.7	38.0	-0.4
	11.5	23.5	II a? H128 a	2	K=H Lcen					
	11,4	23,4	I	7	N 2 F	5.7	46.8	26.6	25.2	-1.8
	11,4	24,0	I	3 3	N N / / — —	5.7	48.0	26.6	24.0	-2.0
III: 6.8, 6.5.	10,5	15,6	III	7	K=H / F	5.2	31.2	27.1	40.8	0.0
	10,7	23,5	I	4	N / —	5.4	47.0	26.9	25.0	-1.8
	9,3	8,8	III	2	K=H / F?	4.6	17.6	27.7	54.4	+0.7

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Mean 0

			No.	R.A.	Dec.	Mag.	E.	V.	E'	Red. of stars to 1900	Br.
1.3	0.6		2215	13 0.5	+21 48	6.1	13.3	32.2	12.0	13 1.4 +21 42	6.9 6.9
0.4	0.1		2184	12 47.4	+21 54	5.1	72.4	32.3	72.0	12 48.4 +21 48	6.3 6.3 6.55 6.55
1.2	0.6		2119	12 23.7	+21 34	5.7	70.5	32.2	71.7	12 24.7 +21 27	6.4 6.4
0.8	0.3	Dm.	2531	12 51.6	+22 50	6.8	71.6	32.3	70.8	12 53.8 +22 35	7.2 7.2 7.4 7.4
0.5	0.2	Dm.	2522	12 48.5	+22 54	7.0	71.3	32.4	70.8	12 49.7 +22 39	7.2 7.2 7.0
0.0	0.0		2168	12 41.2	+12 36	5.9	72.0	22.4	72.0	12 42.2 24.7 +12 31	6.3 6.3
			~~2489~~	~~12 27.9~~	~~+12 20~~	~~7.3~~	~~69.5~~	~~32.1~~	~~70.0~~		
0.9	0.5	Dm.	2490	12 27.9	+22 41	6.5	69.5	32.5	70.4	12 30.2 +22 26	7.0 7.0 7.3 7.3 7.2 7.2
~~0.5~~	~~0.2~~	Dm.	2530	12 55.9	+23 25	6.7	71.9	32.4	70.9	12 58.2 +23 10	~~Dm 12 5 6.0 +23 4~~ 6.8 6.8
0.4	0.2		2185	12 47.8	+13 4	6.4	72.4	22.4	72.2	12 48.8 +12 58	6.5 6.5
1.0	0.4		2136	12 28.9	+23 17	4.9	70.7	32.3	71.7	12 29.9 +23 10	5.3 5.3
0.2	0.1	Dm.	~~2502~~	~~12 43.1~~	~~+23 39~~	~~6.5~~	~~70.1~~	~~32.4~~	~~69.9~~	12 45.3 +23 24	7.2 7.2 7.5 7.5
0.7	0.4	Dm.	2479	12 31.8	+23 27	7.0	69.8	32.4	70.5	12 34.0 +23 12	7.0 7.0 7.3 7.3 7.22 7.55
0.0		Dm.	2546	12 41.0	+14 21	6.5	71.0	22.6	71.0	12 43.3 +14 6	~~Dm. 12 41.0 +14 3~~ 6.3 6.3
0.0			2174	12 42.9	+14 47	5.7	72.3	22.4	72.3	12 43.9 +14 41	5.4 5.4
0.2	0.1	Dm.	2504	12 38.2	+15 10	8.0	70.6	22.6	70.7	12 40.5 +14 55	6.5 6.5
1.2	0.5	Dm.	2523	12 26.4	+25 5	6.3	69.4	22.3	70.6	12 28.7 +24 50	6.3 6.3
1.5	0.7		2125	12 25.0	+25 14	5.5	70.2	32.2	71.7	12 26.0 +25 7	5.6 5.6
1.6	0.8		2118	12 23.5	+24 46	6.5	70.1	32.2	71.7	12 24.4 +24 39	5.9 5.9
			2175	12 43.0	+25 30	6.4	72.0	32.4	72.0	12 ~~45.2~~ 43.9 +25 24	6.7 6.7 12 41.7 +25 39
0.0		~~Dm.~~	~~2568~~	~~12 41.7~~	~~+25 39~~	~~6.0~~	~~70.9~~	~~32.5~~	~~70.9~~		
0.1	0.0	Dm.	2420	12 39.9	+16 24	7.3	70.7	22.6	70.7	12 42.2 +16 9	7.0 7.0 7.3 7.3 7.1 7.45
0.4	0.2	Dm.	2385	12 36.5	+26 27	7.5	70.1	32.4	70.5	12 38.7 +26 12	6.2 6.2
		Dm.	2438	12 45.2	+16 55	6.5	71.2	22.6	71.0	12 47.4 +16 40	6.5 6.5
0.4	0.2	~~Dm.~~	~~2399~~	~~12 44.8~~	~~+26 28~~	~~7.5~~	~~70.8~~	~~32.2~~	~~70.4~~		
		Dm.	2383	12 36.2	+26 55	6.8	70.2	32.5	70.6	12 38.4 +26 40	~~Dm 12 33.2 +26 9~~ 6.7 6.7
0.4	0.2	~~Dm.~~	~~2385~~	~~12 36.5~~	~~+26 27~~	~~7.5~~	~~70.5~~	~~32.0~~	~~70.9~~		
			2116	12 22.8	+26 34	—				12 23.8 +26 27	6.8
1.8	0.8		2117	12 22.9	+26 35	5.2	69.7	32.3	71.5	12 23.9 +26 28	5.3 5.3
			~~2440~~								
		Dm.	2352	12 20.4	+26 42	6.5	68.4	32.4	70.4	12 22.7 +26 27	6.8 6.8 6.8
2.0	0.9		~~2116~~	~~12 22.8~~	~~+26 34~~	~~5.2~~	~~69.8~~	~~32.3~~	~~70.5~~		
0.2	0.0		2167	12 40.7	+17 14	5.3	71.9	22.4	71.9	12 41.7 +17 8	6.4 6.4 6.8 6.8
		Dm.	2138	12 21.4	+27 2	6.5	68.4	32.4	70.2	12 23.7 +26 47	~~Dm. 12 21.2 +26~~ 6.5 6.5
1.8	0.8	~~Dm.~~	~~2354~~	~~12 21.7~~	~~+26 43~~	~~6.0~~	~~68.7~~	~~32.1~~	~~70.5~~		
1.4	0.7	Dm.	2573	12 54.0	+17 55	6.7	71.6	22.5	21.8	12 56.2 +17 40	6.5 6.5 6.8 6.8

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June 11, 1887.

Plate 1079.

V.	H.	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrn.
V.	9.4	20.2	III	2	3	K=H K=H	1	F	—	4.7	40.4	27.6	31.6	-0.6
	8.3	6.1	III			K=H	1		—	4.2	12.2	28.1	59.8	+2.1
III?; 6.3, 6.5.	8.1	6.4	III	4129 1	2	K=H	2		bright seen	4.0	12.8	28.3	59.2	+2.1
III?; 6.1, 6.4.	8.8	9.8	III	4130 1	3	K=H	2	F	bright seen	4.4	19.6	27.9	52.4	+0.6
	8.5	13.3	III	4131	3	K=1.5 1 H ?	2	F	seen	4.2	26.6	28.1	45.4	+0.4
	8.5	14.4	III		7	K=2 H	2	—		4.2	28.8	28.1	43.2	+0.2
	6.8	9.0	III	4132 a	2	K=H	1	F?	seen	3.4	18.0	28.9	54.0	+0.7
?	6.8	10.2	I?	1 H	K=H		1			3.4	20.4	28.9	51.6	+1.2
	6.8	21.1	III	? 1 3	K=H		2	F		3.4	42.2	28.9	29.8	-1.5
?	6.8	24.1	III	4133 h	3	K=H	2	F	seen	3.4	48.2	28.9	23.8	-2.3
	5.3	6.9	I	4		K=H	1	—		2.6	13.8	29.7	58.2	+2.2
	5.3	13.2	I	? 3		N	1	—		2.6	26.4	29.7	45.6	+0.2
V. H.	5.3	13.5	III	? III 1 2	2	K=H K=H	1 1	F?		2.6	27.0	29.7	45.0	+0.2
	4.6	12.4	III		2	K=H	1	—		2.3	24.8	30.0	47.2	+0.4 +0.4

F. m. 8c. F. ch.

	8.0	7.2	Plate 1080							7.4			
21.2	9.2	III		2	K=H		1	—		10.6	18.4	42.0 1.5	52.2	+2.7 +2.7
21.0	17.9	I	?	3	N		1	—		10.5	35.8	41.6	34.8	-2.1
20.2	19.7	III	4134 a	2	K=1.5 1 H		2	F?	seen	10.1	39.4	42.0	31.2	-3.6
17.4	23.3	III	a? 4135	2	K=H		1		seen	8.7	46.6	43.4 3	24.0	-6.7
16.0	11.9	I		4	K=1.5 H		1	—		8.0	23.8	44.1	46.8	+1.5
16.3	20.4	II	4136 a	2	3 K=H	K=H	1 1	F?	F seen	8.2	40.8	43.9	29.8	-2.7
15.8	11.3	I		4	H K=H	K=H	1 1	—		7.9	22.6	44.2	48.0	+3.0
14.8	15.6	III		2	K=H		1	F?		7.4	31.2	44.7	39.4	-0.6
12.4	8.1	III		2	K=H		1	—		6.2	16.2	45.9	54.4	+6.1
11.4	7.2	I		6	N		3	F?		5.7	14.4	46.4	56.2	+4.8
11.5	17.9	I	? I 3	4	N	K=H	1 1	—		5.8	31.8	46.3	38.8	-0.5
11.1	17.9	I		5	N		2	—		5.6	35.8	46.5	34.8	-1.7

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Mean 0

Red. of stars to 1900.

	No.	R.A.	Dec.	Mag.	H.	V.	H′				Corr. Br.	Br.
	2143	12	31.0	+17	45	5.6	71.4	22.5	72.0	12 31.9 +17 38	6.7	6.7 6.8
	2184	13	1.0	+28	19	6.8	13.2	32.5	11.7	13 3.2 +28 5	7.1	7.1 7.2
	~~2218~~	~~13~~	~~1.4~~	~~+28~~	~~16~~	~~4.9~~	~~13.6~~	~~32.5~~	~~11.6~~		6.9	6.9
	2218	13	1.4	+28	16	4.9	14.2	32.3	12.1	13 2.4 +28 10	7.2	7.2
											6.3	6.3
											6.8	6.8
	2201	12	53.0	+18	4	5.0	72.6	22.5	72.0	12 54.0 +17 57	6.0	6.0 6.5
	2181	12	45.9	+28	12	5.0	72.5	32.4	72.1	12 46.8 +28 6	5.5	5.5
	2178	12	43.5	+28	12	6.0	72.3	32.4	72.1	12 44.4 +28 6	5.4	5.4
Dm	2622	12	53.5	+19	10	6.5	71.5	22.6	70.8	12 55.7 +18 55	6.5	6.5
Dm	2348	12	51.6	+29	7	7.0	72.0	32.5	70.8	12 53.8 +28 52	6.7	6.7
	2137	12	29.1	+19	2	5.0	71.8	22.4	72.8	12 30.1 +18 55	5.9	5.9
	2110	12	21.0	+28	56	4.7	69.2	32.3	71.5	12 22.0 +28 49	5.9 6.2	5.9 6.2
Dm	2365	12	59.3	+29	49	6.8	73.1	32.4	70.9	13 1.5 +29 34	6.5	6.5
Dm	2613	12	44.8	+19	57	6.8	71.2	22.6	71.0	12 47.0 +19 42	6.9	6.9
Dm	2612	12	44.0	+19	58	7.0	71.0	22.6	70.8	12 46.2 +19 47	7.1 7.4	7.1 7.4 7.0 7.2
Dm	2772	12	46.4	+20	17	6.5	71.2	22.6	70.8	12 48.6 +20 2	7.0 7.3	7.0 7.3
~~Dm~~	~~2614~~	~~12~~	~~46.7~~	~~+19~~	~~52~~	~~7.5~~	~~71.5~~	~~22.2~~	~~71.1~~			

Mean 2

	2204	12	54.5	+31	26	5.1	62.9	42.0	60.2	12 55.5 +31 20	6.7 7.2
	~~2348~~		~~53.0~~	~~+41~~	~~36~~	~~8.1~~	~~73.4~~	~~52.2~~	~~69.7~~		
Dm	~~2434~~	~~12~~	~~53.4~~	~~+31~~	~~34~~	~~5.2~~	~~71.8~~	~~42.2~~	~~69.1~~		
	2149	12	33.0	+41	32	6.1	68.8	52.0	70.9	12 33.9 +41 25	6.5 6.7
	2133	12	28.0	+42	1	4.3	67.4	52.1	71.0	12 29.0 +41 53	5.3 5.5
	2101	12	17.9	+43	12	5.9	64.5	51.9	71.2	12 18.9 +43 5	6.3 6.5
	2190	12	48.5	+34	11	6.4	72.3	42.2	70.8	12 49.5 +34 5	6.5 6.7
	2132	12	27.8	+33	55	5.3	68.6	42.1	71.3	12 28.7 +33 48	6.6 6.8
Dm	2234	12	50.0	+44	21	6.5	72.6	52.3	72 49.3	12 52.1 +44 6	6.7 6.9 7.0
	2162	12	38.9	+44	45	6.4	70.1	52.2	70.7	12 39.8 +44 39	6.6 6.8
	2214	13	0.5	+45	55	5.7	16.7	52.1	10.6	13 1.4 +45 48	6.4 6.6 6.7 6.9
	2213	13	0.1	+36	26	5.3	14.5	42.1	9.7	13 2.0 +36 20	5.1 5.3
Dm	2305	12	37.2	+36	34	6.7	69.0	32.4	69.5	12 39.4 +36 19	6.8 7.0 7.2
	2153	12	33.4	+36	38	6.3	69.2	42.2	70.9	12 34.4 +36 31	6.3 6.6

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June 11, 1887.

Plate 1080.

V	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H.	Correc.
10,7	11,2	III	12	K=H	1	—	5.4	22.4	46.7	48.2	+3.6
8,1	13,5	I	2	K=H	2	—	4.0	27.0	48.1	43.6	+0.9
6,5	11,2	II	4137	K=H	1	Fe	3.2	22.4	48.9	48.2	+2.5
6,2	14,1	I	2	K=H	1	—	3.1	28.2	49.0	42.4	+0.9
4,6	17,4	II	2	K=H	1	Fe	2.3	30.8	49.8	39.8	-0.3
4,8	23,0	III?	2	K=H	2	Fe?	2.4	46.0	49.7	24.6	-5.5
3,6	19,0	I	3	K=H	1	—	1.8	38.0	50.3	32.6	+4.5 -2.7

10 40

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Mean 2

Red. of stars to 1900.

No.	R.A.	Dec.	MAG.	H.	V.	H'				Com. By	Com. Br.
2199	12	51.7	+46 50	6.2	74.1	52.2	70.5	12	52.6	+46 44	6.6 6.8 / 6.8 7.0 7.3
2179	12	44.4	+38 11	5.9	71.4	42.2	70.5	12	45.4	+38 4	5.8 6.0
2195 / 2196	12	50.4	+38 58	3.0	72.8	42.2	70.3	12	51.4	+38 52	B B
2176	12	43.2	+49 8	6.2	71.4	52.2	70.5	12	44.1	+49 1	6.4 6.6
2163	12	39.3	+39 56	5.9	70.1	42.2	70.4	12	40.3	+39 50	6.5 6.7
2108	12	19.9	+39 41	5.3	65.9	42.1	71.4	12	21.0	+39 34	6.2 6.4 / 6.4 6.6
~~19 29~~	~~12~~	~~26.4~~	~~+50 6~~	~~7.7~~	~~64.4~~	~~57.9~~	~~68.9~~				
Dm 25 51	12	28.7	+40 29	7.0	66.7	42.3	69.4	12	30.9	+40 14	6.8 7.0

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1887phae.proj..838F

F. m. 7c. 8.0 6.8 F. ch. 6.9

June 14, 1887.

Plate 1338.

r	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H.	correc
g 20	20.0	6.5					10.0	13.0	42.5	80.8	+4.2
	20.8	13.1					10.4	26.2	42.1	67.6	+1.3
	19.4	12.2					9.7	24.4	42.8	69.4	+1.7
	19.5	20.7					9.8	41.4	42.7	52.4	-2.7
	17.3	6.0					8.6	12.0	43.9	81.8	+7.5
	16.8	6.9					8.4	13.8	44.1	80.0	+6.9
	16.2	15.4					8.1	30.8	44.4	63.0	-0.5
	14.8	22.3					7.4	44.6	45.1	49.2	-4.1
III? 5.9, 6.3.	13.0	11.7					6.5	23.4	46.0	70.4	+1.5
	13.9	22.6					7.0	45.2	45.5	48.6	-4.5
	11.8	12.4					5.9	24.8	46.6	69.0	+2.4
	10.0	6.3					5.0	12.6	47.5	81.2	+8.4
	10.3	22.9					5.2	45.8	47.3	48.0	-5.3
	8.0	11.9					4.0	23.8	48.5	70.0	+2.5
	7.4	6.1					3.7	12.2	48.8	81.6	+6.0
	7.5	15.2					3.8	30.4	48.7	63.4	-0.3
	6.5	10.9					3.2	21.8	49.3	72.0	+2.7
	6.5	23.7					3.2	47.4	49.3	46.4	-6.0
	6.6	24.0					3.3	48.0	49.2	45.8	-6.1
	5.1	15.0					2.6	30.0	49.9	63.8	0.0
	5.1	21.8					2.6	43.6	49.9	50.2	-7.1
	4.1	8.4					2.0	16.8	50.5	77.0	+7.2
	4.6	12.3					2.3	24.6	50.2	69.2	+1.8
	2.0	16.7					1.0	33.4	51.5	60.4	-1.8

F. m. 7c. Dark Plate. Hard to measure. F. ch.

5.3 5.0 7.0

Plate 1204.

	22.3	20.4					11.2	40.8	26.5	39.3	-1.1
	21.6	16.7					10.8	33.4	26.9	46.7	-0.2

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	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. to 1900							Br.
	Dm	2482	14	23.6	+32	26	6.5	36.6	42.4	32.4	14	25.5	+32	14	6.4
		2397	14	9.5	+42	5	6.0	35.7	52.5	34.4	14	10.3	+42	0	7.2 7.5
	Dm	2451	14	10.3	+32	53	7.0	34.7	42.6	33.4	14	12.3	+32	40	7.3 7.2
		2363	13	58.4	+32	37	6.4	91.8	42.4	94.5	13	51.2	+32	31	6.9
	Dm	2417	14	28.2	+43	39	6.5	40.2	52.2	32.7	14	29.9	+43	27	7.2 7.3
	Dm	2365	14	25.8	+44	1	6.8	39.6	52.4	32.7	14	27.5	+43	59	6.8
		2382	14	3.1	+44	26	5.5	33.9	52.5	34.4	14	3.9	+44	20	6.8 7.2
		2352	13	46.5	+35	2	4.9	91.1	42.4	95.2	13	47.4	+34	57	H.P. 233 6.5 7.0
		~~2347~~	~~13~~	~~45.9~~	~~+35~~	~~17~~	~~6.0~~	~~90.5~~	~~42.7~~	~~94.6~~					6.1 6.5
		2409	14	13.0	+36	4	4.8	36.4	42.6	34.6	14	13.8	+35	58	
		2346	13	45.8	+35	22	6.4	91.0	42.4	95.5	13	46.7	+35	16	6.5
		2403	14	11.8	+46	38	4.3	36.6	52.5	34.2	14	12.6	+46	33	4.1
	Dm	2158	14	28.8	+47	25	6.2	41.4	52.4	33.0	14	30.4	+47	13	6.5
	Dm	2457	14	43.4	+37	20	6.5	89.2	42.5	94.5	13	45.4	+37	6	6.7
	Dm	2188	14	12.4	+48	48	6.6	36.2	52.7	38.7	14	14.1	+48	27	6.7
		2436	14	27.2	+38	50	3.1	39.4	42.5	33.4	14	28.0	+38	45	B.
	Dm	2177	14	2.5	+48	54	6.7	32.9	52.7	33.2	14	4.2	+48	41	6.8
		2414	14	14.9	+39	22	5.9	36.7	42.6	34.0	14	15.7	+39	15	6.3
		2334	13	41.8	+39	10	5.5	89.2	42.4	95.2	13	42.7	+39	3	6.7 H.P. 233 7.0
		~~2330~~	~~13~~	~~41.1~~	~~+39~~	~~6~~	~~5.8~~	~~88.5~~	~~42.3~~	~~94.2~~					
		2330	13	41.1	+39	6	5.8	89.1	42.4	95.2	13	42.0	+38	9	7.0 7.2 ~~+13 40.6 +39 14~~
		2383	14	3.7	+50	0	5.5	33.7	52.6	33.7	14	4.6	+49	56	6.8 7.3
		2338	13	42.8	+49	55	2.0	86.4	52.5	93.5	13	43.6	+49	49	B.
		2432	14	24.6	+50	28	5.6	41.4	52.4	34.2	14	25.2	+50	17	6.9
		2402	14	11.5	+40	18	6.3	36.1	42.6	34.3	14	12.3	+40	13	6.9
		2377	13	58.6	+51	34	6.2	92.0	52.6	93.8	13	59.3	+51	27	
	Dm	2385	12	36.5	+26	27	7.5	77.3	37.6	78.4	12	38.7	+26	11	7.0 7.4
	Dm	2430	12	45.2	+16	55	6.5	78.6	27.7	78.8	12	47.4	+16	40	6.5

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Plate 1204.

V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
21.5	20.6	III	2	K=H	1	—	10.8	41.2	26.9	38.9	−1.2
20.8	19.5	III	2	K=H	1	F?	10.4	39.0	27.3	41.1	−0.5
20.2	8.5	III	2	K=H	1	—	10.1	17.0	27.6	63.1	+0.7
19.8	12.7	III	2	K=H	1	F?	9.9	25.4	27.8	54.7	+0.2
19.3	13.7	III	3	K=H	2	F	9.6	27.4	28.1	52.7	+0.1
19.0	16.7	II?	2	K=H?	1	—	9.5	33.4	28.2	46.7	−0.4
19.8	16.8	IIa	2	K=H	1	— seen	9.9	33.6	27.8	46.5	−0.2
19.0	17.8	I	7	K=2H	2	—	9.5	35.6	28.2	44.5	−0.7
18.3	7.9	II	2	K=2H	? 2	F?	9.2	15.8	28.5	64.3	+1.7
18.9	8.4	a	1	K=H	2	F seen	9.4	16.8	28.3	63.3	+0.7
18.8	10.0	II	2	K=H	1	F?	9.4	20.0	28.3	60.1	+1.2
17.4	12.9	II?	2	K=H	K=H 1	F? —	8.7	25.8	29.0	54.3	+0.3
17.9	13.4	II	2	K=H	K=H 1	—	9.0	26.8	28.7	53.3	+0.4
17.5	13.8	I	?	3	N	1 —	8.8	27.6	28.9	52.5	+0.3
16.5	9.0	III	2	K=H	1	—	8.2	14.0	29.5	66.1	+1.0
16.0	10.5	I	5	N	1	—	8.0	21.0	29.7	59.1	+1.2
15.9	16.1	III	2	K=H	K=H 1	F?	8.0	32.2	29.7	47.9	−0.1 −0.3
15.0	16.2	II	?	2	K=H	1 —	7.5	32.4	30.2	47.7	−0.2
15.7	17.0	III	?	2	K=H	1 —	7.8	34.0	29.9	46.1	−0.2
13.0	21.2	I	?	I	4	H K=H K=H 1 1 —	6.5	42.4	31.2	37.7	−1.8
13.0	21.5	III	2	2	K=H	K=H 1 1 —	6.5	43.0	31.2	37.1	−1.9
12.6	13.1	II	?	3	K=H	2 F	6.3	26.2	31.4	53.9	+0.5
11.5	8.2	II	2	K=H	1	—	5.8	16.4	31.9	63.7	+1.0
11.8	10.3	a	4	H	K=H	1 F? seen	5.9	20.6	31.8	59.5	+0.7
11.8	16.3	II	?	2	K=H	2 F?	5.9	32.6	31.8	47.5	−0.2
11.8	22.9	III	2	2	K=H	1 —	5.9	45.8	31.8	34.3	−1.2
10.2	7.9	II	2	K=H	1	—	5.1	15.8	32.6	64.3	+1.1 2.3
10.6	13.0	III	2	2	K=H	K=H 1 —	5.3	26.0	32.4	54.1	+0.6 1.3

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			No.	R.A.	Dec.	Mag.	Et.	V.	Et'	Red. to 1900				Br.
1.2	0.6	Dm	2383	12	36.2	+26 55	6.8	77.4	37.7	78.6	12	38.4	+26 40	6.9 7.1
1.0	0.5		2167	12	40.7	+17 14	5.3	79.7	27.6	80.2	12	41.7	+17 8	6.7 7.0
1.5	0.7	Dm	2595	13	2.6	+17 36	6.8	19.6	27.7	18.9	13	4.8	+17 22	7.1 7.4
0.5	0.2	Dm	2573	12	54.0	+17 53	6.7	79.4	27.8	79.2	12	56.2	+17 40	6.8 7.0
0.3	0.1		2201	12	53.0	+18 4	5.0	80.1	27.7	80.3	12	54.0	+17 57	6.4 6.8
0.4	0.2		2181	12	45.9	+28 12	5.0	77.3	37.7	77.7	12	46.8	+28 6	6.0
			2182	12	46.2	+17 44		79.8	27.6	80.0	12	47.2	+17 37	7.1 7.0
0.4	0.2		~~2183~~	~~12~~	~~46.4~~	~~+17 46~~	—	~~82.0~~	~~27.7~~	~~80.2~~				
0.7	0.3		2178	12	43.5	+28 12	6.0	79.1	37.7	79.8	12	44.4	+28 6	6.0
1.7	0.8		2232	13	6.3	+28 29	4.4	22.1	37.7	20.4	13	7.3	+28 22	5.8
1.6	0.7		2226 2227	13	4.2	+18 10	4.4	21.0	27.6	20.3	13	5.2	+18 3	6.5 6.9
1.2	0.5		2218	13	1.1	+28 16	4.9	21.4	37.7	20.2	13	2.4	+28 10	
0.5	0.3	Dm	2622	12	53.5	+19 10	6.5	79.3	27.9	79.0	12	57.7	+19 55	6.6 6.6
0.4	0.2	Dm	2171	12	52.6	+28 52	7.3	79.4	37.9	79.0	12	57.8	+28 37	6.9 6.9
0.3	0.1	Dm	2348	12	51.6	+29 7	7.0	79.2	37.9	78.9	12	53.8	+28 52	6.9 7.1
2.1	1.0		~~2234~~ 2235	13	7.3	+19 21	6.8	21.3	27.5	20.3	13	~~8.4~~	+19 15	~~13 6.2 +19 39~~
1.2	0.5	Dm	2365	18 2	59.3	+29 49	6.8	80.3	37.8	79.1	13	1.5	+29 34	6.5
		Dm	2614	12	46.6	+19 52	7.5	78.8	27.9	78.9	12	48.8	+19 37	7.0 7.2
0.3	0.1	Dm	2334	12	46.2	+29 48	7.7	78.4	37.8	78.7				7.1 7.4
0.3	0.2	Dm	2772	12	46.4	+20 17	6.5	78.8	27.8	79.0	12	47.6	+20 2	6.9
0.5	0.2	Dm	2613	12	44.8	+19 57	6.8	78.8	27.8	79.0	12	47.0	+19 42	6.9 7.1
1.0	0.5	Dm	2397	12	34.0	+31 14	6.8	76.4	37.7	78.2	12	36.2	+30 59	6.9 7.0
1.9	0.9	Dm	2396	12	33.5	+31 11	7.2	76.5	37.7	78.4	12	35.7	+30 56	7.1 7.2 7.4 7.5
0.5	0.3		2204	12	54.5	+31 26	5.1	80.7	37.7	80.2	12	55.5	+31 20	6.1 6.3
2.0	1.0	Dm	2550	13	3.8	+22 0	7.0	20.2	27.8	19.2	13	6.0	+21 46	7.0
1.4	0.7		2215	13	0.5	+21 48	6.1	21.1	27.7	20.1	13	1.4	+21 42	6.5
0.4	0.2		2184	12	47.1	+21 54	5.1	80.0	27.8	80.2	12	48.4	+21 48	5.9
2.5	1.2		2152	12	33.2	+21 44	5.4	79.0	27.6	80.2	12	34.2	+21 36	6.4 6.6
			~~2327~~	~~13~~	~~5.2~~	~~+32 53~~	~~6.7~~	~~21.0~~	~~38.0~~	~~18.7~~				
2.3	1.1	Dm	2552	13	4.5	+22 42	7.1	20.3	37.8	19.2	13	6.7	+22 28	7.2 7.1 7.3 7.4
			~~2532~~	~~12~~	~~53.2~~	~~+22 21~~	~~7.3~~	~~79.2~~	~~27.7~~	~~78.9~~				
0.6	0.4	Dm	2311	12	53.5	+32 33	6.8	80.5	37.9	78.9	12	55.7	+32 18	

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Plate 1204.

