

Kodaikanal Observatory.

BULLETIN No. XXIV.

LIST OF PROMINENCES OBSERVED BETWEEN 1910 JULY 1 AND 1910 DECEMBER 31 WITH A SUMMARY FOR THE YEAR.

This list is a continuation of that published in Bulletin No. XXIII, and contains all the prominences recorded visually and photographically during the second half of 1910. An abstract of the observations giving the mean frequencies and heights, and the distribution in latitude is given on page 389; the mean profile areas and the general summary for the year on pages 390 and 391.

The visual observations were made in the C line of hydrogen and the photographs were obtained in the calcium line K. When prominences are photographed in calcium which are not recorded visually "Ca" is entered in the remarks column. This frequently happens during poor observing weather when the sky is veiled in thin cloud, but no certain differences between the calcium and hydrogen images have been recorded under good conditions of seeing.

Prominences are recorded as "metallic" when bright lines other than those of hydrogen and helium are observed. The lines of sodium, magnesium, and the enhanced lines of iron most commonly appear in these prominences.

The time used is Indian Standard Time ($5\frac{1}{2}$ hours fast of Greenwich Mean Time) and the tabulated latitudes are corrected for the inclination of the sun's axis in the direction of the line of sight.

The visual observers were S. Sitarama Aiyar (S.S.) G. Nagaraja Aiyar (G.N.) and A. Y. Subrahmanyam Aiyar (A.Y.S.).

The number of observations made during the six months was as follows:—

											Days.
Complete visual observations	..	..	..	..	..	..	..	..	..	..	108
Partial do do.	..	..	..	..	..	..	..	..	..	..	40
No do do.	.	..	..	..	..	..	..	..	..	..	36
Complete photographic records	..	..	..	..	..	..	..	..	..	..	128
Partial do do.	..	..	..	..	..	..	..	..	..	..	84
No do do.	..	..	..	..	..	..	..	..	..	..	22

Date and observer	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910 July 1 G.N.	8 37 8 36 12 85 9 4	.. 1 1 1 1	73° 5' 58° 5' 54° 5' 41° 5' 36	.. .. .. .. 18° 5'	E	10 25 25 25 20	Ca. Seen only at 8 ^h 12 ^m . Ca. Detached.

Date and observer.	Hour I.S.T	Base.	Latitude		Limb.	Height	Remarks.
			North.	South.			
1910.	H. M.	°	°	°	"	"	
July 1. —contd.	G.N.	9 4	.	4	E	25	Ca.
		8 32		10°5	E	25	
		9 4		24	E	10	Ca.
		4		38	E	10	Cn.
		8 30	3	52°5	E	25	
		9 4		56	E	25	Ca.
		8 28	2°5	61°5	E	15	
		9 4		80 5	E	25	Ca.
		8 26		87	W	10	
		9 4	1	38°5	W	15	Ca.
		8 56	1	18	W	30	Faint, 4° broad and 60" high in Ca.
		9 4	2	2	W	70	Ca. Slants north slightly.
		8 51	8°5	22°5	W	60	
		9 4		38	W	15	Ca.
		8 48		42	W	100 ±	See Note.
		8 40	1	46°5	W	10	Ca.
							Ca photographs 9h 4m and 8h 12m.
July 2.	...	9 9	..	28	W	35	Ca. No visual observations. Ca photograph, flocculus, 9h 9m.
July 3.	..	10 15	4	56 5	E	40	Ca.
		15	2	19	E	35	Ca.
		10 15	1	53	E	35	Cn.
		15	4	18	W	45	Ca.
		15	8°5	32	W	45	Cn. No visual observations. Ca photograph, flocculus, poor, incomplete, 10h 15m.
July 4.	...	8 18	1	54°5	E	70	Ca. No visual observations. Ca photograph, flocculus, 8h 18m.
July 5.	S.S.	11 18	3	56°5	E	35	
		15	23°5		E	25	±
		8 15	1	35	E	25	Ca.
		11 7		51°5	E	35	Detached. Connected to limb in Ca.
		9 55		75°5	W	10	
		11 22	2	39	W	40 ±	65" high in Ca.
		21	10	8	W	30	
		20		1°5	W	15	
July 6.							Seeing poor. Ca photographs, flocculus, 8h 21m and 8h 15m.
		13 50	5	24°5	E	25	Ca.
		50	5	1	E	20	Ca.
		50	1	1	E	35	Cn.
		10 40	2	26	E	20	Ca. Seen only at 10h 40m.
		13 50	4	51	E	30	Ca.
		50	5	45°5	W	45	Ca.
		50	4	39	W	30	Ca.
		50	2	18	W	25	Ca.
		10 40	3	47°5	W	40	Ca. Seen only at 10h 40m. No visual observations. Ca photographs, 13h 50m and 10h 40m.
July 8.	S.S.	8 46	...	85°5	E	10	Ca.
		46		69°5	E	15	Ca. Faint
		9 11		65	E	10	
		8 46		61°5	E	15	Ca.
		46		60	E	10	Ca.
		46		48	E	15	Ca.
		46	5	32 5	E	25	Ca. An arched cloud Part seen in C.
		9 4	3	24°5	E	35	
		8 46		10	E	50	Ca. Top flows northwards.
		9 0	1	6°5	E	35	Faint.
		0		2°5	E	20	Faint.
		8 54	2	46	E	30	
		50		66 5	E	15	
		45		61°5	W	20	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	II M.	o	o	o	"	"	
July 8. —contd.	S.S.	8 48	4	48	W	35	
		9 32	2	19	W	55	Bright and 85" high in Ca.
		29		11·5	W	10	
		8 46	5	5·5	W	20	Ca. An arch.
		46		40	W	20	Ca.
		9 23	4	58	W	20	Three small prominences close together. Through Cirrus. Ca photographs, 8h 46m and 9h 12m.
July 9.		8 14	2	31	...	30	On.
		14	1·5	40	E	30	Ca.
		14		53·5	E	10	On.
		14		45	W	30	Ca. Flows southwards to — 48° W.
		14	2	19	W	70	Ca.
		14		28	W	20	Ca.
		14		59·5	W	30	Ca. No visual observations. Ca photograph, flocculæ, 8h 14m.
July 10. A.Y.S.	9 32	.	80		E	20	Ca. Faint.
		32	47·5		E	35	Ca. Slants eastwards.
		20	40		E	45	Almost detached.
		32	35		E	10	Ca.
		18	5·5	15	E	35	
		35	1	47·5	E	10	25" high in Ca.
		10	3	58·5	E	25	
		33		50	W	10	
		32	2	48·5	W	35	
		31		45	W	10	
		29	2	19	W	30	
		27	1·5	15·5	W	25	10" only in On.
		26		23	W	45	
		32	1	30·5	W	20	Ca.
		24		45	W	10	
		23	4	80	W	55	Faint in Ca. Ca photograph 9h 32m.
July 11. S.S.	9 40	9	40·5	..	E	60	An arch. More continuous in Ca.
		85	2	17	E	30	
		35	1	13·5	E	10	
		8 14		9·5	E	30	Ca.
		14		5	E	20	On.
		48	1	0·5	E	55	30" high at 8h 14m.
		14	1	5·5	E	25	Ca.
		9 15	7	10·5	E	170	See Note 1.
		8	4	27	E	30	A Ca streak from this meets limb again at — 21° E.
		5		37	E	15	
		8 49		41	E	10	
		11		44	E	10	Ca.
		14		46	E	10	Ca.
		47	2	48	E	15	
		45	1	54·5	E	35	
		14		63·5	E	10	Ca.
		37		65·5	E	30	Faint.
		37		78·5	E	30	Faint.
		81		78·5	E	50	See Note 2.
		80	4	84·5	E	25	An arch.
		9 0		85	W	10	
		8 58		81	W	15	
		57		75·5	W	20	
		55		61·5	W	10	
		53	5	40·5	W	60	45" high in Ca.
		11 24		14	W	25	10" high at 8h 14m and 35" high at 8h 48m in Ca.
		8 48		8·5	W	60	Ca. Seen only at 8h 48m.
		11 23		8·5	W	15	25" high at 8h 14m, and detached, and 45" high in Ca at 8h 48m.
		8 14	2	10	W	85	Ca.
		11 22		18	W	80	
		21		85	W	15	
		8 14		55·5	W	20	
		9 50	5·5	60	W	60	Ca.

Date and observer.	Hour I.S.T.	Base	Latitude.		Limb	Height.	Remarks.
			North.	South.			
1910	H. M.	°	°	°	"	"	
July 11. —contd.	S S.	8 50	...	64°5		W 10	
		8 14	1	73°5	W 20	Oa.	
		14		77	W 35	Oa.	
		14		81	W 25	Oa.	Ca photographs 8h 14m and 8h 48m
July 12.	G.N.	8 6	..	88	E 10	Oa.	
		6		70 5	E 30	Oa.	
		6		64°5	E 10	Oa.	
		49		60	E 10		
		47	1	52°5	E 20		
		45	8	42 5	E 75		
		6	8	85°5	E 80	Oa. An arch.	
		6	3	25°5	E 10	Oa.	
		6	1	14°5	E 15	Oa.	
		83	2	10	E 20	Tops connected by a streak and 30" high in	
		32	2	5	E 15	Oa	
		30	2	8	E 20, 45	Bright. Ca jets extend from — 1° to — 9° E.	
		6	1	20 5	E 10	Oa.	
		28		26 5	E 45	Faint, detached.	
		25	2	82	E 25	Bright.	
		25		85°5	E 10	Bright.	
		6		49	E 15	Oa.	
		20	2	57	E 15		
		20		63	E 10		
		6		74°5	E 80	Oa.	
		31	1°5	77 5	W 55		
		9 10	3°5	46	W 30		
		7	2°5	14°5	W 15	Base only 1° in Oa, and a Oa streak from top reaches to 90° in height.	
		8 6		11	W 55		
		9 3	7		W 20, 60	See Note.	
		8 6	16		W 30	Oa Slants westwards.	
		6	5	81°5	W 30	Oa.	
		6		36	W 10	Oa.	
		57	3	61	W 45	Ca prominence extends from + 58° to + 65°.	
		53		67°5	W 20		
		6		81	W 15	Oa.	
						Ca photographs, 8h 6m, 8h 31m, and 9h 18m.	
July 13.	A.Y.S.	8 55	...	88°5	E 10	Oa	
		51		80°5	E 20	20" high at 8h 1m, and 35 " high at 8h 22m in Ca.	
		49	1	55	E 35	Horseshoe-like prominence. Seen only at 8h 46m in Oa.	
		47	1	44°5	E 30		
		44		48	E 10		
		39	9°5	20°5	E 45		
		36		0°5	E 10		
		1		2	E 40	Oa.	
		88	3	4 5	E 25	The Ca prominence extends from — 4° to — 5° and is 40" in height.	
		38	1	7 5	E 25	A Ca streak from top reaches to 45" in height	
		32		18	E 10		
		46		24°5	E 10	Oa.	
		46		28°5	E 15	Oa.	
		28	1	30°5	E 15		
		26		40	E 10		
		21		67°5	E —	See Note 1	
		46	1	64	W 45	Oa	
		9 20	9°5	54	W 50	30" only in Ca	
		18		43°5	W 10		
		17		18	W 75	See Note 2.	
		18	9	0°5	W 80		
		8 46		8 5	W 60	Ca A slanting streak.	
		9 9		10	W 15		
		8		15	W 15		
		8 46	1	28°5	W 10	Oa.	
		46		89	W 10	Oa.	
		9 7	8	47°5	W 25	Very faint. 50" high in Ca.	
		2		51°5	W 90	Detached in Oa.	
		0	4	54	W 55	Connected in hydrogen.	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks
			North	South.			
1910.	H. M.	"	"	"	"	"	
July 18. —contd.	A.Y.S.	8 46	1	60	W	10	Ca.
		58		65 5	W	25	15° high at 8h 46m, and 30° high at 9h 40m in Ca.
		57	1	69	W	10	
		56		72 5	W	10	
							Ca photographs 8h 46m, 8h 1m, 8h 22m, and 9h 30m.
July 14.	S.S.	9 11	1	73	E	25	
		0	6	25	E	35	65° high in Ca.
		55		5	E	20	
		8 54	1	16 5	E	15	Very faint.
		21	2	20	E	20	Ca.
		52		35	E	20	
		41		54 5	W	10	
		40	2	52	W	30	
		21	4	26	W	30	Ca. A slanting arch.
		21		14 5	W	105	Ca. A detached streak.
		10 6		11 5	W	25	
		9 35		1	W	30	In Ca top bands, meets limb at + 4° W., and forms an arch. Seeing poor.
							Ca photographs, prominence 8h 21m poor, flocculus 8h 7m good.
July 15.	G.N.	8 38	..	78	E	15	
		9 37		63 5	E	10	Ca. Seen only at 9h 37m.
		37		58 5	E	10	Ca. do.
		87		55	E	10	Ca. do.
		31	9	32	E	45	18° broad in Ca.
		8 13		17	E	10	Ca.
		18		64 5	W	15	Ca.
		51	3	59 5	W	30	
		48		45	W	20	±
		13	2	41	W	20	Ca.
		18		38	W	60	Ca. A cloud connected to limb by a stem.
		9 37		28	W	45	Ca.
		8 45		2	W	15	
		13		18 5	W	20	Ca.
		13		35	W	10	Ca.
		43	2	46	W	20	
		39		81 5	W	15	
							Poor weather. Ca photographs; 8h 18m and 8h 37m.
July 16.	A.Y.S.	8 27	5	84 5	E	40	]} Tops connected by Ca streaks.
		25	3	27 5	E	30	Ca.
		11		20 5	E	25	
		21		5 5	E	15	
		11	6	12	N	10	Ca.
		10 8	3 5	38	E	25	Very faint; 60° high in Ca.
		0	1	52	E	15	
		8 18		55 5	E	10	
		17		80	E	15	
		10 19	7	53 5	W	50	A Ca streak through top meets limb at - 62° W.
		12	8	50 5	W	40	55° high in Ca.
		8 11		83	W	80	Ca.
		11		10 5	W	10	Ca.
		11		45	W	20	Ca.
		10 8	2	60 5	W	25	Not seen at 8h 80m. } Connected.
		8 1		62 5	W	30	Ca.
							Ca photographs 8h 11m and 8h 45m.
July 17.	A.Y.S.	8 46	...	75 5	E	20	
		44		47	E	10	
		41	15	22 5	E	35	
		35	5	5 5	E	60	There is a small faint streak at top not seen in Ca; slightly changing in Ca.
		31	2	20	E	25	
		30		80 5	E	15	
		30		43	E	15	Faint in Ca.
		27		52 5	E	20	Ca slightly displaced to red at base.
		24		84 5	E	10	
		24	1	68	E	25	Rather faint.

Date and observer.	Hour I.S.T.	Base.	Latitude		Limb.	Height.	Remarks.	
			North	South				
1910.			°	°		"		
July 17.	A.Y.S.	8 23	8	70°5	E	15		
—contd.		23	8	79°5	E	15		
		21		83°5	E	10		
		20		85	W	10		
		9 12	12	53°5	W	65		
		9	8°5	39	W	55		
		7	1	21°5	W	10		
		4	2	9	W	60	Top broader. A streamer from top flows south. This streamer was not seen in Ca.	
				5	W	65	Ca.	
		8 59			W	25		
		9 2	8	1°5	W	20		
		0	1	7°5	W			
		8 59		21	W	10		
		58	6	39	W	60		
		58		44	W	25		
		61		46°5	W	20		
		50		61°5	W	10		
		59		67°5	W	10	Ca. Ca photographs, 8h 59m, 8h 12m.	
July 18.	S.S.	9 3	2	85	...	E	20	Low in Ca.
		8 59		81	E	25		
		56		59	E	15		
		54	2	56°5	E	15		
		6		44°5	E	40	Ca. A thin streak flowing eastwards.	
		40		28	E	30	Changing] In Ca these consist of scattered streaks	
		48	2	21°5	E	25	] extending from + 21° to + 33° E.
		46	5	5	E	35		
		48	14°5	8	E	35, 20	50" high in Ca.	
		38		21°5	E	10		
		30	8	39°5	E	20	1° broad in Ca.	
		6		47°5	E	15	Ca.	
		27	11	54	W	60	More continuous at base in Ca.	
		27	1	89°5	W	35		
		6	13	20°5	W	35	Ca An arch.	
		6	6	22	W	30	Ca	
		6	7	87°5	W	50	Ca.	
		9 50		45	W	20		
		50		49°5	W	25		
		50		50°5	W	25		
		8 6		56°5	W	10		
		9 50		59°5	W	20		
		8 45		81°5	W	45	Ca. Seen only at 8h 45m Passing clouds. Cloudy after 9h 50m; — 30°W to + 50°W not observed. Ca photographs, 8h 8m and 8h 45m	
July 19.	A.Y.S.	9 49	1	84°5	E	20	Bright. O slightly displaced to violet at top.	
		18 23	1	52	E	10	Ca.	
		23		40°5	E	10	Ca.	
		23		31	E	20	Ca	
		14 8		18°5	E	60		
		18 23	2	5	E	10	Ca.	
		9 45	11	2°5	E	80	A Ca streak from the top at the south end flows to — 17°E.	
				87	E	10		
		10 35		77	E	10		
		14 2	1	72	W	15		
		2		69°5	W	10		
		2	6	54°5	W	50		
		18 59	2	42	W	80		
		56		30	W	20		
		56	1	27°5	W	30	A Ca streamer from top flows parallel to limb as far as — 22° W.	
		53	1	21	W	10		
		53	3	18°5	W	10		
		50	5	7°5	W	20	Extends only 2° in Ca.	
		23	3	36°5	W	80	Ca. Top flows westwards to + 28° W. } Connected	
		48	3	41°5	W	25	in Ca.	
		23	2	46	W	30		
		45	8	58	W	30	Ca photographs, 18h 28m and 18h 32m.	

