GREENWICH

SPECTROSCOPIC AND PHOTOGRAPHIC RESULTS.

1896.

37	6	9	1019	1039
69	33	10	1228	2128
80	13	66	Blank Tv	(244.4)
80	13	17	Blank Tv	(~~+1.6~~) (+1.6)

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RESULTS

OF THE

SPECTROSCOPIC AND PHOTOGRAPHIC OBSERVATIONS

MADE AT THE

ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1896:

UNDER THE DIRECTION OF

W. H. M. CHRISTIE, C.B., M.A., F.R.S.,
ASTRONOMER ROYAL.

(EXTRACTED FROM THE GREENWICH OBSERVATIONS, 1896.)

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1898.

ERRATA.

SPECTROSCOPIC AND PHOTOGRAPHIC RESULTS, 1896.

MEASURES OF POSITIONS AND AREAS OF SUN SPOTS AND FACULÆ, 1896.

Page.	Column.	Line.	
4	2	30	Area of Umbra, *for* 0, *read* 1.
		33	Area of Whole Spot, *for* 14, *read* 12.
		40	Total Area of Umbræ, *for* 9, *read* 10.
			Total Area of Whole Spots, *for* 85, *read* 83.
8	1	35	Area of Umbra, *for* 28, *read* 27.
		37	Total Area of Umbræ, *for* 237, *read* 236.

SPECTROSCOPIC AND PHOTOGRAPHIC RESULTS, 1896—*continued.*

Page.	Column.	Line.	
17	2	3	Longitude, *for* 81°·0, *read* 80°·8.
40	2	16	Area of Whole Spots, *for* 5, *read* 3.
41	1	3	Total Area of Whole Spots, *for* 1118, *read* 1112.
44	2	27	Longitude, *for* 212°·0, *read* 212°·7.
50		28	Total Area of Faculæ, *insert* brackets.
62	2	29	Total Area of Whole Spots, *for* 2021, *read* 2101.

GREENWICH SPECTROSCOPIC AND PHOTOGRAPHIC RESULTS, 1896.

INTRODUCTION.

§ 1. *Measures of Positions and Areas of Sun Spots and Faculæ on Photographs taken at the Royal Observatory, Greenwich, at Dehra Dûn in India, and at the Royal Alfred Observatory, Mauritius, in the year* 1896; *with the deduced Heliographic Longitudes and Latitudes.*

The photographs from which these measures were made were taken either at Greenwich; at Dehra Dûn, North-West Provinces, India; or at the Royal Alfred Observatory, Mauritius.

The photographs of the Greenwich series were taken with the Dallmeyer Photoheliograph returned from the Transit of Venus expedition to New Zealand, which, as now adapted, gives a solar image of 8 inches diameter on the photographic plate.

The photographs have been taken throughout the year on gelatine dry plates, "Lantern" plates supplied by R. W. Thomas and Co. being used, with hydroquinone development.

The Indian photographs, which have been forwarded by the Solar Physics Committee to fill the gaps in the Greenwich series, were taken under the superintendence of the Deputy Surveyor General, Trigonometrical Survey of India, with a Dallmeyer Photoheliograph giving an image of the Sun nearly 8 inches in diameter. In the process adopted at Dehra Dûn bromo-iodized collodion has been used in connexion with iron development.

The Mauritius photographs were taken under the superintendence of Dr. C. Meldrum, Director of the Royal Alfred Observatory, Mauritius, with a Dallmeyer Photoheliograph, giving an image of the Sun about 8 inches in diameter. At the Mauritius Observatory bromo-iodized gelatine dry plates have been used with alkaline development.

Photographs of the Sun were taken at Greenwich on 206 days, and Indian photographs on 139 days with Mauritius photographs on 19 days have been received from the Solar Physics Committee to complete the total of 364 days for which there are either Greenwich, Indian, or Mauritius photographs of the Sun available for measurement in 1896.

The *first* column on each page contains the Greenwich Civil Time at which each photograph was taken, expressed by the day of the year and decimals of a day, reckoning from Greenwich mean midnight January 1d. 0h., and also by the day of the month (civil reckoning), which latter is placed opposite the total area of Spots and Faculæ for the day. The photographs taken in India are distinguished by the letter I, and those taken in Mauritius by the letter M.

The *second* column contains the initials of the two persons measuring the photograph; the initial on the left being that of the person who measured the photograph on the left of the centre of the measuring instrument, and that on the right being that of the person who measured on the right of the centre.

The following are the signatures of those persons who measured the photographs for the year 1896 :—

E. W. Maunder	M	A. J. Wilkin	AW
C. C. Lacey	CL	J. A. West	JW
C. F. Turner	FT		

The *third* column gives the No. of the group, and the letter for the spot. The groups are numbered in the order of their appearance.

The *next two* columns give the Distance from the Centre of the Sun in terms of the Sun's Radius, and the Position-Angle from the Sun's Axis, reckoned from the Sun's North Pole in the direction *n*, *f*, *s*, *p*, both results being corrected for the effects of astronomical refraction.