T	H	Type	Lines	K	Focus	Other Lines.	V.	H.	V.	H.	Correc.
10.0	13.9	III ?	2	K=H	1	—	5.0	27.8	32.7	52.3	+ 0.2
9.8	8.1	III ?	2	K=H	1	—	4.9	16.2	32.8	63.9	+ 2.2
9.6	10.3	III	x 2	K=H	1	—	4.8	20.6	32.9	.595	+ 0.7
8.9	11.9	III	2	K=H	1	—	4.4	23.8	33.3	56.3	+ 0.5
8.4	17.6	III ?	2	K=H	1	—	4.2	35.2	33.5	44.9	− 0.4
7.1	15.6	III	K=.5 H	2	—		3.6	31.2	34.1	48.9	-0.2
5.4	7.7	III ?	2	K=H	1	—	2.7	15.4	35.0	64.7	+ 1.4
5.5	8.8	III ?	3	K=H	1	—	2.8	17.6	34.9	62.5	+ 2.2
4.4	18.3	III	x 2	K=H	1	—	2.2	36.6	35.5	43.5	-0.6
2.6	10.9	I	7	N	3	F	1.3	21.8	36.4	58.3	+1.6

F. m. & c. 8.0 7.3 F. ch. 7.3

Plate 1141

18.0	17.0	III a H145	2	K=H	2	F? diff	9.0	34.0	28.5	66.8	-0.3
? 18.7	18.3	III a H146	3	K=H	2	F, diff	9.4	36.6	28.1	64.2	-0.3
18.4	19.2	III	2	K=H	1	—	9.2	38.4	28.3	62.4	- 1.0
15.5	19.6	I ?	x H	K=H	1	—	7.8	39.2	29.7	61.6	- 1.2
12.0	22.0	III	3	K=H	1	F	6.0	44.0	31.5	56.8	-2.0
11.4	20.0	III ?	2	K=H	1	F?	5.7	40.0	31.8	60.8	-0.7
6.2	11.4	I	3	N	1	—	3.1	22.8	34.4	78.0	+0.6
? 3.6	14.0	III a H147	2	K=H	1	diff	1.8	28.0	35.7	72.8	+0.4
2.3	19.4	I	6	N	2	—	1.2	38.8	36.3	62.0	-1.6

F. m. & c. 8.0 7.3 F. ch. 7.3

Plate 1243

21.0	23.1	III ?		N ?	1	—	10.5	46.2	27.0	47.2	- 0.8
19.3	18.9	III ?	2	K=H	1	—	9.6	37.8	27.9	55.6	- 0.4
? 18.0	13.8	III a? H148	3	K=H 1.2	3	F? diff	9.0	27.6	28.5	65.8	+0.3
? 18.8	14.8	III a H149	3	K=H 1.2	3	F, diff	9.4	29.6	28.1	63.8	0.0
18.5	15.8	III H150	2	K=H	1	diff	9.2	31.6	28.3	61.8	-0.2

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		No.	R.A.	Dec.	MAG.	H.	V.	H'	Red. of stars to 1900	Br.
0.4	0.2	Dm 2531	12	51.6	+22	50	6.8	79.4	27.8	79.2	12 53.8 +22 35	7.2
2.2	1.0	Dm 2327	13	5.2	+32	53	6.7	21.4	37.8	19.2	13 7.3 +32 38	7.0
1.5	0.7	Dm 2537	12	59.3	+23	3	6.5	79.9	27.8	79.2	13 1.5 +22 48	6.8
1.0	0.5	Dm 2530	12	55.9	+23	25	6.7	79.7	27.8	79.2	12 58.1 +23 10	6.7
0.9	0.4	Dm 2502	12	43.1	+23	39	6.5	78.3	27.8	78.7	12 45.3 +23 24	7.1 7.3
0.2	0.1		2190	12	48.5	+34	11	6.4	79.7	37.8	79.9	12 49.5 +34 5	6.3 12 47.3 +34 20
2.7	1.4	Dm 2610	13	5.1	+25	2	6.5	20.5	27.7	19.1	13 7.3 +24 48	7.1 7.4
2.2	1.2	Dm 2414	13	4.0	+35	5	6.8	21.6	37.8	19.4	13 7.1 +34 58	7.0
1.2	0.6		2175	12	43.0	+25	30	6.4	79.6	27.7	80.2	12 43.9 +25 24	6.6 6.9 12 41.7 +25 39
1.6	0.8		2213	13	0.1	+36	26	5.3	21.9	37.7	20.3	12 1.1 +36 7x	5.5 12 17.0 +36 34
0.5	0.3		2232	13	6.3	+28	29	4.8	40.3	37.5	40.6	13 7.3 +28 22	5.8
0.8	0.3		2226 2227	13	4.2	+18	10	4.4	40.8	27.6	41.1	13 5.2 +18 3	5.9
1.2	0.5		2218	13	1.4	+28	16	4.9	39.8	37.5	40.8	13 2.4 +28 10	7.1 7.4
1.2	0.6	Dm	2365	12	59.3	+29	49	6.8	98.5	37.6	99.7	13 4.5 +29 X4	7.0
2.0	1.0		2204	12	54.5	+31	26	5.1	98.5	37.4	100.5	12 55.5 +31 20	6.6 7.0
1.5	0.7		2215	13	0.5	+21	48	6.1	40.5	27.5	41.2	13 1.4 +21 42	7.0 7.1
1.3	0.6		2266	13	19.4	+24	28	5.9	42.2	27.6	41.6	13 20.3 +24 22	6.7 13 18.2 +24 36
0.4	0.2		2254	13	13.6	+35	45	6.7	41.6	37.6	41.2	13 14.5 +35 39	7.0
1.6	0.9		2213	13	0.1	+36	26	5.3	38.9	37.6	40.5	13 1.0 +36 20	
1.8	0.8	Dm	2430	12	45.2	+16	55	6.5	91.4	27.4	92.2	12 47.4 +16 40	7.1
0.9	0.4	Dm	2573	12	54.0	+17	55	6.7	91.8	27.5	92.2	12 56.2 +17 40	7.0 7.3
0.3	0.1		2232	13	6.3	+28	29	4.4	33.9	37.5	33.6	13 7.3 +28 22	5.2
0.1	0.0		2226 2227	13	4.2	+18	10	4.4	33.8	27.6	33.8	13 5.2 +18 3	5.2 6.6
0.2	0.0		2218	13	1.4	+28	16	4.9	33.0	37.5	33.2	13 2.4 +28 10	7.1

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June 15, 1887.

Plate 1243.

V	H	Type	No. lines	K	Forces	Other lines,	V.	H.	V.	H.	Correc.
18.8	20.0	III	11	N	1	F	9.4	40.0	28.1	53.4	−0.5
18.4	22.7	II	a H151 3	K=3.0 H?	2	F. diff	9.2	45.4	28.3	48.0	−1.9
18.2	23.7	II	5	K=1.5 H	1	—	9.1	47.4	28.4	46.0	−2.1
17.0	19.1	II	? 2	K=H	1	—	8.5	38.2	29.0	55.2	−0.5
16.3	13.3	III	x2	K=H	1	—	8.2	26.6	29.3	66.8	+0.2
16.8	19.6	II	x2	K=H	1	—	8.4	39.2	29.1	54.2	−1.2
15.6	11.8	III	2	K=H	1	—	7.8	23.6	29.7	69.8	+0.4
15.6	16.2	II	3	N	1	—	7.8	32.4	29.7	61.0	−0.3
14.2	11.7	II	4	K=H	1	—	7.1	23.4	30.4	70.0	+0.4
14.6	22.4	III	? 2	K=H	1	—	7.3	44.8	30.2	48.6	−0.9
? 12.2	18.7	III	b H152	K=H	2	F? diff	6.1	37.4	31.4	56.0	−1.0
11.4	14.4	II	a? H153	K=H	1	diff	5.7	28.8	31.8	64.6	+0.1
III? 6.2, 6.6. 11.5	16.3	II	a? H154 3	K=H	2	F diff	5.8	32.6	31.7	60.8	−0.2
11.1	22.4	III	? 2	K=H	2	F?	5.6	44.8	31.9	48.6	−1.0
10.0	14.0	III	? 2	K=H	1	—	5.0	28.0	32.5	65.4	+0.1
9.6	13.8	II	? 3	N	1	—	4.8	27.6	32.7	65.8	+0.4
9.2	16.3	II	? 4	K=H	1	—	4.6	32.6	32.9	60.8	−0.2
8.8	13.1	III	x2	K=H	1	—	4.4	26.2	33.1	67.2	+0.6
8.7	16.3	III	III? 2	K=H K=H	1 1	—	4.4	32.6	33.1	60.8	−0.2
8.6	17.9	II	? ? ?		1	—	4.3	35.8	33.2	57.6	−0.9 (0.5)
6.1	7.8	II	2	N	2	—	3.0	15.6	34.5	77.8	+1.3
6.6	21.1	II	5	N	1	—	3.3	42.2	34.2	51.2	−2.1
5.6	11.1	III	2	K=H	1	—	2.8	22.2	34.7	71.2	+1.3
5.4	13.7	III	2	K=H	1	—	2.7	27.4	34.8	66.0	+0.2
4.2	17.5	III	III? 2	K=H K=H	1	—	2.1	31.0	35.4	62.4	−0.1
3.6	10.9	II	7	K=H	2	F	1.8	21.8	35.7	71.6	+1.5
3.0	12.5	II	5	K=H	1	—	1.5	25.0	36.0	68.4	+0.9
2.4	16.2	II	7	N	3	F	1.2	32.4	36.3	61.0	−0.5

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			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Br.
1.2	0.5		2201	12 53.0	+18 4	5.0	930	275	935	12 54.0 + 17 57	6.7 7.1
1.9	-0.9		2181	12 45.9	+28 12	5.0	913	374	932	12 46.8 + 28 6	6.1
2.1	1.0		2178	12 43.5	+28 12	6.0	909	373	930	12 44.4 + 28 6	6.5
1.0	0.5	Im	2622	12 53.5	+19 10	6.5	917	277	922	12 55.7 + 18 55	6.7
0.5	0.2		2235 (2234)	13 7.3	+19 21	6.8	339	275	337	13 8.4 + 19 15	7.0 7.4 136.2+19 29
1.2	0.6	Im	2348	12 57.6	+29 7	7.0	908	375	920	12 53.8 + 28 52	7.1
0.8	0.4	Im	2655	13 9.2	+19 50	7.1	328	276	320	13 11.4 + 19 36	7.1 7.4
0.3	0.1	Im	2365	12 59.3	+29 49	6.8	917	376	920	13 1.5 + 29 34	6.5
0.9	0.4		2243	13 10.7	+20 25	6.3	341	275	337	13 11.7 + 20 19	6.7 139.5+20 33
2.0	0.9	Im	2772	12 46.4	+20 17	6.5	912	276	921	12 48.6 + 20 2	7.0 7.3
1.0	0.5		2204	12 54.5	+31 26	5.1	919	375	929	12 55.5 + 31 20	6.0 6.4
0.2	0.1	Im	2550	13 3.8	+22 0	7.0	326	277	276	13 6.0 + 21 46	~~Im, 13 9.9 + 22.8 H. P.~~ 6.9
0.1	0.2		2215	13 0.5	+21 48	6.1	331	276	333	13 1.4 + 21 42	6.4
3.2	1.0		2184	12 47.1	+21 54	5.1	922	275	932	12 48.4 + 21 48	5.9
0.3	0.1	Im	2552	13 4.5	+22 42	7.1	325	277	324	13 6.7 + 22 28	7.1 7.4
0.4	0.2	Im	2327	13 5.2	+32 53	6.7	328	377	324	13 7.3 + 32 39	6.9
0.8	0.2	Im	2537	12 59.3	+23 3	6.5	919	276	921	13 1.5 + 22 48	6.8
0.6	0.3	Im	2311	13 7.0	+33 18	7.0	332	377	326	13 9.1 + 33 X4	7.0 7.4
0.4	0.2		2216	13 0.6	+23 16	6.1	332	277	334	13 ~~23~~ 1.5 + 23 9	6.9 6.9 7.2 7.2
0.9	0.5	Im	2530 (2296)	12 55.9 (12 55.7)	+23 25 (+33 13)	6.7 (7.5)	917 (915)	277 (375)	922 (924)	12 58.1 + 23 10	6.8
2.6	1.2		2266	13 19.4	+24 28	5.9	350	275	337	13 20.3 + 24 22	6.0 13 18.2 + 24 36
2.1	1.0		2190	12 48.5	+34 11	6.4	907	375	928	12 49.5 + 33 56	6.5 12 47.3 + 34 20
1.3	0.6	Im	2410	13 11.8	+34 51	6.2	340	376	327	13 13.9 + 34 37	6.9 7.3
0.7	0.2	Im	2610	13 5.1	+25 2	6.5	325	277	323	13 7.3 + 24 48	~~Im, 13 5.0 + 25. H. P.~~ 7.0 7.4
0.2	0.1	Im	2599	13 1.0	+25 36	6.8	320	277	321	13 3.2 + 25 21	7.2 7.2 7.4 7.5
1.5	0.5		2254	13 13.6	+35 45	6.7	341	376	339	13 14.5 + 35 39	6.6
0.9	0.5	Im	2352	13 8.5	+36 12	6.8	335	377	326	13 10.6 + 35 58	6.9
0.5	0.3		2213	13 0.1	+36 26	5.3	325	376	330	13 1.0 + 36 20	

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F.m. & c. 8.0 7.H

F. ch. 7.H

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Plate 1142.

V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	corrc.
22.0	15.1					2	—	11.0	30.2	46.5	60.0	-0.1
17.1	18.9					4		8.6	37.8	48.9	52.4	-2.4
16.8	13.5			K=H	1		—	8.4	27.0	49.1	63.2	+0.9
16.6	13.7		a? 4155	K=H	1	Dem		8.3	27.4	49.2	62.8	+0.7
14.4	10.9				2			7.2	21.8	50.3	68.4	+4.5
15.4	5.5			K=H	1		—	7.7	11.0	49.8	79.2	+9.9
13.5	12.1		h? 4156	K=H	1	F? Dem		6.8	24.2	50.7	66.0	+1.9
12.7	10.7			K=H	2	—		6.4	21.4	51.1	68.8	+3.0
12.0	11.5			K=H	1	—		6.0	23.0	51.5	67.2	+2.5
8.0	8.1			K=H	1	—		4.0	16.2	53.5	74.0	+8.3
5.6	17.5			K=H	1	—		2.8	35.0	54.7	55.2	-3.0
4.0	9.6							2.0	19.2	55.5	71.0	+6.9
3.8	9.2			K=½H	3			1.9	18.4	55.6	71.8	+7.5
2.8	6.7				1	—		1.4	13.4	56.1	76.8	+10.9
2.0	18.1		?					1.0	36.2	56.5	54.0	-4.2

F.m. & c. 7.9 7.0

F. ch. 7.3

Plate 1182.

?	22.1	9.3		I?	5	K=H	2		11.0	18.6	21.5	33.0	+0.4
	22.0	14.4			2	K=H	1	—	11.0	28.8	21.5	22.8	0.0
	20.7	20.3		a? 4157 IIa:	2	K=H	1	Dem Dem	10.4	40.6	22.1	11.0	-1.7
	20.8	21.5				K=H	1	—	10.4	43.0	22.1	8.6	-0.5
	18.7	8.6		?	?	?		—	9.4	17.6	23.1	34.0	+1.0
	18.6	11.5		II?	2	K=H	1	—	9.3	23.0	23.2	28.6	+0.6 +0.3
	15.7	16.6			2	K=H	1	—	9.4	33.2	23.1	18.4	-0.1
	16.2	14.8			3	K=H	3		8.1	29.6	24.4	22.0	0.0
	16.1	16.0				K=2H	3		8.0	32.0	24.5	19.6	-0.2
	16.4	20.1		h? 4158	2	K=H	1	F? Dem	8.2	40.2	24.3	11.4	-0.4
	14.1	10.1		I	5		1	—	7.6	20.2	24.9	31.4	+0.4

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1887plate_proj_8338

Mean 10

		No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900			Conv. Br.	Br.	
03	01		2213	13 0.1	+36 26	5.3	30.3	47.4	30.4	13 1.0	+36 20	5.2	6.2	
39	24		2195 2196	12 50.4	+38 58	3.0	88.2	47.6	90.6	12 51.4	+38 52	3.0	4.0	
17	09		2229	13 4.5	+39 8	6.1	31.5	47.5	30.6	13 5.5	+39 2	5.8	6.8	
13	07		2228	13 4.2	+39 10	6.3	31.6	47.5	30.9	13 5.1	+39 4	5.8	6.8	
45	29		2253	13 13.1	+50 19	5.2	34.9	57.5	30.4	13 14.0	+50 12	4.4	5.4	
99	66	?	2299	13 29.6	+49 38	4.8	40.6	57.3	30.7	13 30.4	+49 32	4.6	5.6	
30	19		2237	13 8.3	+40 47	5.0	32.5	47.6	30.6	13 9.2	+40 41	5.8 6.0	6.8 7.0	
49	30		2248	13 12.2	+41 12	4.7	33.6	47.6	30.6	13 13.1	+41 6	5.0	6.0	
39	25		2241	13 10.2	+41 30	5.7	33.2	47.5	30.7	13 11.1	+41 23	5.8	6.8	
83	55	Dm	1622	13 *22.2	+53 30	6.3	38.4	57.5	30.1	13 24.0	+53 16	5.9 ~~6.8~~	6.9	Make reduction See Misc. Mem. B8 p.
30	21	?	2198	12 51.0	+54 45	5.7	86.0	57.6	89.0	12 51.9	+54 39	5.6	6.6	
69	48	?	2264 2265	13 19.1	+55 33	2.4	38.3	57.6	31.4	13 19.9	+55 27 +55 26	B	B	
75	53		2267	13 20.4	+55 37	4.2	38.8	57.5	31.3	13 21.2	+55 30	~~H.P. 3.67~~ 3.8	4.8	
109	77	?	2298	13 29.6	+55 58	5.5	40.0	57.4	32.1	13 30.3	+55 52	5.4	6.4	
42	27	?	2191	12 48.7	+56 37	1.8	84.9	57.6	89.1	12 49.6	+56 30			
08	04		2306	13 33.6	+11 21	5.6	52.2	22.3	51.8	13 34.7	+11 16	6.4		
01	00		2277	13 23.3	+11 27	5.7	52.1	22.4	52.1	13 24.3	+11 20	6.9 7.1		
07	04	Dm.	2564	13 9.0	+22 9	7.5	49.6	32.6	50.3	13 11.2	+21 55	7.0	7.0	
10	05		2238	13 8.5	+11 58	5.7	51.5	22.4	52.0	13 9.5	+11 52	6.9 7.3		
			2313	13 35.4	+23 9	5.8	43.0	32.6	42.0	13 36.3	+23 8		13 34.2 +23 17	
10	05	~~Dm.~~	~~2600~~	~~13 34.2~~	~~+23 17~~	~~5.5~~	~~51.8~~	~~32.7~~	~~50.8~~			= H.P. 2.313		
		Dm.	2587	13 28.4	+23 15	6.5	51.4	32.5	50.8	13 29.5	+23 1			
06	03	~~Dm.~~	~~3683~~	~~13 27.9~~	~~+13 16~~	~~6.7~~	~~50.9~~	~~22.6~~	~~50.6~~			~~7.0~~ 6.9		
03	01	Dm.	2663	13 17.3	+13 12	6.5	50.5	22.6	50.6	13 19.5	+12 58	7.1 7.4		
00			2271	13 22.6	+14 27	5.2	52.2	22.5	52.2	13 23.6	+14 19	5.8		
02	00		2266	13 19.4	+24 28	5.9	51.4	32.5	51.6	13 20.3	+24 2	5.8	13 18.2 +24 36	
08	04		2245	13 11.3	+14 18	5.6	51.5	22.5	51.9	13 12.3	+14 12	6.5 6.9		
09	04	Dm.	2602	13 31.0	+15 2	6.9	51.2	22.6	50.8	13 32.2	+14 48	6.7	6.6	

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Plate 1182.

V	H	Type	No. lines	K	Focus	No. lines	V.	H.	V.	H.	Corrn.
	15,2	12,6	III	2	K=H	1	—	7.6	25.2	24.9	26.4	+0.4
	15,0	12,7	III?	2	K=H	1	—	7.5	25.4	25.0	26.2	+0.2 +0.4
	15,0	21,9	III	2	K=H	1	—	7.5	43.8	25.0	7.8	−1.3
	14,0	17,4	II?	3 H158a 3	K=H K=H	1	F F	7.0	34.8	25.5	16.8	−0.5
	12,4	6,4	II a	3 H159 3	K=H	1	F	6.2	12.8	26.3	38.8	+1.9
?	11,0	10,4	II a	2 H159 H160 2	K=H	1		5.5	26.8	27.0	24.8	+0.3
	9,6	20,2	II	2 II 2	K=H K=H	1	— —	4.8	40.4	27.7	11.2	−0.5
?	8,9	5,6	II a	H161 3	K=H	2	F	4.4	11.2	28.1	40.4	+1.0
	8,6	7,6	II	x2	K=H	1	—	4.3	15.2	28.2	36.4	+1.8
	8,2	17,8	II II?	2	K=H K=H	1	— —	4.1	35.6	28.4	16.0	−0.3
?	8,2	21,7	II a	H162 2	K=1.5H?	3		4.1	43.4	28.4	8.2	−1.7
?	8,8	23,4	II a	H163 2	K=1.2H?	3	F?	4.4	46.8	28.1	4.8	−0.9
	8,6	23,6	III	H164 2	K=H	1		4.3	47.2	28.2	4.4	−2.1
	8,4	23,9	III	H164 x2	K=H	1		4.2	47.8	28.3	3.8	−2.2
	7,8	9,1	III	2	K=H	1	—	3.9	18.2	28.6	33.4	+1.4
	6,0	20,2	III	2 2	K=H K=H	1	— —	3.0	40.4	29.5	11.2	−0.7 1.3
	5,7	20,3	III	x2	K=H	1	—	2.8	40.6	29.7	11.0	−0.7
	6,3	21,8	III	2	K=H	1	—	3.2	43.6	29.3	8.0	−0.8
	6,2	22,1	III	III? 2 2	K=H K=H	1	— —	3.1	44.2	29.4	7.4	−0.9
	4,0	8,9	I	6	K=2H	2	—	2.0	17.8	30.5	33.8	+0.8
	4,2	20,2	I?	4	K=1	1	—	2.1	40.4	30.4	11.2	−0.7

F. sm. & c. 7.8 & 7.0 F. ch. 7.3

Plate 1183

	22,0	18,1	I	6	K=H	3	F	11.0	36.2	41.3	14.7	−2.3
	22,7	19,7	III?	2	K=H	2	—	11.4	39.4	40.9	11.5	−3.5
	21,4	18,9	II	3	K=1	2	—	10.7	37.8	41.6	13.1	−2.7
	20,8	7,4	I		K=H	2	—	10.4	14.8	41.9	36.1	+3.9
	19,0	13,1	III	2	K=H	1	—	9.5	26.2	42.8	24.7	+1.5

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1887phae.proj..gaef

			NO.	R.A.	Dec.	MAG.	H.	V.	H'	Red of stars to 1900.	Br.
0.4	0.2		2291	13 27.1	+24 59	6.3	52.3	32.6	51.9	13 28.1 +24 52	6.8 7.1
0.4	0.2	Dw.	2591	13 25.5	+15 9	7.6	50.9	22.7	50.7	13 27.7 +14 55	7.0 7.3
0.4	0.2	~~Dw.~~	~~2643~~	~~13 25.9~~	~~+25 7~~	~~6.0~~	~~51.3~~	~~32.6~~	~~50.9~~		
1.3	0.6	Dw.	2610	13 5.1	+25 2	6.5	48.9	32.5	50.2	13 7.3 +24 48	6.9 7.2
0.5	0.2	Dw	2625	13 15.1	+25 39	6.8	49.9	32.6	50.4	13 17.2 +25 25	6.9 6.8
1.9	1.8		2332	13 41.2	+26 18	5.8	54.0	32.5	52.1	13 42.1 +26 12	6.5
0.3	0.1	Dw.	2262	13 24.2	+27 8	6.8	51.0	32.6	50.8	13 26.3 +26 54	7.0
1.2	0.5	Dw	2611	13 9.7	+17 48	7.0	50.1	32.6	50.6	13 11.9 +17 34	7.0 7.0
2.2	1.0		2333	13 41.6	+18 3	4.5	52.8	22.4	51.8	13 42.5 +17 57	5.3
1.8	0.8	Dw	2254	13 37.5	+28 19	7.0	52.7	32.6	50.9	13 39.6 +28 5	7.0
0.6	0.3	Dw	2722	13 14.8	+18 30	8.2	50.4	22.6	50.7	13 17.0 +18 16	7.1 7.1
1.7	0.7		2232	13 6.3	+28 29	4.4	49.7	32.6	51.4	13 7.3 +28 22	5.0
2.0	0.9		2226 2227	13 4.2	+18 10	4.4	51.0	22.6	51.9	13 5.2 +18 3	5.1
2.1	1.0	Dw.	2187	13 1.0	+28 19	6.8	48.2	32.6	50.3	13 3.2 +28 4	7.2 7.5 6.5 7.2
2.2	1.0	?	2218	13 1.4	+28 16	4.9	49.2	32.5	51.4	13 2.4 +28 10	6.9 7.0
1.4	0.7		2311	13 35.1	+28 41	6.3	53.3	32.6	51.9	13 36.0 +28 35	7.2 7.3
1.3	0.7	Dw.	2657	13 9.6	+19 40	7.2	51.0	22.7	51.7	13 11.8 +19 26	7.4 7.5
1.3	0.7	Dw.	~~2655~~ 2655	13 9.2	+19 50	7.1	49.8	22.6	50.5	13 11.4 +19 36	7.1 7.4
1.7	0.8		2235	13 7.3	+19 21	6.8	50.9	22.5	51.7	13 8.4 +19 15	6.8 7.2
1.8	0.9		2234	13 6.7	+19 23	—	50.9	22.5	51.8	13 7.7 +19 17	7.1 6.9 7.3 7.3
1.7	0.8		2310	13 34.9	+20 34	5.7	52.7	22.6	51.9	13 35.9 +20 28	5.6
1.4	0.7		2243	13 10.7	+20 25	6.3	51.1	22.5	51.8	13 11.7 +20 19	6.6

13 33.9 +28 49
13 6.2 +19 29
13 5.5 +19 31
13 9.5 +20 33

Mean − 1

											cow. Br.
2.3	1.3		2248	13 12.2	+41 12	4.7	48.4	52.2	50.7	13 13.1 +41 6	5.2 5.1
0.8	1.9		2237	13 8.3	+40 47	5.0	47.7	52.2	51.2	13 9.2 +40 41	
2.7	1.8		2241	13 10.2	+41 30	5.7	48.0	52.2	50.7	13 10.1 +41 23	6.3 6.2
5.9	3.5		2331	13 41.2	+41 41	5.8	56.0	52.1	50.1	13 42.0 +41 36	6.4 6.3
1.5	0.9		2287	13 26.1	+42 43	6.2	52.3	52.2	50.8	13 27.0 +42 36	6.9 6.8 7.2 7.1

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June 15, 1887.