Date and observer.	Hour I S T.	Base	Latitude.		Limb.	Height.	Remarks.
			North	South.			
1910.			°	°		"	
July 20. G N	9 40	.	69		E	10	Ca.
	24		46		E	15	
	40	8	21		E	35	Ca.
	40		9		E	30	Ca.
	22		Equator.		E	10	
	20	6	4		E	25	
	40		12		E	70	Ca. A streak slanting to - 18°E. Changing.
	10 0		36		E	10	
	9 40	4	40		E	15	Ca
	58		46		E	10	
	16		69·5		W	20	Eruptive. Bright, showed displacement in C to violet for 1·5 A. Disappeared by 9h 40m. 15" high in Ca.
	28	8	55		W	45	
	40		30		W	30	Ca.
	40		6·5		W	15	Ca.
	40		8		W	80	Ca.
	40	2	28		W	25	Ca
	40	2	54·5		W	25	Ca.
							Seeing poor. Ca photographs, 9h 40m and 9h 12m poor.
July 21. S.S.	9 55	...	71	.	E	10	
	58		51		E	15	
	10 8		32		E	10	
	9 46	4	20		E	85	(Ca. Top flows to - 15°W.
	8 48	1	39·5		E	80	
	45	3	46·5		E	30	
	28	6	55		E	80	See Note
	9 46	1	42·5		W	25	Ca.
	46		50		W	55	Ca. A small portion 20" high was seen in C. Seeing poor.
							(Ca. photographs: flocculus 9h 46m; prominences 8h 29m - 8h 38m stopped 4 times, 9h 48m - 9h 55m stopped 3 times.
July 22. A.Y.S.	8 27	1	66	...	E	20	Changing slightly. Form different at 8h 38m.
	26	1	64		E	10	Connected
	25	2	59·5		E	30	Continous with the last in Ca. and 45"
	28	1	33·5		E	40	Top faint and flows northwards. high in Ca.
	35		2		E	10	Slants northwards; very faint.
	20		1·5		E	10	
	46		6		E	15	Ca. Slants southwards.
	48		12		E	10	Ca.
	17		40·5		E	10	25" high in Ca at 8h 6m.
	17	5	46		E	50	A narrow Ca streak crosses the top of this prominence 80" high in Ca.
	46		48·5		W	10	Ca.
	46		48		W	10	Ca.
	31		22		W	10	
	6		20		W	35	Ca Seen only at 8h 6m.
	31	1	6·5		W	10	
	31		10		W	10	
	29		58·5		W	10	Ca photographs, 8h 48m and 8h 06m.
July 24. A.Y.S.	9 10	.	77·5	...	E	10	Ca.
	10	8·5	60		E	45	Ca.
	10		51		E	35	Ca
	8 36	1	22·5		E	55	
	28		9		E	15	
	28		7		E	15	
	9 10		7		E	25	Ca.
	8 27		22		E	10	
	25		36		E	10	
	25	6	50		E	45	Only 3° broad in Ca.
	24	1	68		E	15	
	55	1	84·5		W	20	
	54		72		W	15	
	50	1	48		W	50	80" high in Ca.
	48		21		W	10	Faint.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.	
			North.	South.				
1910.	H. M	°	°	°	"	"		
July 24. —contd	A Y S.	8 46	1	.	45	W	25	See Note.
		44	2	20		W	25	Two prominences close together.
		9 10		41		W	35	Ca Slants northwards to + 44° W. Ca photograph (poor) 9h 10m.
July 25.	G.N	9 4	4	61°5	.	E	65	Ca
		4	2	80°5		E	10	Ca
		4		24		E	40	Ca Flows northwards.
		8 46		7		E	20	Slants northwards
		9 4		24		E	10	Ca.
		4		30		E	25	Ca.
		8 25		39		E	15	
		23	8	48°5		E	40	Faint
		9 4		64°5		E	25	Ca.
		8 20		68°5		E	10	
		18	1	80°5		E	10	
		9 4		77		W	25	Ca
		8 60	2	26		W	15	In Ca the prominence extends from - 23° to - 30° W and is 25" high
		40		16		W	10	
		9 4		8		W	20	Ca
		8 35		22		W	15	
		35	3	185		W	25	Ca photographs, 9h 4m and 8h 11m.
July 26.	S.S	11 12	0°5	58	..	E	70 ±	Ca prominence extends from + 54° to + 68° and is 45" high.
		10	1	19°5		E	15	
		9 43		2°5		E	10	
		30	2	46°5		E	80	
		80		48°5		E	10	
		27		54°5		E	15	
		26		84		W	10	
		20		60°5		W	10	
		12	1	54		W	15	
		80	5	22°5		W	80	Ca.
		38		2		W	15	Ca
		11 20		74		W	10	Cloudy with breaks. - 55° W. to + 75° W. not examined. Ca photograph, 9h 38m; passing clouds; incomplete.
July 31	G.N	9 32	..	11		E	15	} Continuous and 40" high in Ca.
		32	3	14°5		E	25	
		49		39°5		E	55	Ca
		31		53°5		E	20	Ca prominence extends from - 50° to - 54° and is 80" high.
		49	7	36°5		W	45	Ca. Two prominences connected by a streak at top.
		40	5	18°5		W	80, 35	Connected in Ch, and the group
		40		7°5		W	45	Top widens } extends from + 5° to - 24° W. and both ways } is 45" high. The prominence
		59	2	4		W	20	from 0° to + 5° was bright.
		49	2	8		W	30	Ca.
		36	7	22°5		W	15, 45	60" high in Ca.
		36		82		W	80	15" high in Ca.
		49		68		W	20	Ca.
								Through breaks in clouds. Ca photograph 9h 49m poor, passing clouds; incomplete.
August 1.	S.S	10 24	..	88	..	E	15	Faint. Ca prominence extends from 70° to 75° and is 10" high.
		26		70		E	25 ±	Ca.
		6		59°5		E	15	
		11 28		12		E	10	2° broad in Ca.
		28		9		E	15	Ca.
		10 6		Equator.		E	20	
		11 27	1°5	28		E	20	
		25		48°5		E	20	
		10 6	1°5	58°5		E	10	Ca.

Date and observer.	Hour L.S.T.	Base.	Latitude.		Lim.	Height.		Remarks.
			North.	South.				
1910.	H. M.	o	o	o	"	"		
August 1. —contd.	S.S. 10 6	.	...	82	E	10	Oa. Faint.	
	6			71	W	15	Oa. Faint.	
	56	10		37	W	25, 35	16° broad and 80" high in Oa at 10h 6m.	
	28			23	W	10		
	9 56	15		10°5	W	50		
	10 14		3		W	25		
	6		16		W	10	Oa.	
	16	4	29		W	35	Flows northwards. Cloudy with breaks.	
							Oa photographs.—prominence, passing clouds, incomplete, stopped 14°, 1st portion 9h 58m, 2nd portion 10h 14m; middle time 10h 6m. Flocculus, 9h 45m and 9h 42m.	
August 2.	A.Y.S. 9 52	7	8°5	...	E	50	Oa. Two jets connected by streaks in the middle. A portion of the east jet 20" high was seen in C.	
	44			76°5	W	15		
	52			42°5	W	20	Cn.	
	52			39	W	20	Oa. } Jets.	
	52			87	W	50	Cn.	
	52			81	W	30	Oa.	
	48			18	W	10		
	48			16	W	10	25" high in Oa.	
	8 47	2	1		W	10		
	45	5	15°5		W	55	Base extends in Oa to +10° W. Top flows slightly westwards. Seeing poor. Oa photographs poor, 9h 52m and 8h 36m.	
August 3.	G.N. 18 48	0°5	...	18°5	E	80		
	65	1		70°5	W	10		
	25	3	18°5		W	45		
	24			40°5	W	10		
	28	0°5	73		W	15		
							Poor weather. No prominence plates.	
August 5.	A.Y.S. 11 12	1	58	...	E	20		
	8 2		53°5		E	10		
	8		30		E	30	Detached.	
	8	2	28		E	40	Top flows slightly eastwards.	
	1	1	18°5		E	50		
	0		8		E	10		
	10 53	1		57°5	E	20		
	11 35			84	E	10		
	33	2		40	W	80 ±		
	15			42°5	W	10		
	18			59°5	W	15	O displaced both ways for 0°5° over the whole prominence.	
							Through breaks in clouds. No Oa photographs.	
August 6.	G.N. 8 20	...	51°5	...	E	25	Oa. Slants northwards to +54° W.	
	55	1	40°5		E	10		
	20		32		E	40	Oa. Detached.	
	55		27°5		E	25		
	20	10	20		E	35		
	52	1	7°5		E	15	Oa.	
	20		8		E	60		
	52		13°5		E	15	25" high in Oa.	
	50		38		E	20		
	50		56°5		E	15		
	50	2	57°5		E	45		
	20		80		E	10	Oa.	
	20		81		E	10	Oa.	
	20		66°5		W	15	Oa.	
	59	3	24°5		W	40	A faint arch. A Oa streak from top slants to + 21° W.	
							Oa photographs, 8h 20m and 8h 50m.	
August 7.	A.Y.S. 10 47	...	5°5	...	E	15 ±		
	11 9			12°5	E	10		
	9			14°5	E	10		
	7	1		58	E	10	25" high in Oa.	
	21	1		20°5	W	20	Very faint; top flows southwards.	
	11		68		W	15	Oa photograph, flocculus, poor, 8h 58m.	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	11 M.	*	*	*	"	"	
August 8 S.S.	10 20	...	30	..	E	10	
	2		68·5		E	15	Ca.
	17		40·5		E	30	
	16		30·5		E	10	
	9 43	2	22		E	55	
	43		11		E	25	
	10 14		14		E	30	See Note.
	12		19·5		E	60 \pm	Detached.
	12	1	21·5		E	20	Top broader } Connected, extends from - 18° to
	11		20		E	60 \pm	- 30° and is 75" high in Ca.
	9 33	1	61		E	25	
	33		68·5		E	15	] Continuous in Ca.
	33		82·5		W	10	
	10 8		78		W	15	
	2	1	52		W	20	Ca
	5		39		W	25	
	29	3	24·5		W	20	]} Tops connected } Connected, extends from - 10
	28	1	18·5		W	40	Ca to - 25° and is 50" high in
	2		15		W	10	Bright.
	26		7		W	15	
	9 59	1	9		W	20	
	58	1	18·5		W	10	
	10 21	1	39		W	10	
	22	1	58		W	15	
	9 52		81·5		W	25	
							Seeing poor. Ca photographs, 15 ^h 2 ^m and 9 ^h 52 ^m .
August 9. G.N.	9 1	..	88	..	E	10	Ca.
	8 33		80·5		E	20	
	9 1		67		E	15	Ca.
	1		42		E	20	Ca.
	8 30	2	87·5		E	35	Ca.
	27	2	31		E	80	
	25		80		E	55 \pm	See Note
	46		42·5		E	20	
	9 1		71		E	10	
	.1		82		W	10	Ca.
	1		47·5		W	15	Ca.
	1		40·5		W	15	Ca.
	8 35	2	18		W	35	Ca. Top flows and meets limb at - 11° W.
	43	0·5	12		W	25	10" only in Ca.
	1		68·5		W	10	Ca photographs, 9 ^h 1 ^m and 8 ^h 32 ^m .
August 10. A.Y.S.	8 44	0·5	78·5	..	E	10	
	48		68		E	15 \pm	
	50		60		E	10	Ca.
	41	1	59		E	10	
	50		57·5		E	10	Ca.
	39	0·5	49		E	20	10" only in Ca.
	38	1	45		E	10	
	36		40		E	80 \pm	Very faint. }
	29	2	31		E	95	Connected and 80" high in Ca.
	28		28		E	15	
	22	7	28		E	80 \pm	12" broad and 45" high in Ca.
	50		88·5		—	10	Ca.
	50		62		W	10	Ca.
	9 9		45·5		W	20	
	4	8	27·5		W	25	50" high in Ca.
	0	1	16·5		W	20	
	8 57	1·5	12		W	15	
	51		52·5		W	30	
	49		63·5		W	25	Slants northwards.
	48	4	88		W	10	
Anast 11.	8 57	2	29	..	E	60	Ca photographs, 8 ^h 50 ^m , 8 ^h 21 ^m , and 9 ^h 18 ^m .
	57	1		26·5	W	80	Ca. Faint, slants westwards.
	57			22	W	40	Ca. Faint, detached
							Cloudy. Only south pole to - 70° W. examined. Ca photograph, flocculus, good but passing clouds, 8 ^h 57 ^m .

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	o	o	o			
August 12. G.N.	9 22	1	77°5	.	E	10	
	8 47	1	43		E	15	
	47		41°5		E	15	
	35	8	30		E	50, 85	65" high in Ca
	10		2		E	20	Ca.
	9 15			6	E	15	
	8 10			18°5	E	15	Ca.
	20			27	E	60	Narrow stem. Top broader and stretches out both ways to - 24° and - 31° E.
	29	1		59	E	15	
	10	1		61	W	15	Ca.
	9 39	1		57	W	80	10" high in Ca
	39	1		54	W	20	10" high in Ca
	8 10			46°5	W	25	Ca. Slants southwards.
	10			38	W	70	Ca. Slants to - 48° W.
	10			37°5	W	30	Ca.
	10			32	W	45	Ca. Part seen in C.
	9 30	1·5	2	17	W	15	
	29	3·5			W	80	
	25		57		W	30	
							Ca photographs, 8 ^h 10 ^m and 8 ^h 59 ^m .
August 13. A.Y.S.	13 54	2	30	.	E	80	
	51		24		E	40	
	50	1·5	20·5		E	25	
	8 55	1	8·5		E	20, 40 ±	Bright stem A faint stream from top flows to + 10°5 E. 15" only in Ca
	13 48	1		25	E	25	
	48		69°5		E	10	
	14 6		81°5		W	10	
	9 44	2		50·5	W	00	Ca. Faint.
	14 4		25		W	20	
	4	1	27°5		W	10	
	3		31		W	30	Detached.
	13 57	1	60		W	35 ±	
							Through thin cirrus and breaks in cumulus. Ca photograph, very poor, 9 ^h 44 ^m .
August 14. A.Y.S.	8 44	1	34	...	E	10	
	39	10	26		E	40	
	38		18·5		E	10	
	36	3	3·5		E	50	Ca prominence consists of broken streaks extending from 0° to + 7°.
	32	2		25	E	40	
	32	1		27°5	E	30	
	29	2		33	E	35	
	28			58	E	10	See Note.
	9 8		66		E	10	
	7	2	76°5		E	10	
	4	3	50		W	20	Faint. 35" high in Ca.
	3	2	25		W	20	In Ca it is a streak 15" high.
	1	1		8°5	W	25	
	0	1		6°5	W	15	
	8 59		1		W	10	25" high in Ca
	9 12		23		W	10	Ca.
	12		24		W	10	Ca.
	8 57		27°5		W	10	
	87		29°5		W	10	
	56		40°5		W	25	Slants to + 42°5 W.
	9 12		47°5		W	25	Ca.
	8 55		54°5		W	20 ±	Faint.
	50	4	59°5		W	40	
	47	2	78		W	10	
							Ca photographs 9 ^h 12 ^m and 8 ^h 34 ^m .
August 15. S.S.	9 16	...	82	...	E	10	Ca.
	30		63		E	35	
	18		20		E	20	Ca.
	21	4		2	E	60	Slants southwards. Ca streamers flow to + 3° E.
	16	1·5		35	E	70	Ca.
	17	1		46	E	85	
	10			61·5	W	10	

Date and observer.	Hour L.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.	
			North.	South.				
1910.			°	°	°	"		
August 15 —contd.	S.S.	9 8	..	.	46° 5	W	15	30" high and seen only at 9 ^h 36 ^m in Ca.
		8			41° 5	W	15	Slants south, 50" high and seen only at 9 ^h 36 ^m in Ca.
		4			22° 5	W	30	
		0		2		W	30	
		41	1	8 5		W	30	} Connected in Ca.
		16	1	53		W	30	Ca.
		16	6	61		W	25	Ca.
							Seeing poor.	
							Ca photographs 9 ^h 18 ^m , 9 ^h 37 ^m , and 8 ^h 17 ^m .	
August 16.	G.N.	9 33	..	57° 5	...	E	30	Slants to + 60° E
		12	1	48		E	15	
		8	8	19		E	75	A Ca streak from top meets limb again at + 31°.
		40	1	1		E	25	10" only in Ca.
		38	1·5		6	E	35, 20	See Note.
		5	2		12	E	20	A Ca streak from this rises to 95" in height.
		35	2		36·5	E	10	80" high in Ca.
		33			58·5	E	30	Ca. Detached.
		33			65·5	E	20	Ca.
		22	1		55	W	10	3° broad in Ca.
		33			43	W	30	Ca. Slants southwards.
		33			25·5	W	10	Ca.
		33			17	W	80	Ca. Detached.
		33		4		W	40	Ca.
		33	2	9		W	35	Ca.
		18		19		W	10	
		33		24		W	10	Ca.
		33		26		W	15	Ca.
		33		36·5		W	40	Ca. Detached.
		33	2	48·5		W	25	Ca.
		47	8	62		W	80	Ca photographs 9 ^h 39 ^m and 9 ^h 9 ^m .
August 17.	A.Y.S.	8 52	2	82	...	E	10	
		9 29		64		E	10	
		8 48		52		E	10	
		46	1	39·5		E	15	
		9 43		30		E	80	Ca.
		8 34	6	18		E	40	See Note.
		9 48		10		E	25	Ca. Detached.
		21		8·5		E	10	
		48	5	1·5		E	50	Ca.
		48	3		19	E	30	Ca.
		16	2	38·5		E	30	In Ca the prominence extends to —86° E.
		14	1	47		E	25	3° broad at top.
		13		67		N	15	
		12	0·5	78		E	15	
		48		58		W	10	Ca.
		10	1	39		W	10	
		10	0·5	19		W	10	
		8 57		22		W	10	
		57	0 5	25		W	10	
		9 36	1	30·5		W	20	
		8 54	4	62		W	35	Ca photograph (poor), 9 ^h 48 ^m .
August 18.	S.S.	9 57	..	40·5	...	E	10	
		55	2	8		E	15	
		54			2	E	20	
		53	4		20	E	35	
		50	6		40·5	E	20	
		30			56·5	W	10	
		10 5		50		W	10	
		9 58	7		15 5	W	80	Ca.
		58			8	W	40	Ca.
		58	1	11		W	20	Ca. Very faint.
		10 1		58·5		W	20	
		9 58	2	65		W	45	Ca.
							Seeing poor. High wind. Ca photograph 9 ^h 58 ^m . Fair.	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	o	o	o		"	
August 21. G.N.	8 15	1·5	83	..	—	40	Ca. Transient; nearly gone by 8 ^h 32 ^m .
	15	67			E	Low.	Ca.
	37	1	56·5		E	25	In Ca a streak from top meets limb again at + 62° E.
	36	1	97·5		E	80	Faint in hydrogen. Top slants to + 34° E.
	15	2	29		E	90	Ca. A streak from it meets limb again at + 22° E.
	35		18		E	10	
	35	1	8·5		E	20	
	33		5		E	15	
	31	4		11	E	25	Connected in Ca.
	30			19	E	30	
	30			21	E	10	
	27			33	E	10	
	52	3		44·5	E	25	
	50			64	E	10	
	15			54·5	W	15	Ca.
	47	2		17	W	15	Surmounted by a detached. Ca clouplet 80" high.
	46		5		W	10	
	45	1	19		W	25	
	48	4	38·5		W	70	15" high in Ca.
	15		55·5		W	20	Pointed at top.
	40		58·5		W	20	Ca. Top almost meets the next prominence.
	40		64		W	10	
							Ca photographs 8 ^h 15 ^m and 8 ^h 32 ^m .
August 22. S.S.	8 58	0·5	59·5	...	E	15	
	57	1	52·5		E	40	Slants north. 60" high in Ca.
	55	1		7·5	E	10	
	52	6		14	E	30	
	48			20	E	20	
	47	0·5		25·5	E	20	
	45			42	E	10	
	44			49·5	E	20	
	40			82	E	20	
	36			60	W	10	
	47			66·5	W	10	Ca.
	47	6		24	W	20	Ca.
	47			15	W	50	Ca. Top slightly broader.
	9 12	6	40·5		W	95	Narrow at top.
							Cloudy with breaks; - 60° W. to + 40° W. not observed.
							Ca photographs 8 ^h 47 ^m and 9 ^h 1 ^m . Fair.
August 23. G.N.	8 37	1	60	...	E	80	
	35	0·5	56·5		E	20	In Ca these three prominences are connected and extend from + 61° 35" in Ca. 30" in Ca.
	35	1	50·5		E	15	
	33		37·5		E	10	to + 50° E.
	33		14		E	10	
	32	5	2·5		E	25	15" high in Ca.
	22	8		16·5	E	15	Ca.
	30			23	E	15	
	22			23	E	20	Ca.
	29			38·5	E	10	
	29	1		47	E	20	] Faint.
	29	0·5		49·5	E	10	
	26			54·5	E	15	
	9 3	1		79	E	10	
	8 54	2		46·5	W	35	See Note.
	48	6		21	W	80	
	22			15	W	50	
	22			13	W	50	Ca.
	43		35·5		W	10	
	43		39·5		W	10	
	40	1	75·5		W	80 ±	Not in Ca.
							Ca photographs 8 ^h 22 ^m and 8 ^h 17 ^m .