Plate 1183.

	T	H	Type	No. lines	K	Focus	Other lines,	V.	H.	V.	H.	corrc.
	19.0	21.1	III ?	x 2	x	K=H	/	—	9.5	42.2	42.8	8.7	-2.9
	18.9	6.9	III	2		K=H	/	—	9.4	13.8	42.9	37.1	+6.5
	18.0	20.4	II	2		K=H	/	—	9.0	40.8	43.3	10.1	-2.5
	17.9	6.2	III ?	x 2	x	K=H	/	—	9.0	12.4	43.3	38.5	+7.1
?	17.8	19.8	II	a H165 2		K=H	/	diff.	8.9	39.6	43.4	11.3	-2.9
	15.5	16.3	I	6		K=½H	2	—	7.8	32.6	44.5	18.3	-1.1
	15.4	16.7	II	a H166 2		K=H	/	F?	diff.	7.7	33.4	44.6	17.5	-1.5
	15.4	18.3	III	2		K=H	/			7.7	36.6	44.6	14.3	-1.8
?	14.9	11.7	II	a ? H167 2		K=H	/	F?	diff.	7.4	23.4	44.9	27.5	+2.7
?	14.7	21.5	~~II~~	~~2~~		~~K=H~~	/	—	—	7.4	43.0	44.9	7.9	-3.5
	13.6	8.5	III ?	2		K=H	/	F?		6.8	17.0	45.5	33.9	+3.6
?	13.6	12.5	II	a? H168 x 3		K=H	/	F	diff.	6.8	25.0	45.5	25.9	+1.3
	13.4	18.0	I	6		K=½H	2	—		6.7	36.0	45.6	14.9	-1.7
	12.2	8.9	III	x 2	x	K=H	/	—		6.1	17.8	46.2	33.1	+5.5
	12.0	12.3	II ?	2		K=H	/	—		6.0	24.6	46.3	26.3	+2.4
	12.3	17.2	III	2		K=H	/	—		6.2	34.4	46.1	16.5	-1.9
?	12.6	19.6	I	Id 3 x 5		K=H	/	~~F~~		6.3	39.2	46.0	11.7	-2.5
	12.6	21.9	I	1 H169 3		K=H	2	F, diff.		6.3	43.8	46.0	7.1	-6.3
	11.0	10.7	I	7		K=½H	3	—		5.5	21.4	46.8	29.5	+2.4
III ? 6.5, 6.7.	11.4	14.9	III	2		K=H	/	F?		5.7	29.8	46.6	21.1	+0.1
	11.7	23.3	II	6			3	—		5.8	46.6	46.5	4.3	-4.9
	10.1	17.7	II	5		K=H	/	—		5.0	11.4	47.3	39.5	+5.9
	10.0	12.7	III ?	2		K=H	/	—		5.0	25.4	47.3	25.5	+1.3
?	9.4	11.7	II	a H170 x 3		K=H	3	F, diff.		4.7	23.4	47.6	27.5	+1.9
	8.9	12.9	I	4		K=H	/	—		4.4	25.8	47.9	25.1	+1.9 -1.2
	8.8	16.5	III	2		K=H	/	—		4.4	33.0	47.9	17.9	-1.3
	8.6	21.6	III	2		K=H	/	—		4.3	43.2	48.0	7.7	-4.3
	7.7	13.9	I	7		K=H	/	F?		3.8	27.8	48.5	23.1	+1.1

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Mean - 1

Corr.	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900	Bv.	Br.
-2.9		13	5.2	+32	53	6.7	47.4	42.4	50.3	13 7.3 +32 39	✓	7.0 6.9 / 7.1 7.0 ✓
+6.5	2339	13	43.0	+42	39	6.7	56.8	52.0	50.3	13 43.8 +42 33	✓	7.3 7.2 / 7.6 7.5
-2.5	2311	13	7.0	+33	18	7.0	47.8	42.3	50.3	13 9.1 +33 4	✓	7.2 7.1 ✓
+7.1	2389	13	44.1	+43	16	6.8	56.5	52.3	49.4	13 46.0 +43 2	✓	6.9 6.8
-3.9	2311	13	6.3	+43	23	6.5	45.9	52.3	49.8	13 8.3 +43 9	✓	7.2 7.1 ✓
1.1	2259	13	16.8	+44	32	6.4	49.4	52.3	50.5	13 17.7 +44 26	✓	6.3 6.2 13 15.7 +44 40
1.5	2265	13	14.5	+44	45	6.5	47.9	52.5	49.4	13 16.5 +44 31	✓	6.7 6.6 ✓
	~~2269~~	~~13~~	~~15.7~~	~~+44~~	~~40~~	~~6.4~~	~~49.1~~	~~52.4~~	~~50.6~~			
1.8	2410	13	11.8	+34	57	6.2	48.4	42.5	50.2	13 13.9 +34 37	✓	6.9 6.8 / 7.4 7.3 ✓
.7	2300	13	30.1	+44	49	6.5	53.5	52.2	50.8	13 30.9 +44 43	✓	6.6 6.5 ✓
3.5	2414	13	4.0	+36	5	6.8	47.0	42.5	50.5	13 6.1 +34 51	✓	7.1 7.0
3.6	2474	13	36.3	+35	44	6.3	53.3	42.5	49.7	13 38.3 +35 30	✓	6.9 6.8 ✓
1.3	2462	13	26.3	+35	39	6.7	51.3	42.4	50.0	13 28.3 +35 25	✓	6.7 6.6
	~~2496~~	~~13~~	~~45.4~~	~~+35~~	~~10~~	~~5.7~~	~~7.0~~					
.7	2254	13	13.6	+35	45	6.7	49.6	42.5	51.3	13 14.5 +35 39	✓	6.1 6.0 ✓
.5	2323	13	38.4	+46	7	6.7	56.2	52.2	50.7	13 39 3 +46 1	✓	7.1 7.0 / 7.4 7.3 ✓ 13 37.4 +46 15
2.4	1880	13	27.7	+46	20	7.3	52.3	52.3	49.9	13 29.6 +46 6	✓	7.2 7.1 ✓
1.9	1862	13	13.1	+46	18	7.3	47.5	52.5	49.4	13 15.1 +46 4	✓	7.1 7.0 / 7.4 7.3 ✓
2.5	2352	13	8.5	+36	12	6.8	47.7	42.5	50.2	13 10.6 +36 5 58	✓	6.5 6.4 ✓
.3	2214	13	0.5	+45	55	5.7	44.3	52.2	50.6	13 1.4 +45 48	✓	6.4 6.3 / 6.7 6.6 ✓
.4	2304	13	32.1	+36	54	5.0	53.5	42.4	51.1	13 33.0 +36 49	✓	4.9 4.8 ✓
.1	2270	13	21.1	+46	39	5.7	50.9	52.3	50.8	13 28.0 +46 33	✓	6.5 6.4 / 6.7 6.6 ✓ 13 20.1 +46 47
.9	2213	13	0.1	+36	26	5.3	46.7	42.2	51.6	13 1.0 +36 20	✓	5.0 4.9
5.9	2457	13	43.4	+37	20	6.5	54.8	42.3	49.9	13 45.4 +37 6	✓	6.4 6.3 ✓
.3	2421	13	25.9	+37	33	6.5	51.3	42.6	50.0	13 27.9 +37 19	✓	7.1 7.0 / 7.3 7.2 ✓
.9	2297	13	29.4	+37	48	5.0	52.8	42.5	50.9	13 30.3 +37 42	✓	5.3 5.2 ✓
1.9	2066	13	25.8	+47	60	7.2	51.6	52.4	49.7	13 27.7 +47 46	✓	6.7 6.6 ✓
1.2	~~2348~~	~~13~~	~~25.1~~	~~+37~~	~~52~~	~~7.5~~	~~50.9~~	~~42.3~~	~~49.7~~			
.3	2111	13	14.9	+48	3	6.5	47.9	52.4	49.2	13 16.8 +47 49	✓	7.0 6.9 / 7.2 7.1 ✓
	~~2262~~	~~13~~	~~16.5~~	~~+37~~	~~38~~	~~6.4~~	~~51.5~~	~~42.6~~	~~52.4~~			
.3	2225	13	4.1	+38	5	6.2	47.3	42.4	51.6	13 5.0 +37 57	✓	6.8 6.7 / 7.1 7.0 ✓
	~~2369~~	~~13~~	~~2.0~~	~~+37~~	~~60~~	~~7.5~~	~~45.2~~	~~42.3~~	~~49.5~~			
.1	2122	13	22.9	+48	36	6.8	50.7	52.4	49.6	13 24.8 +48 22	✓	6.8 6.7 ✓

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June 15, 1887.

Plate 1183.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V	H.	corrected
7.9	17.0	III ?	2	K=H	1	F?	4.0	34.0	48.3	16.9	-1.2
6.4	7.0	III	2	K=H	1	—	3.2	14.0	49.1	36.9	+5.4
6.5	7.2	III	2	K=H	1	—	3.2	14.4	49.1	36.5	+5.4
6.4	7.4	III ? II ?	2 2	K=H K=H	1	— —	3.2	14.8	49.1	36.1	+7.9 +5.3
6.0	11.9	II	2	K=H	2	—	3.0	23.8	49.3	27.1	+1.9
6.8	20.2	II	12	K=H	1	—	3.4	40.4	48.9	10.5	-3.5
6.5	21.3	II	2	K=H	2	F	3.2	42.6	49.1	8.3	-4.3
6.4	21.5	II	6 N		2	F	3.2	43.0	49.1	7.9	-4.5
5.5	12.1	II	9	K=2H	4	F	2.8	24.2	49.5	26.7	+3.0
4.7	7.9	II ?	9 ?	?	—	F	2.4	15.8	49.9	35.1	+7.5
4.4	11.4	III	12	K=H	1	—	2.2	22.8	50.1	28.1	+3.7
4.0	17.3	II	8 N		3	F ?	2.0	34.6	50.3	16.3	-2.4
3.4	17.3	III ?	2	K=H	1	—	1.7	34.6	50.6	16.3	-1.7
?	3.4	19.8	III H17	K=H ?	2	F?	1.7	39.6	50.6	11.3	-3.5
?	2.3	10.3	III a H17	K=H	1		1.2	20.6	51.1	30.3	+5.3
?	2.0	14.0	III a H17	K=H	1		1.0	28.0	51.3	22.9	+1.2
?	2.3	14.2	II a H17	K=H	1		1.2	28.4	51.1	22.5	+0.6 +0.9
?	2.6	18.3	I ?	8 K=H	3	F	1.3	36.6	51.0	14.3	-2.3
	1.8	19.1	II	2 N	2	F ?	0.9	38.2	51.4	12.7	-3.0

F. w. & c.

F. ch.

Plate 1211

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V	H.	corrected
7.4	6.4						6.8				
22.7	17.9	III	2	K=H	1	—	11.4	35.8	41.0	17.2	-2.1
? 22.0	18.9	I ?	8	K=H	3	F	11.0	37.8	41.4	15.2	-2.7
? 22.6	20.4	III b H175	3	K=H	2	F,	11.3	40.8	41.1	12.2	-4.1
21.1	6.4	III	2	K=H	1	—	10.6	12.8	41.8	40.2	+4.1
21.6	7.4	II ?	2	K=H	1	—	10.8	14.8	41.6	38.2	+3.5
21.6	10.0	III ? II	2 2	K=H K=H	1	— —	10.8	20.0	41.6	33.0	+2.3
21.2	19.7	I	6 ?		2	F	10.6	39.4	41.8	13.6	-3.6

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Mean -1

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Cov. Br.	Cov. Br.
Dm	2435	13	14.6	+38	37	6.8	44.6	42.6	49.8	13 16.7 +38 23	7.0	6.9
~~Dm~~	~~2433~~	~~13~~	~~14.2~~	~~+38~~	~~19~~	~~7.0~~						
	2334	13	41.8	+39	10	5.5	55.8	42.4	50.4	13 42.7 +39 3	6.4 6.7	6.3 6.6
	2330	13	41.1	+39	6	5.8	55.5	42.3	50.1	13 ~~43.1~~ 42.0 +39 0	6.7 6.9	6.6 6.8
												13 40.0 +39 14
Dm	2245	13	42.8	+49	5	7.5	57.6	52.3	49.7	13 44.6 +48 51		
~~Dm~~	~~2678~~	~~13~~	~~40.6~~	~~+39~~	~~44~~	~~6.0~~	~~54.8~~	~~42.4~~	~~49.5~~		7.1	7.0 7.0
	2295	13	28.9	+39	25	6.3	52.7	42.4	50.8	13 30.0 +39 19	6.3	6.2
												13 28.0 +39 33
Im	2620	13	6.4	+39	4	6.8	46.8	42.5	50.3	13 8.5 +38 50	6.9	6.8
	2229	13	45	+39	8	6.1	47.1	42.3	51.4	13 5.5 +39 2	6.1	6.0
	2228	13	4.2	+39	10	6.3	47.2	42.4	51.7	13 5.1 +39 4	6.1	6.0
	2299	13	29.6	+49	38	4.8	53.8	52.4	50.8	13 30.4 +49 32	4.5	4.4
	2338	13	42.8	+49	55	2.0	58.6	52.3	51.1	13 43.6 +49 49	B	B
Im	2014	13	30.7	+50	14	6.5	53.5	52.4	49.8	13 32.5 +49 50 0	7.1 7.4	7.0 7.3
	2253	13	13.1	+50	19	5.2	47.7	52.3	50.1	13 14.0 +50 12	4.8	4.7
	2255	13	15.0	+40	48	5.6	49.6	42.5	51.3	13 15.9 +40 40	6.8 7.1	6.7 7.0
	2237	13	8.3	+40	47	5.0	47.9	42.5	51.4	13 9.2 +40 41	6.1 6.4	6.0 6.3
Im	1859	13	34.5	+51	16	7.0	55.1	52.5	49.8	13 36.3 +51 2		
	2278	13	23.8	+51	21	6.3	51.8	52.3	50.6	13 24.7 +51 14		
	~~2276~~	~~13~~	~~23.2~~	~~+41~~	~~21~~	~~6.5~~	~~51.6~~	~~42.6~~	~~51.0~~	~~13 24.1 +41 15~~		13 23.8 +51 28
~~Dm~~	~~1846~~	~~13~~	~~23.3~~	~~+51~~	~~20~~	~~7.5~~	~~50.7~~	~~52.5~~	~~49.8~~	13 24.2 +51 6	N.P. 2276	23.1 +41 29 6.8 6.9
	2248	13	12.2	+41	12	4.7	48.8	42.5	51.1	13 13.1 +41 6	5.0	4.9
	2241	13	10.2	+41	30	5.7	48.4	42.4	51.4	13 11.1 +41 23		

Mean -2

										Cov. Br.	Cov. Br.
	2255	13	15.0	+40	48	5.6	50.8	52.2	52.9	13 15.9 +40 40		
?	2248	13	12.2	+41	12	4.7	50.0	52.2	52.7	13 13.1 +41 6	5.2	~~5.0~~
	2237	13	8.3	+40	47	5.0	49.1	52.1	53.1	13 9.2 +40 41		
	2340	13	43.3	+31	47	5.8	56.1	42.4	52.0	13 44.2 +31 41	6.9 7.3	6.7 7.0
Dm	2540	13	39.7	+31	36	6.3	54.5	42.4	52.0	13 41.7 +31 22	7.0	6.8
	2308	13	34.8	+31	37	6.1	54.8	42.4	52.5	13 35.8 +31 31	7.2	7.0 7.0
												13 33.7 +31 45
	2241	13	10.2	+41	30	5.7	49.6	52.1	53.2	13 11.1 +41 23	6.2	6.0

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Plate 1211.

Y	H	Type	No. Lines	K	Focus	Other Lines	V.	H.	V.	H.	correc.
20.7	8.2	I	6	K=H	2	F.	10.4	16.4	42.0	36.6	+0.3
19.6	9.7	II	2 V3	K=H K=H	1	F?	9.8	19.4	42.6	33.6	+4.1
19.5	16.7	I	5 5	K=H K=H	1	— —	9.8	33.4	42.6	19.6	−0.7
18.7	7.6	III	2	K=H	1	—	9.4	15.2	43.0	37.8	+5.9
18.9	13.8	III	2	K=H	1	F2	9.4	27.6	43.0	25.4	+0.9
18.6	21.1	III	2	K=H	1	—	9.3	42.2	43.1	10.8	−3.0
17.6	6.9	II	x2	K=H	1	—	8.8	13.8	43.6	39.2	+4.4
17.7	20.5	III	2	K=H	1	F?	8.8	41.0	43.6	12.0	−4.7
16.6	13.0	III	x2 2	K=H K=H	1	— —	8.3	26.0	44.1	27.0	+1.1
15.4	17.1	I	2	K=H	2	—	7.7	34.2	44.7	18.8	−1.8
15.2	17.5	a?	2	K=H	2	F? faint	7.6	35.0	44.8	18.0	−2.1
15.6	19.1	?	x2	K=H	1	—	7.8	38.2	44.6	14.8	−2.1
14.0	5.8	I	5	K=H	1	F.	7.0	11.6	45.4	41.4	+5.4
14.8	12.5	I	5	K=H	2	—	7.4	25.0	45.0	28.0	+2.1
14.0	13.3	I	5	K=H	2	—	7.0	26.6	45.4	26.4	+0.9
13.8	9.2	II	? x2	K=H	2	F?	6.9	18.4	45.5	34.6	+3.3
13.6	18.7	I	6	K=H	2	F.	6.8	37.4	45.6	15.6	−2.1
12.0	9.6	II	? 3	K=H	1	F.	6.0	19.2	46.4	33.8	+5.1
? 12.0	13.0	a	4177 2	K=H	1	pecu	6.0	26.0	46.4	27.0	+1.8
12.0	17.9	III	x3	K=H	1	F	6.0	35.8	46.4	17.2	−2.7
12.8	20.3	I	6	K=H	1	F.	6.4	40.6	46.0	12.4	−3.0
12.4	22.7	III	3	K=H	2	F.	6.2	45.4	46.2	7.6	−7.1
? 11.4	11.4	a	4178 x3	K=H	3	F pecu	5.7	22.8	46.7	30.2	+2.1
III ? 6.0, 6.4	11.1	15.5	III	x3	K=H	2	F	5.6	31.0	46.8	22.0	−0.5
11.9	24.1	I	V V	N	3	—	6.0	48.2	46.4	4.8	−5.5
10.4	6.5	a	4179 3	K=H	1	F. pecu	5.2	13.0	47.2	40.0	+5.4
10.4	13.5	II	2	K=H	1	—	5.2	27.0	47.2	26.0	+0.9
? 9.6	12.5	a	4180 2	K=H	3	F? pecu	4.8	25.0	47.6	28.0	+1.5

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Mean - 2

			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.		Cov. Br.	Br.	
			2331	13 41.2	+41 41	5.8	57.6	52.1	52.3	13 42.0	+41 36	6.4	6.2	
			2318	13 37.4	+42 17	6.4	56.8	52.1	52.7	13 38.2	+42 10	6.8 6.9	6.7	13 36.3 +42 24
1.3	0.7	Im.	2346	13 17.6	+32 51	7.3	57.0	42.6	51.7	13 19.7	+32 37	7.0	7.2	7.0
5.9	3.6		2339	13 43.0	+42 39	6.7	58.2	52.0	52.3	13 43.8	+42 33		7.3 7.6	7.1 7.4
0.9	0.6		2287	13 26.1	+42 43	6.2	53.7	52.1	52.8	13 27.0	+42 36		6.7 7.0	6.5 6.8
4.9	3.0	Im.	2311	13 7.0	+33 18	7.0	49.2	42.6	52.2	13 9.1	+33 4		7.1 7.5	6.9 7.3
		Im.	2359	13 44.1	+43 16	6.8	57.9	52.1	51.3	13 46.0	+43 2		7.0	6.8
6.6	4.1	Im.	~~2376~~	~~13 42.2~~	~~+33 43~~	~~7.3~~	~~56.0~~	~~42.5~~	~~54.9~~					
4.7	2.7	Im.	2311	13 6.3	+43 23	6.5	47.3	52.2	52.0	13 8.3	+43 9		7.0 7.3	6.8 7.1
1.8	1.1	Im.	2430	13 26.8	+34 24	6.5	52.8	42.7	51.7	13 28.9	+34 10	6.9 7.1	7.2 7.5	7.0 7.3
1.8	1.1		2259	13 16.8	+44 32	6.4	51.0	52.2	52.8	13 17.7	+44 26		6.0	5.8 13 15.7 +44 40
2.1	1.3	Im.	2265	13 14.5	+44 45	6.5	49.5	52.4	51.6	13 16.5	+44 31		6.6	6.4
3.5	2.1	Im.	2410	13 11.8	+34 51	6.2	50.0	42.6	52.1	13 13.9	+34 37		7.0 7.3	6.8 7.1
8.3	5.4		2346	13 45.8	+35 22	6.4	57.4	42.4	52.0	13 46.7	+35 16	H.P. 2.376	6.7	6.5
			~~2352~~	~~13 46.5~~	~~+35 2~~	~~4.9~~	~~58.1~~	~~42.0~~	~~52.7~~					
2.1	1.3		2300	13 30.1	+44 49	6.5	55.1	52.2	53.0	13 30.9	+44 43		6.5	6.3
1.5	0.9	Im.	2462	13 26.3	+35 39	6.7	52.9	42.6	52.0	13 28.3	+35 25		6.4	6.2
5.3	3.3	Im.	2474	13 36.3	+35 44	6.5	54.7	42.6	51.4	13 38.3	+35 30		6.6	6.4
3.3	2.1		2254	13 13.6	+35 45	6.7	51.0	42.6	53.1	13 14.5	+35 39		6.0	5.8
5.1	3.1		2323	13 38.4	+46 7	6.7	57.6	52.1	52.5	13 39.3 56.6	+46 1		7.1 7.3	6.9 7.1 13 37.4 +46 15
1.8	1.1	Im.	1880	13 27.7	+46 20	7.3	53.7	52.3	51.9	13 29.6	+46 6		7.1	6.9
2.7	1.7	Im.	1862	13 13.1	+46 18	7.3	48.9	52.3	51.6	13 15.1	+46 4		7.1 7.4	6.9 7.2
4.8	3.0	Im.	2352	13 8.3	+36 12	6.8	49.1	42.6	52.1	13 10.6	+35 58		6.6	6.4
7.1	4.7		2214	13 0.5	+45 55	5.7	45.9	52.1	53.0	13 1.4	+45 48		6.3 6.6	6.1 6.4
3.3	2.1		2304	13 32.1	+36 54	5.0	54.9	42.6	52.8	13 33.0	+36 49		5.0	4.8
0.8	0.3		2270	13 21.1	+46 39	5.7	52.1	52.2	52.6	13 22.0	+46 33		6.3 6.6	6.1 6.4 13 20.1 +46 47
8.6	5.5	?	2213	13 0.1	+36 26	5.8	48.3	42.4	53.8	13 1.0	+36 20		5.1	4.9
8.1	5.4	Im.	2457	13 43.4	+37 20	6.5	56.4	42.5	51.0	13 45.4	+37 6		6.3	6.1
1.5	0.9	Im.	2421	13 25.9	+37 33	6.5	52.9	42.8	52.0	13 27.9	+37 19		7.1	6.9
2.4	1.5		2297	13 29.4	+37 48	5.0	54.4	42.6	52.9	13 30.3	+37 42		5.5	5.3

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Plate 1211.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	correc.
9.8	16.7	III	12	K=H	1	—	4.9	33.4	47.5	19.6	−1.1
9.2	16.6	III	12	K=H	1	—	4.6	33.2	47.8	19.8	−1.7
8.8	13.7	I	2	K=H	1	—	4.4	27.4	48.0	25.6	+1.2
8.7	17.2	III	2	K=H	1	—	4.4	34.4	48.0	18.6	−2.1
8.3	17.8	III	3	K=H	1	F.	4.2	35.6	48.2	17.4	−1.8
8.9	22.4	III	3	K=H	1	F.	4.4	44.8	48.0	8.2	−4.9
7.4	11.2	IIa	2	K=H	1	4181 deen	3.7	22.4	48.7	30.6	+3.9
7.6	14.7	II	a 2	K=H	1	4182 F.? deen.	3.8	29.4	48.6	23.6	+0.3
7.3	21.0	II	2	K=H	1	—	3.6	42.0	48.8	11.0	−4.1
6.8	7.7	III	? 3	K=H	1	F.	3.4	15.4	49.0	37.6	+4.9
6.8	8.0	III	? 2	K=H	1	—	3.4	16.0	49.0	37.0	+4.8
6.4	12.7	I	5	K=H	2	—	3.2	25.4	49.2	27.6	+1.5
6.8	22.1	I	5	K=H	2	F.	3.4	44.2	49.0	8.8	−4.9
6.7	22.3	I	6	K	2	—	3.4	44.6	49.0	8.4	−5.1
5.4	12.9	I	9	K=H	4	F.	2.7	25.8	49.7	27.2	+2.1
4.6	8.6	I	? 9 ?	?	?	F.	2.3	17.2	50.1	35.8	+6.7
4.3	12.2	III	2	K=H	1	—	2.2	24.1	50.2	28.6	+2.9
4.0	18.0	I	8	K	3	—	2.0	36.0	50.4	17.0	−3.1
3.6	20.5	III	3	K=H	2	F.	1.8	41.0	50.6	12.0	−3.9
2.2	11.0	II	a ? 2	K=H	1	4183 deen.	1.1	22.0	51.3	31.0	+4.7
2.0	14.9	I	4	K=H	1	—	1.0	29.8	51.4	23.2	+0.1
2.6	15.0	III	? 2	K=H	1	K=H	1.3	30.0	51.1	23.0	0.0
2.8	19.0	I	7	K=H	3	—	1.4	38.0	51.0	15.0	−3.0
2.2	19.8	I	6	K=H	2	F.	1.1	39.6	51.3	13.4	−3.5

F. m. 7.0. F. ch. 7.8

Plate 1143.

21.8	13.5	III	2	K=H	1	—	10.9	27.0	26.5	43.5	+0.1
18.6	14.6	a	12	K=H	2	4184 F.? deen	9.3	29.2	28.1	41.3	0.0

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Mean −2

	NO.	R.A.	Dec.	MAG.	H.	V.	H'	Red of stars to 1900		Cov. Bv.	Br.
	2262	13	18.5	+37	39	6.4	51.9	42.6	53.0	13 19.4 +37 33	6.9 7.1 / 7.1 7.4	6.9 7.2 / 7.2
Dm	2053	13	16.9	+47	45	7.0	50.1	52.4	51.8	13 18.8 +47 31	7.2 7.3 / 7.2 7.6	7.1 / 7.4
Dm	2404	13	17.3	+37	47	6.0	~~52.5~~	~~42.4~~	~~51.6~~			
	~~2418~~	13	25.1	+37	52	7.5	52.5	42.3	51.8			
Dm	2066	13	25.8	+47	60	7.2	53.2	52.4	52.0	13 27.7 +47 46	6.6	6.4
Dm	2111	13	14.9	+48	3	6.5	49.3	52.4	51.4	13 16.8 +47 49	7.1 7.3	6.9 / 7.1
Dm	2435	13	14.6	+38	37	6.8	50 49.2	42.8	52.0	13 16.6 +38 23	6.8	6.6
	2225	13	4.1	+38	5	6.2	48.9	42.5	53.8	13 5.0 +37 57	6.8 7.1	6.6 / 6.9
Dm	2141	13	33.3	+48	39	7.7	55.7	52.3	51.8	13 35.2 +48 25	6.9 7.1	6.9
Dm	2122	13	22.9	+48	36	6.8	52.3	52.4	52.0	13 24.7 +48 22	6.7	6.5
Dm	2620	13	6.4	+39	4	6.8	48.4	42.7	52.5	13 8.5 +38 50	6.9	6.7
?	2334	13	41.8	+39	10	5.5	57.2	42.6	52.3	13 42.7 +39 3	6.4 6.7	6.2 / 6.5
	2330	13	41.1	+39	6	5.8	57.1	42.5	52.3	13 42.0 +39 0	6.8 7.0	6.6 / 6.8
	~~2345~~	13	42.8	+49	5	7.3	58.8	52.5	51.6			
Dm	~~1680~~	13	40.8	+39	18	5.5	56.8	42.7	52.0			
	2295	13	28.9	+39	25	6.3	54.3	42.6	52.8	13 ~~29.9~~ 30.0 +39 19	6.3	6.1
	2229	13	4.5	+39	8	6.1	48.7	42.5	53.6	13 5.5 +39 2	6.1	5.9
	2228	13	4.2	+39	10	6.3	48.8	42.6	53.9	13 5.1 +39 4	5.9	5.7
	2299	13	29.6	+49	38	4.8	55.4	52.3	53.3	13 30.4 +49 32	4.7	4.5
	2338	13	42.8	+49	55	2.0	60.0	52.2	53.3	13 43.6 +49 49	B	B
Dm	2014	13	30.7	+50	14	6.5	55.1	52.4	52.2	13 32.5 +50 0	7.1 7.4	6.9 / 7.2
	2253	13	13.1	+50	19	5.2	49.1	52.3	52.2	13 14.0 +50 12	5.0	4.8
	2237	13	8.3	+40	47	5.0	49.3	42.6	53.2	13 9.2 +40 41	6.3 6.6	6.1 / 6.4
Dm	1859	13	34.5	+51	16	7.0	~~53.9~~ 56.5	~~52.5~~ 52.4	~~49.2~~ 51.8	13 36.3 +51 32		
	2278	13	23.8	+51	21	6.3	53.6	52.3	53.5	13 24.7 +51 14		13 22.3 +51 28
	2276	13	23.2	+41	21	6.5	53.2	42.6	53.2	13 24.1 +41 15	6.8 7.2	6.6 / 7.0 13 22.1 +41 29
?	2248	13	12.2	+41	12	4.7	50.2	42.6	53.2	13 13.1 +41 6	5.5	5.3
	2241	13	10.2	+41	30	5.7	49.8	42.6	53.3	13 11.1 +41 23		
	2343	13	43.7	+16	24	4.1	70.7	27.3	70.6	13 44.6 +16 18	7.0 7.5	
	2333	13	41.6	+18	3	4.5	70.8	27.3	70.8	13 42.5 +17 57	6.5	

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Plate 1143

	Y	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrn.
?	16,8	11,1	a! H185	2	K=x H?	4	F even, light?	8.4	22.2	29.0	48.3	+0.5
	16,4	11,7	?	2	K=H	1	—	8.2	23.4	29.2	47.1	+0.9
	13,5	17,5			K 1, 2 H	1	—	6.8	35.0	30.6	35.5	-0.4
	11,9	14,7	?	2	K=H	1	—	6.0	29.4	31.4	41.1	+0.1
	11,0	13,4		2	K=H	1	—	5.5	26.8	31.9	43.7	+0.8
	11,4	13,7		2	K=H	1	—	5.7	27.4	31.7	43.1	+0.4
	10,0	9,2		4	K	1	—	5.0	18.4	32.4	52.1	+0.9
	5,0	12,4		2	K=H	1	—	2.5	24.8	34.9	45.7	+0.9
	4,1	12,6	?	2	K=H	1	—	2.0	25.2	35.4	45.3	+0.8
	2,2	14,7	?	2	K=H	1	—	1.1	29.4	36.3	41.1	0.0

F. m. & c. Dark Plate. Hard to measure. F. ch.

5.6 5.3 Plate 1205. 6.8

	22,3	14,3	b H186	3	K=H	2	F, even	11.2	28.6	16.6	43.6	+0.2
	22,2	15,3	a? H187	3	K=H	1	F even	11.1	30.6	16.7	41.6	-0.1
✓	21,2	10,3	II	2	2 K=H K=H	1	— —	10.6	20.6	17.2	51.6	+0.5 +0.0
✓	21,8	10,9	III ?	2	2 K=H K=H	1	— —	10.9	21.8	16.9	50.4	+0.4 +0.9
	21,8	11,1		2	K=H	1	F?	10.9	22.2	16.9	50.0	+0.8
	20,6	22,3		2	K=H	1	—	10.3	44.6	17.5	27.6	-1.7
?	19,0	8,9	d? 35		?	1	—	9.5	17.8	18.3	54.4	+1.4
?	19,0	15,2	a H188	3	K=1.2 H	3	F even	9.5	30.4	18.3	41.8	0.0
✓	18,5	8,5	? III ?	2	3 X K=H K=H	1	— F	9.2	17.0	18.6	55.2	+0.7
	18,8	11,0		3	K=H	1	F	9.4	22.0	18.4	50.2	+1.0
✓	18,0	12,5	II	3 3	K=H K=H	2 2	F F	9.0	25.0	18.8	47.2	+0.3
?	18,6	16,4	a H189	2	K=H	1	F? even	9.3	32.8	18.5	39.4	-1.0
	17,1	11,8	a H190	3	K=1,2 H?	4	F even Bright?	8.6	23.6	19.2	48.6	+0.4
	17,8	17,9		2	X K=H	1	—	8.9	35.8	18.9	36.4	-0.7
✓	17,4	19,1	III	1 2 2	X K=H K=H	1	— —	8.7	38.2	19.1	34.0	-0.5
?	16,5	11,3	d	5	?	1	—	8.2	22.6	19.6	49.6	+0.9

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No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.			Br.	
2360	13	49.0	+19	0	29	72.2	27.4	70.7	13 49.9 +18 54	4.6	
2355	13	47.7	+29	14	58	71.1	37.4	70.2	13 48.7 +29 8	7.0	
2310	13	34.9	+20	34	57	69.9	27.4	70.3	13 35.9 +20 28	6.7	
2540	13	39.7	+31	36	6.3	69.1	37.6	69.0	13 41.7 +31 24	7.3	
2344	13	44.0	+21	52	5.0	70.8	27.4	70.5	13 45.0 +21 46	7.1 7.4	
2340	13	43.3	+31	47	5.8	70.7	37.5	70.3	13 44.2 +31 41	7.8 7.5	
2368	13	53.0	+22	17	5.3	71.4	27.3	70.5	13 53.9 +22 11	6.6	
2352	13	46.5	+35	2	4.9	71.3	37.5	70.4	13 47.4 +34 57	7.2 7.5	
2347	13	45.8	+35	17	5.0	71.1	37.3	70.3	13 46.7 +35 1	7.3	
2332	13	41.2	+26	18	5.8	70.6	27.4	70.6	13 42.1 +26 12		

Mean 2 cor.

Br.	Br.	
5.9 6.3	6.1 6.5	
6.4	6.6	
7.0 6.8	7.0	
7.1 6.9 7.3 7.2	7.1 7.4	
6.8	7.0	
6.9	7.1	
6.2	6.4	
5.2	5.4	
7.0 6.8 7.2 7.0	7.0 7.2	
6.1 6.5	6.3 6.7	
6.5 6.1	6.3	
6.7	6.9	
3.8	4.0	
6.7 7.0	6.9 7.2	
7.0 7.2	6.8 7.1	7.0 7.3
6.5	6.7	

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Plate 120 V.

	V	H	Type	No. Lines	K	Focus	Other lines	V.	Ec.	V.	Ec.	correct.
10 V?	16.6	12.5	I	1	V	J1	2	~~faint~~	8.3	25.0	19.5	47.2	+0.6
	16.6	14.0	II	2	K=H	1	—		8.3	28.0	19.5	44.2	+0.1
	15.4	7.2	III I? I?	x2	J4	K=H	K=H 1 1	— —	7.7	14.4	20.1	57.8	+1.0
	14.0	12.0	IIa? IIa1 H1	2	2	K=H	K=H 1 1	very faint	7.0	24.0	20.8	48.2	+0.8
	13.9	18.4	I	6	J1	2	—		7.0	36.8	20.8	35.4	-0.5
	12.0	10.7	III	2	K=H	K=H	1 — —		6.0	21.4	21.8	50.8	+0.7
	12.0	15.5	?	3	K=H	1	F		6.0	31.0	21.8	41.2	-0.2
	11.5	13.9	III	2	3	K=H	K=H 1 — F1		5.8	27.8	22.0	44.4	+0.2
	11.5	14.2	III	3	K=H	2	F		5.8	28.4	22.0	43.8	+0.1
	11.6	14.5	III	3	K=H	2	F		5.8	29.0	22.0	43.2	+0.2
	10.6	8.6	II	3	2	K=H	K=H 1 1 F —		5.3	17.2	22.5	55.0	+12 +10
	10.6	10.0	I	7	J1	3	F		5.3	20.0	22.5	52.2	+0.8
	9.0	7.8	a	H9	2	K=H	1	seen	4.5	15.6	23.3	56.6	+1.2
	9.9	11.3	II	2	K=H	2	F?		5.0	22.6	22.8	49.6	+1.2
	9.1	18.1	III	3	K=H	2	F		4.6	36.2	23.2	36.0	-0.5
	9.0	19.5	II? II?	x2	2	K=H	K=H 1 1 — —		4.5	39.0	23.3	33.2	-0.7
	9.0	20.8	III? III?	3	8	K=H	K=H 1 1 F F		4.5	41.6	23.3	30.6	-0.9
	8.4	12.2	III	?	x2	2	K=H K=H 1 1 — —		4.2	24.4	23.6	47.8	+0.9
	8.0	14.4	III	1	2	J1	K=H 1 1 — —		4.0	28.8	23.8	43.4	+0.2
	8.7	16.8	III	2	2	K=H	K=H 1 1 — —		4.4	33.6	23.4	38.6	-0.3
	15.3	13.2	III	3	K=H	2	F		2.6	26.4	25.2	45.8	+0.6
	15.8	19.0	III	2	2	K=H	K=H 1 1 — —		2.9	38.0	24.9	34.2	-0.7
	15.3	21.8	?	1	2	K=H	1 —		2.6	43.6	25.2	28.6	-1.3
	14.9	13.4	III	2	K=H	1	—		2.4	26.8	25.4	45.4	+0.5
	14.6	13.5	I	3	J1	2	—		2.3	27.0	25.5	45.2	+0.5
	14.8	19.9	III	x2	3	K=H	K=H 1 1 — F		2.4	39.8	25.4	32.4	-0.9
	14.2	20.9	II	2	K=H	1	—		2.1	41.8	25.7	30.4	-2.2
	12.4	9.9	II?	2	K=H	1	—		1.2	19.8	26.6	52.4	+1.1
	12.8	15.5	I?	2	K=H	2	—		1.4	31.0	26.4	41.2	-0.1

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Mean 2

	No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. of stars to 1900.	Cov. Br.	Br.
	2355	13	47.7	+29	14	58	72.7	37.5	72.1	13 48.7 +29 8	6.0	6.2
Dm.	2719	13	43.2	+19	21	7.2	71.2	27.7	71.1	13 45.5 +19 7	6.5	6.7
Dm.	2752	13	57.7	+19	52	7.9	72.1	27.6	71.1	13 59.8 +19 39	7.0 6.8 7.0 7.0	7.2
Dm.	2461	13	47.9	+30	38	7.3	71.9	37.6	71.1	13 49.9 +30 25	6.9	6.8 7.0
	2310	13	34.9	+20	34	5.7	71.7	27.6	72.2	13 35.9 +20 28	5.4	5.6
Dm.	2593	13	50.3	+21	40	6.8	71.7	27.7	72.2	13 52.4 +21 27	7.0 7.3 7.3	7.2 7.5
Dm.	2546	13	39.7	+31	36	6.3	70.7	37.6	70.4	13 41.7 +31 22	6.4	6.6
Dm.	2579	13	43.5	+21	59	7.5	71.3	27.8	71.1	13 45.6 +21 45	6.6 6.8	6.4 6.7 6.6 6.9
Dm.	2580	13	43.6	+21	60	7.4	71.4		71.2	13 48.7 +21 46		
Dm.	2578	13	42.9	+21	59	5.1	70.7	27.8	70.9	13 45.0 +21 45		
	2344	13	44.0	+21	52	5.0	72.4	27.7	72.3	13 45.6 +21 46	5.8 6.2	6.0 6.4
	2348	13	43.3	+31	47	5.8	72.3	37.6	72.1	13 44.2 +31 41	6.0 6.3	6.2 6.5
Dm.	2424	13	56.1	+32	22	7.5	73.3	37.7	72.1	13 58.0 +32 9		
Dm.	2419	13	54.9	+32	15	7.0						
Dm.	2651	13	54.3	+32	41	6.8	71.5	28.0	70.5	13		
	2368	13	53.0	+22	17	5.3	73.0	27.6	72.2	13 53.9 +22 11	5.4	5.6
Dm.	2644	13	56.6	+23	12	6.5	72.1	27.7	70.9	13 58.6 +23 59	6.5	6.7
	2363	13	50.4	+32	37	6.4	73.0	37.6	71.8	13 51.2 +32 31	6.3	6.5
	2313	13	35.4	+23	9	5.8	71.6	27.8	72.1	13 36.3 +23 1	6.0 6.3	6.2 6.5
Dm.	2591	13	31.2	+23	16	6.5	70.2	27.8	70.9	13 33.3 +23 2	7.1	6.9 7.1
Dm.	2587	13	28.4	+23	15	6.5	70.0	27.7	70.9	13 30.5 +23 1	6.8	6.6 6.8
Dm.	2384	13	47.6	+33	33	8.0	72.0	37.8	71.1	13 49.6 +33 20	7.0	6.8 7.0
Dm.	2376	13	42.2	+33	43	7.3	71.0	37.7	70.9	13 44.2 +33 29	7.3 7.3	7.1 7.3
Dm.	2606	13	36.9	+23	26	6.3	70.5	27.8	70.8	13 39.0 +23 12	7.2 7.3	7.0 7.2 7.5
	2352	13	46.5	+35	2	4.9	72.9	37.6	72.3	13 47.4 +34 57	6.8 7.3	6.7 6.9 7.3
Dm.	2612	13	32.1	+24	52	7.0	70.1	27.8	70.8	13 34.2 +24 38	5.8 6.4 7.0 7.3	6.0 6.6 6.8 7.3 7.5
	2291	13	27.1	+24	59	6.3	70.7	37.6	71.4	13 28.1 +24 52		
Dm.	2643	13	25.9	+25	7	6.0	69.5	27.7	70.8	13		
	2347	13	45.9	+35	17	6.0	72.7	37.7	72.2	13 46.7 +35 10	6.3 6.7	6.5 6.9
	2346	13	45.8	+35	22	6.4	72.8	37.7	72.3	13 46.7 +35 16	6.2	6.4
	2302	13	31.3	+25	13	5.9	71.1	27.6	72.0	13 33.7 +25 7	6.8 7.3	6.5 6.9 6.7 7.1
Dm.	2462	13	26.3	+35	39	6.7	68.1	37.7	70.3	13 28.3 +35 25	6.4	6.6
Dm.	2511	13	52.4	+26	31	7.3	72.2	27.7	71.1	13 54.5 +26 18		
	2332	13	41.2	+26	18	5.8	72.2	27.7	72.3	13 42.1 +26 12	6.2	6.4

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F. w. 8c. 8.0 7.5 F. ch. 7.5

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Plate 1144.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	correc.
21,0	18,0	I		K=.5H	2	—	10.5	36.0	46.9	33.0	-1.8
19,2	18,9	I		K=H	1	—	9.6	37.8	47.8	31.2	-2.4
15,2	13,8	I?				F	7.6	27.6	49.8	41.4	+1.5
15,5	18,1	I		K=.2H	2	F	7.8	36.2	49.6	32.8	-3.1
13,8	23,2	I		?	2	—	6.9	46.4	50.5	22.6	-8.7
11,6	8,9	I	3		1	—	5.8	17.8	51.6	51.2	+6.9
11,6	14,4	I	4	K=H	1	—	5.8	28.8	51.6	41.2	+0.5
9,8	15,7	I?	6	K=H	2	F	4.9	11.4	52.5	57.6	+10.8
9,6	14,9	I		K=.2H	1	—	4.8	29.8	52.6	39.2	+0.3
7,9	16,1	I	6	K=.2H	2	—	4.0	32.2	53.4	36.8	-1.3
? 6,3	11,9	I	b H193		2	een	3.2	23.8	54.2	45.2	+3.7
4,9	14,0	I	4		1	—	2.4	28.0	55.0	41.0	+1.2
3,0	17,5	I		K=.2H	1	—	1.5	35.0	55.9	34.0	-3.1
3,6	20,1	I	7	K=.2H	3	F?	1.8	40.2	56.6	28.8	-6.6
3,8	20,5	I	10	K=.2H	1	F	1.9	41.0	55.5	28.0	-7.1

F. w. 8c. 7.9 6.7 Plate 1184 F. ch. 6.7

20,3	18,1	I			?	1	—	10.2	36.2	22.2	53.9	-0.5
19,8	10,8	III	a? H194	2	K=H	1	een	9.9	21.6	22.5	68.5	+0.7
19,4	21,7	III	a?		K=H	1	—	9.7	43.4	22.7	46.7	-0.5
18,5	16,0	III	?	2	K=H	1	—	9.2	32.0	23.2	58.1	-0.2
? 17,8	8,6	III	a? H195	2	K=H	2	F? een	8.9	17.2	23.5	72.9	+0.5
17,8	11,2	III	a? H196	2	K=H	1	F? een	8.9	22.4	23.5	67.7	+0.3
√ √ 15,5	19,9	III	? IIa? H196a	2	K=H	K=H 1	een	7.8	39.8	24.6	50.3	-0.4
√ √ 14,4	18,5	III	III	2	K=H	K=H 1	—	7.2	37.0	25.2	53.1	-0.3
? 13,6	12,8	III	a H197	2	K=.2H	2	F? een	6.8	25.6	25.6	64.5	+0.2
12,9	7,1	III	?	2	K=H	1	—	6.4	14.2	26.0	75.9	+1.6
12,9	9,7	III		2	K=H	1	F?	6.4	19.4	26.0	70.7	+0.5

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Mean 10

															Red. of stars to 1900.	Cov. Br.	Br.
				No.	R.A.	Dec.	Mag.	H.	V.	H'							
				2304	13	32.1	+36	54	50	68.1	47.4	69.9	13	33.0	+36 49		5.2	6.2	
				2297	13	29.4	+37	48	50	67.2	47.4	69.6	13	30.3	+37 42		5.5	6.5	
				2338	13	42.8	+49	55	20	70.4	57.5	68.9	13	43.6	+49 49		B	B.	
				2299	13	29.6	+49	38	48	65.8	57.4	68.9	13	30.4	+49 32		4.5	5.5	
				2258	13	13.1	+50	19	52	59.5	57.2	68.2	13	14.0	+50 12		4.8	5.8	
				2377	13	58.6	+51	34	62	76.4	57.4	69.5	13	59.3	+51 27		5.8	6.8	
				2331	13	41.2	+41	41	58	70.0	47.5	69.5	13	42.0	+41 36		5.9	6.9	
				2395	14	9.2	+52	21	44	20.6	57.2	9.8	14	9.9	+52 16		4.3	5.3	
				2325	13	39.3	+52	38	59	69.1	57.4	68.8	13	40.1	+52 32		5.5	6.5	13 35.3 +52 46
				2309	13	34.9	+53	31	53	67.1	57.5	68.4	13	35.7	+53 26		5.0	6.0	
				2362	13	49.5	+54	19	55	73.3	57.5	69.6	13	50.1	+54 13		5.2	6.2	
				2337	13	42.1	+55	2	56	70.1	57.4	68.9	13	42.9	+54 56		5.2	6.2	
				2298	13	29.6	+55	58	55	64.6	57.5	67.7	13	30.3	+55 52		5.2	6.2	
				2267	13	20.4	+55	37	42	60.6	57.4	67.2	13	21.2	+55 30		4.2	5.2	
				2264 2265	13	19.1	+55	33	24	60.1	57.5	67.2	13	19.9 19.9	+55 27 +55 26		B	B.	
				2368	13	53.0	+22	17	53	89.2	32.5	89.7	13	53.9	+22 11			6.4	
		Dm.		2678	14	8.0	+22	34	6.5	29.6	32.5	28.9	14	10.1	+22 21			7.1	
				2357	13	46.4	+12	46	6.1	89.8	22.5	90.3	13	47.4	+12 40			6.8	13 45.2 +12 53
				~~2742~~	~~13~~	~~56.9~~	~~+13~~	~~26~~	~~7.0~~	~~88.9~~	~~22.6~~	~~88.9~~						7.2	
		Dm.		2644	13	56.6	+23	12	6.5	88.6	32.4	88.8	13	58.3	+23 59			7.4	
				2411	14	13.5	+13	34	5.2	30.7	22.5	30.2	14	14.4	+13 28			6.5	
				2392	14	8.3	+13	31	5.5	30.7	22.4	30.4	14	9.3	+13 26			6.7	
		Dm.		2686	13	48.9	+14	47	6.7	88.7	22.6	89.1	13	51.1	+14 34			6.9	6.9
		Dm.		2651	13	51.7	+15	22	6.7	88.7	32.6	89.0	13	53.9	+15 9			7.0 7.4	7.1 7.4
				2385	14	4.9	+25	40	4.8	30.5	32.5	30.3	14	5.9	+25 34			5.8	
				2421	14	17.7	+25	53	6.0	31.9	32.3	30.3	14	18.6	+25 48			6.8 7.0	14 16.6 +25 60
		Dm.		~~2690~~	~~14~~	~~10.6~~	~~+15~~	~~56~~	~~6.2~~	~~30.0~~	~~22.3~~	~~29.5~~						6.4	

Not [illegible] filter exposure.