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South			
1910.	H. M.	°	°	°	"		
August 24. S.S.	8 48	.	80	..	E	15	Oa. Two short streaks.
	48	1	69		E	15	Oa.
	10 3		55°5		E	50 ±	40" high in Ca. A short streak from top flows downwards.
	8 48	3	28 5		E	25	Oa. An arch.
	48	0°5	17		E	30	Oa.
	48	0°5	13		E	40	Ca Fork-like.
	48	5	2°5		E	35	Oa. A small part 10" high was seen in C at equator
	48	2		20	E	25	Oa.
	32			23	E	35 ±	
	30	1		44 5	E	20	
	21			88	—	15	Not in Ca.
	48	1		36°5	W	20	Oa.
	48	2		9	W	25	Oa. An arch.
	50	0°5	51°5		W	15	
							Seeing poor. Ca photographs 8h 48m and 9h 43m (poor).
August 25. G.N.	8 8	3	78	...	E	50	Oa. Three prominences close together. Transient, nearly gone by 8h 35m.
	47	5	55		E	20, 40	30" high in Ca.
	45	1	34°5		E	15	
	8		31°5		E	10	Ca Small, detached.
	8	7	16°5		E	30	Oa.
	35	1	2 5		E	45	5° broad and 30" high in Ca. A Ca. streak from the base flows to—11° E.
	38	0 5		11°5	E	15	
	33	5		14 5	E	20	
	33	0°5		19	E	30	
	80	5		47	E	50, 25	85" high in Ca.
	26	1		60°5	E	15	
	8			71°5	E	25	Ca.
	35			27	W	15	Oa. Seen only at 8h 35m.
	59	1	19°5		W	25	Not in Ca.
	59			22°5	W	10	A dot.
	58			30	W	15	Connected by a Ca. streak which meets limb at + 25° and + 35° W.
	58	1	31°5		W	40	
	53	1	33		W	10	Oa photographs 8h 8m and 8h 35m.
August 26. S.S.	15 10	..	42°5	..	E	25 ±	Oa. Very faint
	14 48	45		80	E	80	
	15 10	2		47°5	E	40	Oa.
	10	1°0	32°5		W	30	Oa.
							Seeing bad. Ca photograph, flocculus plate only. Thick cirrus, very poor. 15h 10m.
August 28. G.N.	9 8	3	34	...	E	35	Oa.
	8	4		57°5	W	30	Oa.
	8	0°5		44°5	W	30	Oa.
	8			14	W	20	Ca. } Tops connected by a streak.
	8			10	W	20	
	8			3	W	10	Oa.
	8	0°5	37°5		W	50	Oa.
	8	2	50°5		W	40	Oa.
							No visual observations.
							Oa photograph, flocculus plate only, 9h 8m. through cirrus.
August 29. S.S.	9 31	5	9°5	...	E	35	
	25	5		50	E	60	
	7 55	1		86 5	W	25	Oa.
	55	3		20°5	W	20	Oa.
	55	2	18		W	20	Oa.
							Oa photograph, flocculus plate only, 7h 55m (very poor). Through thick cirrus.
August 30. G.N.	8 23	0°5	54°5	...	E	25	Oa. Top slants northwards.
	23	1	41°5		E	35	Oa. Do.
	23		85°5		E	20	Oa.
	9 55	2		20	E	50 ±	20" high in Ca.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°	"	"	
August 30. G.N. —contd.	8 23	5	...	51	E	50	Ca.
	23			23	W	85	Ca. Top slightly broader.
	10 25		16		W	20	
	8 23	0°5	21		W	20	
							Ca. Ca photograph, flocculus plate only, 8h 13m (poor) through cirrus.
August 31. S.S.	9 50	..	81	...	E	15	Ca.
	8 1	7	56		E	20	
	47		21		E	10	
	16	2		2	E	40	60" high in Ca. Ca prominence extends to + 10° E.
	38	1		45°5	E	30	
	38	7		54°5	E	55	
	35	0°5		75 5	E	10	
	10 20	7		41	W	30, 40	80" high in Ca.
	9 34	4		20	W	50	Ca.
	10 7			8	W	10	See Note.
	5			2	W	10	
	1	9	22°5		W	35	Slightly slants northwards.
	9 57		36°5		W	10	
							Seeing poor. Ca photographs 9h 34m and 9h 48h. Good.
September 1. G.N.	8 36	0°5	57°5	...	E	15	
	84		21°5		E	10	
	38			9°5	E	30	Faint jets. In Ca the prominence extends from
	30	0°5		16°5	E	35	—1° E. to — 20° E, and is 60", 50"
	27			49°5	E	15	and 80" high.
	14	0°5		55°5	E	20	Ca. Slightly slants both ways.
	46	0°5		47	W	10	
	46	4		40°5	W	45	Connected by a Ca streak.
	39	1		18	W	25	58" high in Ca. A Ca streak from top flows southwards.
	44	1°5		0°5	W	85	Ca. Top extends from +4° W. to — 4° W.
	44	0°5	26		W	20	Ca. Top 4°5 broad.
	14	1	44°5		W	15	Ca.
	37		54°5		W	15	Ca photographs 8h 44m and 9h 18m.
September 2. S.S.	8 30	...	45°5	..	E	50	Top slants slightly southwards.
	80		40°5		E	65	Top slants slightly northwards.
	27		30		E	15	
	26	4	19		E	25	An arch covering 4° of limb.
	25	1		7°5	E	25	In Ca it extends from — 4° to — 10° and is 45" high.
	22	5		19°5	E	40	
	19			57°5	E	10	
	39	0°5		82°5	E	30	Ca. Transient, gone by 8h 52m.
	15	0°5		85	W	15	
	15	1		62°5	W	15	
G.N.	52	5		38	W	45	Narrow at top,
	39	1	30°5		W	80	Ca. Streaks from top slant both ways.
	47	1°5	41°5		W	25	
							Ca. photographs 8h 39m and 8h 52m.
September 5. G.N.	8 43	...	...	14	E	80	Ca.
	43			26	E	10	Ca.
	45			51°5	W	25	Ca.
	48			20	W	20	Ca.
	48	6	10		W	70	Ca.
	43		47°5		W	20	Ca.
							No visual observations. Ca photograph, flocculus plate 8h 43m (poor).
September 6. G.N.	8 22	4	46°5	...	E	85	Ca.
	9 20	1	40°5		E	85	
	10 7	2		27	E	20	
	8 22			58°5	W	10	Ca.
	22			52°5	W	10	Ca.
	22			49°5	W	15	Ca.
	22			14	W	20	Ca.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°		"	
September 6. G.N. —contd.	8 22	0·5	Equator		W	15	Ca.
	22	3	28		W	40	Ca.
	9 32	1·5	57·5		W	20	
							Ca photographs 8h 22m and 9h 39m (poor).
September 7. S.S.	8 46	3	89·5	...	E	60 ±	45" high in Ca. A streak from top of this slants north. It meets limb again at +47° in Ca.
	48			14	E	15	
	40	1		78	E	26	
	38			82·5	E	10	
	37			81·5	W	15	
	35			69·5	W	15	
	9 1	1		59	W	20	
	1			48	W	15	
	0			42·5	W	10	
	8 50	2		18·5	W	35	In Ca the prominence extends from -20° W to -10° W. See Notes.
	57			8	W	20	
	55	5	2·5		W	30	50" high in Ca. In Ca the prominence extends as far as -4° and +6°.
	55			12	W	65	Ca. Two streaks from top flow one on each side.
	55			24	W	15	
	51	1		53	W	20	Ca. Detached.
	50			69·5	W	10	
							Strong wind. Ca photographs 8h 55m and 8h 38m.
September 8. G.N.	9 45	2	87·5	.	E	45	A streak from top flows as far as +42° E.
	10 12	1·5	26		E	25	
	10	1·5	15		E	10	
	8			29	E	10	
	6	0·5		40·5	E	15	
	3	1		58	E	20	
	9 54	1		45·5	W	25	
	54	1		41·5	W	25	
	8 17			18	W	10	Ca.
	17	0·5		4	W	35	Ca.
	17			19	W	20	Ca.
							Ca photograph 8h 17m (poor).
September 9. S.S.	9 6	3·5	28	...	E	15	Faint jets.
	5	1	10		E	35	
	25		40·5		W	30	No photograph. Seeing bad. Not observed between -65° W and +40° W.
September 10. G.N.	8 53	1	25	...	E	20	Ca. A streak from top flows parallel to limb as far as +20° E.
	9 3	2	14		E	20	
	2	6		12	E	30, 80	Slants up to -20° E. Low in Ca.
	8 58	1		28	E	25	
	55	1		27	E	45	
	56	1		28	E	60	
	52	0·5		32·5	E	40	20" high in Ca.
	50	0·5		61	E	15	
	9 12	1		57·5	W	30	Connected in Ca and 30" high in it.
	10	1		52·5	W	45	
	8 58		25		W	10	Ca.
	58		40·5		W	15	Ca.
	58	8	58·5		W	40	Ca.
							Ca photographs 8h 58m and 9h 9m.
September 11. S.S.	9 0	0·5	62	.	E	20	
	0		60		E	15	
	0		59		E	10	
	8 52	2·5	14		E	80	50" high in Ca.
	9 40		6		E	20	Ca. A streak meeting limb again at 0° E.
	50		2·5		E	15	
	49	6		8	E	25	40" in Ca.
	48	3		18·5	E	25	Slants to -25° and is 80" high in Ca.
	40	5		82	E	85	Ca. An arch.
	8 45			87·5	E	60 ±	Nothing here at 8h 58m in Ca.
	40	1		51·5	E	15	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks
			North	South.			
1910.	H. M.	o	o	o	"	"	
September 11. S.S. —contd.	9 22	2	...	53° 5'	W	35	
	22	2		50° 5'	W	25	
	20			45° 5'	W	10	25° high in Ca.
	40			41° 5'	W	20	Ca.
	19	3		36	W	50	Slanting streaks.
	16			12° 5'	W	25	5° broad in Ca.
	14	7	11° 5'		W	55	
	10		28		W	20	
	8	4	54° 5'		W	60	
	8		00		W	60	
Seeing poor. Ca photographs 9 ^h 40 ^m and 8 ^h 58 ^m (very good).							
September 12. G.N.	10 45	...	18	..	E	40	On. Detached.
	8 59	4	14		E	35, 20	45° high in On.
	10 45			15	E	55	Ca. Slanting to -10° E.
	45	0 5		30° 5'	E	20	On.
	45	2		32° 5'	E	40	Ca. Slants northwards.
	9 8			57° 5'	E	10	
	5	4		51° 5'	W	50	
	10 45	2		43° 5'	W	90	Ca. A streak from the middle of this slants 3° north.
	45			20	W	80	Ca.
	45	4	12		W	15	On.
	45	1° 5'	3		W	80	Ca.
	45		28		W	15	On.
	45		34° 5'		W	85	Ca.
	45	7	56		W	80, 60	Ca.
	9 2		63		W	20	Ca photographs 10 ^h 45 ^m and 8 ^h 10 ^m .
September 13. S.S.	11 37	...	17	..	E	10	On.
	8 52			11	E	20	
	11 37			15	E	15	Ca. Slants northwards.
	37	1		24	E	10	Ca.
	8 45			48	E	20	
	45			51	E	20	
	11 37			51° 5'	W	90	Ca.
	37			44° 5'	W	15	Ca.
	37			8	W	20	Ca. Top slants southwards.
	37				W	80	Ca.
	37	2° 5'		35° 5'	W	40	Ca.
	37	16		58° 5'	W	120, 45,	Ca.
						80	
							Seeing bad. Ca photographs 11 ^h 37 ^m and 8 ^h 4 ^m . Fair.
September 14. G.N.	8 28	..	68	...	E	10	Ca.
	28		34° 5'		E	15	Ca.
	34		81° 5'		E	25	
	28		5		E	40	Ca. Top slants south.
	28		Equator.		E	30	Ca.
	0 21			3	E	30	
	8 32	1		12° 5'	E	10	A Ca streak from base meets limb at -9° E.
	30	0° 5'		20	E	20	A Ca streak parallel to limb passes through this prominence from -16° to -24° E.
	28	1		28	E	80	15° high in Ca.
	28			30	E	20	
	27	2		30° 5'	E	80	
	26			84	E	10	
	47			81	E	15	
	28	0° 5'		57	W	20	Ca.
	46			48° 5'	W	20	
	28	7		14° 5'	W	40	Ca.
	28		80° 5'		W	80	Ca. A short streak surmounted by a small detached clouillet.
	41		47° 5'		W	10	
	28		58° 5'		W	45	Ca.
	28	7	65° 5'		W	80	Ca.
	17	1	81		W	15	Ca photographs 8 ^h 28 ^m , 8 ^h 5 ^m and 9 ^h 3 ^m .

Date and observer.	Hour I.S.T.	Base	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	II. M.	o	o	o		"	
September 15. S.S.	8 34	.	81° 5	..	E	20	Not in Ca.
	0		78° 5		E	15	Ca.
	0		41° 5		E	30	Ca.
	0	1	19		E	10	Ca.
	24	0 5		20	E	20	
	23	4		23	E	40	
	21	1		23	E	20	
	19	4		40 5	E	30	
	16			57 5	E	15	
	12			76	W	30	
	47			17	W	10	Slightly different in shape at 8h 55m.
	0			9	W	85	Ca A detached cloudlet.
	0		2		W	10	Ca.
	40	1·5	15		W	20	
	38		24		W	20	
	38		39·5		W	15	
	36		56·5		W	10	
							Ca photographs 8h 0m and 8h 18m.
September 16. G.N.	8 55	1·5	88	..	E	10	
	15		82		E	15	Ca.
	15	1	77		E	30	Ca
	15	2	48·5		E	20	Ca
	58	2	44·5		E	25	
	51	1·5	38·5		E	80	In Ca it extends from +37° to +33°.
	51	0 5	28		E	15	
	50		26		E	40	Detached.
	15		21		E	25	Ca Slants north.
	15	7	8·5	4	E	40	Ca Only a small part 10" high was seen in C.
	48	0·5		22	E	15	
	47	2		41·5	E	10	
	45	4		58·5	E	50	Bright.
	15			69·5	E	Low.	Ca.
	85	1		71·5	E	10	
	85	1		73·5	E	20	
	85	0·5		81·5	E	15	
	9 8	1·5		33·5	W	25, 45, 20	Connected, extend from -27° to -34° W. and are. 30" high in Ca.
	5	8		28	W	25	
	0	1·5		7	W	10	Ca.
	8 15		Equator.		W	10	Ca.
	15		6		W	30	Ca.
	15	3	18·5		W	20	Ca
	15		42·5		W	20	Ca.
	15		73·5		W	20	Ca.
	15		78		W	20	Ca.
	15		80		W	15	Ca. photographs 8h 15m and 8h 4m.
September 17. S.S.	8 16	.	48·5	...	E	40	Ca.
	18		28		E	35	Ca.
	18	4	20		E	35	Ca. An arch.
	88		15		E	20	
	88	1·5		12	E	25	
	88			35 5	E	15	
	29	3·5		43	E	45	
	21			82 5	E	15	
	17			67·5	W	10	
	18	5		28·5	W	85	
	10 10	1		12	W	25	
	10			4 5	W	10	
	0		19·5		W	15	
	55	5	46		W	50 ±	
							Seeing mostly poor. Ca photographs 8h 16m and 8h 42m, good faculae.
September 18. G.N.	8 14	1	38·5	...	E	40	Ca.
	53		17		E	35	Extends from +17° to +21° in Ca.
	14	2	12		E	20	Ca. A streak from top meets the base of the last prominence.
	14		2		E	40	Ca.
	52			1·5	E	25	3° broad in Ca.

Date and observer.	Hour I.S.T	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M	o	o	o		"	
September 18. G.N. —contd.	8 52	..	...	5	E	30	
	49			7·5	E	10	Showed slight displacement to violet in C.
	49			9	E		
	47	0·5		14	E	10	
	47	1		16	E	15	
	46	1		20	E	15	
	45			38·5	E	20	
	43	2		45·5	E	80	35" high in Ca.
	9 8	3		60·5	E	80	An arch. Nothing here in Ca.
	5			81·5	E	15	
	8 14			72·5	W	20	Ca.
	9 3			42·5	W	15	
	8 14			30	W	80	Ca.
	9 2			27	W	15	
	8 14	1		14	W	20	Ca.
	14				W	40	Ca. Top flows and meets the next.
	9 0	5	39·5		W	45	40" and 90" high in Ca.
			47			+	Ca photographs 8h 14m and 8h 2m.
September 19. S.S.	8 41	...	38·5	.	E	10	Ca.
	51	0·5	30·5		E	20	
	50		22		E	15	
	50	2	12		E	18	
	49		7		E	85	Very faint except at base. } In Ca these are con-
	9 45	2	1		E	60	ected, 50" high and } extend from + 10°
							to + 15°.
	8 47	2		2	E	50	Detached and 65" high at 8h 50m.
	44		14		E	10	
	41		38·5		E	15	
	40		42·5		E	20	A slanting streak 40" high in Ca.
	39		50·5		E	20	40" high in C's.
	39		64·5		E	10	
	36		64		E	20	
	37		70·5		E	15	
	41		68		W	10	Ca.
	9 20		34·5		W	15	
	8 41		8		W	80	Ca.
	9 10	1·5	6		W	20	
	8 41		7		W	10	Ca.
	41		22		W	20	Ca.
	9 4		42·5		W	30	
	4		48		W	70	There were faint streaks } Connected and 80"
	8 41	3	52		W	70	from top. Brighter at top. } and 110" high in
	41	0·5	55·5		W	20	Ca.
	41		80		W	10	Ca photographs 8h 41m, 9h 10m, and 10h 2m.
September 20. G.N.	9 16	1	52·5	...	E	30	
	12		13		E	35	Ca. A short streak surmounted by a detached cloudlet.
	8 12			8	E	20	
	12			5	E	80	
	0 30	2		14	E	20	
	30			22	E	25	
	27			30·5	E	10	
	22	1		61	E	15	
	22			68·5	E	10	
	12			76	E	15	Ca.
	12			48·5	W	10	Ca.
	84		22		W	80	
	18		41·5		W	80	
	12	5	48		W	90	Ca. An arch. A small portion of this about 20"
							high was seen in C.
							Ca photograph 8h 12m; flocculus (poor).
September 21. S.S.	10 5	8	50·5	...	E	40	
	5	1	45		E	50	80" high in Ca. }
	5		39·5		E	80	Connected by a Ca streak.
	8 20		27		E	10	Ca.
	20		21		E	10	Ca.
	9 55		13		E	40	Detached in C. A Ca streak from it flows east-wards.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	o	o	o		#	
September 26 G.N. —contd.	8 45	1·5		63	E	80	Nothing here at 9 ^h 18 ^m or before.
	13			81·5	W	10	Ca.
	13			29	W	45	Ca.] Connected.
	13	2·5		22	W	110	Ca.]
	36	3	17 5		W	55	Differently shaped and 30" high in Ca.
	18	0·5	65		W	10	Ca.
September 27. G.N.	8 52	5	57	.	E	45	
	47	1·5	40·5		E	20	
	45	1	36·5		E	25	
	42		8		E	10	
	40	10		18	E	30	O displaced 1 Å to red at several places.
	35	1		28	E	15	
	34			40	E	20	
	32	0·5		44·5	E	10	
	8			40·5	W	35	Ca.
	9 18	7		28·5	W	80	Two arches connected together.
	1	1	20		W	60 ±	45" lugh in Ca.
	8 20		82·5		W	45	Ca. Seen only at 8 ^h 20 ^m .
	8		83		W	10	
September 28. G.N.							Passing clouds.
	9 45	2	54·5	..	E	60	Ca photographs 8 ^h 8 ^m and 8 ^h 20 ^m ; good.
	43	0·5	22·5		E	20	
	8 52	1·5		7	E	30	Ca.
	52	2		42·5	W	20	Ca.
	52	9		26·5	W	25	Ca.] Connected.
	52	5		19·5	W	20	Ca.]
	52	1	12		W	30	Ca.
							Bad weather. Ca flocculus plate 8 ^h 52 ^m ; poor.
September 29. G.N.	8 56	..	87	...	E	10	Ca.
	9 47	1	58·5		E	25	
	8 56	1·5	50·5		E	25	Ca.
	56	2	51·5		E	20	Ca.
	9 46	1·5	40·5		E	35	
	8 56		28		E	60	Ca. Detached. Base 20" from limb.
	56	1·5	23		E	40	Ca.
	56	1	17		E	20	Ca.
	56	1·5	1		E	40	Ca.
	56			1	E	20	Ca.
	56			8	E	20	
	9 45	1		15	E	45	A Ca streak from top nearly meets the top of the next prominence.
	8 56	2		20	E	20	Ca.
	9 3	1	40·5		E	25	
	8	1	44·5		E	20 ±	Not in Ca.
September 30. S.S.	52	2		41·5	W	30	
	50			39·5	W	15	Weather bad. Ca photographs 8 ^h 56 ^m and 8 ^h 16 ^m fair.
	8 44	...	61·5	...	E	15	2° broad, 25" high, and top flows southwards in Ca.
	44	1·5	50·5		E	20	2° broad and 50" high in Ca.
	57		48·5		E	10	Ca.
	41		38·5		E	25	
	38	2	32		E	20	A Ca streak from top, 210" high, flows northwards.
	57			6	E	10	Ca.
	34	1		19	E	10	
	32	1		23	E	35	
	32			24·5	E	25	
	57	0·5		67	W	10	Ca.
	9 0			47·5	W	25	
	0			44·5	W	20	
	8 57			41·5	W	20	Ca.
	57			39·5	W	25	Ca.
	53	1	10		W	10	
	53		18		W	10	
	57	1	40·5		W	20	Ca.
							Ca. photographs 8 ^h 57 ^m and 8 ^h 21 ^m .