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Plate 1184

	V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	Correc.
	12.1	22.8	III	2	K=H	2	—	6.0	45.6	26.4	44.5	-0.7
	12.0	23.4	II	x2	K=H	1	—	6.0	46.8	26.4	43.3	-1.8
III ?	11.3	18.4	III	3	K=H	2	F	5.6	~~17.8~~ 16.8	26.8	~~73.3~~ 72.3	-0.3
	11.9	17.8	III	2	K=H	1	—	6.0	35.6	26.4	54.5	-0.6
	11.8	19.1	III	2	K=H	1	—	5.9	38.2	26.5	51.9	-0.9
	9.0	16.8	I	4	H	1	—	4.5	33.6	27.9	56.5	-0.4
	8.6	18.8	III	x2	K=H	1	—	4.3	37.6	28.1	52.5	-0.7
?	8.7	23.8	III	a H198 x3	K=2, H?	3	F, poor	4.4	47.6	28.0	42.5	-0.9
?	7.0	20.2	III	a H199 x3	K=2, H	4	F, poor	3.5	40.4	28.9	49.7	-0.6
	6.0	10.2	I	4	K=H	1	—	3.0	20.4	29.4	69.7	+0.6
	6.2	20.3	I	2	H	1	—	3.1	40.6	29.3	49.5	-1.3
?	5.6	10.4	II ?	H200 x3	K=3.0 H?	1	F, poor	2.8	20.8	29.6	69.3	+0.5

F. mw. & c.

F. cl.

Plate 1185

	7.8	6.5						6.5				
	20.8	21.8	I	4	K=H	1	—	10.4	43.6	41.9	46.0	~~-5.3~~ -3.0
	19.5	18.7	III	2	K=H	1	—	9.8	37.4	42.5	52.2	-1.8
	15.8	13.7	III	x2	K=H	1	—	7.9	27.4	44.4	62.2	+1.1
	14.8	20.4	III	2	K=H	1	—	7.4	40.8	44.9	48.8	-2.9
	14.0	20.6	I	4	K=H	1	—	7.0	41.2	45.3	48.4	-3.0
	12.8	9.7	b ?	H201 x3	K=H	2	F, poor	6.4	19.4	45.9	70.2	+3.0
	11.4	10.8	I	4	H	4	F	5.7	21.6	46.6	68.0	+3.9
	10.4	21.0	III ?	2	K=H	1	—	5.2	42.0	47.1	47.6	-3.7
	7.5	10.4	III	2	K=H	1	—	3.8	20.8	48.5	68.8	+4.8
	7.2	13.7	II ?	2	K=H	1	—	3.6	27.4	48.7	62.2	+1.3
	6.2	9.2	I	4	H	1	—	3.1	18.4	49.2	71.2	+3.9
	6.6	21.9	III	2	K=H	1	F ?	3.3	43.8	49.0	45.8	-4.8
	6.6	22.2	III	x2	K=H	1	—	3.3	44.4	49.0	45.2	-4.8
	4.9	20.3	I ?	4	H	1	F	2.4	40.6	49.9	49.0	-5.5

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No.	R.A.	Dec.	MAG.	H.	V.	H'.	Red. of stars to 1900.		Br.
2343	13	43.7	+16	24	4.1	89.3	22.4	90.0	13 44.6 +16 18		6.2 6.7
2332	13	41.2	+26	18	5.8	88.0	32.3	89.8	13 42.1 +26 12		6.9
~~3413~~	~~14~~	~~14.1~~	~~+16~~	~~51~~	~~4.9~~				14 16.1 +16 46	Dun. 13 57.0 +16	6.6 7.0
~~Dun. 2687~~	~~13~~	~~51.1~~	~~+17~~	~~7~~	~~7.3~~	~~87.9~~	~~22.7~~	~~88.2~~	13 53.3 +16 54		7.0 7.4
Dun. 2511	13	52.4	+26	31	7.3	88.0	32.5	88.6	13 54.5 +26 18		7.1
Dun. 2508	13	49.5	+26	38	6.8	87.7	32.5	88.6	13 51.6 +26 25		6.5
2375	13	55.7	+27	58	6.1	89.3	32.5	89.7	13 56.7 +27 52		6.6 6.9
2365	13	51.1	+28	5	5.1	88.7	32.4	89.6	13 52.0 +27 59		5.9
2333	13	41.6	+18	3	4.5	89.2	22.4	90.1	13 42.5 +17 57		4.5
2360	13	49.0	+19	0	2.9	89.4	22.5	90.0	13 49.9 +18 54		6.5
Dun. 2779	14	9.3	+19	36	6.7	29.7	22.6	29.1	14 11.4 +19 23		6.4
2355	13	47.7	+29	14	5.8	88.3	32.3	89.6	13 48.7 +29 8		B.
2400	14	10.2	+19	48	0.03	31.0	22.6	30.5	14 11.1 +19 44		
2331	13	41.2	+41	41	5.8	84.8	52.1	90.1	13 42.0 +41 36		~~6.7~~
~~2340~~	~~13~~	~~43.3~~	~~+31~~	~~47~~	~~5.8~~	~~86.9~~	~~42.9~~	~~89.9~~		13 40.0 + 41.8	6.7 H.P. 2.331
2363	13	50.4	+32	37	6.4	87.8	42.6	89.6	13 52.2 +32 31		7.1 6.8 7.3
2382	~~13~~ 14	3.1	+44	25	5.5	30.5	52.3	29.4	14 3.9 +44 20		6.8 7.2
2352	13	46.5	+35	2	4.9	87.3	42.4	90.2	13 47.4 +34 57		H.P. 2.345
2346	13	45.8	+35	22	6.4	87.0	42.4	90.0	13 46.7 +35 16		6.9
~~2347~~	~~13~~	~~45.9~~	~~+35~~	~~17~~	~~6.0~~	~~87.1~~	~~42.3~~	~~90.1~~			6.3 6.6
2409	14	13.0	+36	4	4.8	32.4	42.5	29.4	14 13.8 +35 58		4.2
2403	14	11.8	+46	38	4.3	33.4	52.3	29.5	14 12.6 +46 33		7.0 7.4
Dun. 2457	13	43.4	+37	20	6.5	85.4	42.5	~~81.5~~ 89.1	13 45.4 +37 6		6.7 6.9
Dun. 2188	14	12.4	+48	40	6.6	33.2	52.5	36.9	14 14.1 +48 27		6.9
Dun. 2177	14	2.5	+48	54	6.7	29.9	52.5	28.6	14 4.2 +48 41		6.6
2414	14	14.9	+39	22	5.9	33.3	42.5	29.4	14 15.7 +39 15		6.8 7.1
2334	13	41.8	+39	10	5.5	85.6	42.5	90.4	13 42.7 +39 3	H.P. 2.334	
~~2330~~	~~13~~	~~41.1~~	~~+39~~	~~6~~	~~5.8~~	~~84.9~~	~~42.4~~	~~89.7~~			7.1 7.4
2330	13	41.1	+39	6	5.8	85.5	42.4	90.3	13 43.1 +39 0	H.P. 2.330	40.0 +39 14
2338	13	42.8	+49	55	20	83.4	52.3	88.9	13 43.6 +49 49		B.

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Plate 1185.

V	H	Type	No. lines	K	Forms	No. lines	V.	H.	V.	H.	Correct.
4.7	13.7	III	2	K=H	1	—	2.4	27.4	49.9	62.2	+1.5
3.6	7.0	I ?	3	N	1	—	1.8	14.0	50.5	75.6	+8.3
1.7	15.3	I		N	2	—	0.8	30.6	51.5	59.0	-0.5

F. m. & c. F. ch.

8.0 7.5

Plate 1146

7.5

	20.6	8.1	I		N	1	—	10.4	16.2	27.0	34.3	+0.7
III ? 5.2, 5.6. ?	19.4	6.4	III c ?	3	K=H ?	3	F, bright	9.7	12.8	27.7	37.7	+2.0
	15.4	14.9	?	2	K=H	1	—	7.7	29.8	29.7	20.7	0.0
	15.4	19.8	II a ?	3	K=H ?	4	F, bright?	7.7	39.6	29.7	10.9	-0.6
?	14.4	11.1	a	3	K=H	2	F, rem.	7.2	22.2	30.2	28.3	+1.0
III ? 6.5, 6.8.	13.1	12.4	I	3	K=H	1	F rem	6.6	24.8	30.8	25.7	+0.8
	3.5	22.0	II a	2	K=H	1	rem	1.8	44.0	35.6	6.5	-1.4

F. m. & c. Dark Plate. F. ch.

7.9 6.5

Plate 1213.

6.7

	21.5	15.4	II ?	2	K=H	1	—	10.8	30.8	41.6	23.0	-0.5
	18.1	11.9	II	2	K=H	1	—	9.0	23.8	43.4	30.0	+2.4
	17.8	13.1	III ?	2	K=H	1	—	8.9	26.2	43.5	27.6	+1.5
	17.1	14.0	I	4	K=H	1	—	8.6	28.0	43.8	25.8	+0.7
	16.6	11.5	III	2	K=H	1	—	8.3	23.0	44.1	30.8	+2.9
	17.0	11.3	I	6	N	3	—	7.5	22.6	44.9	31.2	+3.1
	17.8	22.3	III	2	K=H	1	—	7.9	44.6	44.5	9.2	-6.1
	13.4	9.4	II a ?	2	K=H	1	F ? rem	6.7	18.8	45.7	35.0	+5.1
	12.7	19.3	III	2	K=H	1	F	6.4	38.6	46.0	15.2	-3.9 -2.7
	11.5	7.8	II	2	K=H	2	F ?	5.8	15.6	46.6	38.2	+6.7
	11.8	19.1	I	8	N	4	F	5.9	38.2	46.5	15.6	-3.7
	10.4	13.1	I	5	K=2H	1	—	5.2	26.2	47.2	27.6	+1.8
	8.0	18.5	II ?	3	K=H	1	F	4.0	37.0	48.4	16.8	-3.5
	7.3	21.8	III ?	2	K=H	1	—	3.6	43.6	48.8	10.2	-6.7

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No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. of stars to 1900.					Br.
2383	14	3.7	+50	21	55.5	31.1	52.4	29.6	14	4.6	+49 56	7.1 / 7.4
2432	14	24.6	+50	23	56	38.6	52.2	30.3	14	25.2	+50 17	6.7
2377	13	58.6	+51	34	6.2	89.2	52.1	89.7	13	59.3	+51 27	
2449 / 2450	14	35.1	+16	56	46	51.3	27.3	50.6	14	36.0	+16 51	6.6 / 5.0 / 5.3
2467	14	39.8	+27	35	26	52.6	37.3	50.6	14	40.6	+27 30	
2425	14	20.9	+19	46	54	50.7	27.5	50.7	14	21.8	+19 40	7.2
2407	14	10.2	+19	48	0.03	49.8	27.5	50.1	14	11.1	+19 44	B.
2442	14	29.5	+30	16	4.5	51.7	37.5	50.7	14	30.3	+30 11	6.8
2433	14	26.7	+30	54	3.6	51.5	37.5	50.7	14	25.6	+30 49	6.4 / 6.8
2385	14	4.9	+25	40	48	48.9	27.5	50.3	14	5.9	+25 34	7.1
Dm. 2504	14	21.7	+41	40	6.5	52.5	52.5	53.0 / 52.7	14	23.5	+41 28	7.0
Dm. 2422	14	31.4	+43	28	7.0	55.2	52.5	52.8	14	33.1	+43 16	6.8
Dm. 2417	14	28.2	+43	39	6.5	54.4	52.5	52.9	14	29.9	+43 27	6.7 / 6.9
Dm. 2365	14	25.8	+44	1	6.8	53.8	52.6	53.1	14	27.5	+43 49	6.6
2446	14	33.7	+44	10	6.0	56.7	52.5	53.8	14	34.5	+44 4	7.0 / 7.3
2448	14	34.4	+44	55	53	57.0	52.4	53.9	14	35.2	+44 50	5.1
2382	14	3.1	+44	25	55	47.7	52.3	53.8	14	3.9	+44 20	6.7 / 7.0
Dm. 2211	14	39.2	+45	48	6.8	58.0	52.5	52.9 / 64.7	14	40.8	+45 36	6.7
Dm. 1948	14	10.4	+46	14	6.5	49.0	52.6	52.9	14	12.1	+46 1	7.0 / 7.2
~~2409~~	~~14~~	~~13.0~~	~~+46~~	~~4~~	~~48~~	~~51.6~~	~~42.5~~	~~54.0~~				
2485	14	45.1	+46	37	5.6	60.7	52.4	54.0	14	45.8	+46 32	5.8
2403	14	11.8	+46	38	4.3	50.0	52.5	53.7	14	12.6	+46 33	4.2
Dm. 2158	14	28.8	+47	25	6.2	55.0	52.6	53.2	14	30.4	+47 13	6.2
Dm. 2188	14	12.4	+48	40	6.6	49.4	52.7	52.9	14	14.1	+48 27	6.5
Dm. 2177	14	2.4	+48	54	6.7	46.0	52.5	52.7	14	4.1	+48 43	6.8 / 7.1

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1887phae.proj..838F

June 22, 1887.

Plate 1213.

Y	H	Type	No. Lines	K	Focus	Lines.	V.	H.	V.	H.	Other Corrn.
6.4	7.9	III	3	K=H	2	F.	3.2	15.8	49.2	38.0	+7.3 +4.9 −3.0
6.7	18.1	? I ?	3	H K=H	1	— —	3.4	36.2	49.0	87.6	+7.4
5.4	12.9	III ?	2	K=H K=H	1	— —	2.7	25.8	49.7	28.0	+2.1
4.3	5.9	II	2	K=H	2	F.?	2.2	11.8	50.2	42.0	+9.7
4.4	14.9	III	2	K=H	2	F.?	2.2	29.8	50.2	21.0	+0.3
5.0	16.4	II	2 2	K=H K=H	1	— —	2.5	32.8	49.9	21.0	−1.5
4.9	21.5	III	2	K=H	1	F.?	2.4	43.0	50.0	10.8	−6.9

F. sw. 8 c. F. ch.

8.0 6.8

Plate 1258

6.8

22.7	13.2	III ?	2	K=H	1	—	11.4	26.4	26.1	77.5	+0.6
21.1	14.9	III	3	K=H	1	F.	10.6	29.8	26.9	74.1	0.0
20.2	9.1	I ?	4	K=H	1	—	10.1	18.2	27.4	85.7	+1.4
18.8	22.9	I	4	K=H	1	—	9.4	45.8	28.1	58.1	−1.9
17.1	10.8	I	5	K=5H	1	—	8.6	21.6	28.9	82.3	+2.0
16.0	16.6	I	5	K=2H	1	—	8.0	33.2	29.5	70.7	−0.1
15.4	11.7	I	5	K=5H	2	F.	7.7	23.4	29.8	80.5	+0.4
? 15.6	16.7	III Ic 42,22	3	K=2,0H ?	5	F. Bright? Piece	7.8	33.4	29.7	70.5	−0.2
15.6	17.2	IIa IIIa 4222a	2 2	K=H K=H	1 1	— Seen	7.8	34.4	29.7	69.5	−0.6
? 14.4	8.2	IIIa 4223	3	K=H	3	F. piece	7.2	16.4	30.3	87.5	+1.9
13.2	9.4	Ic 4224	3	K=H	3	F. Bright piece	6.6	18.8	30.9	85.1	+1.5
13.0	14.5	I	5	K=5H	1	—	6.5	29.0	31.0	74.9	+0.2
13.6	16.3	I ?	2	K=H	1	—	6.8	32.6	30.7	71.3	−0.2
11.4	17.1	III ? II ?	2	K=H K=H	1	— —	5.7	34.2	31.8	69.7	−0.7
10.4	10.4	I	4	H	2	—	5.2	20.8	32.3	83.1	+1.4
10.2	17.1	I	4	K=H	1	—	5.1	34.2	32.4	69.7	−0.4
? 9.4	8.9	I 4225 a	3	K=H	1	F. piece	4.7	17.8	32.8	86.1	+0.9
9.2	18.2	III	2 2	K=H K=H	1	— —	4.6	36.4	32.9	67.5	−1.0
8.8	8.5	II	2	K=H	1	F.?	4.4	17.0	33.1	86.9	+2.2

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1997plate.proj - 838F

	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.	Br.
	2487	14 45.6	+49 13	55	61.4	52.4	54.1	14 46.3 +49 7	6.0
7.3 2.9	~~2334~~	~~14 44.8~~	~~+39 10~~	~~55~~	~~57.6~~	~~42.4~~	~~52.7~~		
	Dm. 2290	14 13.5	+49 16	6.5	49.7	52.7	52.7	14 15.2 +49 3	6.9 6.8
	~~3187~~	~~14 45.6~~	~~+49 13~~	~~5.5~~	~~61.8~~	~~52.6~~	~~54.7~~		
2.1 1.5	2443	14 30.5	+49 54	5.8	56.3	52.6	54.2	14 31.2 +49 48	6.9 7.2
9.7 6.6	2504	14 52.4	+50 6	5.6	64.2	52.3	54.5	14 53.0 +50 3	6.2
0.3 0.1	2432	14 21.6	+50 23	5.6	54.4	52.6	54.1	14 25.2 +50 17	6.2 6.4
	Dm. 2075	14 18.9	+50 12	7.3	57.7	52.7	53.2	14 20.5 +50 0	Dm. 14 19.0 +50 7.1 7.0
1.5 1.1	~~Dm. 2070~~	~~14 18.4~~	~~+50 3~~	~~7.3~~	~~57.2~~	~~52.6~~	~~52.7~~		Dm. 2.6 7.5
6.9 4.7	2383	14 3.7	+50 2	5.5	46.7	52.4	53.6	14 4.6 +49 56	6.7 7.1
0.6 0.3	2424	14 17.7	+25 53	6.0	44.1	37.3	43.5	14 18.6 +25 48	14 16.6 +25 6.0
0.0	2413	14 14.1	+16 51	49	43.9	27.4	43.9	14 15.1 +16 46	6.6 7.0
1.1 0.6	2434	14 27.0	+27 13	5.9	45.2	37.3	43.8	14 27.9 +27 8	6.9
1.9 0.8	2375	13 55.7	+27 58	6.1	101.5	37.4	103.4	13 56.7 +27 52	6.7
	Dm. 2332	14 22.2	+28 56	7.0	43.8	37.5	42.8	14 24.2 +28 44	
1.0 0.5	Dm. 2331	14 22.1	+28 56	7.5	43.7	37.5	42.7	14 24.1 +28 44	6.8
0.4 0.1	Dm. 2779	14 9.3	+19 36	6.7	42.5	27.6	42.6	14 14.4 +19 23	6.5
0.9 0.4	2425	14 20.9	+19 46	5.4	44.3	27.5	43.9	14 21.8 +19 40	5.8
0.5 0.2	2400	14 10.2	+19 48	0.03	43.6	27.6	43.8	14 11.1 +19 44	B B
0.6 0.3	Dm. 2508	14 7.4	+29 48	7.0	41.8	37.6	42.4	14 9.4 +29 35	6.9 7.0
1.9 0.9	2442	14 29.5	+30 16	4.5	45.9	37.5	44.0	14 30.3 +30 11	5.2
1.5 0.7	2433	14 26.7	+30 54	3.6	45.5	37.5	44.0	14 25.6 +30 49	5.3 5.7
0.2 0.0	Dm. 2605	14 13.8	+31 6	6.5	42.8	37.6	42.6	14 15.8 +30 53	6.6
0.4 0.2	Dm. 2954	14 9.8	+20 48	7.0	42.4	37.6	42.6	14 12.9 +20 35	6.9
0.7 0.3	Dm. 2595	14 7.4	+31 53	7.2	41.6	37.6	42.3	14 9.4 +31 40	7.0 7.0
1.4 0.7	Dm. 2482	14 23.6	+32 26	6.5	44.4	37.6	43.0	14 25.5 +32 14	6.9
0.7 0.4	Dm. 2678	14 8.0	+22 34	6.5	42.2	27.7	42.6	14 10.1 +22 21	6.6
1.9 0.9	2435	14 27.1	+22 47	5.9	44.9	27.5	44.0	14 28.0 +22 42	6.6 7.1 7.1
1.0 0.5	Dm. 2443	14 8.9	+32 58	6.5	41.3	37.6	42.3	14 6.9 +32 45	7.4 7.5
2.2 1.0	Dm. 2474	14 28.0	+33 11	6.8	45.0	37.6	42.8	14 29.9 +32 59	6.7

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1887phae.proj..838f

June 22, 1887.

Plate 1258.

	V	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H.	Correc.
	6.5	16.9	I/IV I	2	4	K=H	1	—	3.2	33.8	34.3	70.1	−0.4
	3.4	13.2	I?	1	K=H		1	—	1.7	26.4	35.8	77.5	+0.4
?	3.0	15.3	III	2	K=H	2	F, [illegible]		1.5	30.6	36.0	73.3	0.0
?	3.8	19.0	II a	3	K=H	2	F, [illegible]		1.9	38.0	35.6	65.9	−0.8

F. nw. 8 c. F. ch. 8

8.0 6.5 Plate 1339. 6.0

	21.2	18.9	III	2	K=H	1	—		10.6	37.8	26.9	14.2	−0.4
	21.0	8.9	I	5	?	3	F?		10.5	17.8	27.0	34.2	+0.7
	20.0	6.7	III	2	K=H	2	F?	2nm	10.0	13.4	27.5	38.6	+0.9
	20.8	7.8	III	x2	K=H K=H	11	—	—	10.4	15.6	27.1	36.4	+1.6
	20.4	12.8	I	4	K=H	1	—		10.2	25.6	27.3	26.4	+0.5
?	19.8	7.2	III?	3	K=H?		F, [illegible]	bright?	9.9	14.4	27.6	37.6	+1.8
	17.4	10.1	III	2	K=H	1	—		8.7	20.2	28.8	31.8	+0.5
	17.2	14.5	I	4	H	1	—		8.6	29.0	28.9	23.0	+0.1
	16.0	6.7	III	x2	K=H		—		8.0	13.4	29.5	38.6	+1.0
	16.0	20.5	I	1	K=H	1	—		8.0	41.0	29.5	11.0	−1.0
	15.5	15.6	I	4	K=H	2	F		7.8	31.2	29.7	20.8	0.0
	15.4	20.6	III?	3	K=2.0H?		F, [illegible]	Bright?	7.7	41.2	29.8	10.8	−0.7
?	14.6	11.8	II a	3	K=H	3	F, [illegible]		7.3	23.6	30.2	28.4	+0.9
	13.4	13.0	III	3	K=H	3	F, [illegible]	Bright	6.7	26.0	30.8	26.0	+0.6
	13.1	17.9	I	4	K=H	1	—		6.6	35.8	30.9	16.2	−0.8
	13.5	20.2	III	x2	K=H	1	—		6.8	40.4	30.7	11.6	−0.7
?	10.1	9.1	II a	2	K=H	1	[illegible]		5.0	18.2	32.5	33.8	+1.1
	10.4	13.8	I	1	H	2	—		5.2	27.6	32.3	24.4	+0.4
	10.0	20.9	I	1	K=H	1	—		5.0	41.8	32.5	10.2	−0.9
	9.0	12.0	I	3	H	1	—		4.5	24.0	33.0	28.0	+1.0
?	9.5	12.5	II a	3	K=H	1	F, [illegible]		4.8	25.4	32.7	26.6	+0.3
	3.7	22.6	II a	4233	K=H	2	F, [illegible]		1.8	45.2	35.7	6.8	−1.5
	3.4	16.9	I	1	H	1	—		1.7	33.8	35.8	18.2	−0.4
?	3.0	18.5	III	3	K=H	2	F [illegible]		1.5	37.0	36.0	15.0	−1.3

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1987phae.proj...093F

			No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. of stars to 1900.	Bv.
0.7	0.4	Dm.	2707	14	8.4	+28 4 22	6.5	42.2	27.6	42.6	14	10.5 +24 9 .	7.0 7.0 7.4
0.7	0.4		2421	14	17.7	+25 58	6.0	44.1	27.6	43.7	14	18.6 +25 48 .	6.7 5.8 6.2
0.2	0.0		2409	14	13.0	+36 4	4.8	43.6	37.6	43.6	14	13.8 +35 58 .	4 16.6 +25 60
1.5	0.8		2385	14	4.9	+25 40	4.8	42.9	27.6	43.7	14	5.9 +25 34 .	5.5
0.8	0.4		2413	14	14.1	+16 57	4.9	51.9	27.4	52.3	14	15.1 +16 46 .	6.9 7.2
1.3	0.7		2449 2450	14	35.1	+16 56	4.6	52.9	27.4	52.2	14	36.0 +16 51 .	5.0
1.9	0.9		2466	14	39.7	+17 29	4.8	53.1	27.5	52.2	14	40.5 +17 23 .	6.4 6.7
1.6	0.8		2459	14	38.2	+27 3	4.7	53.8	37.4	52.2	14	39.0 +26 57 .	7.9 7.4 7.5
0.5	0.2		2434	14	27.0	+27 13	5.9	52.6	37.4	52.1	14	27.9 +27 8 .	6.7
1.9	0.8		2467	14	39.3	+27 35	2.6	54.2	37.5	52.4	14	40.6 +27 30 .	B B
1.2	0.5	Dm.	2906	14	31.5	+18 56	6.1	51.7	27.7 6	51.2	14	33.6 +18 44 .	7.2 7.5
0.1	0.0	Dm.	2333 2331	14	22.2 22.1	+28 56	7.0 7.5	51.2 51.1	37.5 37.5	51.2 51.0	14 14	24.2 +28 44 24.8 +28 44	6.7
2.2	1.0	Dm.	2854	14	38.7	+19 30	6.5	52.1	27.5	51.1	14	40.8 +19 18 .	7.1 7.5
1.4	1.0	Dm.	2779	14	9.3	+19 36	6.7	50.3	27.6	51.3	14	11.4 +19 23 .	6.5
0.2	0.0		2425	14	20.9	+19 46	5.1	52.1	27.6	52.1	14	21.8 +19 40 .	5.8
1.5	0.7		2400	14	10.2	+19 48	4.8 0.3	51.4	27.5	52.1	14	11.1 +19 44 .	B B
0.7	0.4		2442	14	29.5	+30 16	4.5	53.1	37.6	52.2	14	30.3 +30 11 .	5.1
0.6	0.3		2433	14	26.7	+30 54	3.6	52.7	37.6	52.1	14	25.6 +30 49 .	5.3 5.8
0.8	0.4	Dm.	2605	14	13.8	+31 6	6.5	49.6	37.7	50.4	14	15.8 +30 53 .	6.8
1.5	0.7	Dm.	2954	14	9.8	+30 2 48	7.0	50.2	27.6	50.9	14	11.9 +20 35 .	7.0 7.2
2.2	1.1		2451	14	34.9	+22 30	6.2	53.1	27.5	52.0	14	35.8 +22 24 .	6.8 14 33.8 +22 36
0.4	0.2	Dm.	2482	14	23.6	+32 26	6.5	51.2	37.6	50.8	14	25.5 +32 14 .	6.2
1.8	0.9	Dm.	2678	14	8.0	+22 34	6.5	49.8	27.6	50.7	14	10.1 +22 21 .	6.8
1.0	0.4	Dm.	2474	14	28.0	+33 11	6.8	52.0	37.7	51.0	14	29.9 +33 2 59 .	6.8
0.7	0.3		2435	14	27.1	+22 47	5.9	52.5	27.6	52.2	14	28.0 +22 42 .	6.5
3.0	1.5		2385	14	4.9	+25 40	4.8	50.1	27.5	51.6	14	5.9 +25 34 .	5.7
0.7	0.4		2421	14	17.7	+25 53	6.0	51.5	27.6	51.9	14	18.6 +25 38 .	6.9 416.6 +25 60
1.3	0.7		2409	14	13.0	+36 4	4.8	50.0	37.6	51.3	14	13.8 +35 58 .	6.4

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1887phae.proj..838f

F. m. 8 c. 8.0 7.5 F. cl. 7.5

June 23, 1887.

Plate 1147

				No. Type lines	K	Focus lines	Other	V.	H.	V.	H.	corrn
g 30	21.6	17.6	I ✓	4 ✓	N ✓	2	—	10.8	35.2	46.8	14.1	-2.3
	17.√	12.2	I ? ✓	g ✓	K ✓ = .√H	3	F ? ✓	8.8	24.4	48.8	24.9	+1.8
	11.2	17.2	I ✓	4 ✓	K ✓ = H	1	F ? ✓	5.6	14.4	52.0	34.9	+8.9
?	10.4	14.4	II ✓	a 4238 ✓	K = 1.5 H ?	2	diff.	5.2	28.8	52.4	20.5	+0.7
	10.4	18.0	I ✓	6 ✓	K = .√H	2	—	5.2	36.0	52.4	13.3	-3.3
	√.9	10.6	I ? ✓	4 ✓	K = H	1	—	3.0	21.2	54.6	28.1	+5.4
	√.2	9.8	I ✓	4 ✓	N ✓	1	—	2.6	19.6	55.0	29.7	+4.7
	6.0	23.6	I ? ✓	2 ✓	K = H	1	—	3.0	47.2	54.6	2.1	-10.7
	2.0	17.7	I ✓	2 ✓	N ✓	2	—	1.0	35.4	58.6	13.9	-2.4

F. m. 8 c. 8.0 7.2 Plate 1259 F. cl. 7.2

	22.7	18.2	II ✓	1 4238 2 ✓	K ✓ = H	1	diff	11.4	36.4	46.2	14.0	-1.9 -2.9
	21.6	18.0	I ✓	7 ✓	N ✓	3	F ? ✓	10.8	36.0	46.8	14.4	-2.7
	20.3	12.0	I ✓	√ ✓	K ✓ = .√H	1	—	10.2	24.0	47.4	26.4	+2.7 +1.8
	17.4	12.7	I ? ✓	11 ✓	K = .2 ✓ H	4	F ? ✓	8.7	25.4	48.9	25.0	+1.5
	17.8	17.4	II ✓	a ? 4238 1 3 ✓	K ✓ = H	1	F ? diff	8.9	34.8	48.7	15.6	-2.3
	17.1	20.7	II ? ✓	x 2 ✓	K ✓ = H	1	—	8.6	41.4	49.0	9.0	-5.9
	16.2	6.9	II ? ✓	2 ✓	K ✓ = H	1	—	8.1	13.8	49.5	36.6	+8.4
	16.4	17.4	I ✓	√ ✓	K ✓ = .2 H	1	—	8.2	34.8	49.4	15.6	-1.7
	14.3	13.9	III ? ✓	3 ✓	K = H	1	F ? ✓	7.2	27.8	50.4	22.6	+1.2
?	14.4	18.6	II ✓ a	4240 2 ✓	K ✓ = H	1	diff	7.2	37.2	50.4	13.2	-2.5
	14.8	20.4	III ✓	2 ✓	K ✓ = H	1	F ? ✓	7.4	40.8	50.2	9.6	-5.7
✓ ✓	12.3	15.8	II I ? I ? 2	4 ✓	K ✓ = H K = H	1 1	— —	6.2	31.6	51.4	18.8	-0.6
	11.0	7.4	I ? ✓	4 ✓	K ✓ = H	1	—	5.5	14.8	52.1	35.6	+8.7
	11.0	9.9	III ✓	2 ✓	K ✓ = H	1	—	5.5	19.8	52.1	30.6	+5.9
✓ ✓	11.8	12.9	III ✓ III ? ✓	2 ✓	K ✓ = H K = H	1 1	—	5.9	25.8	51.7	24.6	+2.3
?	11.9	14.√	II ✓ a	4241 2 ✓	K ✓ = H	1	F ? ✓ diff	6.0	29.0	51.6	21.4	+0.3
	11.4	17.3	I ✓	6 ✓	K ✓ = .2 H	2	—	5.7	34.6	51.9	15.8	-2.4

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1997phae.proj.:0636

			No.	R.A.	Dec.	Mag.	Et.	V	H'	Red. of stars to 1900.				Br.	
2.3	1.5		2403	14 11.8	+46 38	4.3	47.0	57.1	49.3	14	12.6	+46 33	: √	6.0 √	
2.7	1.8		2436	14 27.2	+38 50	3.1	51.6	47.6	49.8	14	28.0	+38 45	. √	4.8 √	
8.9	6.0	D.Tm.	~~1957~~	~~14 44.8~~	~~+51 59~~	~~6.3~~	~~59.2~~	~~57.6~~	~~50.3~~	~~14~~	~~46.3~~	~~+51 48~~	. √	6.5 √	
			2404	14 11.9	+51 55	4.8				14	12.7	+51 50			
0.7	0.5		~~2426~~	14 21.0	+52 24	4.2	49.8	57.6	49.1	14	21.8	+52 19	. √	6.1 √	
3.3	2.3		2395	14 9.2	+52 21	4.4	45.2	57.5	48.5	14	9.9	+52 16	. √	6.0 √	
5.4	3.7		2447	14 34.4	+54 32	5.6	55.6	57.5	50.2	14	35.1	+54 27	. √	7.0 √	
6.7	4.7		2448	14 34.4	+44 55	5.3	54.0	47.5	49.3	14	35.2	+44 50	. √	6.7 √	
10.7	7.3		2362	13 49.5	+54 19	5.5	96.7	57.3	107.4	13	50.1	+54 13		7.0 √	
3.7	2.4		2403	14 11.8	+46 38	4.3	47.2	47.6	49.6	14	12.6	+46 33	√		

Corr. Br.

Mean 7

2.9	1.9		2409	14 13.0	+ 36 4	4.8	49.4	47.5	51.3	14	13.8	+35 58	. √		
		Dm.	~~1948~~	~~14 10.1~~	~~+46 14~~	~~6.5~~	~~37.8~~	~~57.6~~	~~40.7~~						
2.7	1.8		2403	14 11.8	+46 38	4.3	47.8	57.1	50.5	14	12.6	+46 33	. √	4.9 √	4.2 √
2.7	1.8	Dm.	2158	14 28.8	+ 47 25	6.2	52.8	57.6	50.1	14	30.4	+47 13	. √	6.9 √	6.2 √
		Dm.	~~2545~~	~~14 37.4~~	~~+37 36~~	~~6.8~~	~~57.4~~	~~47.8~~	~~49.6~~						
2.3	1.5		2436	14 27.2	+38 50	3.1	52.6	47.5	51.1	14	28.0	+38 45	. √	4.2 √	3.5 √
4.3	1.5	Dm.	2188	14 12.4	+48 40	6.6	47.2	47.6	49.5	14	14.1	+48 27	. √	7.0 √	6.3 √
5.9	3.9	Dm.	2177	14 2.4	+48 54	6.7	43.8	57.5	49.7	14	4.1	+48 41	. √	7.1 √ 7.5	6.4 6.8 √
8.4	5.5		2487	14 45.6	+49 13	5.5	59.4	57.3	51.0	14	46.3	+49 7	√	6.5 √	5.8 √ √
2.4	1.7	?	2414	14 14.9	+39 22	5.9	49.7	47.6	51.4	14	15.7	+39 15	. √	6.3 √	5.6 √
1.7	0.9		2432	14 24.6	+50 23	5.6	52.4	57.6	51.2	14	25.2	+50 17	√	6.4 √ 6.5	5.7 5.8 √
3.9	2.5		2402	14 11.5	+40 18	6.3	48.7	47.5	51.2	14	12.3	+40 13	. √	6.7 √	6.0 √
6.7	3.9		2383	14 3.7	+50 2	5.5	44.5	57.4	50.2	14	4.6	+49 56	√	6.8 √ 7.3 7.0	6.1 6.6 6.3 √
0.9	0.6	D.Tm.	2495	14 17.9	+41 30	6.6	49.5	47.7	50.1	14	19.7	+41 18	√	7.1 7.2	6.5 √
8.7	5.9	D.Tm.	1957	14 44.8	+51 59	6.3	59.6	57.5	50.9	14	46.3	+51 48	. √	6.8 √	6.1 √
		Dm.	1821	14 36.8	+52 0	7.2	56.6	57.5	50.7	14	38.3	+51 48	. √	7.1 √	6.4
5.9	3.9	D.Tm.	~~1826~~	~~14 33.2~~	~~+52 12~~	~~6.8~~	~~53.0~~	~~57.7~~	~~47.1~~					~~7.4~~	~~6.7~~
2.3	1.6	D.Tm.	1928	14 20.9	+51 40	7.8	52.7	57.6	50.4	14	28.4	+51 28	. √	7.1 √ 7.4	7.0 √ 6.3 6.7 √
0.6	0.3	D.Tm.	2504	14 21.7	+41 40	6.5	50.7	47.7	50.4	14	23.5	+41 28	. √	6.8 √	6.1 √
2.4	1.7	D.Tm.	1908	14 12.2	+51 59	6.8	46.8	57.7	49.2	14	13.8	+51 46	. √	6.1 √	5.4 √

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Plate 1259.

		No. Type lines K. Focus lines.	Other V.	H.	V.	H.	Corr'n.
11.4	17.7	I V q J K1.5H 3 F V	5.7	35.4	51.9	15.0	-3.0
11.7	21.9	I V 5 J N J 2 —	5.8	43.8	51.8	6.6	-7.8
10.4	13.7	II ? V 3 V K J = H 1 —	5.2	27.4	52.4	23.0	+1.1
? 10.4	15.0	II V a 4242 3 J K = V 1,2 H 3 F, poor	5.2	30.0	52.4	20.4	0.0
10.4	18.5	I V 9 V K = J .5 H 4 F V	5.2	37.0	52.4	13.4	-4.1
10.9	19.3	III V 2 J K J H 1 —	5.4	38.6	52.2	11.8	-3.3
9.9	16.9	I V 4 J K J H 1 —	5.0	33.8	52.6	16.6	-2.3
8.3	11.0	III V ? x 2 V N K = H 1 —	4.2	22.0	53.4	28.4	+3.1
8.0	12.2	I ? V 3 J N J 1 —	4.0	24.4	53.6	26.0	+2.3
8.2	13.2	II 2 K = H 1 —	4.1	26.4	53.5	24.0	+
7.4	13.1	I V 4 J N J 1 —	3.7	26.2	53.9	24.2	+1.5
6.0	11.1	I V 9 J K J .2 H 2 —	3.0	22.2	54.6	28.2	+4.8
5.2	10.4	I V 6 J N J 2 —	2.6	20.8	55.0	29.6	+4.1
4.2	16.6	I V 5 - K J .5 H 1 —	2.1	33.2	55.5	27.2	-2.1
3.1	16.9	I V 4 J ? J 1 —	1.6	33.8	56.0	16.6	-2.4
1.9	18.2	I V 3 J N 2 F V	1.0	36.4	56.6	14.0	-2.9

F. nw. & c.

F. ch.

Plate 1186.

6.3

20.5	10.4	I V 4 J N J 1 —	10.2	20.8	22.2	50.8	+0.7
20.4	17.8	III ? J 2 J K J = H 1 —	10.2	35.6	22.2	36.0	-0.2
19.6	18.1	II ? J 3 J K J H 2 F V	9.8	36.2	22.6	35.4	-0.5
? 18.9	11.2	I d ? J 3 V ? J 1 —	9.4	22.4	23.0	49.2	+0.3
18.9	21.7	II V a ? 4243 2 V K J = H 1 Poor	9.4	43.4	23.0	28.2	-1.0
∫ ∫ 17.5	13.8	III ? III V 2 V 2 K J H K = H 1 1 — —	8.8	27.6	23.6	44.0	+0.2
16.4	18.0	I V 9 J K = J .2 H 4 F V	8.2	36.0	24.2	35.6	-0.3
16.6	18.3	I V 4 V K = J .5 H 1 —	8.3	36.6	24.1	35.0	-0.3
∫ ∫ V 15.3	19.7	III III V 2 V 3 K = H K = H 1 F —	7.6	19.4	24.8	52.2	+1.0
15.0	10.8	I V 5 J N J 2 —	7.5	21.6	24.9	50.0	+0.4

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Mean 7

			No.	R.A.	Dec.	MAG.	H.	V.	H′.	Red. of stars to 1900.	Cor. Br.	Br.	
			2404	14	11.9	+51 55	48	47.3	57.6	50.3	14 12.7 +51 50	✓	4.5	5.2	✓
			2377	13	58.6	+51 34	62	102.4	57.4	110.2	13 59.3 +51 27	✓	5.3	6.0	✓
		Dm	2508	14	23.9	+42 27	6.3	57.3	47.6	50.2	14 25.7 +42 15	✓	6.3	7.0	✓
			2426	14	21.0	+52 21	42	51.0	57.6	51.0	14 21.8 +52 19	✓	4.4	5.1	✓
			2395	14	9.2	+52 21	44	46.2	57.5	50.3	14 9.9 +52 16	✓	4.3	5.0	✓
			2397	14	9.5	+42 0	6.0	48.1	47.5	51.4	14 10.3 +42 0	✓	6.4 6.7	7.1 7.4	✓
		Dm	1788	14	13.5	+52 43	7.3	47.3	57.7	49.6	14 15.1 +52 30	✓	6.1	6.8	✓
		Dm	~~1787~~	~~14~~	~~13.5~~	~~+52 38~~	~~7.0~~	~~46.5~~	~~57.5~~	~~48.8~~					
		Dm	2422	14	31.4	+43 28	7.0	53.4	47.7	50.3	14 33.1 +43 16	✓	6.3 6.6	7.0 7.3	✓
		Dm	2417	14	28.2	+43 39	6.5	52.6	47.6	50.3	14 29.9 +43 27	✓	6.3	7.0	✓
		Dm	— Defect in plate?								Not found on chart.				
		Dm	2365	14	25.8	+44 1	6.8	52.0	47.7	50.5	14 27.5 +43 49	✓	6.1	6.8	✓
		Dm	~~2358~~	~~14~~	~~23.7~~	~~+44 54~~	~~6.3~~	~~49.9~~	~~47.6~~	~~48.4~~					
			2447	14	34.4	+54 32	56	56.6	57.5	51.8	14 35.1 +54 27	✓	5.1	5.8	✓
			2448	14	34.4	+44 55	5.3	55.2	47.5	51.1	14 35.2 +44 50	✓	5.0	5.7	✓
		Dm	1678	14	11.1	+55 33	6.5	47.3	57.7	49.4	14 15.6 +55 20	✓	5.8	6.5	✓
		Dm	1725	14	13.0	+56 6	7.3	46.8	57.7	49.2	14 14.5 +55 53	✓	6.0	6.7	✓
			2403	14	11.8	+46 38	4.3	48.2	47.6	51.1	14 12.6 +46 33	✓	—	—	—

Mean 4

												Cor. Br.		
		Dm	2764	14	50.5	+22 8	6.2	71.3	32.3	70.6	14 52.5 +21 57	✓	6.3	6.7	✓
			2455	14	36.0	+12 9	56	71.6	22.4	71.8	14 36.9 +12 6	✓	6.4 6.7	6.8 7.1	✓
			2451	14	34.9	+22 30	6.2	71.1	32.3	71.6	14 35.8 +22 24	✓	6.4	6.8	✓
		Dm	2866	14	48.6	+13 1	6.5	71.0	22.4	70.8	14 50.8 +12 50	✓	6.4	6.8	✓
			2435	14	27.1	+22 47	5.9	70.5	32.2	71.5	14 28.6 +22 42	✓	6.2	6.6	✓
		Dm	2744	14	43.2	+23 38	7.0	70.8	32.4	70.6	14 45.2 +23 27	✓	7.2 7.5	6.7 7.0	7.1 7.4 ✓
			2452 2453	14	35.4	+14 15	3.8	71.4	22.4	71.7	14 36.4 +14 9	✓	3.8	4.2	✓
		Dm	2769	14	33.8	+14 9	6.5	70.4	22.5	70.7	14 35.9 +13 57	✓	6.0	6.4	✓
		Dm	2803	14	52.4	+24 45	6.8	71.8	32.4	70.8	14 54.4 +24 34	✓	7.0 7.3	6.7 7.0	7.1 7.5 ✓
			2498	14	50.6	+14 58	5.7	72.2	22.4	71.8	14 51.5 +14 51	✓	5.6	6.0	✓

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Plate 1186.

								Other							
		Type	Figures	K	Focus	Lines.			V.	H.	V.	H.	corrn	
	15.9	13.6	II a H2HH	2	K=H	2	F?	seen	8.0	27.2	24.4	44.4	+0.3	
	15.0	14.4	II	2	K=H	1	F?		7.5	28.8	24.9	42.8	+0.1	
	14.2	13.7	I		N	1	—		7.1	27.4	25.3	44.2	+0.3	
	14.4	17.2	II a H2H5 IIa	2 2	K=H	1 1	seen	seen	7.2	34.4	25.2	37.2	-0.4 -0.2	
?	13.9	5.8	II a H2H6	3	K=H	3	F.	seen	7.0	11.6	25.4	60.0	+1.9	
III? 6.3, 6.7	13.7	8.2	III	2	K=H	1	F?		6.8	16.4	25.6	55.2	+1.3	
	13.1	11.5	III III	2 2	K=H K=H	1 1	—	—	6.6	23.0	25.8	48.6	+0.3	
	13.6	12.4	II a H2H7 IIa	2 2	K=H K=H	1 1	seen	seen	6.8	24.8	25.6	46.8	+0.2	
	13.6	15.6	III	2 2	K=H	1 1	—	—	6.8	31.2	25.6	40.4	0.0	
	12.4	12.2	II a H2H8 IIa	2 2	K=H K=H	1 1	seen	seen	6.2	24.4	26.2	47.2	+0.2	
	11.1	10.3	III	2 2	K=H K=H	1 1	F?	F	5.6	20.6	26.8	51.0	+0.5	
	11.0	18.1	I		N	4	—		5.5	36.2	26.9	35.4	-0.3	
	10.0	15.9	III c H2H9	2	K=H	2	F	bright? seen	5.0	31.8	27.4	39.8	0.0	
	10.2	21.4	I		K=.5H	1	—		5.1	42.8	27.3	28.8	-1.5	
	9.8	7.2	III h H2H10	2	K=H	2	F?	seen	4.9	14.4	27.5	57.2	+1.8	
	9.8	15.8	II IIa c H2H11	5	K=.2H	5	F.	Bright seen	4.9	31.6	27.5	40.0	-0.2	
	8.7	19.6	III III	2 2	K=H K=H	1 1	—	—	4.4	39.2	28.0	32.4	-1.0	
	7.1	7.8	III II	2 2	K=H K=H	1 1	—	—	3.6	15.6	28.8	56.0	+1.8	
	7.3	19.2	III	2	K=H	1	—		3.6	38.4	28.8	33.2	-0.5	
	6.6	13.6	I	8	K=.2H	2	F		3.3	27.2	29.1	44.4	+0.3	
	6.2	15.9	III	2	K=H	1	—		3.1	31.8	29.3	39.8	-0.0	
	6.9	23.0	I	4	N	1	—		3.4	46.0	29.0	25.6	-2.0	
	5.4	7.3	III III	2 2	K=H K=H	1 1	—	—	2.7	14.6	29.7	57.0	+2.0	
	5.7	12.1	III III H2H12	3	K=H K=H	1 1	F	—	2.8	24.2	29.6	47.4	+0.3	
?	5.8	13.1	III c H2H13	2	K=1.2 1 H	2	F?	bright!	2.9	26.2	29.5	45.4	+0.2	
	4.8	13.9	I	4	N	1	—		2.4	27.8	30.0	43.8	+0.1	
?	4.2	20.2	II a H2H14	3	K=H	3	F	seen	2.2	40.4	30.2	31.2	-1.4	
	3.6	11.6	I ? H2H15	3	N	1 1	—	—	1.8	23.2	30.6	48.4	+1.0	

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Mean 4

			No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red of stars to 1900	Cov. Br.	Br.	
+0.3	0.3	0.0	2484	14 44.9	+24 25	5.8	72.1	32.4	71.8	14 45.8+24 20		5.9	6.3 14 43.8+24 3.1
+0.1	0.1	0.0	2476	14 43.1	+24 52	6.1	71.9	32.4	71.8	14 44.0+24 47		6.1	6.5 14 42.0+24 58
+0.3	0.3	0.1	Dm 2841	14 43.5	+25 20	7.0	70.9	32.4	70.6	14 45.5+25 9		6.0	6.4
0.4			Dm 2816	14 35.3	+25 9	7.5	69.7	32.4	70.1	14 37.3+24 57		6.8	6.2 6.6 Dm 14 35.4+25.1
-0.2	0.4	0.2	~~Dm 2749~~	~~14 35.9~~	~~+15 20~~	~~6.7~~	~~70.3~~	~~22.5~~	~~70.5~~				
+1.9	1.9	0.8	2527	15 2.0	+25 20	5.0	13.6	32.3	11.7	15 2.9+25 15		5.2	5.6
+1.3	1.3	0.7	2513	14 58.9	+25 29	4.9	73.3	32.3	72.0	14 57.7+25 24		6.0 6.6	6.4 7.0
0.3	0.7	0.5	Dm 2790	14 48.0	+15 55	7.5	71.0	22.5	70.8	14 50.1+15 44		7.0 7.0	6.7 7.0 7.1 7.4
-0.2	0.5	0.2	Dm 2784	14 46.1	+15 43	7.2	70.9	22.5	70.7	14 48.2+15 32		6.7	6.5 6.9
0.0	0.1	0.0	2470	14 40.5	+15 39	6.2	71.7	22.4	71.7	14 41.4+15 33		7.0 7.3	6.7 7.1 7.5 14 39.3+15 45
-0.2	0.5	0.2	Dm 2705	14 46.6	+16 17	6.2	71.0	22.5	70.8	14 48.7+16 6		6.7	6.2 6.6
+0.5	1.0	0.5	2508	14 51.6	+16 53	5.8	72.2	22.5	71.7	14 55.5+16 48		6.7 6.9	6.4 6.8 6.8 7.2
0.3	0.7	0.3	2449 2450	14 35.1	+16 56	4.6	71.3	22.4	71.6	14 36.0+16 51			4.4 4.8
0.0	0.2	0.0	2466	14 39.7	+17 29	4.8	71.5	22.5	71.5	14 40.5+17 23			5.4 6.8 5.8 6.2
1.5	1.5	0.6	2434	14 27.0	+27 13	5.9	69.8	32.3	71.3	14 27.9+27 8			5.9 6.3
1.8	1.6	0.8	2520	14 59.8	+27 25	4.5	73.7	32.3	71.9	15 0.2+27 20			5.4 5.8 5.8 6.2
0.2	0.2	0.0	2467	14 37.8	+27 35	2.6	71.4	32.5	71.6	14 40.6+27 30			3.6 4.0
1.0	1.0	0.5	Dm 2348	14 30.1	+28 8	7.0	69.3	32.5	70.3	14 32.1+27 56		7.1 7.5	6.6 6.9 7.0 7.3
1.8	1.6	0.8	Dm 2391	14 56.9	+28 51	7.0	72.5	32.4	70.7	14 58.8+28 40		6.8	6.6 7.0
0.5	1.0	0.5	Dm 2906	14 31.5	+18 56	6.1	69.9	22.5	70.4	14 33.6+18 44			6.6 6.8 7.0 7.2
2.8	2.3	0.1	2482	14 44.8	+29 6	5.7	72.0	32.4	71.7	14 45.7+29 1			5.3 5.7
2.0	0.2	0.0	Dm 2854	14 38.7	+19 30	6.5	70.5	22.6	70.5	14 40.8+19 18			6.5 6.9
2.0	2.0	1.0	Dm 2331	14 22.1	+28 56	7.5	68.1	32.3	70.1	14 24.1+28 44			
			Dm 2332	14 22.2	+28 56	7.0	68.2	32.3	70.2	14 24.2+28 44			6.1 6.5
2.0	2.0	1.0	Dm 2618	14 58.1	+29 37	7.8	72.7	32.3	70.7	15 0.0+29 26		7.3 7.5	6.8 7.0 7.2 7.4
0.3	0.7	0.3	Dm 2881	14 46.8	+19 45	6.3	71.0	22.6	68.0	14 48.9+19 34		6.7 6.9	6.5 6.7 6.9 7.1
0.2	0.5	0.2	2489	14 45.9	+19 36	4.6	72.1	22.5	71.9	14 46.8+19 31			5.3 5.4 5.7 5.8
0.1	0.3	0.1	Dm 3026	14 42.8	+20 7	6.9	70.6	22.5	70.5	14 44.9+19 56			6.4 6.8
2.4	1.4	0.7	2442	14 29.5	+30 16	4.5	69.9	32.5	71.3	14 30.3+30 11			4.7 5.1
2.0	1.0	0.5	Dm 2582	14 48.5	+30 39	6.8	71.7	32.4	70.7	14 50.4+30 28		7.0	6.7 7.1

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Plate 1186.