Date and observer.	Hour L.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.							
October 1.	G.N.	H. M.	°	°			
		8 13	...	57° 5	E	100	
		39	1	56° 5	E	20	Ca.
		35	2		E	25	8° broad in Ca.
		35		13	E	15	10° high in Ca.
		32		15	E	30	
		32	2	25	E	25, 30	
		59	1	30	E	20	
		59	0° 5	46° 5	W	20	
		59		45° 5	W	25	
		59		42° 5	W	15	25° high in Ca.
		55	1	22	W	25	
		32	1° 5	11	W	30	Slightly broader at top.
		48	1° 5	12	W	20	
		46	1	17	W	25	40° high in Ca. } Connected by Ca streaks at top.
		45	1	81	W	15	
		13		84° 5	W	100	Ca. A streak surmounted by three other short streaks.
		44	2	40° 5	W	65	Top slants southwards.
							Ca photographs 8h 18m and 8h 29m.
October 2.	S.S.	8 50	3	54° 5	E	120	See Note 1.
		42		22° 5	E	25	
		39		10	E	10	
		38	2	82	E	20	
		86	0° 5	49° 5	E	10	
		85	0° 5	51° 5	E	20	} Tops connected by a Ca streak which meets limb again at - 54° E.
		29		78° 5	W	15	
		21	1	48° 5	W	15	Ca.
		21	0° 5	27	W	15	Ca.
		9 48	1	1	W	30	See Note 2.
		8 21	6	20	W	50	Ca.
		9 11		84° 5	W	60	See Note 3
		46		42° 5	W	150	2 thin detached slanting streaks. In Ca there was a prominence only 10° high and connected to base.
		8 21		78	W	15	Ca.
							Ca photographs 8h 21m and 8h 36m.
October 8.	S.S.	8 40	0° 5	77° 5	E	30	Ca. Gone by 9h 49m.
		48		50	E	120	8° broad at top. 6° broad, 200° high, and narrow at top in Ca.
		40	0° 5	44° 5	E	25	
		40		86	E	10	
		39	1	27	E	15	
		37		3	E	10	
		36		8° 5	E	10	
		40		12	E	30	Ca. Slants to - 8° E.
		34	1	86 5	E	35	Faint in C.
		9 13		60° 5	E	10	
		10	1	70° 5	W	25	Not in Ca.
		9		57° 5	W	15	
		7	1° 5	52 5	W	20	
		8 40	1	47° 5	W	15	Ca.
		9 8	3	48° 5	W	20	
		8 40		88° 5	W	15	Ca.
		40		81	W	35	Ca.
		9 4	1	24° 5	W	15	
		3	1	17° 5	W	10	
		8 40		15	W	60	Ca. Slants to - 19° W.
		9 0	0° 5	5	W	15	
		8 40	5	0° 5	W	80	Ca.
		59	2	9	W	10	
		40		11	W	20	Ca.
		40		18	W	30	Ca. Detached.
		58		19	W	15	
		58		21	W	15	
		55		39	W	10	
		40		45° 5	W	20	Ca.
		40		77° 5	W	25	Ca. Gone by 9h 49m.
		50		81° 5	W	15	Ca photographs 8h 40m, 8h 2m and 9h 49m.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°	"	"	
October 4.	S.S.	8 48	...	83	E	80	
		44		68·5	E	20	
		10 5		47·5	E	150	Ca. Detached.
		5		43	E	45	Ca.
		5		26	E	10	Ca.
		8 40	0·5	10·5	E	15	
		36		12	E	15	
		36		17·5	E	10	
		9 5		49·5	W	25	
		2	0·5	28	W	35	Top slants slightly southwards.
		10 5		26	W	30	Ca.
		5	0·5	25	W	20	Ca.
		8 59	2	22	W	25	
		10 5		1	W	20	Ca. Detached.
		5	2	4	W	20	Ca.
		5	0	W	15	Ca.	
		5		W	40	Ca.	
		8 50	2·5	12	W	15	Ca. } Tops connected by a Ca streak.
		48		19	W	15	60° high in Ca.
				82·5	W	15	
							Ca photograph 10 ^h 5m.
October 5.	S.S.	8 31	...	80·5	E	10	Ca.
		31	1	75·5	E	10	Ca.
		31		67	E	10	Ca.
		38	0·5	55·5	E	20	
		38	0·5	48·5	E	15	
		31		43·5	E	15	Ca.
		36		10	E	20	
		31	0·5	80	E	15	Ca.
		31		52·5	E	20	Ca.
		9 25		58	E	30	Very faint in C.
		25		60·5	E	10	
		24	1	79·5	E	20	
		23		65	W	10	
		22	2	59·5	W	15	
		20	4	47·5	W	80	
		18	1	29·5	W	15	
		19		26	W	60	A streak from top almost meets limb at ~ 25° W. } Connected in
		12	2	20	W	20	Ca.
		10	2	13	W	80	
		7	3·5	2	W	40	
		6	1	8·5	W	85	
		5	3·5	17	W	80	
		3		27	W	15	
		1		20·5	W	15	
		8 58	1	55·5	W	15	
		57		78	W	10	
		57		80	W	10	
		57		82	W	10	
							Ca photograph 8 ^h 81m.
October 6.	S.S.	8 15	...	81	E	80	Ca. Seen only at 8 ^h 15m.
		53		67	E	15	
		51		52	E	10	
		50	3	42	E	80	
		48		20	E	15	Faint.
		46		14	E	40	
		48	2	8	E	80	
		41		12	E	20	
		40	2	21	E	40	
		38	4	28	E	25	
		9 13		65	W	10	
		8 31	4	50·5	W	60	
		26	2	47·5	W	25	
		15		40·5	W	15	Ca. Slants south.
		15		32	W	20	Ca. 2° broad at top.
		15	8	24	W	80	Ca.
		15	0·5	16	W	15	Ca.
		15	0·5	18·5	W	15	Ca.
		9 6	1·5	Equator.	W	85	Top extends to ~ 4° W.
		8 15		.5	W	20	Ca. Slants south.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°	"		
October 6. —contd.	S.S.	8 15	18	.	W	15	Ca.
		9 2	22	.	W	15	
		1	34·5	.	W	30	A short Ca streak flows north from top.
		8 15	7	49	W	15	Ca.
		15	68	.	W	10	Ca.
		15	78	.	W	15	Ca. 80" high at 8 ^h 43 ^m .
		15	83	.	W	16	Ca. Seen only at 8 ^h 15 ^m . Ca photographs 8 ^h 15 ^m and 8 ^h 43 ^m .
October 7.	G.N.	11 6	37	..	E	20	Ca.
		6	20	..	E	15	Ca. Top slants slightly north.
		6	10	..	E	15	Ca.
		6	1·5	Equator.	E	15	Ca.
		45	9	25·5	E	GO, 60, 35	Three connected prominences.
		6	0·5	79	W	20	Ca.
		6	2	52·5	W	100	Ca.
		6	1	37	W	60	Ca.
		6	1	24	W	15	Ca.
		6	1	18	W	10	Ca.
		6	8	4	W	85	Ca.
		6	85	.	W	65	Ca.
		6	48·5	.	W	40	Ca
							Cloudy with short breaks. Ca photograph 11 ^h 8 ^m .
October 8.	S.S.	9 30	78·5	..	E	15	
		8 20	78	..	E	15	Ca
		9 27	47	..	E	10	
		26	0·5	20	E	35	
		26	0·5	18·5	E	20	
		26	1	16	E	20	Connected and 25" high in Ca.
		26	0·5	14	E	20	
		24		8	E	10	
		24	1	5	E	20	
		21	8·5	6	E	20	
		8 47	1	20	E	15	Faint. A Ca streak from this meets the top of the next.
		45	6	30	E	75	
		20		48·5	E	25	
		37		68	E	15	
		36	1	82	E	15	
		10 20		79·5	W	20	
		19	1·5	72	W	10	
		17		59·5	W	15	
		18	1·5	51·5	W	30	
		8	2·5	38	W	60	
		6	3	34	W	60	90" high in Ca. } Connected and 90" high in Ca.
		4	8	26	W	20	
		4		19·5	W	25	
		8 20		16·5	W	30	Ca.
		9 56		15	W	80	Detached.
		50		12	W	80	
		45	2	9	W	70	See Note. } Connected in Ca.
		8 20	6		W	65	Ca.
		9 41	25		W	10	
		40		36	W	20	60" high in Ca.
		8 20	46·5		W	30	Ca.
		9 32	83		W	20	
		81	2	84	W	10	
							Ca photographs 8 ^h 20 ^m , 9 ^h 29 ^m and 9 ^h 36 ^m .
October 9.	G.N.	10 13	5	17·5	E	30	
		13		18	E	20	Faint.
		12	2	7	E	30	10" high in Ca.
		10	12	32	E	70, 120	Two prominences close together.
		11		51·5	E	20	Ca.
		5	1	56·5	E	20	
		11		79	W	15	Ca.
				49·5	W	20	Ca.

Date and observer.	Hour I.S.T	Base.	Latitude.		Limb	Height.	Remarks.
			North.	South.			
1910.	H. M.	o	o	o		#	
October 9. —contd.	G.N.	10 30	8	...	33	W 70	
		27	3		25	W 40	
		19			16	W 25	
					12	W 25	Two short streaks. Changing.
		19			11	W 50	O slightly displaced both ways. } Connected in
		11 19			10	W 40	Ca.
		10 11			2	W 40	Ca. prominence extends from -8° to $+8^{\circ}$ W.
		18	4	Equator.		W 30	and is 80' high.
		18	4			W 30	Ca photographs 10 ^h 11 ^m and 9 ^h 56 ^m .
October 10.	S.S.	7 51	7	17°5	...	E 50, 40	Ca. Two prominences close together
		10 58	1		2	E 30	15' high in Ca.
		57	1		7	E 15	
		7 51	1		18	E 15	Ca
		10 50	18		29 5	E 80 ±	115' high in Ca. } Connected in Ca.
		2			75	E 15	
		7 51	2		88	W 20	Ca.
		51			34	W 15	Ca.
		51			23	W 30	Ca.
		51			18	W 60	Ca. A slanting streak.
		51	6		18	W 60	Ca. Broken streaks extending from -18° W. to
					W		-10° W.
		51	4		8	W 15	Ca.
		51	10	2		W 50, 70	Ca.
		51		10		W 30	Ca. A detached streak.
		11 5	4	35		W 30	
		1		45°5		W 10	
		0	4	51°5		W 80	A Ca streak from the top meets the next prominence.
		10 59		82		W 10	Ca photographs 7 ^h 51 ^m and 8 ^h 10 ^m .
October 11.	G.N.	7 55	...	84	...	— 35	Ca. Transient. Gone by 8 ^h 31 ^m .
		55		68		E 30	Ca.
		55		41°5		E 10	Ca.
		55		36		E 10	Ca.
		8 25	1	28°5		E 35	
		24	1·5	17		E 40	Top flows both ways in Ca.
		7 55		11		E 10	Ca. An arch.
		8 28		2		E 10	
		23	1	8		E 25	
		23	3	12		E 45	An arch. 60' high in Ca
		23	1	15		E 30	65' high in Ca. A Ca streak from this flows parallel to limb to -20° E.
		28	1	18°5		E 10	
		20	13	81°5		E 75	105' high in Ca
		40		49°5		E 15	
		7 53		57 5		E 20	Ca.
		55		78°5		E 15	Ca.
		8 38	1	54°5		W 80	
		37	5	45		W 30	
		85	2	12		W 20	
		34	2	Equator		W 30	
		88	3	6		W 30	
		82		87		W 50	
		90	3	48 5		W 15	
							Ca photographs 7 ^h 55 ^m and 8 ^h 31 ^m .
October 12.	G.N.	9 16	...	68	...	E 25	Ca.
		18		80		E 15	Ca.
		16		20		E 10	Ca.
		5	8	12°5		E 30	
		5	1	5°5		E 45	Connected, extend from $+1^{\circ}$ to $+17^{\circ}$ E. and are
		2	2	12		E 20	30' high in Ca.
		2		15		E 30	
		2		20		E 80	
		0	1·5	25		E 15	
		0	2	31		E 35	
		8 58	6	38°5		E 35	
		55		61°5		E 15	

Date and observer.	Hour L.S.T.	Base.	Latitude.		Limb	Height.	Remarks.
			North.	South.			
1910.	H. M.	o	o	o	"	"	
October 12. —contd.	G.N.	9 32	6	..	W	40	Slants southwards.
		32	5	46	W	30	Do.
		32		84	W	15	
		27	4	18	W	30	
		27	1	14.5	W	40	
		24	2	12	W	45	
		22	12	1	W	50, 55, 40	Connected in Ca.
		20	1	8.5	W	20	
		18		11	W	30	
		17	2	29	W	50	30" high in Ca.
		16	2.5	89.5	W	45	20" high in Ca.
		15	2	49.5	W	65	
		12	8	54.5	W	30	Ca photographs 9h 16m and 8h 44m.
October 13.	A.Y.S.	9 19	1	68	"	20	
		19		65.5	E	10	
		15		51	E	10	
		14	1	22	E	25	Faint.
		12		17	E	10	
		8 57	19	5.5	E	20	
		37	8	14	E	45	See Note
		38		26	E	25	
		22	10	38.5	E	20, 50	
		20		48.5	E	10	
		15		58.5	E	20	
		9 40		52.5	W	20	
		39	1.5	48.5	W	25	
		35		27.5	W	15	
		35		25	W	10	
		34	10	14	W	20, 80, 15	
		30	8	9	W	55	
		28		29	W	30 ±	Very faint. 8° broad in Ca.
		24	2	40.5	W	20	
		21		49.5	W	15	
							Mostly through thin cirrus. Ca photographs 8h 87m and 8h 19m. Good.
October 14.	G.N.	8 32	3.5	89.5	"	40	An arch.
		30	1	15.5	E	20	A Ca streak from top meets limb at + 18° E.
		8	4	16	E	15	Ca.
		27	5	48	E	60	
		26	1	58.5	E	15	
		8	1	81	W	15	Ca.
		47	9	48.5	W	20	10° broad, and 10" and 20" high in Ca.
		8	2	31	W	15	Ca.
		45	1	27	W	25	Top extends both ways.
		44	3	13	W	30	
		42	1	7.5	W	15	
		42	1.5	18	W	40	} Tops meet in Ca.
		42		16	W	40	
		38	1.5	42	W	50 ±	Faint. An arch 8° broad and 30" high in Ca.
		8		57.5	W	10	Ca.
							Ca photographs 8h 8m, 8h 24m, and 8h 00m.
October 15.	A.Y.S.	8 53	..	67	"	10	
		53		60.5	E	10	
		47	8	44.5	E	35	
		45		89	E	20	
		42	4	29	E	30	
		37		19	E	45	Top faint.
		37		17	E	40 ±	Faint.
		38	1	14.5	E	10	
		38		12	E	45	Detached.
		30		6	E	10	Bright C slightly displaced to red. Connected with the last by a thin Ca streak.
		10		8	E	10	Ca.
		10		14	E	10	Ca.
		28		18	E	10	
		26		84.5	E	15	
		24	6	48	E	55	80" high in Ca.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°		"	
October 15. A.Y.S. —contd.	8 21	1	...	47° 5'	E	25	
	21			49° 5'	E	20	
	20			61° 5'	E	15	
	9 31			82	E	15	
	29			53° 5'	W	20	
	26	15		35	W	40, 50, 100	10" broad, and 40" and 80" high in Ca.
	19			23 5'	W	10	
	19	1		20 5'	W	10	
	19			18	W	10	
	17	6		10	W	80	
	11	1° 5'	9		W	80	Bright. Changing. 40" high at 9 ^h 13 ^m .
	9	1° 5'	24		W	20	
	8	2 5'	33		W	35	
	4	1	38		W	25 ±	
	8 10	2	41° 5'		W	25	Ca
	9 0	4	58 5'		W	45, 35	20" only in Ca.
	8 57	0 5'	66 5'		W	10	
	56	1	78		W	15	Changing. 25" high at 8 ^h 56 ^m . Ca photographs 8 ^h 10 ^m and 8 ^h 13 ^m .
October 16. A.Y.S.	8 39	...	48° 5'	.	E	15 ±	80" ± high in Ca.
	34		37		E	30	
	15		32		E	10	Ca.
	15		29		E	30	Ca.
	30		0 5'		E	10	
	25		43		E	15	
	24	15	40° 5'		E	30	
	15		22		W	20	Ca.
	15		9		W	20	Ca.
	15		40		W	85	Ca.
							Seeing poor. Latitude + 50° E. to — 64° E. only was examined. Ca photograph 8 ^h 15 ^m . Flocculus. Very poor.
October 17. G.N.	10 5	..	4	..	E	20	
	5	3	7	E	20	See Note.	
	8 40	1	28	E	25	40" high in Ca.	
	38	5	47	E	80		
	10 11		58 5'	E	10	Ca.	
	8 43		48 5'	W	15		
	10 11		32	W	20	Ca.	
	7	2	27	W	15		
	10 11	7	8 5'	W	40	Ca. Scattered streaks extending from the equator to + 7° W.	
	10	4	41	W	60		
	11	1	55 5'	W	10	Ca.	
	11	3	60	W	10	Ca.	
						Ca photographs 10 ^h 11 ^m and 8 ^h 48 ^m .	
October 19. A.Y.S.	9 28	...	82° 5'	...	F	20 ±	Very faint.
	28		49° 5'		E	10	
	21		18		E	15	
	23		6° 5'		E	10	
	44		1		E	20	Ca.
	18	8 5'	9	E	45	A slanting arch.	
	17		14	E	10		
	16		17	E	40	A detached slanting streak.	
	11	2	20	E	20		
	8	1	30	E	30	Top flows southwards.	
	0		40	E	10		
	8 56		47° 5'	E	30		
	56		52	E	80		
	55		67° 5'	E	10		
	9 44		48	W	10	Ca.	
	58	1	10	W	25	Top broader.	
	55		7	W	20		
	49	1° 5'	11	W	25		
	47	1	14 5'	W	10		
	44	1	39	W	80	Ca.	
	35	4	44 5'	W	65	Top faint.	
	30	2	49 5'	W	25		
						Ca photographs 9 ^h 44 ^m and 8 ^h 56 ^m .	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	•	◦		"	
October 20. G.N.	8 45	2	48 5	...	E	60	
	45	2	37		E	15	
	10 44	1	38		E	60	Ca. A slanting streak.
	44	1	4		E	60	Ca. The main prominence is about 40" high. A detached cloudlet over this is 60" high.
	44	2		6	E	15	Ca.
	44	1		9	E	50	Ca.
	43	2		14	E	30	
	43	3		20	E	20	An arch
	44	2		35	E	30	Ca.
	8 42			48	E	10	
	10 44	1		51	E	80	Ca. Slants and meets limb at ~ 56° E.
	40			59	E	10	
	44			79	E	10	Ca.
	50	4		80	W	80	An arch.
	47		80		W	20	
	47	5	37.5		W	45	Slants to + 42° W. 60" high in Ca.
	44		45		W	90	Ca.
	44		51.5		W	15	Ca. A streak flowing to + 47° W. Ca photograph 10h 44m.
October 21. A.Y.S.	9 52	...	54.5	...	E	10	
	10 10		31		E	40	Ca.
	10		28		E	20	Ca.
	10		7		E	60	Ca. See Note 1.
	9 46	4		11	E	30	See Note 2.
	10 22			34	E	15	Not seen at 9h 45m. 70" in Ca } Connected in Ca.
	10			37	E	70	Ca.
	9 40	1		61.5	E	10	
	10 18			45	W	10	
	10			36	W	60	Ca. A slanting streak.
	10	4		29	W	65	Ca. A faint detached prominence about 80" high was seen in C.
	10			15	W	15	Ca.
	5	1.5	11		W	35	
	10		38		W	80	Ca.
	10		39		W	30	Ca.
	10		46		W	100	Ca. Top wider. } Connected.
	10	8	57.5		W	35	Ca. An arch.
	9 57		81.5		W	15	Ca photograph 10h 10m. Flocculus 9h 54m.
October 22.	...	9 12	..	11	E	20	Ca.
		12		85	E	30	Ca. A streak connecting the tops of these meets
		12		98	E	30	Ca. the limb at - 25°.
		12		48.5	E	20	Ca.
		12		85	W	60	Ca.
		12		81	W	60	Ca.
		12		8	W	30	Ca.
		12		11	W	75	Ca.
		12		52.5	W	60	Ca. Tops meet.
		12		65.5	W	60	No visual observations. Ca photograph flocculus only, 9h 12m, very poor, prominences very faint. Heights uncertain.
October 24. A.Y.S.	9 50	.	72.5	...	E	10	
	41		44.5		E	10	Faint.
	40	1	34.5		E	30	
	35	1	30.5		E	15	
	34	1	24.5		E	20	
	29	1	15.5		E	15	
	27	1	12.5		E	20	
	28	1	0.5		E	35	
	18			6	E	15	Slants and meets limb again at - 8° 5 E.
	17			20	E	10	
	14	8		88.5	E	60	A Ca streak from top meets limb at - 24° E.
	11			45	E	30	
	10	5		48.5	E	40	65" high in Ca. } Connected in Ca.
	16			60.5	E	10	
	15			74	W	15	
	4	2.5		40	W	90	

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°	"		
October 24. A.Y.S. — contd.	10 12	11	..	29·5	W	80	
	6	2		21	W	25	
	4	1		18	W	20	
	2	4		11	W	30	
	0	1·5	8·5		W	10	
	9 57	2	20		W	85	20" high in Ca.
	55	2	48·5		W	85	
	52		59·5		W	10	
	52		69·5		W	10	Faint. Fine with passing clouds. Ca photograph 9 ^h 15 ^m , incomplete.
October 25. G.N., A.Y.S.	14 5	2	57·5	...	E	80	
	3		17		E	10	
	2		6		E	15	
	0			9	E	80	
	12 6	1		40·5	W	30	
	6			39	W	50	
	5			35	W	30	
	5			31	W	30	
	0			28	W	30	
	0			17	W	30	
	18 40	6		4	W	30	
	40			2	W	50	
	40			18	W	50	
	14 8		50·5		W	15	
	6		59·5		W	15	
	11 58	1	58·5		W	15	
							Seeing poor. Ca photograph 18 ^h 40 ^m , poor and incomplete.
October 26. A.Y.S.	9 20	...	85	..	E	10	
	17		63		E	10	
	18	2	50		E	10	
	15	4	44		E	45	
	18		39·5		E	30	
	11	2	30		E	30	
	7	1	18		E	60	
	4	1	11		E	35	Top broader. 45" high in Ca. Changing. 75" at 10 ^h 7 ^m . 60" high in Ca.
	4		8		E	15	
	2			8	E	15	
	2	2		13	E	20	
	8 55	1·5		45	E	20	
	9 0	2		54·5	E	35	Top flows to — 50° E.
	8 54			62·5	E	20	
	10 15			85·5	W	20	
	15			72·5	W	20	
	9 55	0·5		64·5	W	15	
	45	8		46·5	W	25	
	45	6		39	W	50	
	40	3		29·5	W	25	
	40	2		22	W	20	
	25	2		19	W	60	Connected in Ca. Connected in Ca.
				17	W	10	
				15·5	W	10	
				10	W	10	
				8	W	10	
	10 15			3	W	20	
	15			1	W	45	
	23				W	10	
	21	4	20		W	25	
	20		24		W	15	
	11		84		W	10	
	15		58·5		W	15	
	9 27		67		W	10	
	22		80·5		W	—	No prominence. C slightly displaced to violet. Ca photograph 10 ^h 15 ^m .
October 27. G.N.	8 51	...	72·5	..	E	10	
	39		59·5		E	60	
	39		51		E	15	
	51	2	48		E	20	
							Ca; slants eastwards. Ca. Faint.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South			
1910.	H. M.	°	°	°		"	
October 27. G.N. —contd.	8 39	.	28	..	E	60	Ca. A slanting cloud connected to limb by a narrow stem.
	50	3	16°5		E	45	
	39	11	8°5		E	30	Ca.
	45			11	E	20	A Ca streak from top flows and meets limb at —3° E.
	45			18	E	30	Faint.
	43			20	E	30	See Note.
	42			26	E	45	30° high in Ca.
	36			32	E	15	
	34			43	E	10	
	9 32			82	W	15	
	30	7	43 5		W	60	
	80	2	38		W	50	
	1	2	15		W	35	
	0		2 5		W	15	
							Seeing poor. Ca photograph 8h 39m, poor.
October 31. G.N.	9 5	...	78°5	..	E	10	Ca.
	5		71°5		E	15	Ca.
	8 45		58		E	20	
	9 5		55		E	30	Ca.
	5		44		E	30	Ca.
	5		42		E	10	Ca.
	8 23	2	11		E	25	
	9 5	6		20	E	60	Ca.
	8 19			48	E	10	
	17	1		81	E	20 ±	
	51			75 5	W	15	
	50	4		47	W	80	Arches interlacing each other.
	9 5	1		26	W	30	Ca.
	8 28	1		9	W	25	
	28			5	W	15	
	9 5	4	18		W	45	Ca.
	5		23		W	50	Ca.
	8 48		42°5		W	10	
							Ca photographs 9h 5m and 8h 43m; both poor, and streaked with cloud.
November 5. A.Y.S.	11 2	...	47	...	E	10	
	0	2	2		E	10	
	9 49			8	E	10	
	10 59	2		34	E	30	A slanting arch.
	57			36	E	10	
	63			81 5	E	20	
	56			70 5	W	150	Ca. A detached cloudlet.
	52			57	W	10	
	56			58 5	W	165	Ca. A detached cloud.
	52	2		51	W	30	
	50	1		35 5	W	80	See Note 1.
	56	2		28	W	15	Ca.
	46	1		26	W	30	
	44	1		18	W	80	Top flows southwards.
	56			4	W	90	Ca.
	56	7	6 5		W	150, 80	See Note 2.
	11 6		41		W	15	
	5		53 5		W	10	
	10 35		69 5		W	80	Bright.
							Ca photographs 10h 56m and 11h 21m.
November 8. A.Y.S.	8 89	1	80°5	..	E	10	
	37		18		E	10	
	38	1	9		E	20	
	9 18			Equator.	E	15	Ca.
	8 35	2		16	E	20	
	30	10		32 5	E	45, 90, 60	
	20			51	E	15	
	9 13			63	E	15	Ca.
	8 55	4		2	W	35	60° high in Ca.
	50	2	4		W	30	45° high in Ca.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°	"	"	
November 8. A.Y.S. —contd.	9 13	...	8	..	W	10	Ca. Two detached dots.
	18		11		W	10	Ca.
	8 47	1	57		W	30±	Rather faint.
	46		62·5		W	20	Ca photographs 9h 13m and 8h 49m.
November 9. A.Y.S.	8 37	..	85 5	..	E	15	
	30	1	72 5		E	10	
	29	1	49 5		E	15	
	13		38		E	20	Ca.
	27	1	19		E	30	
	25	2	5		E	30	
	23	1		2	E	10	2° broad in Ca. A Ca streak from top is 60"
				6	E	10	high.
	13			18	E	10	Ca.
	13			19	E	10	Ca.
	13			20	E	10	Ca.
	15	18		88	E	90, 45	Ca.
	13	1		46·5	E	20	Slants southwards.
	12			60	E	15	
	9 0			69	E	10	
	8 13			78·5	E	10	
	58			63	W	10	
	13			54	W	15	Ca.
	46			23	W	45	Ca. Seen only at 8h 48m.
	48			17	W	30	Ca. Seen only at 8h 48m.
	18			15	W	15	Ca. Seen only at 8h 18m.
	56			6	W	20±	Very faint.
	55	0·5			W	10	
	53	18			W	30	
	50	2	15		W	35	50" high in Ca.
	48		18		W	30	
	45	6	29		W	50	
	48		35		W	25	Ca. Seen only at 8h 48m.
	41	2	41		W	15	
	39		58		W	20	
	37	1	64·5		W	25	Faint.
	32	2	86·5		W	30	Changing.
							Ca photographs 8h 18m, 7h 57m, and 8h 48m.
November 10. G.N.	8 42	...	87	...	E	10	
	13		81 5		E	10	Ca.
	13		38		E	15	Ca.
	40		25		E	25	
	13		20		E	25	Ca] Detached streaks.
	13		15		E	20	Ca]
	13		10		E	40	A slanting streak.
	36	8	8·5		E	20	10" high in Ca.
	34	4		2	E	20	
	18			5	E	80	Ca. Detached.
	34			7	E	Low.	15" high in Ca.
	19			8	E	40	Ca.
	18			24	E	15	Ca.
	30	10		38	E	90	70" high in Ca.
	21	1		46	E	10	
	18			19	W	10	Ca.
	13			18	W	10	Ca.
	47	10		9	W	15, 25	
	46	1	5		W	15	
	46	2	14		W	25	
	13		17		W	30	Ca.
	18		20		W	20	Ca. Detached.
	18		24		W	30	Ca. Faint.
	18	8	28·5		W	70	Ca.
	45	1	41		W	20	
	45		42·5		W	15	]} Faint.
	45		44		W	15	
	48	2	70		W	15	Ca photographs, 8h 18m and 8h 34m.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°		"	
November 11. A.Y.S.	11 55		34	..	E	10	
	14 37	1	25		E	20	
	37		21		E	10	
	11 54	25	9		E	20	Bright 30" high at 14h 39m.
	49		5		E	15	
	49	3		15	E	20	Bright }
	49	5		7.5	E	70	Connected.
	45	1		14.5	E	20	Eruptive }
	39	6		39	E	50	Eruptive.
	36	3		45.5	E	50	
	14 0			78.5	E	10	
	12			34	W	20	Detached.
	12	1		31.5	W	10	
	12	2		29	W	20	
	14	4		22	W	25	
	26	1		12.5	W	30	
	33	2		50	W	80	No photographs.
November 13 G.N.	11 21	...	40	...	E	30	
	21		38		E	45	Ca. Faint.
	21		36		E	20	
	12	1		5	E	20	
	12	1		8	E	20	
	21			27	E	25	Ca.
	10 45	2		49	E	30	Top flows and meets the limb in Ca at -43° E.
	11 16			29	W	20	
	21	5		24.5	W	50	Ca. Very faint.
	21			19	W	20	Ca.
	21			17	W	20	Ca.
	15	8	0.5		W	10	
	21		12		W	50	Ca. Detached.
	21		42		W	45	Ca.
	21		57		W	15	Ca.
	21		63		W	10	Ca.
							Ca photograph 11h 21m, poor
November 14. A.Y.S.	9 19	..	75	..	E	20	
	8 21	3	70.5		E	10	Ca.
	9 8		48		E		See Note.
	7		28		E	15	
	56		15		E	25	45" high in Ca.
	56	1	11.5		E	25	
	54			14	E	10	
	54	2		22	E	15	
	8 49	2		28	E	20	
	85			40	E	10	
	80	8		46	E	50	
	9 52	1		72.5	E	15	
	8 21			76	E	10	Ca
	21			77.5	E	10	Ca
	21			65	W	20	Ca
	9 45	1		56.5	W	10	
	8 21			25	W	10	Ca.
	21	1		21.5	W	15	Ca.
	9 44			6.5	W	10	
	41	6	6		W	15, 25	
	8 21		83		W	15	Ca.
	9 37		43		W	30	Connected and 60" high in Ca.
	87	2	46		W	30	
	8 29	3	56.5		W	60	
	29		59		W	15	
							Ca photograph 8h 21m,
November 15. A.Y.S.	8 27		74	..	E	10	
	25	3	45		E	30	
	10		32		E	30	Ca.
	18	2	19		E	20	
	10		8		E	15	
	10		5		E	30	Faint, 60" high in Ca.
	6	1		8.5	E	25	15" only at 9h 24m.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height	Remarks.
			North.	South.			
1910. November 16. A.Y.S. —contd.	8 0	0	°	°	E	45	
	9 23	12	46	52	E	15	
	23		53	58	E	15	
	7 58		57	67	E	20	
	9 21		58·5	W	10		
	8 10		28	W	60		Ca. Faint. Detached.
	9 19		28	W	45		Faint.
	8 50		16	W	40		Faint. Streaks from top flow both ways, and is 110° high in Ca.
	50		12·5	W	10		
	49	1	7·5	W	15		
	10	4	14	W	100		Ca.
	39	3	50·5	W	80		50° high in Ca.
	39	3	55·5	W	45		
	30	2	61	W	15		
November 17. ...	8 24	..	78·5	..	E	10	Ca. photograph 8h 10m, rather poor.
	23		32	..	E	10	Ca.
	23		11·5	..	E	60	Ca.
	23		7·5	..	E	50	Ca. Top broader, slants eastwards.
	23	1	Equator.	..	E	15	Ca. Top flows slightly southwards.
	23	1	15	..	E	10	Ca. } Tops connected by a streak.
	23	5	20	..	E	10	Ca. }
	23	5	48·5	..	E	50	Ca. }
	23	3	34	W	45	Ca.	
	23	3	30	W	45	Ca. Detached.	
	23	2	22	W	30	'a.	
	23	2	16	W	75	Ca.	
							No visual observations.
							Ca. photograph 8h 28m.
							Incomplete between - 25° E. and - 46° E. and - 7° W. and + 14° W.
November 18. G.N.	10 50	1	72·5	..	E	20	
	55	48	..	..	E	30	Ca. Detached.
	55	46	..	..	E	15	Ca.
	55	48	..	..	E	15	Ca.
	49	32	..	..	E	80	
	55	7	..	..	E	10	Ca.
	55	12	..	..	E	75	Ca.
	55	3	45	..	E	45	Ca. Top flows southwards to - 2° E. A small portion of this 20° high was seen in C. Ca. A streak slanting eastwards.
	55		8	..	E	15	
	46	5	17·5	..	E	20	Ca.
	55	0	24	..	E	15	Ca.
	55		32·5	..	E	45	Ca. Slants eastwards.
	55		35	..	E	30	Ca. Top flows both ways
	55		40	..	E	45	Ca. Top flows eastwards
	55		44	..	E	10	Ca.
	55	3	47·5	..	E	30	Ca.
	11 0	3	84·5	..	W	15	45° high in Ca.
	10 55		80	..	W	40	Ca. A slanting streak
	55		24	..	W	45	Ca. Double at top
	55		20	..	W	20	Ca. }
	55	2	18	..	W	50	Ca. }
	55	2	15	..	W	40	Ca. }
	55		30	..	W	20	Faint streaks.
	55		31	..	W	20	Ca. }
	55		50	..	W	15	Faint.
							Ca. photograph 10h 55m.
November 19. A.Y.S.	8 44	..	80	..	E	15	Faint.
	12		75	..	E	30	Ca. Faint and seen only at 8h 12m.
	42		59	..	E	15	
	41	5	47·5	..	E	45	
	39	1	33	..	E	45	
	38	4	11	..	E	60	Ca streaks from top flow eastwards. 75° high in Ca.
	25	1	2·5	..	E	20	Ca.
	35		1	..	E	25	A streak slanting southwards. 70° high in Ca.
	25	3	19·5	..	E	60	See Note.
	20	18	24	..	E	50	
	18	1	86·5	..	E	50	Faint.
	9 5	2	42	..	E	30	
	8 12	2	48	..	E	30	
	11		56	..	E	10	

Date and observer	Hour I.S.T.	Base.	Latitude.		Limb	Height	Remarks
			North.	South			
1910. November 19 A.Y.S. —contd.	9 2	o	o	74 5	W	10	
	0			50	W	10	
	8 59	2		38	W	30	45" high in Oa
	59	2		30	W	40	
	55			0'5	W	15	
	25		8		W	10	Oa
	25		5		W	10	Oa.
	52		10		W	25	Detached
	52	2	18		W	45	
	48	2	44		W	40	Faint.
	45	1	55		W	10	
							Oa photographs 8h 25m and 8h 12m.
	8 32		67		E	15	
	43	2	49		E	20	Oa
November 20. A.Y.S.	32		46		E	20	45" high in Oa.
	40		31		E	10	Oa.
	39		14		E	15	
	37		12		E	20	Surmounted in Oa by a
	37		9		E	35	detached cloud 100" high } Connected and 100"
	85	0'5	4		E	20	end 70" high in Oa.
	80			11'5	E	55	
	30				E	15	
	27	21			E	50	
	22	1			E	10	
	22	3			E	20	
	22	0'5			E	10	
	20				E	10	
	57				E	15	
	54	8			E	35	
November 21 A.Y.S.	32	2		30 5	W	85	
	53	4		27	W	20	
	49	2	12	9	W	40	Oa.
	48		39		W	10	
	47	2	45		W	20	
	45		56		W	20	
	44		77		W	10	
							Oa photographs 8h 32m and 8h 14m.
	8 18	3	47 5	.	E	35	
	12			6	E	10	
	10			10 5	E	10	
	10	2		13	E	15	
November 22. S.S.	7	3		34'5	E	20	
	40			40	E	25	
	6			48	E	10	
	6			48	E	10	
	5	2		67	E	15	
	36	2		38	W	30	
	26	10		12	W	50, 20	
	24				W	10	
	21	1	65		W	10	
							Fine with passing clouds. No prominence photographs.
	9 2	.	85'5	.	E	30	Oa.
	8 51		78		E	15	
	9 2		66		E	30	Oa.
	2	5	45'5		E	15	Oa.
	8 48	3	40'5		E	40	Slightly different in Oa.
	41		17		E	60	A Oa streak from top flows northwards to + 27° E.
	41		8		E	40	Flows northwards.
	38	5		3'5	E	40	
	31			27	E	10	
	29	3		43'5	E	30	
	24			79	E	15	
	20			85	W	10	
	9 2			68	W	20	Oa.
	2			31	W	20	Oa.
	2			2	W	10	Oa.
	36			5'5	W	15	
	36			9	W	15	
	2		12		W	15	
	2		16		W	15	
							Small jets.