V	H	Type	No. lines	K	Focus	Other lines.	V.	H.	V.	H.	corrn
	3,4	12,7	I	3	H1	K=H 1	—	1.7	25.4	30.7	46.2	+0.3
III 5.2, 5.6.	3,0	21,4	1c H254	3	K=H	3	F. Bright pleu.	1.5	42.8	30.9	28.8	-1.8

F. m. 8 c. F. ch.

Plate 1187.

	22,7	8,9	1c? H255	3	K=H	3	bright & pleu	11.4	17.8	41.0	52.8	+11.7
?	22,8	21,2	1c H256	2	K=H	3	bright pleu.	11.4	42.4	41.0	28.2	-2.7
	21,2	21,9	?	2	K=H	1	—	10.6	43.8	41.8	26.8	-5.3
	19,1	11,0		4	N	1	—	9.6	22.0	42.8	48.6	+1.9
	19,8	21,0	?	x2	K=H	1	—	9.9	42.0	42.5	28.6	-4.8
	19,8	22,0		5	K=,2H	2	—	9.9	44.0	42.5	26.6	-3.3
	18,5	20,1	?	2	K=H	1	—	9.2	40.2	43.2	30.4	-2.5
	17,6	19,3	?	2	K=H	1	—	8.8	38.6	43.6	32.0	-3.5
?	16,8	20,1	a? H257	2	K=H	1	pleu.	8.4	40.2	44.0	30.4	-4.5
	15,0	17,3		6	N	3	F.	7.5	34.6	44.9	36.0	-1.9
	14,4	8,8	?	2	K=H	1	—	7.2	17.6	45.2	58.0	+5.4
	13,4	8,1		3	K=H	1	F.	6.7	16.2	45.7	54.4	+3.9
	13,4	15,3		x2	K=H	1	—	6.7	30.6	45.7	40.0	-6.3
?	11,8	13,7	a H258	3	K=H	2	F, pleu	5.9	27.4	46.5	43.2	+1.2
	11,8	18,6	I II ? II?	2	K=H K=H	1	— —	5.9	37.2	46.5	33.4	-2.1
	10,8	6,8		2	K=H	1	—	5.4	13.6	47.0	57.0	+5.1
	10,2	18,8		4	N	1	—	5.1	37.6	47.3	33.0	-3.6
	9,4	9,8		v	N	2	—	4.7	19.6	47.7	51.0	+5.1
	9,4	13,2	1 H259	2	K=H	1	pleu	4.7	26.4	47.7	44.2	+0.9
	9,7	20,0	II	2	K=H K=H	1	— —	4.8	40.0	47.6	30.6	-3.0
	8,6	8,7		3	K=1,2H?	3	F.	4.3	17.4	48.1	53.2	+6.1
	8,3	13,8	?	4	N	1	—	4.2	27.6	48.2	43.0	+0.7
	7,6	8,2		5	N	2	—	3.8	16.4	48.6	54.2	+6.7
	7,2	20,4	?	10	K=,2H		F.	3.6	40.8	48.8	29.8	-3.5

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Mean 4

			No.	R.A.	Dec.	Mag.	H.	V.	H'	Red of stars to 1900	Cou Br	Br.
+0.3	0.6	0.3	Phw	3032	14 45.5	+20 54	7.3	70.9	22.6	70.6 14 47.5	+20 43	6.8 6.6 7.0
-1.8	1.8	0.9		2433	14 26.7	+38 54	3.6	69.5	32.4	71.3 14 25.6	+36 49	4.9 5.3 5.4 5.8
+1.7	4.7	2.5		2515	14 57.4	+40 52	3.6	75.2	52.3	70.5 14 58.2	+40 47	
-2.7	4.7	2.7		2433	14 26.7	+30 54	3.6	69.1	42.3	71.8 14 25.6	+30 49	
-5.3	5.3	1.3	Phw	2504	14 21.7	+41 40	6.5	65.5	52.3	70.8 14 20.5	+41 28	7.1
1.9	3.1	1.9	Phw	2531	14 50.0	+32 54	6.3	72.0	42.5	70.1 14 51.9	+32 43	6.6
4.8	4.8	2.9	Phw	2508	14 23.9	+42 27	6.3	69.9	52.3	70.7 14 25.7	+42 15	7.1 7.5
3.3	5.4	3.3	Phw	2482	14 23.6	+32 26	6.5	67.6	42.3	70.9 14 25.5	+32 14	6.3
			Phw	2474	14 28.0	+33 11	6.8	68.2	42.4	70.7 14 29.9	+32 59	
2.5	4.2	2.5	~~Phw~~	~~3507~~	~~14 46.9~~	~~+33 17~~	~~7.0~~	~~8~~				6.9
3.5	3.8	2.1	Phw	2417	14 28.2	+43 39	6.5	66.8	52.4	70.3 14 29.9	+43 27	7.0
4.5	4.5	2.5	Phw	2365	14 25.8	+44 1	6.8	66.0	52.4	70.5 14 27.5	+43 9	6.6
1.9	1.9	1.2		2448	14 34.4	+44 55	5.3	69.0	52.4	70.9 14 35.2	+44 50	5.4
5.4	5.4	3.5		2519	14 58.9	+45 7	6.3	76.5	52.3	71.1 14 59.6	+45 2	6.8 7.1
			~~Phw~~	~~2251~~	~~14 58.0~~	~~+45 13~~	~~6.2~~	~~75.6~~	~~52.4~~	~~70.2~~		H.P. 2519
3.9	6.0	3.9		2517	14 58.3	+35 41	5.6	74.5	42.4	70.6 14 59.1	+35 36	6.5 6.9
0.3	0.3	0.1	Phw	2214	14 39.2	+45 48	6.8	69.8	52.5	70.1 14 40.8	+45 36	6.7
1.2	1.2	0.7		2485	14 45.1	+43 37	5.6	72.5	52.5	71.3 14 45.8	+46 32	6.1
2.1	3.5	2.1	Phw	2509	14 31.2	+36 34	6.5	68.4	42.5	70.5 14 33.1	+36 22	7.0 7.1
5.1	7.9	5.1		2526	15 1.9	+36 55	6.3	75.5	42.3	70.4 15 2.7	+36 50	6.4 6.8
3.6	3.6	2.3	Phw	2158	14 28.8	+47 25	6.2	66.4	52.5	70.0 14 30.4	+47 13	6.3
5.1	5.1	3.3		2511	14 56.5	+47 45	6.2	76.1	52.5	71.0 14 57.2	+47 40	6.1
1.9	1.7	0.9		2488	14 45.6	+37 46	5.5	71.9	42.5	71.0 14 46.6	+37 40	6.5 6.8
3.0	4.2	3.0	Phw	2545	14 27.4	+37 36	6.8	67.4	42.4	70.4 14 29.3	+37 24	6.9 6.8
6.1	6.1	4.1		2521	14 59.8	+48 7	4.9	77.2	52.4	71.1 15 0.7	+48 2	5.6
1.7	1.2	0.7		2481	14 44.4	+38 18	6.0	72.0	42.5	71.3 14 45.2	+38 13	6.5
7	6.7	4.5		2523	15 1.5	+48 38	5.6	17.9	52.4	11.2 15 2.2	+48 32	5.7
3.5	5.4	3.5		2436	14 27.2	+38 50	6.1	68.0	42.4	71.5 14 28.0	+38 45	4.0

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Plate 1187.

	γ	H	Type	No. Lines	K	Focus	Other Lines.	V.	H.	V.	H.	corrn
	6.6	13.5	II	2	K=H	2	F?	3.3	27.0	49.1	43.6	+1.5
?	5.4	9.7	II a? 4260	2	K=H	2	F? diff.	2.7	19.4	49.7	51.2	+3.6
	4.7	11.3	II a 4261	2	K=H	2	diff	2.4	22.6	50.0	48.0	+4.1
	14.0	20.2	III		K=H	1		2.0	40.4	50.4	30.2	-5.7
?	3.1	8.9	III hc 4262	3	K=1.2/1 H	3	F. diff. Bright	1.6	17.8	50.8	52.8	+4.5

F.m. & c. F. ch.

Plate 1246

	8.0	7.1	4263					7.1				
	20.2	16.6	III hc? 2	K=H	1	F	Bright diff	10.1	33.2	27.4	59.9	-0.4
	17.2	15.6	II 4	N	1	—		8.6	31.2	28.9	61.9	0.0
?	16.6	22.9	II d? 4	?	1	—		8.3	45.8	29.2	47.3	-2.0
	15.9	6.4	II 7	N	4	F		8.0	12.8	29.5	80.3	+2.3
	15.8	12.3	II	N	2	—		7.9	24.6	29.6	68.5	+0.7
	15.8	23.1	II 3	K=H	2	F		7.9	46.2	29.6	46.9	-1.0
	14.8	9.8	II	K=H	1	—		7.4	19.6	30.1	73.5	+1.4
?	13.6	8.5	II a 4264 2	K=H	2	F diff.		6.8	17.0	30.7	76.1	+1.3
	13.0	10.4	II ? 2	N	K=H 1	—		6.5	20.8	31.0	72.3	+0.6
	10.6	10.7	III ? 2	2	N K=H K=H 1	—		5.3	21.4	32.2	71.7	+1.3
	10.9	20.2	II 3	N	1	—		5.4	40.4	32.1	52.7	-0.8
	9.1	10.1	II 3	N	1	—		4.6	20.2	32.9	72.9	+1.5
	9.4	20.0	II	K=H	1	—		4.7	40.0	32.8	53.1	-1.6
	8.4	9.1	II 6	N	2	—		4.2	18.2	33.3	74.9	+1.9
	8.3	12.6	II	N	1	—		4.2	25.2	33.3	67.9	+0.1
	8.5	21.2	II I? ? 4	K=H K=H	1	—		4.2	42.4	33.3	50.7	-2.1 +1.0
?	7.8	11.8	III hc 4265 3	K=1.5 H	3	F	Bright diff	3.9	23.6	33.6	69.5	+1.0
?	4.6	15.4	II a 4266 2	K=H	2	F diff		2.3	30.8	35.2	62.3	-0.1
	3.8	16.8	II ? 2	K=H	1	—		1.9	33.6	35.6	59.5	-0.6
12 0	4.5	17.7	II 4	K=H	1	—		2.2	35.4	35.3	57.7	-0.5

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	No.	R.A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900.		Br.	
	2487	14 45.6	+49 13	5.5	72.6	52.5	71.1	14 46.3	+49 7	6.1	
	2508	14 55.1	+39 45	5.4	74.5	42.5	70.9	14 55.8	+39 40	6.0	
	2504	14 52.4	+50 6	5.6	75.0	52.5	70.9	14 53.0	+50 3	6.0	
	2437	14 24.6	+50 23	5.6	65.0	52.4	70.7	14 25.2	+50 17	6.7 6.9	
	2513	14 37.4	+40 52	3.6	73.2	42.5	70.7	14 38.2	+40 47	4.8 5.2	

Mean 6 Br. Con. Br.

-0.4	0.4	0.1	2520	14	39.3	+27	25	4.5	92.5	37.5	92.9	15	6.2	+27 20	5.9 6.3 6.5 6.9
0.0	0.2	0.0	2525	15	1.8	+18	55	5.9	33.0	27.5	33.0	15	2.8	+18 50	6.1 6.7 15 0.7 +19 1
2.0	2.0	0.9	2482	14	44.8	+29	6	5.7	90.6	37.4	92.6	14	45.7	+29 1	5.9 6.5
2.3	2.3	1.0	2572	15	22.9	+29	31	3.8	35.7	37.5	33.4	15	23.7	+29 27	3.8 4.4
0.7	0.7	0.3	2537	15	9.5	+29	37	5.3	34.1	37.5	33.4	15	10.3	+29 32	5.1 5.7
1.0	2.1	1.0	2489	14	45.9	+19	36	4.6	92.1	27.5	93.1	14	46.8	+19 31	5.5 6.1
1.4	1.4	0.7	2549	15	15.3	+30	2	5.7	34.9	37.4	33.5	15	16.0	+29 59	6.2 6.8 6.55 7.1
1.8	1.8	0.8	2559 2560	15	18.2	+30	43	5.0	35.2	37.5	33.4	15	19.1	+30 39	5.4 6.0
2.6	1.3	0.7	2542	15	13.0	+21	1	5.6	33.8	27.5	33.2	15	13.9	+20 57	6.5 7.1 6.9 7.5
1.3	1.3	0.6	Dm. 2569	15	12.3	+32	9	7.8	33.7	37.5	32.4	15	14.1	+31 59	7.2 6.6 7.2 7.3 7.05 7.6
0.8	1.6	0.8	Dm. 2764	15 4	50.5	+22 1	8	6.2	90.9	27.5	91.7	14	52.5	+21 57	6.3 6.9
1.5	1.5	0.8	Dm. 2574	15	13.6	+33	4	6.8	33.8	37.6	32.3	15	15.4	+32 54	6.2 6.8
1.6	1.6	0.8	Dm. 2531	15 4	50.0	+32	54	6.3	90.0	37.6	91.6	14	51.9	+32 43	6.0 6.6
1.9	1.9	1.0	2554	15	17.0	+33	21	5.3	35.2	37.5	33.3	15	17.8	+33 17	5.1 5.7
0.4	0.8	0.4	2533	15	8.2	+23	26	6.3	33.4	27.6	33.0	15	9.1	+23 22	6.3 6.9 15 7.1 +23 3.2
2.1	2.1	1.0	Dm. 2507	14	46.9	+33	17	7.0	89.3	37.5	91.4	14	48.8	+33 6	7.1 6.5 7.1 7.5
			~~Dm. 2631~~	~~14~~	~~49.0~~	~~+33~~	~~24~~	~~7.3~~	~~91.4~~	~~27.6~~	~~92.4~~				6.8 7.45 Dm. 14 46.5 +33.2
1.0	1.0	0.6	2541	15	10.7	+33	46	3.5	34.3	37.7	33.8	15	11.5	+33 42	4.5 5.1 4.8 5.45
0.1	0.2	0.1	2527	15	2.0	+25	20	5.0	32.8	27.6	32.9	15	2.9	+25 15	5.4 6.0
0.6	0.6	0.4	2517	14	58.3	+35	41	5.6	91.9	37.6	92.5	14	59.1	+35 36	6.3 6.9 6.6 7.2
1.0	1.0	0.6	? 2513	14	56.9	+25	29	4.9	92.3	27.1	92.9	14	57.7	+25 24	6.3 6.9 6.75 7.3 H.P. 25.13

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F. m. & c. 8.0 6.7 — F. ch. 6.7

June 24, 1887.

Plate 1223

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrected
23.2	19.0	III	2	K=H	1	—	11.1	38.0	36.5	51.5	-2.3
13.4	17.4	III, N	3	K=H	1	F	6.7	34.8	40.9	54.7	-1.8

F. m. & c. 8.0 7.2 — F. ch. 7.2

Plate 1247.

V	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrected
21.1	15.4	III?	2	K=H	1	—	10.6	30.8	46.8	62.1	-0.3
21.4	21.0	III?	2	K=H	1	—	10.7	42.0	46.7	50.9	-5.5
19.4	7.5	I	3	K	1	—	9.7	15.0	47.7	77.9	+7.2
19.4	8.2	III?	6	K=H	3	F	9.7	16.4	47.7	76.5	+4.3
19.5	17.0	I	5	K	2	—	9.8	34.0	47.6	58.9	-1.9
19.4	21.7	III	2	K=H	1	—	9.7	43.4	47.7	49.5	-4.3
18.4	7.4	I	4	K=H	1	—	9.2	14.8	48.2	78.1	+7.7
III? 5.7, 5.9, 6.5.	18.8	15.9	III	a 4267 3	K=H	2	F	beg	9.4	31.8	48.0	61.1	-0.9
	18.2	22.2	III?	3	K=H	1	F		9.1	44.4	48.3	48.5	-4.8
	17.8	15.3	I	6	K, 2H	3	F		8.9	30.6	48.5	62.3	-0.3
	16.5	6.8	III?	2	K=H	1	—		8.2	13.6	49.2	79.3	+5.5
?	16.4	20.5	III a	4268 3	K=H	2	F	pecul	8.2	41.0	49.2	51.9	-5.7
	15.6	18.0	I	5	K=H	2	F		7.8	36.0	49.6	56.9	-1.9
	14.9	9.2	III	2	K=H	1	—		7.4	18.4	50.0	74.5	+4.1
	14.0	14.4	III?	2	K=H	1	—		7.0	28.8	50.4	64.1	+0.7
	14.8	18.0	III?	3	2	K=H	1	F	—	7.4	36.0	50.0	56.9	-2.1
	14.8	18.2	III	2	K=H	2	F		7.4	36.4	50.0	56.5	-3.3
	13.5	10.9	III?	1	3	K=H	1	—	6.8	21.8	50.6	71.1	+4.5
?	13.6	17.0	III	fc 4269 2	K, 1.5H	4	F	Bright	6.8	34.0	50.6	58.9	-1.5
	12.2	17.7	I	6	K, 2H	3	F		6.1	11.4	51.3	81.5	+6.7
	12.4	6.1	III	2	K=H	1	—		6.2	12.2	51.2	80.7	+6.6
	12.4	12.1	III?	2	K=H	1	—		6.2	24.2	51.2	68.7	+3.0
	11.8	19.2	III?	2	2	K=H	1	—	5.9	38.4	51.5	54.5	-3.1
?	11.1	20.2	III a	4270 2	K=H	1	Nebs		5.6	40.4	51.8	52.5	-3.9

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	No.	R.A.	Dec	Mag.	H	V.	H'	Red. of stars to 1900.		
		Is it a defect in plate?								
	Dm	1999	14	48.7	+46	17	7.8	86.7	57.4	89.0
	Dm.	2515	14	57.4	+40	52	3.6	92.2	47.6	94.0
	Dm	2526	15	1.9	+36	55	6.3	32.7	47.5	33.0
		2485	14	45.1	+46	37	5.6	87.1	57.3	92.6
		2574	15	24.9	+47	38	5.9	39.9	57.3	32.7
		2561	15	20.0	+37	48	4.4	36.4	47.5	32.1
		2511	14	56.5	+47	45	6.2	90.5	57.6	92.4
		2488	14	45.6	+37	46	5.5	89.0	47.5	93.3
	Dm	2300	15	24.8	+48	14	6.7	39.6	57.4	31.9
		2521	14	59.8	+48	7	4.9	91.6	57.5	92.5
		2481	14	44.4	+38	18	6.0	88.8	47.4	93.6
		2523	15	1.5	+48	38	5.6	32.1	57.5	32.4
	Dm	2875	15	23.1	+39	15	7.0	36.7	47.4	31.2
		2487	14	45.6	+49	13	5.5	86.6	57.4	92.3
		2508	14	55.1	+39	45	5.4	91.1	47.6	93.0
		2558	15	18.2	+40	1	5.9	36.6	47.4	32.5
	Dm	2877	15	17.3	+40	6	5.5	35.7	47.5	31.6
	Dm	2146	15	3.7	+50	37	6.8	32.5	57.6	31.8
	Dm	2835	14	53.9	+40	13	6.5	89.9	47.6	92.0
		2504	14	52.4	+50	6	5.6	88.8	57.5	92.1
	Dm	2165	15	14.9	+50	44	7.0	36.7	57.5	32.2
		2515	14	57.4	+40	52	3.6	91.4	47.7	92.9
		2584	15	27.5	+41	18	5.0	38.9	47.4	32.2
		2583	15	26.6	+41	14	5.1	38.8	47.4	32.2
	Dm	1990	15	11.4	+51	29	6.3	35.6	57.7	32.6
	Dm	2539	14	50.5	+41	13	6.8	88.9	47.6	92.0
	Dm	1957	14	44.8	+51	59	6.3	85.2	57.6	91.1
	Dm	2535	14	47.8	+41	25	7.3	88.2	47.0	92.1

Not found on other exposure

H. P. 2515

Con.

Mean 6 Br.

H. P. 2558

Dm 14 44.9 +51.9

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Plate 1247.

T	H	Type	Lines	K	Focus	Other lines.	V.	H.	V.	H.	Correc.
10.3	10.8						5.2	21.6	52.2	71.3	+4.8
10.4	23.7						5.2	47.4	52.2	45.5	-9.9
10.8	22.7						5.4	45.4	52.0	47.5	-8.7
9.6	5.8						4.8	11.6	52.6	81.3	+10.7
9.4	10.3						4.7	20.6	52.7	72.3	+5.4
9.1	19.8						4.6	39.6	52.8	53.3	-5.5
7.8	11.3						4.9	22.6	52.5	70.3	+2.9
8.2	12.5						4.1	25.0	53.3	67.9	+1.9 +3.0
7.8	14.3						3.9	28.6	53.5	64.3	+0.7
6.0	6.4						3.0	12.8	54.4	80.1	+10.8
6.1	9.0						3.0	18.0	54.4	74.9	+7.5
6.5	16.9						3.2	33.8	54.2	59.1	-2.3
? 5.4	10.1						2.7	20.2	54.7	72.7	+4.2
? 5.2	14.9						2.6	29.8	54.8	63.1	+0.1
5.6	23.1						2.8	46.2	54.6	46.7	-10.1
4.8	5.8						2.4	11.6	55.0	81.3	+11.7
4.6	6.3						2.3	12.6	55.1	80.3	+11.1
5.0	16.3						2.5	32.6	54.9	60.3	-1.1
3.6	8.4						1.8	16.8	55.6	76.1	+9.5
2.8	16.5						1.4	33.0	56.0	59.9	-1.8
2.4	18.8						1.2	37.6	56.2	55.3	-5.1

F. nw. 4e. F. ch.

Plate 1261.

8.0	6.8								6.8		
22.8	12.3						11.4	24.6	21.0	28.7	+0.2
18.3	8.9						9.2	17.8	23.2	35.5	+0.4
18.7	18.3						9.4	36.6	23.0	16.7	-0.2
17.7	21.9						8.8	43.8	23.6	9.5	-1.2
15.7	6.2						7.8	12.4	24.6	40.9	+0.7

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Mean 6

	No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. of stars to 1900.		Cow. Bv.	Bv.
	2552	15 16.5	+52 25	56	38.1	57.6	33.3	15 17.2	+52 17		4.9 5.5
Dm	1816	14 33.2	+52 12	68	80.6	57.4	91.5	14 34.7	+52 10		7.0 6.6 7.2 / 7.3 6.9 7.5
Dm	1821	14 36.8	+52 0	7.2	82.2	57.4	90.9	14 38.3	+51 48		6.5 7.1 / 6.9 7.5
	2607	15 32.7	+52 28	6.2	44.3	57.3	33.6	15 33.3	+52 24		6.3 6.9 / 6.5 7.1
Dm	1873	15 17.3	+52 52	7.0	37.9	57.6	32.5	15 18.6	+52 42		7.3 6.7 7.3
Dm	1741	14 45.6	+53 0	7.3	85.2	57.6	90.7	14 47.0	+52 49		7.2 6.6 7.2 / 7.0 6.9 7.5
Dm.	2483	15 12.2	+43 6	7.3	34.8	48.0	31.9	15 13.8	+42 56		7.3 6.7 7.3 / 7.5 6.9 7.5
~~Dm~~	~~2587~~	~~15 13.9~~	~~+42 16~~	~~7.7~~	~~36.5~~	~~47.2~~	~~33.6~~				
Dm.	2475	15 8.8	+43 36	7.0	33.8	47.7	31.9	15 10.4	+43 26		
~~Dm~~	~~1771~~	~~15 8.2~~	~~+53 29~~	~~7.5~~	~~33.2~~	~~57.6~~	~~30.2~~				
Dm.	1766	15 4.3	+53 49	7.1	32.9	57.7	32.2	15 5.6	+53 39		6.2 6.8
~~Dm~~					~~31.9~~	~~57.5~~	~~31.2~~				7.3 6.7 7.3 / 6.6 7.2 / 6.9 7.5
~~Dm~~	2604	15 32.1	+54 20	6.1	44.9	57.3	34.1	15 32.6	+54 16		
Dm	1747	15 22.6	+54 31	6.5	40.6	57.5	33.1	15 23.8	+54 21		5.9 6.5
Dm.	1725	14 53.3	+54 27	7.5	89.1	57.6	91.4	14 56.2	+54 16		
Dm	1724	14 53.3	+54 26	7.5	89.1	57.6	91.4	14 56.6	+54 15		6.0 6.6
Dm	2453	15 15.7	+44 58	6.3	35.9	47.7	31.7	15 17.3	+44 48		6.1 6.7
	2529	15 29	+55 1	52	32.7	57.6	32.6	15 3.4	+54 56		5.7 6.3 / 6.0 6.6
	2447	14 34.4	+54 32	5.6	80.6	57.3	90.7	14 35.1	+54 27		5.2 5.8
	2612	15 34.4	+54 55	6.1	46.0	57.3	22.7	15 35.0	+54 51		6.6 7.2 / 6.9 7.5
	2608	15 32.9	+55 1	5.8	45.5	57.3	34.4	15 33.4	+54 57		5.4 6.0
	2519	14 58.9	+45 7	6.3	91.5	47.6	92.6	14 59.6	+45 2		6.2 6.8
Dm	1756	15 25.2	+55 42	6.5	42.0	57.5	34.5	15 26.4	+55 33		6.0 6.6
Dm	1777	14 56.3	+56 12	7.0	89.3	57.6	87.5	14 57.6	+56 1		6.5 7.1
Dm	1767	14 48.3	+56 20	7.2	85.9	57.5	91.0 ~~88~~	14 49.6	+56 9		

Mean 5

	No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. of stars to 1900.		Cow. Bv.	Bv.
	2590 2591	15 29.1	+10 57	4.0	53.7	22.4	53.5	15 30.0	+10 53		
	2620	15 36.1	+13 14	5.1	53.9	22.4	53.5	15 37.0	+13 10		5.3 5.8
Dm	2928	15 15.5	+13 6	6.4	52.1	22.5	52.3	15 17.6	+12 56		6.4 6.9
	2533	15 8.2	+23 26	6.3	52.0	32.2	53.2	15 9.2	+23 22		6.5 7.0
	2634	15 41.7	+14 30	5.7	54.1	22.3	53.4	15 42.6	+14 25		5.9 6.4

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Plate 1261.