Date and observer.	Hour I.S.T.	Base.	Latitude		Limb.	Height		Remarks
			North	South.				
1910.	H. M.	o	o	o	"	"		
November 22. S.S.	9 27	1·5	23	.	W	20		
—contd.	2		34		W	20		
	8 59	1	50		W	30		
	59		55·5		W	10		
								Through Clouds. Ca photographs 9h 2m and 8h 46m.
November 23. A.Y.S.	8 35	.	78	.	E	30		
	38	2	45		E	10		
	33		33		E	40		
	33		29		E	45		
	32	1	23		E	10		
	30	3·5	20		E	65		
								110" high in Ca Base not shown on imperfect photographs.
	35		9		E	45		
	29		4		E	20		
	23	1	44		E	20		
	20		68		E	15		
	20		67		E	20		
	19		72		E	10		
	35·		40		W	20		
	9 24	5	7 5		W	25		
	20	1	16·5		W	25		
	8 35		23		W	20		
	35		28		W	40		
	9 32		45		W	10		
	8 35		52		W	30		
	35		74		W	30		
								Ca photograph 8h 35m, streaked by clouds.
November 24. S.S.	8 56	3	58·5	.	E	30		
	54	10	53		E	45		
	51	1	29		E	50		
	49		16		E	75		
	44		4 5		E	40	+	A streak slanting to + 24° E.
	9 22		25		E	10		
	26		64		E	15		
	28		86		E	25		
	26		79		E	10		
	26		82		E	10		
	16		79		W	10		
	16		77		W	10		
	16		47		W	15		
	14	3	41·5		W	45		
	13		39		W	10		
	16		11		W	80		
	11	2	7		W	45		
	8	2	3·5		W	35		
	8	2	11		W	10		
	26		22		W	15		
	4		56·5		W	25		
	1		80		W	10		
	1	6	87·5		W	10		
								Passing Clouds. Ca photographs 9h 36m and 9h 16m
November 25. A.Y.S.	8 54	8	58·5		E	50		
	59	1	54		E	15		
	54	1	47		E	10		
	54		44		E	10		
	52	1	31·5		E	10		
	9 15	1	22		E	20		
	8 58		10		E	10		
	84	8	28 5		E	25		
	9 7	1	49		W	10		
	4		48		W	80		
	4	2	40		W	40		
	8	2	2		W	20		
	8 59	1	5		W	15		
	9 1	1·5	25·5		W	15		
	0	2	29		W	20		
	8 57		54		W	10		
								Ca photograph (poor, cloudy) 8h 59m

Date and observer	Hour I.S.T.	Base	Latitude		Limb.	Height	Remarks.
			North.	South			
1910	H. M.	"	"	"	"	"	
November 26. S.S.	8 38		89	.	E	10	
	27		80°5	.	E	30	A faint streak from top flows eastwards
	24	2	52		E	75	
	21		46		E	80	Top broader and flows both ways. } See Note.
	16		4°5		E	20	
	8		8		E	10	Ca.
	8		12		E	10	Ca.
	14		20		E	10	30" high in Ca.
	12		26		E	45	Almost detached. Two streaks 3° apart at base and meeting at top
	10		51		E	35	Detached. Connected to limb and 15" only high in Ca.
	8		79		E	15	Ca.
	6		85		W	15	
	5		73		W	15	
	51	5	45°5		W	30	45" high in Ca.
	8		39		W	10	Ca.
	48		25		W	10	
	48	3	18°5		W	20	Top flows southwards.
	46	3	0 5		W	15	
	43	2	10		W	45	Slants westwards.
	40		15		W	15	
	8	1	41		W	20	Ca.
	36	1	51		W	10	
	8		59		W	10	Ca.
	14		74		W	15	
							On photographs 8h 8m and 8h 38m.
November 27. H.S.	8 8	..	85	.	E	20	Ca.
	57		76°5	.	E	15	
	55	4	50		E	80	A Ca streak from the middle bends and meets limb at + 45° E.
	8		37		E	20	Ca. Faint
	50		26		E	20	
	8		8		E	20	Ca.
	48		4		E	10	2° broad and 20" high in Ca.
	8	1	7 5		E	15	Ca. Slants southwards.
	44		26		E	35	A detached slanting streak
	40		50		E	10	
	8		61		E	10	Ca.
	8		64		E	15	Ca.
	8		67		E	10	Ca.
	36		70		W	15	
	8		61		W	15	
	8		57		W	10	
	8		58		W	15	
	9 21		52		W	10	Meas the next prominence.
	21	2	47		W	40	
	8 8		43		W	20	Ca.
	9 18	1	27		W	15	
	17		18		W	15	
	15	2	9		W	45	Slants northwards
	8 8		18		W	10	Ca.
	9 5	8	38		W	35	
	8 8		51		W	15	Ca.
	9 0		61		W	10	
							Ca photographs 8h 8m and 8h 41m.
November 28. A.Y.S.	8 48		75	...	E	10	Ca.
	48		73		E	10	Ca
	38		41		E	10	
	38	1	46°5		E	15	Faint; top flows northwards to + 52° E and is 45" high in Ca.
	48		29		E	60	Ca. An almost vertical streak. Only the stem 15" high was seen in C.
	35		22		E	15	
	32	4	6	20	E	45	
	30				E	15	Detached.

Date and observer	Hour I.S.T.	Base.	Latitude.		Limb.	Height	Remarks
			North	South			
1910.	H M	o	o	o		"	
November 28. A.Y.S. —contd.	8 30	.		38	E	10	
	48			49	E	10	Ca.
	26			64 5	E	15	
	26			68 5	E	15	
	48			72	E	20	Ca.
	48			80	—	80	Ca.
	9 5	0 5		72	W	10	
	5			62	W	10	
	8 55	8		48 5	W	60	
	48			41	W	80	Ca.
	52			28	W	30	Faint, detached.
	48	2		25	W	10	Ca.
	46	5	45 5		W	30, 15	
	48	1.5		61	W	20	
	43			63	W	10	
	48			68	W	15	Ca.
	48			84	W	40	Ca.
							Ca photographs 8 ^h 48 ^m and 9 ^h 7 ^m
November 29. S.S.	8 29	..	74	"	E	10	Ca.
	29		65		E	10	Ca.
	44		68		E	15	Detached.
	42	1	60		E	20	
	40	5	49 5		E	55	
	29		27		E	30	
	29		20		E	30	
	29		17		E	20	
	29		16		E	20	
	31	2	4		E	15	
	31			7	E	10	
	25			55	E	15	
	20			50	E	15	Ca.
	28			73	E	10	
	29			76	E	10	Ca
	19			81	W	15	
	9 8	9		47 5	W	65	80" high in Ca.
	2			24	W	15	
	1			17	W	15	
	0			1'5	W	10	
	8 59	1	19		W	30	
	54		31		W	30	
	58		40		W	20	
	29		88		W	20	
							Ca. Ca photographs 8 ^h 29 ^m and 8 ^h 56 ^m .
November 30. A.Y.S.	8 37	.	75	...	E	10	
	36	2	48		E	35	Faint. 75" high in Ca.
	10 4		45		E	20	Ca.
	4		44		E	50	Ca.
	8 38		25 5		E	15	
	33	2	15		E	20	
	31	1	9 5		E	10	
	30			4 5	E	10	
	10 4			10	E	15	Ca.
	8 28	2		25	E	30	A Ca streak from top meets limb at—30°.
	27			32	E	20	
	25			65	E	10	30" high in Ca.
	57			69	E	10	
	10 4			72	E	30	Ca. Faint.
	8 56			80 5	E	10	
	55	5		49 5	W	70	
	52			24	W	10	
	51	2		2	W	15	
	49		6		W	15	
	46	2	25		W	45	30" high in Ca.
	10 4		39		W	10	Ca.
	4		45		W	10	Ca.
	8 44		50		W	10	
	42		68 5		W	10	Detached
	10 4		81		W	20	Ca.
	8 40	1	89		W	20	Ca photographs 10 ^h 4 ^m and 9 ^h 29 ^m .

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks
			North	South.			
1910.	H. M.	°	°	°		"	
December 1. S.S.	8 9		59		E	16	Ca.
	9		57		E	10	Ca.
	9		54		E	20	Ca.
	59		39.5		E	10	
	9		36		E	15	Ca.
	59		31		E	10	
	57	05	15		E	30	
	9		11		E	20	Ca.
	55			1	E	10	
	53			5	E	35	
	53			8	E	25	
	9			17	E	40	Ca
	50	4		26	E	55	Ca streaks flow both ways. One of them is 70" high.
	48			31	E	45	Slants southwards.
	9			40	E	10	Ca
	46			40.5	E	25	Very faint.
	41	1		54	E	15	
	41			50	E	20	Less than 10" high at 8h 40m, rising, 2° broad and 25" high at 8h 48m.
	85			77.5	W	25	
	9 25			69	W	25	
	23	2		61	W	15	
	20	6		48	W	70	
	15	2		21	W	15	
	15			13	W	15	
	12	7	9.5		W	50 ±	Very faint. 50", 80", and 70" high in Ca.
	8 9		83		W	0	Ca
	9 8		38		W	15	
	6		50		W	10	
	4		65		W	25	Slants westwards. Ca photographs 8h 9m and 8h 27m.
December 2. A.Y.S.	8 17	...	81	.	E	30	Ca.
	17		52		E	15	Ca.
	86	1	43		E	Low	C displaced slightly to red. 26" high at 8h 53m.
	84	1	20		E	30	15" high only in Ca.
	17		13		E	15	Ca.
	29		4		E	10	
	27			5	E	20	Gone by 8h 29m. 15" high in Ca.
	27			6	E	15	Detached 30" high in Ca.
	17			9	E	15	Ca.
	25	6		35	E	70	
	23			42	E	10	
	17			70	W	15	Ca.
	17			65	W	25	Ca.
	49	5		49.5	W	45	
	47	1		37	W	40	A Ca streak from top meets limb at - 48° W.
	17	7	9.5		W	70	Ca. Portions about 25" high were seen in Ca.
	40	1	43		W	20	
	38		63		W	10	
	17		72		W	25	Ca.
	89	1	76.5		W	20	Ca photographs 8h 17m and 8h 29m.
December 3. S.S.	8 19		67	.	E	20	Ca. Seen only at 8h 19m.
	9 1		58		E	15	Ca.
	8 10		37		E	30	Ca. Seen only at 8h 10m.
	9 17	5	14.5		E	20	35" high in Ca.
	1			19	E	20	Ca.
	12	6		83	E	60	
	1			67	E	30	Ca. A detached dot.
	4			74	E	10	
	1			75	W	20	Ca.
	1			64.5	W	10	
	8 56	5		49.5	W	80	
	52	1		42.5	W	20	
	51			40	W	40	
	50	5		32.5	W	20	
	48			23	W	15	Connected, and extend from - 28° to - 48° W. in Ca.
	9 1			18	W	20	A slanting streak. There is a low elevation extending from - 20° to - 24° W. Ca

Date and observer	Hour I S T	Base	Latitude		Limb.	Height.	Remarks.
			North	South.			
1910.	H. M	"	"	"	"	"	
December 3. S.S. —contd.	8 47	...		14	W	30	
	9 1	4		11	W	45	Ca.
	1	4		1	W	20	Ca. An arch.
	81	7 5			W	10	8° broad and 30" high in Ca.
	1	2	11		W	40	Ca.
	1	22			W	10	Ca.
	1	31			W	15	Ca.
	29	48 5			W	30	
	1	58			W	20	Ca.
	1	74			W	40	Ca.
	26	76			W	15	
							Ca photographs 9h 1m and 8h 19m.
December 4. A.Y.S.	8 59		82	"	E	30	Ca.
	59		80		E	15	Ca.
	59		78		E	15	Ca. A detached dot
	51		74		E	10	80" high in Ca
	59		59		E	20	Ca.
	50	41			E	20	
	59	35			E	80	Ca.
	48	26			E	15	
	47	17			E	10	
	59	1			E	20	Ca.
	45	4		10	E	25	
	44	2		24	E	25	
	40	7		31 5	E	60	} Connected by Ca streaks.
	35			47	E	10	
	59			52	E	20	Ca.
	9 6	1		57 5	E	10	
	8	59		78	E	20	Ca.
	59			87	W	20	Ca.
	59			80	W	30	Ca.
	9	5		50	W	10	
	5			44	W	30	Faint. Detached
	8	59		40	W	90	Ca. 80" high at 8h 25m.
	59			35	W	15	Ca.
	59	1		10 5	W	20	Ca.
	9 1		27		W	15	Ca.
	8	59	41		W	30	
	58	4	46		W	30	45" high in Ca.
	56	2	53		W	30	45" high in Ca
	55		62		W	10	
	54		67		W	15	
	59		78		W	10	Ca.
	59		82		W	10	Ca.
							Ca photographs 8h 59m and 8h 26m.
December 5. S.S.	9 2	1·5	56		E	25	45" high in Ca.
	0	2	50		E	15	
	8 52		14		E	25	Faint.
	52		12		E	45	Faint. Detached.
	51		8		E	15	
	6		5		E	10	Ca.
	6			1	E	80	Ca. A detached dot.
	6			2	E	15	Ca.
	6			6	E	30	Ca.
	46			12	E	15	
	46			17	E	20	
	46			23	E	70	Streamers flow both ways. Some of them meet the next prominence in Ca.
	41	4		32	E	75	
	36			41	E	20	
	36	1		44 5	E	10	
	6			69	E	40	Ca.
	6			75	E	15	Ca.
	6			83	E	15	Ca.
	80	3		87	E	15	
	26			77	W	25	10" high in Ca.
	23	1		80 5	W	10	
	9 84			58	W	15	Not seen at 8h 28m. Seen only at 8h 40m and faint in Ca.
	8 6	4		47	W	45	Ca.

Date and observer	Hour L.S.T.	Base	Latitude.		Limb.	Height	Remarks.
			North	South			
1910.	R. M.	°	°	•		"	
December 5. S.S. —contd.	9 32	2		32	W	15	
	31			27	W	10	
	30	6		18	W	25	
	8 6		5		W	15	Oa
	9 22		13		W	25	Slants northwards. Nothing here in Oa.
	19	2	17		W	30	
	8 6	1	20		W	35	Oa.
	9 18		21		W	60 ±	See Note.
	17	1	34		W	80	
	15	1	37		W	80	
December 6. A.Y.S.	8 6		44		W	80	Ca Faint.
	9 18	5	48 5		W	60	
							Ca photographs 8h 6m and 8h 40m.
	8 12		89 5		E	45	Ca. Seen only at 8h 12m.
	45		88		E	10	
	45		81		E	10	45" high in Ca.
	42		58		E	10	
	40	1	39		E	15	
	12		31		E	30	Ca. Detached.
	39		25 5		E	25	A Ca streak from top almost meets the last.
December 7. A.Y.S.	12	4	23		E	40	Ca. Faint.
	12		17		E	10	Ca.
	13		14		E	100	Ca. Detached Faint. Changing.
	37		13		E	10	A Ca streak from top is 45" high.
	13	3	8 5		E	10	Ca.
	35	2	4		E	40	Top broader. A streak from top flows to — 3° E.
	32		6		E	40	A Ca streak from top almost meets the last
	32		8		E	40	
	27	4	82		E	100	Broadest at top. A streak from top meets limb at — 20° E
	28	3	87 5		E	25	40" high in Ca.
December 8. A.Y.S.	22		57		E	10	
	12		62		E	45	Ca.
	12		83		E	20	Ca.
	12		88		E	30	Ca.
	12		88		W	40	Ca.
	9 0		67		W	10	
	2		53		W	15	
	8 12		8		W	15	Ca
	57		13		W	70	2° broad, faint, and detached
	12		17		W	45	A Ca streak from top rises to 185" in height.
December 9. A.Y.S.	58		37		W	20	Slants westwards and is 40" high in Ca
	58		38		W	15	
	61	5	48 5		W	60	
	48		83		W	10	
	46	1	89 5		W	10	
							Ca photographs 8h 12m and 8h 40m.
	9 45	.	59		E	10	
	44		55 5		E	10	
	10 29		47		E	10	Oa.
	29		41		E	10	Oa.
December 10. A.Y.S.	9 16	1 5	32 5		E	15	
	14		26 5		E	30 ±	
	12	1	24		E	20	
	8 58	18	1		E	40	
	10 29		14		E	20	Oa.
	8 41	1	24 5		E	10	
	25	7	34 5		E	65	Two Ca streaks flow southwards and meet.
	21		44 5		E	10	
	20	1	61 5		E	15	
	9 38		82		E	15	
December 11. A.Y.S.	55		89		E	10	
	35	1	26		W	20	
	48		21		W	15	
			17		W	20	A faint streak almost meeting the next prominence
				11	W	20	Detached.
	10 29	1	29		W	135	Ca.
	9 47	2	42		W	40	
							Ca photographs 10h 29m and 8h 18m.

Date and observer	Hour I.S.T.	Base.	Latitude.		Lamb.	Height.	Remarks.
			North	South			
1910.	H. M	°	°	°	"	"	
December 8. S.S.	14 36	7	5° 5'	.	E	50	35" only in Ca. See Note
	31	2	2	5	E	80	65" high in Ca.
	31		5	6	E	25	Ca.
	15 7		6	11	E	70	6° broad and surmounted by a detached dot 50" high in Ca.
	14 30		11		E	40	
	28	1	31° 5'	31° 5'	E	45	
	15 7	5	40° 5'	40° 5'	E	30	Ca.
	14 58		64	64	W	15	
	55		57° 5'	57° 5'	W	10	
	53	6	26	26	W	45	
	52		16	16	W	20	
	51	1	10	10	W	25	Very faint.
	13		W	W	W	15	Very faint.
	5		W	W	W	10	
	15 7		88° 5'	88° 5'	W	45	Ca Ca photographs 15h 7m and 14h 47m.
December 9. A.Y.S	8 52		81		E	10	
	51	1·5	60		E	10	
	50		58 5		E	10	
	48		28		E	30	
	50		6		E	30	Ca Faint. At 8h 14m it was a detached spot about 20" high
	32		1		E	10	Surmounted in Ca at 8h 14m by a detached cloudlet 40" high.
	32		1		E	30	
	33		3		E	Low.	See Note 1.
	50		6		E	20	Ca. Seen only at 8h 50m.
	30		10		E	20	Detached 35" high in Ca.
	14		28		E	15	Ca.
	27	1	87		E	25	
	27	1	41		E	40	Top bends and almost meets limb again at - 88° E.
	25		43		E	10	
	24		64		E	10	
	19	2	68		E	40	See Note 2.
	23	0·5	74° 5'	74° 5'	E	10	
	9 3		82		W	10	
	8 14		67		W	185	Ca. A detached jet.
	9 7		60		W	15	90" high in Ca.
	7	1·5	54		W	10	
	8 14		50		W	10	Ca.
	14		44		W	15	Ca.
	14		38		W	10	Ca.
	9 6	1	16		W	40	See Note 3
	1	1	32		W	15	
	0		35		W	45	
	8 58		40		W	30	
	57	2	45		W	30	
	56	4	50		W	40, 10	
	65	1·5	78° 5'	78° 5'	W	20	Ca photographs 8h 14m and 8h 50m.
December 10. S.S.	8 34	..	82	...	E	15	Ca.
	34		74		E	15	Ca.
	9 7	1	68		E	15	
	4	2	39		E	20	Surmounted by a detached cloudlet 35" high.
	8 34		37		E	30	Ca.
	34		28		E	70	Ca Slender and vertical.
	9 0	3	6·5		E	20	
	8 34	4	24		E	10	Ca. Faint.
	54		27		E	10	
	51		31° 5'		E	10	
	48		42		E	40	Slants southwards.
	46		51		E	85	Faint in Ca.
	44		52		E	15	
	42		62		E	15	Very faint
	21		88		E	15	Ca. Seen only at 8h 21m.
	84		89		E	20	Ca.
	88	1	88		W	10	
	86		79		W	25 ±	Very faint.
	9 35		55		W	15	
	34		50° 5'		W	10	

Date and observer.	Hour I.S.T	Base.	Latitude.		Limb	Height.	Remarks	
			North.	South				
1910.	H. M.	°	°	°		"		
December 10. S.S. —contd.	8 32	.	.	37	W	60 ±	Very faint Detached	
	29			24	W	20		
	27			8	W	20		
	23	4	8		W	35		
	17	4	38		W	35		
	34	2	50		W	70, 50	See Note	
	34		54		W	10	Ca.	
	34		56		W	45	Ca Bright. Only 10" high at 8h 21m	
	13		62°5		W	10	Ca photographs 8h 34m and 8h 21m.	
December 11. S.S.	8 24	...	40	.	E	40	Ca A detached cloudlet. 4° broad in Ca.	
	9 9	2	34	.	E	20		
	7		19		E	25		
	2	2		1	E	20		
	2			14	E	20		
	8 59			18	E	15]	
	55			88	E	20	Connected by a slender but continuous streak.	
	54	1		43	E	15	Very faint	
	53	2		45	E	45	30' high in Ca.	
	48	1		72°5	E	15	In Ca there are 2 prominences close together 45" and 25" high.	
	44			77	W	20		
	42			68 5	W	20		
	40			61 5	W	15		
	39			57	W	10	Very faint.	
	24			43	W	15	Ca	
	9 24		10°5		W	10	See Note.	
	23		16		W	25		
	19		46		W	40		
	18		61		W	10	Ca photographs 8h 24m and 8h 40m.	
December 12. A.Y.S.	8 40	...	75		E	15		
	4		44		E	15	Ca	
	39	0°5	41		E	30	Broadest at top.	
	35		38		E	10		
	34		26		E	10		
	34		24		E	10		
	4			Equator	E	80	Ca. Seen only at 8h 4m	
	32	2		6	E	40	A Ca streak from top flows to the equator.	
	29	1°5		17	E	20		
	27			45	E	15		
	27			49	E	15		
	26	1		54	E	15		
	54			71°5	W	10		
	4			62	W	80		
	51			40	W	10	Ca Faint.	
	55			31°5	W	20		
	4			21	W	10		
	4			12	W	60		
	47		9		W	10	Ca.	
	46		18		W	20	Top flows to — 6° W.	
	44		36		W	10	20" high in Ca.	
	4		40		W	75	Very faint 40" high in Ca.	
	4		44		W	15	Ca Slants northwards.	
	4		47		W	105	Ca.	
	43	1°5	58		W	15	A cloud slanting westwards and connected to limb by a slender stem.	
	4		60		W	10	Ca.	
	December 13. S.S.	8 28	...	88°5	..	E	10	Ca photographs 8h 4m and 8h 24m.
		26		86	E	40	Ca.	
		26		76	E	15	Ca	
		58	0°5	43	E	25	Ca.	
		28		29	E	15		
		48	1	3	E	15		
		26		9	E	20		
		46		18	E	15		
		40	9	50°5	E	35, 45		
		38		57	E	10		

Date and observer.	Hon. I.S.T.	Base.	Latitude.		Limb.	Height	Remarks.
			North.	South.			
1910.	H. M.	o	o	o		"	
December 18. S.S.	8 37	1	.	68°5	E	85	
—contd.	35			68°5	E	10	Ca
	26			71	E	25	
	34			78°5	E	10	
	33			82°5	E	10	
	29			70	W	15	
	9 19			29	W	15	
	18	1		24	W	20	
	18			22°5	W	10	
	17			14°5	W	10	
	16			12	W	15	A detached streak Longer in Ca.
	15			4	W	20	Faint. Flows southwards.
	13		8		W	10	
	8 26		18		W	20	Ca.
	26		19		W	30	Ca.
	26		22		W	30	Ca.
	9 12		26		W	25	Detached.
	10		35 5		W	10	
	9		46		W	80 ±	See Note
	2	1	63		W	25	
	0		67		W	10	
							Ca photographs 8 ^h 26 ^m and 8 ^h 41 ^m .
December 14. A.Y.S.	8 41		88		E	40	Ca
	41		75		E	15	Ca.
	41		74		E	15	Ca
	43		62°5		E	10	
	40	4	48		E	60	
	38	1	37		E	20	Faint in C.
	41		31		E	15	Ca.
	36		26 5		E	10	
	38		22		E	15	
	35	1	17		E	25	
	31	2	11		E	45	
	27	12	16		E	20, 45	
	9 22		31		E	80	Ca. Seen only at 9 ^h 22 ^m .
	8 20	8	51		E	50	
	17	1	68 5		E	10	
	41		70		E	25	Ca.
	41		76		E	20	Ca.
	41		88		E	20	Ca.
	9 0		70		W	10	
	8 41		65		W	10	Ca.
	8 0		61		W	10	
	8 41		55		W	10	Ca.
	41		42		W	15	Ca.
	41		89		W	20	Ca.
	41		86		W	15	Ca.
	57		29		W	50	Detached. Faint.
	57	1	24		W	80	Ca streaks from this meet } Connected, changing limb at -20° and -15° W. } and 75° high in Ca. Ca.
	55	1·5	20		W	15	
	54		10		W	10	
	41		7		W	35	Ca.
	41		6		W	35	Ca.
	52		15		W	15	
	51		22		W	35	
	50	1·5	25		W	25	
	41		48		W	10	Ca.
	47	2	50		W	10	
	45		87		W	20 ±	
							Ca photographs 8 ^h 41 ^m , 8 ^h 7 ^m , and 9 ^h 22 ^m .
December 15. S.S.	8 14	.	81	.	E	90	Ca.
	14		70		E	10	Ca.
	14		49		E	10	Ca.
	9 54	1·5	46		E	15	
	8 14		39		E	10	Ca.
	14		34		E	40	Ca. Faint
	14		29		E	10	Ca.
	49	6	11		E	100	Base faint in Ca

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°		"	
December 15. S.S. —contd.	8 47		5	..	E	15	
	14			8	E	15	Ca.
	46			10	E	10	
	26			12	E	35	Ca Seen only at 8h 26m.
	43			23	E	25	Very faint in O.
	37	5		50 5	E	60	O slightly displaced to red at base. Streaks from top were faint.
	34	8		65 5	E	20	10° high in Ca
	14			69	E	10	Ca
	32	1		84 5	E	20	
	28			78	W	15	
	27			77	W	10	
	14			74	W	15	Ca.
	14			46	W	15	Ca.
	9 24	1		37 5	W	20	
	8 14			35	W	20	Ca
	9 28	3		81 5	W	45	An arch. A short Ca streak from top flows westwards.
	21	1		17 5	W	30	45° high in Ca.
	8 14			17	W	20	Ca.
	9 17			9	W	15	
	17			4 5	W	20	3° broad in Ca.
	13	2	15		W	40	
	8 14			45	W	10	Ca.
	9 10			51	W	25	
	8 14			57	W	30	Ca. Detached
	9 8	1		64	W	25	
	8 14			84	W	15	Ca.
							Ca photographs 8h 14m and 8h 26m.
December 16. A.Y.S.	8 35		88		E	10	
	15		77		E	10	Ca
	15		76		E	10	Ca.
	15		75		E	10	Ca.
	88		46 5		E	10	
	32		29 5		E	10	
	32		25		E	10	
	30	2	11		E	50 ±	Faint in O. 100° high in Ca.
	27	3	6 5		E	25	60° high in Ca.
	15	1	3 5		E	15	Ca.
	25			0 5	E	20	Detached.
	24	0 5		3	E	40	A streak 5° long passes through the top. 20° high in Ca. Detached.
	22			18	E	20	
	21	4		24	E	20	
	20	1 5		30 5	E	40	
	15	15		44 5	E	60, 80	
	11			64	E	10	
	11			66	E	15	
	15			71	E	30	
	54			73	E	10	
	10			81	E	15	
	15			87 5	E	15	Ca
	15			77	W	20	Ca.
	15			48	W	15	Ca.
	52			42	W	10	
	51	1		36 5	W	45	Top broader. Slants southwards.
	50	1 5		30 5	W	25	
	42			20	W	15	Ca. Detached. Seen only at 8h 42m
	45	5		4 5	W	15, 25	
	42			1	W	80	Ca. Seen only at 8h 42m.
	48	1	15		W	40	Slants westwards.
	40	0 5	86 5		W	15	
	40	3	41		W	15	
	39	3	47 5		W	20	40° high in Ca.
	15		52		W	15	Ca.
	37		69		W	10	
	36	1	82		W	15	
	36		86 5		W	10	20° high in Ca.
							Ca photographs 8h 15m and 8h 42m.

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height	Remarks
			North.	South			
1910.							
December 17. S.S.	H. M	o	"	"	"	"	
	9 6	..	85°5	"	E	10	
	8 58	2	38		E	30	45" high in Ca.
	18		34		E	15	Ca.
	13		20		E	16	Ca.
	65		15°5		E	25	Faint
	52		12		E	15	80" high in Ca.
	18		15		E	45	Ca. Faint
	13		16		E	20	Ca.
	43	30	37		E	50, 70	A number of prominences connected together.
	35		64		E	30 ±	Very faint streaks
	18		81		W	15	Ca.
	13	1	78°5		W	50	Ca. Slants westwards. A portion 10" high was seen in C
	28		73°5		W	10	
	27		65		W	20	
	9 25		58°5		W	20	
	24		44		W	10	
	22	5	36°5		W	70	
	20	2	25		W	30	Faint Slants westwards. Nothing here in Ca.
	18	1°5	19°5		W	35	
	18	1	14°5		W	35	
	14	2	17		W	10	
	12		39°5		W	10	
	10		40		W	20	
	10		51		W	10	
	8	2	60°5		W	20	
	8 18		88		W	15	Ca. Ca photographs 8h 18m and 8h 31m.
December 18. A.Y.S.	8 20	..	81		E	15	Ca.
	9 5	..	63		E	10	
	5		60		E	10	
	5		59		E	10	
	3		58		E	10	
	8		52		E	25	Only 10" high in Ca
	0	2	44		E	30	
	8 58		10		E	35	
	20		13		E	10	
	58	6	Equator.		E	50	
	53	1	11		E	15	Surmounted by a Ca detached spot 40" high.
	40		18°5		E	10	
	10		21		E	10	
	40		25		E	25	
	34	25	42°5		E	35, 80, 85	
	30		70		E	10	
	33		76		E	10	
	33	1	86		E	20	
	9 27	19	30°5		W	80, 105	
	22	1	8		W	10	
	22		16		W	45	
	21		80		W	20	
	18		19°5		W	20	
	17	4	58		W	40	Only 2" broad in Ca.
	8 20		68		W	20	Ca. Ca photographs 8h 20m and 8h 35m.
December 19. S.S.	8 57	..	86°5		E	10	20" high in Ca.
	57		85°5		E	10	
	57		82°5		E	10	
	10		67		E	80	Ca.
	10		66		E	15	Ca.
	10		60		E	10	Ca.
	10		48		E	20	Ca. Detached.
	10		47		E	10	Ca.
	51	2	46		E	30	Ca.
	10		41		E	15	
	50		39		E	10	
	48		22		E	80	Upper part very faint in C 10" only in Ca.

Date and observer.	Hour I S T	Base.	Latitude.		Limb	Height.	Remarks.
			North.	South.			
1910.	H. M.	°	°	°		"	
December 19. S.S. —contd.	8 10	.	18		E	20	Ca Slants northwards.
	45		12		E	10	
	45		9		E	15	
	10		2		E	15	Ca.
	10		29		E	10	Ca.
	40		36 5		E	10	
	88	6	44		E	25, 35	20" high in Ca.
	10		51		E	40	Ca Faint. Slants towards the last.
	10		35 5		E	10	Ca.
	10		88		E	15	Ca.
	10		60		W	10	Ca.
	28	1	44		W	30	C slightly displaced to red at base. 35" high at 8h 14m 15" high in Ca.
	23	14	80		W	80, 90, 120	8 connected prominences. Surmounted in Ca by a small detached cloudlet 140" high.
	9 11		15		W	15	
	8 10		8		W	10	Ca.
	9 10		3 5		W	25	
	8	2	1		W	10	20" high in Ca. A Ca streak from top flows to + 5° W.
	8 10	1	7 5		W	10	Ca.
	9 6		15		W	40	There is a low elevation in Ca from the base of this to + 5° W.
	5	2	30		W	20	
	3		42		W	20	
	3		43		W	20	
	2		49		W	10	
	8 10		51		W	30	Ca } Tops connected by a Ca streak.
	10		54		W	30	Ca }
	58	1	80		W	10	Ca photographs 8h 10m and 8h 25m.
December 20. A.Y.S.	8 37	1·5	84 5	.	E	30	
	36		71		E	20	
	35	2	64		E	40	
	82		62		E	80 ±	15" high in Ca.
	30		54		E	10	
	29		40		E	10	35" high in Ca.
	57		16		E	10	Ca.
	27		8		E	Low.	Bright. 10" high in Ca.
	9 12		2 5		E	25	Not seen at 8h 26m.
	8 25	1	7 5		E	15	
	28		22 5		E	10	
	21		43 5		E	10	
	20	1	49		E	10	
	18		71		E	10	
	17		78		E	25	
	17		79		E	Low.	Detached.
	57		88		E	10	C slightly displaced to red.
	9 10		70		W	15	Ca.
	6	18	28 5		W	225, 45	
	8 56		13		W	10	
	51	18	2 5		W	55, 85, 10	30" and 40" high in Ca.
	48		5		W	10	
	47	1	22 5		W	15	
	46	5	29 5		W	25	
	44	1	38 5		W	15	
	57		49		W	10	Ca.
	89		78 5		W	10	Ca photographs 8h 57m, 8h 19m, and 8h 8m.
December 21. A.Y.S.	8 34	...	80	.	E	15 ±	Faint.
	38		78 5		E	20	
	31	2	40		E	40	
	28		86		E	15	
	25		16		E	20	
	20	5	19 5		E	40	
	17		25		E	20	
	16		34		E	10	Connected and 25" high in Ca.
	14	9	48		E	20	Top extends both ways.
	12		62		E	10	C slightly displaced to red
	53		82 5		E	15	

Date and observer.	Hour L.S.T.	Base.	Latitude.		Limb.	Height.	Remarks.
			North.	South.			
1910.	H. M.	o	o	o	"		
December 21. A.Y.S. -contd.	8 53	..	83° 6'	W	15		
	52		66	W	10		
	25		62	W	10		Ca.
	48	4	45 5'	W	10		
	48		40	W	80		
	45	1	38° 6'	W	10		
	44	1	11 5'	W	15		
	44	3	7	W	35		Bright in O.
	25		0 5'	W	25		Ca. A detached streak 7° long.
	40	2	12	W	10		
	38	3	24 5'	W	25		
	36	1	47 5'	W	20		Ca photographs 8h 25m and 8h 44m.
December 22. S.S.	8 57	...	80° 5'	E	10		
	53		58	E	25		
	58		51° 5'	E	25		Extremely faint.
	23		40	E	20		
	28		34	E	80		Ca.
	45		16 5'	E	15		Oa. A detached streak.
	28		14	E	15		Cu.
	41		12	E	20		
	39	1	20	E	15		
	35		40	E	10		
	35		51 5'	E	10		
	32		88 5'	W	15		
	9 10		47	W	20		
	8 24	5	39 5'	W	60		
	9 7	2	14	W	15		
	8 23		10	W	Low.		15" high in Ca.
			5	W	30		Cu.
							Ca photographs 8h 23m and 8h 8m.
December 23. A.Y.S.	8 41	2	39	E	80		
	41	2	35° 5'	E	70		50" high in Ca.
	37		8	E	10		
	37		2	E	15		
	35		18	E	20		
	9 0		21	E	10		
	8 33		28 5'	E	10		
	88		34 5'	E	10		
	59		48	E	20		Not seen at 8h 32m.
	31		57	E	15		
	30		62	E	10		
	30		81 5'	E	10		
	58		75	W	10		
	34		58	W	10		Ca.
	55	4	40	W	50		86" high in Ca
	34	8	14	W	20		Oa.
	50	4	7	W	20		
	48	2	35	W	10		
	46		55	W	15		Faint in O.
	45	1	68	W	20		Ca photographs 8h 34m and 8h 17m.
December 24. S.S.	8 55	...	87° 5'	—	80		
	53	1	78 5'	E	20		
	48		40	E	40		60" high in Ca.
	46		34	E	15		
	50	5	27 5'	E	35		Cu. An arch connected to limb at + 80° and + 25° E.
	48		16 5'	E	25		Detached.
	56		13	E	30		Ca. A short streak surmounted by a small detached cloudlet.
	56		1	E	15		Oa. A streak slanting to + 5° E.
	42		0 5'	E	20		
	40		9	E	15		
	35		50	E	Low.		20" high in Ca.
	32		77 5'	E	15		

Date and observer.	Hour I.S.T	Base.	Latitude.		Limb.	Height	Remarks.
			North.	South.			
1910.	H M	"	"	"	"	"	
December 24. S.S.	8 31		87	W	10		
—contd.	56		77	W	50		Oa.
	29		72·5	W	15		
	23		41·5	W	45		See Note.
	56		24	W	20		
	9 11		22	W	10		Oa.
	7		W		30		
	5		12	W	15		
	1	4	37	W	25		
	8 57		77 5	W	10		
							Oa photograph 8h 56m.
December 25. S.S.	8 24		86	E	15		
	24		69	E	30		Oa.
	47	11	42·5	E	60		Oa.
	24	1	27	E	15		80° high in Ca
	45		23	E	10		Oa.
	43		18·5	E	35		
	39		17·5	E	60		Bright in O. 3° broad and 50° high in Ca.
	38		29·5	E	25		5° broad in Ca.
	32		87·5	W	10		
	31		81·5	W	15		
	31		72	W	10		
	29		57	W	10		
	28		54	W	20		
	27	3	44	W	40		
	24		32	W	15		
	9 4		22	W	25		Oa
	8 24		18	W	15		
	24		10	W	10		Oa
	9 2		2	W	15		
	0		W		15		
	8 24		15	W	30		
	58	1·5	25	W	20		Oa.
			41	W			
							Oa photographs 8h 24m and 8h 48m.
December 26 A.Y.S.	9 6		67	E	10		
	6		64·5	E	10		
	8 56	8	43	E	90		
	56		35	E	10		
	84	2	24	E	15		
	18		20	E	70		
	30		15·5	E	10		Oa. Wider at top; changing. 3° broad and 20° high at 9h 48m.
	29		3	E	15		
	16		13	E	130		Oa
	16		26	E	80		
	28	15	35	E	25		Oa. Slants eastwards
	9 44		40	E	20		
	8 27		48	E	10		Not seen at 8h 27m.
	25		54	E	10		
	16		60·5	W	50		
	9 42	8·5	43	W	30		Oa. Gone at 10h 8m.
	8 16		21	W	20		
	9 35		41	W	35		
	8 16	5	47·5	W	20		15° high at 8h 16m and 85° high at 10h 8m in Oa
	9 32	1	60·5	W	10		Oa.
	50	8	75·5	W	20		An arch, Oa photographs 8h 16m and 10h 8m
December 27. A.Y.S	8 30	..	86·5	E	80		
	38		75·5	E	20	±	Oa Seen only at 8h 30m.
	38		74·5	E	15		
	31		69	E	10		
	28	1	61·5	E	10		
	26	2·5	46·5	E	75		Top faint in C.
	23		34·5	E	15		
	21	2	25	E	80		
	19		11	E	85		
	16	1	28	E	10		Broader at top 85° high in Oa
	11		37·5	E	25		Oa
	18		46·5	E	10		

Date and observer.	Hour I.S.T.	Base.	Latitude.		Limb.	Height.	Remarks
			North.	South.			
1910	H. M.	o	o	o	"	"	
December 27. A.Y.S. —contd.	8 13	..	...	54	E	10	Almost detached.
	9 3	3	85	W	10		
	2	3	45	W	25		
	8 55	3	22°5	W	45		
	54	2	17	W	25		
	30		1	W	60		Ca. Detached Seen only at 8h 30m.
	50		19	W	10		
	47	1	28°5	W	85		Faint in C. } Connected by a Ca streak
	48		84	W	20		which extends to + 87°
	40	5	44	W	80		Almost detached. } W
	88		66	W	10		60" only in Ca.
	30		87	W	20		25" only in Ca.
							Ca. Seen only at 8h 30m.
							Ca photographs 8h 11m and 8h 30m.
December 28. A.Y.S.	8 44	.	81°5	..	E	10	
	42		50	E	20		
	42		48°5	E	20		
	41		44	E	65		
	37	5	28°5	E	50		Only 40" high in Ca
	36		22°5	E	15		
	31		12	E	25		
	20	2	3	E	30		Bright. Changing; 80" high at 8h 35m. In Ca it
	27		14°5	E	10		was seen only at 8h 31m.
	27		20°5	E	10		
	27		22	E	10		
	25		80°5	E	10		
	28		58	E	10		
	9 10		62°5	E	20		
	0		80°5	W	10		
	8 18		88°5	W	10		Ca.
	9 9		77°5	W	20		
	8 8	1	59°5	W	25		
	6	1	50°5	W	20		
	5		47°5	W	15		
	2		23	W	45		Detached. } Connected.
	2	4	18	W	50		
	8 57		2	W	15		
	57		1	W	20		Slants to - 5° W.
							Extends from + 1° to + 4° and is 85" high in
							Ca.
	56	1	5°5	W	10		
	55		10°5	W	10		
	52	5	80°5	W	25		
	48	4	44	W	70		
	16		58	W	15		Ca.
	48		65	W	20	±	Faint in C.
	46		85°5	W	10		
	16		78°5	W	10		Ca.
							Ca photographs 8h 16m and 8h 31m.
December 29 A.Y.S.	8 34	..	86	..	E	10	
	36		54	E	10		
	38		51	E	35	±	Detached in C. Connected to limb in Ca.
	38	4	43	E	30	±	Slants northwards and is 65" high in Ca.
	42	2	29	E	70		
	48		13	E	10		
	45	2	4	E	25		
	48		24°5	E	10		
	48	2	28	E	30		
	49	1°5	82	E	40		
	49		84	E	50		
	51	2	87	E	20		Faint in C.
	51		89°5	E	10		
	22	1°5	48	E	30		Ca. Faint. Gone by 8h 50m.
	50		79°5	W	80		Ca. Seen only at 8h 50m.
	7 57		86 5	W	10		
	8 55		84	W	20		Not seen at 7h 58m.
	7 59	2	64	W	15	±	Faint in C. 45" high and gone at 8h 50m in Ca.
	59		60	W	10		
	8 0		55°5	W	10		
	0		53°5	W	20		