V.	H.	Type lines	K	Focus lines.	No.	Other	V.	Eq.	V.	Eq.	correc.
13,2	6,8	I		7		4	F,	6.6	13.6	25.8	39.7	+0.7
12,0	9,3	III	?	2	2	K=H	K=H	1	—	6.0	18.6	26.4	34.7	+0.6
12,5	20,7	I	?	2	N		1	—	6.2	41.4	26.2	11.9	-1.2
11,7	5,5	I	II	2	K	H	2	F,	5.8	11.0	26.6	42.3	+2.0
11,4	8,6	I		8	N		4	F	5.7	17.2	26.7	36.1	+1.4
11,8	11,5	II	a	4273	3	K=H	1	F	5.9	23.0	26.5	30.3	+0.8
11,9	13,6	I		4	N		1	—	6.0	27.2	26.4	26.1	+0.1
10,6	12,3	I		11	?		5	F	5.3	24.6	27.1	28.7	+0.6
9,4	7,5	I		5	N		1	—	4.7	15.0	27.7	38.3	+0.8
9,8	12,7	I		3	N		1	—	4.9	25.4	27.5	27.9	+0.2
7,8	5,6	III		3	K=H		1	F	3.9	11.2	28.5	42.1	+1.9 +2.3
7,2	8,9	I		5	K=5H		1	—	3.6	17.8	28.8	35.5	+0.7
6,6	9,6	III	?	2	2	K=H	K=H	1	—	3.3	19.2	29.1	34.1	+0.6
6,0	15,2	I		9	K=5H		4	F	3.0	30.4	29.4	22.9	-0.1
5,2	16,4	III	?	2	K=H		1	—	2.6	32.8	29.8	20.5	-0.2
5,6	21,0	I		6	N		2	F,	2.8	42.0	29.6	11.3	-1.5
4,9	9,1	I		7	N		3	F	2.4	18.2	30.0	35.1	+0.8
4,8	18,5	III		2	K=H		1	—	2.4	37.0	30.0	16.3	-1.0
4,0	11,3	III	?	12		K=H	1	—	2.0	22.6	30.4	30.7	+1.0
3,5	17,2	II	a	4274	2	K=H	2	F,	1.8	34.4	30.6	18.9	-0.6
3,0	19,9	III		2	K=H		1	—	1.5	39.8	30.9	13.5	-0.7

F. mw. 8c. 8.0 6.7 F. ch. 6.7

Plate 1352

22,8	11,1	I		7	K=5H		3	—	11.4	22.2	21.0	28.4	+0.2
18,5	7,6	I		5	N		1	—	9.2	15.2	23.2	35.4	+0.6
18,9	17,0	I		4	N		1	—	9.4	34.0	23.0	16.6	-0.1
17,8	20,7	I		4	N		1	—	8.9	41.4	23.5	9.2	-0.9
15,2	16,9	III		2	K=H		1	—	7.6	33.8	24.8	16.8	-0.4

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Mean 5

Rec.				No.	R.A.	Dec.	Mag.	Ec.	V.	H'.	Red. of stars to 1900		Cou. Bx.	Bx.	
1.7	1.7	0.7		2632	15 40.6	+15 48	38	542	224	535	15 41.6	+15 44	3.9	4.4	
.6	1.2	0.6		2619	15 35.5	+16 26	58	54.1	224	535	15 36.4	+16 21	7.0 {6.5} 7.0 / 7.2 {6.7} 7.2		
2	1.2	0.6	Dm	2670	15 9.4	+26 11	6.8	50.8	32.4	52.0	15 11.3	+26 1	6.5	7.0	
0	2.0	0.9		2643	15 44.6	+26 26	46	55.6	32.2	53.6	15 45.4	+26 23	5.5	6.0	
1	1.1	0.6		2625	15 37.7	+26 41	4.2	54.9	32.1	53.5	15 38.5	+26 36	3.9	4.4	
8	0.7	0.3		2600	15 31.0	+16 31	57	54.0	224	537	15 31.9	+16 27	6.1	6.6	
1	0.3	0.1		2581	15 26.6	+16 28	62	53.8	225	537	15 27.6	+16 24	5.9	6.4	
5	0.6	0.3		2594	15 29.6	+27 7	2.4	54.2	32.1	53.6	15 30.4	+27 3	B	B.	
5	1.7	0.8		2629	15 39.3	+17 38	57	54.3	22.3	53.5	15 40.2	+17 34	6.0	6.5	
2	0.5	0.2	Dm	2880	15 27.2	+17 38	6.7	52.6	32.5	52.4	15 29.3	+17 29	6.4	6.9	
				2636	15 43.3	+18 31	42	54.5	22.1	53.5	15 44.2	+18 28	6.0 {6.5} 6.5 / 6.5 {7.0} 7.0		
	2.3	1.0		~~2639~~	~~15 43.6~~	~~+28 31~~	~~20.7~~	~~54.8~~	~~32.1~~	~~52.5~~					
	1.5	0.7		2622	15 36.5	+18 52	5.8	54.3	225	536	15 37.4	+18 47	5.9	6.4	
6	1.4	0.6	Dm	3000	15 33.9	+19 9	7.5	53.1	22.5	52.5	15 35.9	+19 0	7.3 {6.7} 7.2 / 7.5 {7.0} 7.5		
	0.1	0.0		2572	15 22.9	+29 31	38	53.3	32.5	53.4	15 23.7	+29 27	4.1	4.6	
2	0.4	0.2	Dm	2966	15 19.4	+19 60	6.8	52.2	22.6	52.4	15 21.4	+19 50	6.6 {7.1} 7.0 / 7.0 {7.5} 7.5		
	1.5	0.7		2537	15 9.5	+29 37	5.3	51.5	32.1	53.0	15 10.3	+29 32	5.1	5.6	
	1.5	0.8		2621	15 36.2	+20 3	4.6	54.4	224	536	15 37.1	+19 59	4.4	4.9	
	1.0	0.5		2549	15 15.3	+30 2	5.7	52.3	32.4	53.3	15 16.6	+29 59	6.5 {7.0} 6.8 / 6.7 {7.2} 7.0		
	1.0	0.5		2602	15 32.0	+30 23	6.4	54.6	32.1	53.6	15 32.8	+30 19	15 31.0 +30 28		
	0.6	0.3		2559 / 2560	15 18.2	+30 43	5.0	52.6	32.5	53.2	15 19.1	+30 39	5.4	5.9	
	1.4	0.7		2542	15 13.0	+21 1	5.6	52.8	225	52.5	15 13.9	+20 57	6.6 {7.1} 6.8 / 6.8 {7.3} 7.3		

Mean 8 Cou

	0.5	0.2		2591 / 2590	15 29.1	+10 57	4.0	51.3	224	51.1	15 30.0	+10 53	Bx.		
	1.2	0.6		2620	15 36.1	+13 14	5.1	51.3	224	50.7	15 37.0	+13 10	5.5	6.3	
	0.3	0.1	Dm	2928	15 15.5	+13 6	6.4	49.5	22.5	49.6	15 17.6	+12 56	6.0	6.8	
	0.9	0.5		2533	15 8.2	+23 26	6.3	49.6	32.3	50.5	15 9.1	+23 22	6.0	6.8	15 7.1 +23 32
	0.4	0.2	Dm	2850	15 15.3	+24 52	7.0	49.1	32.5	49.5	15 17.3	+24 42	6.4 {7.2} 6.6 / 6.6 {7.4} 7.4		

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Plate 1352.

T	H	Type	No. lines	K	Focus	Other lines	V.	H.	V.	H.	corrn
14,9	6,7	III	2	K=H	1	—	7.4	13.4	25.0	37.2	+1.6
14,3	10,1	~~X~~ ~~III~~ I? I? H245	4	K=H K=H	1	— —	7.2	20.2	25.2	30.4	+0.4
14,0	23,4	II a?	3	K=H	2	F, sm.	7.0	46.8	25.4	3.8	-1.7
13,4	5,6	I	7	N	3	F	6.7	11.2	25.7	39.4	+0.8
13,4	15,3	III III H246	2 2	K=H K=H	1	— —	6.7	30.6	25.7	20.0	0.0
12,0	10,3	II a	2	K=H	1	F? sm.	6.0	20.6	26.4	30.0	+0.5
12,1	12,3	I	4	?	1	—	6.0	24.6	26.4	26.0	+0.2
12,6	19,5	I?	3	N	1	—	6.3	39.0	26.1	11.6	-1.0
11,6	7,5	I	8	N	4	F	5.8	15.0	26.6	35.6	+1.6
10,8	11,1	I	11	?	5	F	5.4	22.2	27.0	28.4	+0.8
9,6	6,3	I?	4	K=,5H	1	F?	4.8	12.6	27.6	38.0	+0.9
10,0	11,5	II?	2	K=H	1	—	5.0	23.0	27.4	27.6	+0.4
7,4	7,7	I	6	N	1	F	3.7	15.4	28.7	35.2	+0.8
6,1	14,1	I	9	K=,2H	4	F	3.0	28.2	29.4	22.4	+0.3
7,0	24,0	I	5	K=H	1	—	3.5	48.0	28.9	26	-1.0
5,0	7,8	I	7	N	3	F	2.5	15.6	29.9	35.0	+0.9
5,4	15,2	III	2	K=H	1	—	2.7	30.4	29.7	20.2	-0.0
5,8	19,8	I	8	K=,2H	2	F	2.9	39.6	29.5	11.0	-0.6
4,9	17,3	III	2	K=H	1	F?	2.4	34.6	30.0	16.0	-0.6
3,6	16,0	II a? H247	3	K=H	2	F, sm.	1.8	32.0	30.6	18.6	-0.3
3,1	18,7	III?	2	K=H	1	—	1.6	37.4	30.8	13.2	-0.5

F. nw. 8.0.

F. ch. 6.6

Plate 1262.

22,4	13,1	I	7	K=,2H	3	—	11.2	26.2	41.4	86.4	+1.3
22,5	13,5	III	2	K=H	1	—	11.2	27.0	41.4	85.6	+1.1
21,5	12,9	II b H248			4	F	10.8	25.8	41.8	86.8	+0.9
21,5	14,0	II	2	K=H	1	—	10.8	28.0	41.8	84.6	+0.5
21,0	17,4	III?	2	K=H K=H	1	—	11.0	34.8	41.6	77.8	-1.8

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Mean 8

			No.	R. A.	Dec.	Mag.	H.	V.	H'	Red. of stars to 1900	Cow Bv	Cow Br.	
1.6	1.6	0.8	Dm	2914	15 37.9	+24 55	7.3	57.3	32.3	49.7	15 39.8	+24 46	6.0 6.3 / 6.8 7.1
			Dm.	2891	15 30.0	+15 24	7.0	50.2	22.6	49.8	15 32.1	+15 15	7.3 6.4 / 7.2
0.4	0.9	0.4	~~Dm~~	~~2890~~	~~15 29.8~~	~~+15 34~~	~~6.7~~	~~50.0~~	~~22.8~~	~~49.6~~			~~6.8 / 7.6~~
1.7	1.7	0.8		2527	15 2.0	+25 20	5.0	48.8	32.3	50.5	15 2.9	+25 15	5.2 6.0
2.3	2.0	0.8		2632	15 40.6	+15 48	3.8	51.8	22.5	51.0	15 42.6	+15 44	3.9 4.7
0	0.1	0.0		2563	15 20.2	+15 51	5.5	50.8	22.5	50.8	15 21.1	+15 47	7.0 6.2 / 7.4 6.7 / 7.0 7.5
1.5	1.0	0.5		2600	15 31.0	+16 31	5.7	51.6	22.5	51.1	15 31.9	+16 27	5.9 6.7
1.2	0.6	0.2		2581	15 26.6	+16 28	6.2	51.2	22.5	51.0	15 27.6	+16 24	5.7 6.5
1.0	1.0	0.4	Dm	2670	15 9.4	+26 11	6.8	48.4	32.5	49.4	15 11.3	+26 1	6.3 7.1
1.6	1.6	0.7		2625	15 37.7	+26 41	4.2	52.7	32.5	51.1	15 38.5	+26 36	3.8 4.6
1.8	0.8	0.4		2594	15 29.6	+27 7	2.4	51.8	32.5	51.0	15 30.4	+27 3	B B.
1.9	2.0	0.9		2629	15 39.3	+17 38	5.7	51.9	22.4	51.0	15 40.2	+17 34	5.9 6.7
0.4	0.7	0.4	Dm	2880	15 27.2	+17 38	6.7	50.2	22.6	49.8	15 29.3	+17 29	6.3 7.1
1.8	1.8	0.8		2622	15 36.5	+18 52	5.8	51.9	22.6	51.1	15 37.4	+18 47	5.8 6.6
0.3	0.8	0.1		2572	15 22.9	+29 31	3.8	51.1	32.5	50.8	15 23.7	+29 27	3.9 4.7
2.0	2.3	1.0		2525	15 1.8	+18 55	5.9	49.8	22.4	50.8	15 2.8	+18 50	6.0 6.8
2.0	2.0	0.9		2621	15 36.2	+20 3	4.6	51.8	22.5	50.9	15 37.1	+19 59	4.6 5.4
0.0	0.0		Dm	2966	15 19.4	+19 60	6.8	49.8	22.7	49.8	15 21.4	+19 50	6.3 6.7 / 7.1 7.5
1.2	1.2	0.6		2537	15 9.5	+29 37	5.3	49.1	32.5	49.7	15 10.3	+29 32	4.9 5.7
0.6	0.6	0.3		2549	15 15.3	+30 2	5.7	49.9	32.4	50.5	15 16.0	+29 59	6.0 6.8 / 6.3 7.1
0.3	0.3	0.1		2559 / 2560	15 18.2	+30 43	5.0	50.2	32.5	50.5	15 19.1	+30 39	5.3 6.1
1.0	1.0	0.5		2542	15 13.0	+21 1	5.6	50.4	22.6	50.9	15 13.9	+20 57	6.3 7.1 / 6.5 7.3

Mean 5

													Cow Bv	Cow Br.	
1.3	1.3	0.7		2584	15 27.5	+41 18	5.0	53.7	52.5	52.4	15 28.2	+41 15	5.1	5.6	
1.2	1.2	0.6		2583	15 26.6	+41 14	5.1	53.6	52.4	52.5	15 27.3	+41 11	.	.	.
1.6	1.6	0.9		2588	15 28.1	+31 46	4.3	53.9	42.6	53.0	15 28.9	+31 42	4.5	5.0	
0.7	0.7	0.5	Dm	2742	15 24.6	+31 48	7.0	52.6	42.6	42.1	15 26.4	+31 39	6.6	7.1	
			Dm.	2592	15 14.8	+41 30	7.0	49.6	52.5	51.4	15 16.4	+41 20	7.2 6.7 / 7.5 6.9 / 7.4		
1.9	1.9	1.1		~~2553~~	~~15 16.5~~	~~+31 49~~	~~var.~~	~~51.3~~	~~42.8~~	~~52.1~~					

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Plate 1262.

T	H	Type	No. lines	K	Other Focus lines.	V.	Ef.	V.	Ef.	corrc.
19,0	18,4	I ? N 3 N	1	—		9.5	36.8	43.1	75.8	-1.7 -2.5
19,1	8,2	III N 2 K=H	1	—		9.6	16.4	43.0	96.2	+0.3
18,5	17,3	I 6 N	2	—		9.2	34.6	43.4	78.0	-1.1
17,0	10,8	I ? 4 K=1,5H	1	—		8.5	21.6	44.1	91.0	+3.5
17,9	19,5	I 3 N	1	—		9.0	39.0	43.6	73.6	-3.6
17,6	20,0	IIa 4299 K=1,2H	3	F?	Bright	8.8	40.0	43.8	72.6	-2.5
15,4	13,8	I 4 N	1	—		7.7	27.6	44.9	85.0	+0.6
15,6	15,5	III III 2 3 K=H K=H	1	—	F	7.8	31.0	44.8	81.6	-0.3
15,4	17,0	I K=H	1	—		7.7	34.0	44.9	78.6	-0.1
14,9	10,5	III 2 K=H	1	—		7.4	21.0	45.2	91.6	+2.4
14,4	23,2	IIa 4280 2 K=H	1	Lem		7.2	46.4	45.4	66.2	-7.3
13,8	15,7	III III 2 3 K=H K=H	1	F	—	6.9	31.4	45.7	81.2	-0.7
12,6	9,4	II II 2 2 K=H K=H	1	—		6.3	18.8	46.3	93.8	+5.3
11,0	10,3	I 7 N	3	—		5.5	20.6	47.1	92.0	+2.9
11,1	13,5	II 2 K=H	1	—		5.6	27.0	47.0	85.6	+0.9
11,1	23,3	II ? 3 2 K=H	1	F?		5.6	46.6	47.0	66.0	-5.1
10,2	8,0	III ? III 2 2 K=H K=H	1	—		5.1	16.0	47.5	96.6	+6.7
10,2	9,9	I 3 N	1	—		5.1	19.8	47.5	92.8	+3.1
10,7	11,0	I 6 K=H	2	—		5.4	22.0	47.2	90.6	+3.7
10,0	14,2	I 6 K=1,2H	2	—		5.0	28.4	47.6	84.2	+0.7
10,2	15,3	I II ? III 2 3 K=H	1	F?		5.1	30.6	47.5	82.0	-0.3
9,8	16,1	IIa 4281 5 K=H	3	F,	Pen.	4.9	32.2	47.7	80.4	-0.6
9,3	23,6	I 5 N	2	F		4.6	47.2	48.0	65.4	-7.5
9,0	14,0	I N	1	—		4.5	28.0	48.1	84.6	+1.1
8,2	19,0	III ? III ? 2 2 K=H K=H	1	—		4.1	38.0	48.5	74.6	-4.1 -0.9
8,7	22,4	II ? K=1,2H	3	F?		4.4	44.8	48.2	67.8	-7.2
7,0	14,7	IIa 4282 2 K=H		F?	Pecul.	3.5	29.4	49.1	83.2	+0.3
7,8	21,8	I 6 N	3	F		3.9	43.6	48.7	69.0	-6.7

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Mean 5

No.	R.A.	Dec.	Mag.	H.	V.	H'.	Red. to 1900 stars	Cor. Br.	Br.	
Dm	25 74	15 13.6	+33 4	6.8	50.4	42.6	52.1	15 15.4	+32 54	
~~Dm~~	~~2483~~	~~15 13.2~~	~~+43 6~~	~~7.3~~	~~49.0~~	~~52.6~~	~~51.5~~			
	2628	15 39.3	+32 54	5.6	55.7	42.5	52.4	15 40.1	+32 50	6.4 6.9
	2554	15 17.0	+33 21	5.3	51.6	42.5	52.7	15 17.8	+33 17	6.7 7.2 / 7.0 7.5
Dm	2493	15 33.5	+44 5	6.8	55.1	52.6	51.6	15 35.0	+43 56	5.2 5.7
Dm	2475	15 8.8	+43 36	7.0	47.8	52.6	51.4	15 10.4	+43 26	6.3 6.8
	2541	15 10.7	+33 46	3.5	50.7	42.6	53.2	15 11.5	+33 42	4.7 5.2 / 4.8 5.3
Dm	2655	15 25.1	+34 58	7.2	52.7	42.7	52.1	15 26.9	+34 49	6.3 6.8
	2568	15 21.7	+34 45	6.3	52.7	42.6	53.0	15 22.4	+34 41	6.8 6.4 6.9 / 7.2 6.7 7.2 15 20.6 +34 51
Dm	2453	15 15.7	+44 58	6.3	49.7	52.7	49.8	15 17.3	+44 48	6.0 6.5 Dm 15 15.3 +44.9
Dm	2711	15 33.2	+35 9	6.7	54.2	42.6	51.8	15 34.9	+35 0	6.6 7.1 / 6.9 7.4
	2519	14 58.9	+45 7	6.3	105.3	52.3	112.6	14 59.6	+45 2	6.3 6.8
	2562	15 20.1	+45 42	6.2	51.5	52.6	52.2	15 20.7	+45 37	6.9 6.5 7.0 / 7.3 6.8 7.3 15 19.2 +45 47
	2100	15 38.0	+46 13	6.8	56.8	52.5	57.5	15 39.5	+46 4	7.1 6.5 7.0
	2614 / 2615	15 34.9	+37 2	4.8	55.5	42.5	52.6	15 35.6	+36 58	4.6 5.1
~~Dm~~	~~2579~~	~~15 26.8~~	~~+37 1~~	~~6.2~~	~~53.8~~	~~42.6~~	~~52.9~~	~~15 27.6~~	~~+36 57~~	
	2526	15 1.9	+36 55	6.3	48.5	42.5	53.6	15 2.7	+36 50	6.4 6.9 15 25.9 +37 6
Dm	2267	15 42.4	+47 26	6.8	58.4	52.5	51.7	15 43.8	+47 18	6.3 6.8 15 0.9 +37 1
~~Dm~~	~~2106~~	~~15 42.3~~	~~+46 45~~	~~7.6~~						7.3 6.7 7.2 / 7.5 6.9 7.4
Dm	2666	15 35.1	+37 30	7.0	54.9	42.6	51.8	15 36.8	+37 21	6.4 6.9
	2613	15 34.5	+47 12	5.7	56.5	52.6	52.8	15 35.1	+47 8	5.5 6.0
	2574	15 24.9	+47 38	5.9	53.3	52.6	52.6	15 25.6	+47 25	5.6 6.1 15 24.1 +47 44
Dm	2224	15 20.5	+47 35	6.6	51.1	52.7	51.4	15 22.0	+47 25	6.9 6.5 7.0
	2561	15 20.0	+37 48	4.4	52.2	42.7	52.8	15 26.7	+37 43	4.6 5.1
	2511	14 58.5	+47 45	6.2	103.7	52.4	111.2	14 57.2	+47 40	5.8 6.3
Dm	2300	15 24.8	+48 14	6.7	52.8	52.7	51.7	15 26.2	+48 5	6.0 6.5
Dm	2273	15 9.2	+48 30	7.3	47.2	52.6	51.3	15 10.7	+48 20	7.1 6.5 7.0 / 7.8 6.7 7.2 Dm 15 9.2 +48.5
~~Dm~~	~~2279~~	~~15 12.9~~	~~+48 17~~	~~7.5~~	~~50.9~~	~~52.4~~	~~51.8~~			
	2521	14 57.8	+48 7	4.9	104.6	52.5	111.8	15 0.7	+48 2	5.0 5.5
Dm	2875	15 23.1	+39 15	7.0	52.5	42.7	52.2	15 24.8	+39 5	6.5 7.0
	2523	15 1.5	+48 38	5.6	45.1	52.5	51.8	15 2.2	+48 32	5.0 5.5

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Plate 1262.

r	H	Type.	Lines	K	Focus	Other Lines	V.	H.	V.	H.	corr'n.
6.4	12.0	III	2	K=H	K=H	1	F?	3.2	24.0	49.4	88.6	+1.9
3.4	11.0	III?	2	K=H		2	seen	1.7	22.0	50.9	90.6	
5.4	16.8	?	2	K=H		1	—	2.7	33.6	49.9	79.0	−1.2
3.8	11.1	?	2	K=H		2	F.	1.9	22.2	50.7	90.4	+2.7
3.8	17.1	I	3	K=H		1	—	1.9	34.2	50.7	78.4	−2.3
4.0	20.6	III	2	K=H		1	—	2.0	41.2	50.6	71.4	−6.0
3.0	14.7	I? ? III I?	2	K=H	K=H	1	—	1.5	29.4	51.1	83.2	+0.5
3.3	24.6	III b?	3	K=3.0H?		3	F, pecu	1.6	49.2	51.0	63.4	−7.2
2.6	13.4	I	8	K=2H		3	F.	1.3	26.8	51.3	85.8	+1.2
2.9	13.7	III	2	K=H		1	—	1.4	27.4	51.2	85.2	+0.9
2.3	18.2	III	2	K=H		1	—	1.2	36.4	51.4	76.2	−3.6
4.2	24.4	II a	2	K=H		2	F? pecu	2.1	48.8	50.5	63.8	−10.1

F. nw. 8a. F. eb.

8.0 6.6

Plate 1224. 6.4

21.6	17.6	II ?	2	K=H		1	—	10.8	35.2	26.6	38.2	−0.6
20.6	21.2	I	6	K		2	F	10.3	42.4	27.1	31.0	−1.4
11.4	21.6	II ?	2	K=H		1	F.?	5.7	43.2	31.7	30.2	−2.0

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Mean 5

Cou.

Red. to 1900

No.	R.A.	Dec.	Mag.	H.	V.	H'.								Bv.	Bv.
2598	15	30.9	+39	25	5.4	54.9	42.6	53.0	15	31.5	+39	21	.	6.2	6.7
2617	15	35.0	+50	48	6.0	57.0	52.5		15	35.7	+50	45		6.5	7.15
2558	15	18.2	+40	1	5.9	51.8	42.7	53.0	15	18.9	+39	56	.	6.7	7.2
2611	15	33.5	+40	45	5.4	55.7	42.7	53.0	15	34.2	+40	41	.	7.05	7.55
2165	15	14.9	+50	44	7.0	49.1	52.6	51.4	15	16.3	+50	34	.	6.1	6.6
2146	15	3.7	+50	37	6.8	44.9	52.6	50.9	15	5.1	+50	27	.	6.3	6.85
2009	15	22.9	+51	7	6.8	52.3	52.7	51.8	15	24.2	+50	57	.	6.6	7.1
2515	15	37.4	+40	52	3.6	106.6	42.5	113.8	15	38.2	+40	47	.	6.6	7.1
2584	15	27.5	+41	18	5.0	54.3	42.6	53.1	15	28.2	+41	15	.	7.0	7.55
2583	15	26.6	+41	14	5.1	54.0	42.6	53.1	15	27.3	+41	11	.	6.7	7.2
1990	15	11.4	+37	29	6.3	47.8	52.7	51.4	15	12.8	+51	19	.	6.8	7.35
2504	15	52.4	+50	6	5.6	101.2	52.2	111.3	14	53.0	+50	3	.	4.7	6.2
														4.9	6.45
														4.9	5.4
														6.4	6.9
														6.8	7.3
														5.9	6.4

2625	15	37.7	+26	41	4.2	72.9	37.5	73.5	15	38.5	+26	36	.	7.1
2594	15	29.6	+27	7	2.4	72.0	37.4	73.4	15	30.4	+27	3		5.9
2588	15	28.1	+31	46	4.3	71.3	37.5	73.3	15	28.9	+31	42	.	6.8

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4 plates

V = 57.4 } 1014
H = 30.7 } 4h 5m + 50° to 60°

V 57.2 } 1117
H 70.7 } 5h 6m + 50° to 60°

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1887phae.proj..92ef

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