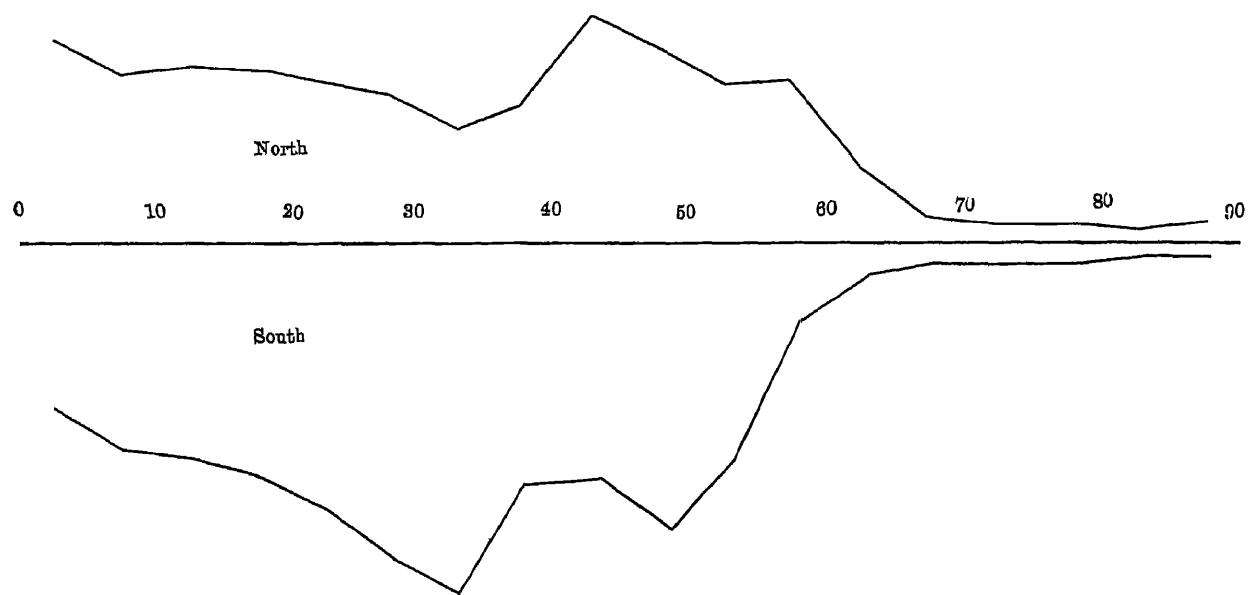
Date and observer	Hour I.S.T.	Base.	Latitude.		Lamb.	Height.	Remarks.	
			North.	South.				
1910.	H. M.	°	°	°		"		
December 26. A.Y.S. —contd.	8 2	4		47	W	50	Only 35" high in Ca.	
	5			48	W	15		
	6			30	W	30		
	9	4		20	W	30		
	12	4		13	W	20		
	14	5		5'5	W	30	Faint in C.	
	17		Equator.		W	35	Detached. }	
	17	2	3		W	35	Connected in Ca.	
	22		12 5		W	70		
	28	1 5	44		W	100		
	31		77'5		W	20		
							Ca photographs 8h 22m and 8h 38m.	
December 30	S.S.	9 21	1	59	..	E	20	Faint in Ca.
		18		52		E	20	
		15	2	38		E	30	
		8 11		31		E	30	Ca.
		9 18		23 5		E	15	
		8 11		6		E	20	Ca.
		9 8	2·5	33		E	90, 40	6° 5 broad in Ca.
		6 59		85		E	15	
		54		78		W	10	
		11		69		W	15	Ca.
		58		66		W	20	
		51	3	49		W	40	
		42	15	26·5		W	55, 45	
		9 31		7		W	10	
		80		12		W	30	Faint in C.
		29		20·5		W	15	
		28		46·5		W	15	
		26		54		W	10	
							Observed through cirrus after 9h 20m. Ca photo- graphs 8h 11m and 8h 38m.	

ABSTRACT FOR 1910

Months.	Number of days of observation.	Number of prominences.	Mean daily frequency.	Mean height.	Frequency in each hemisphere.			Mean heliographic latitude		
					North	South	Equator	North	South	
January	28	543	19.4	26.5	9.3	9.9	0.2	87.4	44.0
February	28	552	19.7	27.3	10.0	9.5	0.2	86.5	34.0
March	31	750	24.2	26.6	12.5	11.5	0.2	88.4	35.6
April	30	726	24.2	26.3	12.7	11.8	0.1	88.6	37.4
May	31	782	25.2	26.1	12.9	12.3	0.1	40.1	40.2
June	23	420	18.8	26.7	9.8	8.4	0.0	40.1	37.6
July	25	406	18.2	28.1	7.7	8.4	0.2	40.4	38.8
August	27	375	13.0	25.7	7.1	6.7	0.0	37.5	37.9
September	27	890	14.8	28.7	6.7	7.9	0.1	86.0	36.4
October	26	532	20.5	29.2	9.5	10.7	0.3	87.8	32.7
November	22	479	21.8	26.4	11.0	10.5	0.8	87.8	37.6
December	30	815	27.2	25.7	13.2	18.8	0.2	40.9	41.2
First quarter	87	1,845	21.2	26.8	10.7	10.3	0.2	87.5	37.7
Second quarter	84	1,928	23.0	26.3	12.0	10.9	0.1	39.5	38.6
Third quarter	79	1,180	15.0	27.5	7.2	7.7	0.1	88.0	37.7
Fourth quarter	78	1,826	23.4	26.9	11.8	11.8	0.3	89.1	37.8
First half-year	171	8,778	22.1	26.5	11.8	10.6	0.1	88.6	38.2
Second half-year	157	8,006	19.1	27.1	9.2	9.7	0.2	88.7	37.7
Year	828	6,779	20.7	26.8	10.8	10.2	0.2	88.6	38.0
Heliographic latitude of prominences in 1910.					Number of prominences in 1910				Mean daily frequency (905 effective days).	
					First quarter.	Second quarter.	Third quarter.	Fourth quarter.		
North ..	90 to 81	.. .. .. ..	84	56	24	60	90	84	0.570
	80 to 71	.. .. .. ..	61	67	24	67	128	91	0.718
	70 to 61	.. .. .. ..	54	64	47	61	118	108	0.741
	60 to 51	.. .. .. ..	188	132	88	91	270	179	1.473
	50 to 41	.. .. .. ..	107	141	63	189	248	202	1.475
	40 to 31	.. .. .. ..	188	143	79	114	281	188	1.554
	30 to 21	.. .. .. ..	149	153	88	91	302	179	1.577
	20 to 11	.. .. .. ..	129	141	69	146	270	214	1.587
	10 to 1	.. .. .. ..	121	109	85	116	280	201	1.418
Equator ...	.. .. .. ..	17	8	9	19	25	28	0.174	
South ..	1 to 10	.. .. .. ..	146	126	74	128	272	202	1.554
	11 to 20	.. .. .. ..	141	148	109	157	289	256	1.820
	21 to 30	.. .. .. ..	184	126	85	126	260	211	1.544
	31 to 40	.. .. .. ..	104	98	70	117	202	187	1.275
	41 to 50	.. .. .. ..	186	127	91	128	268	214	1.564
	51 to 60	.. .. .. ..	80	106	71	84	186	155	1.118
	61 to 70	.. .. .. ..	53	64	48	75	117	118	0.770
	71 to 80	.. .. .. ..	59	68	84	65	122	99	0.725
	81 to 90	.. .. .. ..	44	56	27	48	100	75	0.574

**REMARKS ON THE DISTRIBUTION OF THE PROMINENCES DURING
THE SECOND HALF OF 1910 AND A GENERAL SUMMARY
FOR THE WHOLE YEAR.**

The general features of prominence distribution during the six months ending December 31, 1910, are shown in the accompanying diagram which represents graphically the mean profile areas found for each zone of five degrees in latitude —



**MEAN PROFILE AREAS OF PROMINENCES,
JULY 1 TO DECEMBER 31, 1910.**

The usual reduction of area as compared with the first half of the year is apparent, a reduction which we attribute mainly to less favourable observing conditions. This however will not explain the relative reduction of the northern hemisphere which shows a diminution of 33 per cent., the south having diminished only 4 per cent.

The distribution differs from that found during the earlier months of the year in the absence of any well-defined zones of activity separated by much less active regions. Also the marked preponderance of the southern hemisphere over the northern is a reversal of previous conditions. The limits of prominence formation towards the poles remains the same at 60° north and south

Reviewing the year as a whole the prominence activity has been well maintained notwithstanding the great reduction in spot activity

In the following tables the mean areas and mean frequencies are compared with the previous year:—

MEAN PROFILE AREAS OF PROMINENCES.

	1909.						1910.	
	Square minutes.						Square minutes.	
North	2·10
South	2·04
Total	..						<hr/>	<hr/>
							4·14	4·10

MEAN FREQUENCIES OF PROMINENCES.

	1909						1910.	
	Per diem.						Per diem	
North	10·8
South	11·1
On equator	11·0
							0·1	0·2
Total	..						21·9	22·3

It is thus seen that an average of about 22 prominences was recorded per diem in each year and the area covered by them averaged 4·1 square minutes. The diminution of 1 per cent. in the areas and the increase of nearly 2 per cent. in the numbers for 1910 indicates a reduction of about 3 per cent. in the mean size of the prominences. The mean height is the same for the two years, viz., 26" 8.

In forming these tables an approximate allowance is made for partial or imperfect observations and the mean frequencies differ slightly from those given in the abstract for the year on page 389 in which the numbers observed are simply divided by the total number of days of observation.

Metallic prominences were infrequent, only 33 being recorded against 41 in 1909. The reduction is entirely in the northern hemisphere and the proportion between north and south is the same as that found for the spots. The mean and extreme latitudes observed are given in the following table :—

Metallic prominences.

	—	Number observed	Mean latitude	Extreme latitudes.
North	..	10	28° 2	
South	..	23	17° 7	2°—76° 2°—88°

The very high latitudes recorded for a few of the prominences is remarkable as this type of prominence has been found hitherto to be nearly always associated with sunspots. It is perhaps an indication of the advent of a new series of spot disturbances which are known to begin in relatively high latitudes.

Displacements of the hydrogen lines indicating motion in the line of sight were observed in 64 prominences. The displacements were towards the red in 30, towards the blue in 17 and in both directions in 17. The prominences were in latitudes ranging from 3° to 80° but the majority were in low latitudes, many being associated with spot disturbances; only 18 occurred between 45° and 80°.

Seventy-three per cent. of these disturbances occurred in the southern hemisphere.

NOTES.

1910.

- July 1. Lat. + 42° W. A detached arch which quickly faded and had gone by 8^h 53^m. It showed displacement to red in C at lat. + 50° W. At 8^h 12^m in Ca it was an arch connected to the limb at lats. + 45° and + 54° W. with a double streak at the top and 135" in height. At 9^h 4^m the arch had disappeared and there was a jet 55" high in the region.
11. (1) Lat. - 10° 5' E. Changing. At 9^h 15^m it consisted mainly of bright filaments. At 9^h 12^m the prominence was not connected to the limb at lats. - 7° and - 9° E. and the height was 150". At 9^h 18^m there were slight displacements in C at several places, to red in some, and to violet in others; but at about half a dozen places, C was displaced 8 Å to red, corresponding to a velocity of 230 miles per second away from the observer. At 9^h 30^m the prominence extended from - 3° to - 14° E. and was 150" high. None of the metallic lines were observed to be bright. At 11^h 40^m the prominence was very small and only 30" high. At 8^h 30^m the next day a bright bank 20" high with jets 45" high were seen in the region. This eruption is apparently associated with spot No. 6869 (Gr.) which came round the east limb on the 13th of the month in this position.
- (2) Lat. - 78° 5' E. Changing. O was slightly displaced to violet over the whole prominence at 8^h 30^m. At 8^h 34^m there were two jets. At 8^h 35^m these were connected to the last prominence. The whole prominence was gradually fading. It was 25" high at 8^h 39^m and 15" high at 9^h 1^m. In Ca it was faint and 30" high
12. Lat. + 7° W. The prominence consists of a number of faint short streaks extending over 8° of the limb. Changing. Some of the streaks had gone and the prominence was only 20" high at 9^h 20^m. Only two streaks 40" and 30" high were seen in Ca.
- 13 (1) Lat. - 67° 5' E. At 8^h 21^m there was no prominence here, but C was displaced to red about 0.5 Å. By 8^h 22^m a prominence 30" high had formed which was changing rapidly and was 40" high at 8^h 25^m. Nothing was seen in the same position at 9^h 25^m
- (2) Lat. - 13° W. A cloud extending from lat. - 10° to - 14° W. and connected to the limb by a narrow stem at lat. - 13° W.
21. Lat. - 55° E. Changing in Ca. At 8^h 29^m it was a horseshoe-like prominence 75" high. At 9^h 46^m it was continuous at the base, but the top had narrowed to a fine point and was 80" high. At 9^h 49^m it was 95" high with a narrow streak from about the middle extending northwards
24. Lat. - 4° 5' W. Changing. O was displaced to red at the base for 1.0 Å. There was no displacement and the prominence was only 10" high at 8^h 58^m. Nothing was seen here in Ca.
- August 8. Lat. + 11° E. 2° broad and 45" high in Ca; Ca streamers pass through the prominence and extend from lat. + 7° to + 17° W.
9. Lat. - 30° E. An extensive Ca cloud 90" high stretches from the top of this and meets the limb at lat. - 15° E.
14. Lat. - 58° E. At 9^h 10^m C was slightly displaced to red throughout the prominence.
16. Lat. - 6° E. At 10^h 20^m it was a faint streak slanting southwards and 45" high. In Ca the prominence extends from - 4° to - 9° and is 85" high.
17. Lat. + 18° E. Changing. At 9^h 24^m it was 50" high and the top was broader than the base. 55" high in Ca.
23. Lat. - 45° 5' W. An arch. Very bright. Changing. The arch had disappeared at 8^h 59^m, and several small jets were appearing at the limb. At 9^h 1^m it was 20" high. Nothing was photographed here at 8^h 22^m in Ca.
31. Lat. - 9° W. F was displaced to red 1.0 Å. At 10^h 16^m the prominence was detached, and there was no displacement to red, but instead a slight displacement to violet.
- September 7. Lat. - 8° W. Very bright. Metallic. D₁, D₂, b₁, b₂, b₃, b₄, 6677 and 4924·1 were bright. O was slightly displaced both ways.
- October 2. (1) Lat. + 54° 5' E. In Ca it consists of two prominences, one at lat. + 56° E. and the other at + 53° 5' E., and 80" and 150" in height.
- (2) Lat. + 1° W. A streak 3° long flows southwards from this. Another similar streak flows northwards in Ca.
- (3) Lat. + 34° 5' W. In Ca the prominence consists of several detached cloudlets extending from lat. + 36° W. to + 40° W. and is 80" high.

1910

- October 8. Lat. — 9° W. The upper part is detached from the lower. O was slightly displaced to red at the base. The lower portion was visible in b₁, b₂, b₈, and b₄. A streak from the top slants to — 1°W.
13. Lat. — 14°E. The southern portion of the prominence was very bright and metallic. D₁, D₂, b₁, b₂, b₈, b₄, 5316·8, and 4924·1 were bright. Changing slightly. Streaks on the northern side were faint.
17. Lat. — 7° E. Bright Eruptive. Showed displacement in O to violet 2·0 Å. The prominence was not metallic. Only a small portion remained visible at 8^h 42^m, 60" high in Ca.
21. (1) Lat. + 7° E. Ca. The main prominence is about 10" high, but it is surmounted by a detached cloudlet 60" high.
 (2) Lat. — 11°E. Eruptive. Bright. C was displaced to red for 0·5 Å at the base at the southern part. Changed and only 15" high at 10^h 25^m.
27. Lat. — 20° E. A streak from the top flows slightly eastwards. In Ca it goes further and meets the top of the last prominence.
- November 5. (1) Lat. — 35°·5 W. Ca streaks from the top meet the limb at lat. — 46° W. Another 60" high flows eastwards to lat. — 30°W.
 (2) Lat. + 6°·5 W. Ca. Streaks connected to the limb by four stems at lats. + 3°, + 5°, + 8° and + 10°W. One of the stems was seen in C. The northern portion of the prominence was detached and 120" high at 11^h 21^m.
14. Lat. + 43° E. At 9^h 8^m there was no prominence here, but there was displacement of C to red for about 0·5 Å. At 9^h 18^m a prominence 15" high had formed. Nothing was photographed here in Ca.
19. Lat. — 12°·5 E. Very bright, eruptive, and metallic. O was displaced to red at the northern stem 0·5 Å. The prominence was visible in D₁, D₂, b₁, b₂, b₃, and b₄. Changing. Only 35" high at 9^h 7^m. The following bright lines were observed in addition:— 6677 (He), 5316·790 (Fe), 5017·060 (Fe), 4957·480 (Fe), 4903·502 (Fe), and 4878·407 (Fe).
26. Lats. + 60°·5, + 52°, and + 46° E. These are connected in Ca by extensive streaks extending from + 63° to + 34° E; and the whole prominence in the photograph attains a height of 100" with stems at + 63°, + 59°, + 53°, + 50°, and + 45° E.
- December 5. Lat. + 24° W. Detached and very faint in O. In Ca it is a slanting streak connected to the limb and 185" in height.
8. Lat. — 2° E. Bright and metallic. D₁, D₂, b₁, b₂, b₈, and b₄ were bright and O was slightly displaced both ways.
9. (1) Lat. — 3° E. Bright. Nothing was seen here at 8^h 32^m. F was displaced both ways about 0·3 Å. Metallic. The small bright stem was visible in 6677 (He), D₁, D₂, b₁, b₂, b₃, b₄, 5018·6, and 4924·1. The prominence was 20" high at 8^h 42^m and at 9^h 10^m a small bank 10" high was seen.
 (2) Lat. — 68° E. Bright. O was displaced to violet about 1·0 Å throughout the prominence. Changing. Not metallic. 60" high at 8^h 21^m. The top was faint and the stem was bright and 30" high at 8^h 22^m. Nothing was seen here at 9^h 9^m.
 (3) Lat. — 16° W. The height of the main prominence is about 80"; but it is surmounted by a short detached streak 40" high.
10. Lat. + 50° W. Ca. The prominence was faint at 8^h 34^m and brighter at 8^h 21^m. A small portion only was seen in C, about 25" in height.
11. Lat. + 16° W. 75" high in Ca at 8^h 24^m, but at 8^h 49^m it had altered in shape, was fainter, and 100" high.
13. Lat. + 46° W. Faint. Two streaks slanting westwards. In Ca in this position there is a prominence extending from + 42° to + 50° W. and 60" and 90" in height.
18. Lats. — 18°·5 and — 21° E. Changing. The prominence at lat. — 21° was 15" high at 8^h 42^m and 25" high at 8^h 43^m. F was displaced to violet for about 0·5 Å at 8^h 43^m. Metallic. D₁, D₂, b₁, b₂, b₈, b₄, 5018·6, and 4924·1 were bright. At 8^h 52^m the two prominences were connected and 25" high. Nothing was seen here at 9^h 36^m.
24. Lat. — 41°·5 W. Two prominences with tops connected and flowing southwards. Slightly changed and continuous at the base at 9^h 12^m.