The measures of the photographs were made with a large position-micrometer specially constructed by Messrs. Troughton and Simms for the measurement of

photographs of the Sun up to 12 inches in diameter. In this micrometer the photograph is held with its film-side uppermost on three pillars fixed on a circular plate, which can be turned through a small angle, about a pivot in its circumference, by means of a screw and antagonistic spring acting at the opposite extremity of the diameter. The pivot of this plate is mounted on the circumference of another circular plate, which can be turned by screw-action about a pivot in its circumference, 90° distant from that of the upper plate, this pivot being mounted on a circular plate with position-circle which rotates about its centre. By this means small movements in two directions at right angles to each other can be readily given, and the photograph can be accurately centred with respect to the position-circle. When this has been done, a positive eye-piece, having at its focus a glass diaphragm ruled with cross-lines into squares, with sides of one-hundredth of an inch (for measurement of areas), is moved along a slide diametrically across the photograph, the diaphragm being nearly in contact with the photographic film, so that parallax is avoided. The distance of a spot or facula from the centre of the Sun is read off by means of a scale and vernier to 1-250th of an inch (corresponding to 0·001 of the Sun's radius for photographs having a solar diameter of 8 inches). The position-angle is read off on a large position-circle which rotates with the photographic plate. The photograph is illuminated by diffused light reflected from white paper placed at an angle of 45° between the photograph and the plate below.

The following is the process of measurement of a photograph :—By means of the screws attached to the circular plates carrying the pillars which hold the photograph, the image of the Sun is centred as accurately as possible by rotation. The position-circle is then set to the readings 0°, 90°, 180°, and 270° in succession, and the scale readings taken for the two limbs. The scale being so adjusted that its zero coincides with the centre of rotation of the position-circle, the mean of the eight readings for the limb gives the mean radius of the Sun directly.

At the principal focus of the photoheliograph are two cross-spider-lines which serve to determine the zero of position-angles on the photograph.

The zero of position-angles for the Dallmeyer Photoheliograph, employed at Greenwich, has been determined by the measurement of a plate which had been exposed to the Sun's rays twice, with an interval of about 100 seconds between the two exposures, the instrument being firmly clamped. Two images of the Sun, overlapping each other by about a fifth part of the Sun's diameter, were therefore produced upon the plate, and the exposures having been so given that the line joining the cusps passed approximately through the centre of the plate, the inclination of the wires of the photoheliograph to this line was measured with the position-micrometer, and a small correction for the inclination of the Sun's path was

then applied. The following table gives the correction for zero of position for the mean of the two wires as thus determined :—

Date, Greenwich Civil Time.		Correction for Zero.
	d h	° ′
1895 December	2. 12	+ 3. 2
	13. 12	+ 3. 4
1896 February	10. 12	+ 3. 0
March	5. 13	+ 3. 2
April	7. 12	+ 2. 59
June	2. 12	+ 2. 58
July	4. 12	+ 3. 11
	28. 11	+ 2. 52
September	15. 11	+ 2. 59
October	26. 11	+ 3. 4
November	19. 13	+ 3. 0
December	15. 14	+ 3. 14
	31. 11	+ 2. 48
1897 February	17. 11	+ 2. 52
	17. 12	+ 2. 57

The Dallmeyer Photoheliograph has been mounted throughout the year on the terrace roof of the South wing of the new Physical Observatory.

In the use at Greenwich of the Dallmeyer Photoheliograph the position-circle has usually been set to some convenient reading near that for zero, so that the wires are respectively very nearly parallel and perpendicular to the circle of declination, and a correction for zero of position of the photoheliograph for the mean of the two wires has been applied to the zero of the position-circle of the micrometer. The position-circle was set to the reading 354°·0 throughout 1896.

The zero of the position-circle of the micrometer has been determined from the readings of the position-circle for the four extremities of the two wires. The resulting

combined correction is applied to all position-circle readings for spots and faculæ, so as to give true position-angles.

In the use of the Photoheliographs at Dehra Dûn and in Mauritius the position-circle has always been set to the zero as determined by allowing the diurnal motion to carry a spot or the Sun's limb along the horizontal wire, and the accuracy of the adjustment has been tested at short intervals. No correction for zero of position of the wires has therefore been applied for the reduction of the photographs taken in India or in Mauritius.

The uncorrected distance from the Sun's centre for spots and faculæ is read off directly to 1-250th of an inch by means of a scale and vernier, the zero of the scale of the new micrometer being adjusted to coincide with the centre of the instrument.

Two sets of measures of the Sun's limb and of spots and faculæ on each photograph have been taken and the mean of the two sets adopted.

No correction has been applied to the photographs on account of distortion.

The correction for the effect of refraction has been thus found, the Sun's image being assumed to be sensibly an ellipse. The refraction being sensibly $c \tan z$ where $c = \sin 57''\cdot5 = \frac{1}{3600}$ nearly, and z is the apparent zenith distance, we shall have—

$$\frac{\text{Vertical Diameter}}{\text{Horizontal Diameter}} = \frac{1 - c \sec^2 z}{1 - c} = 1 - c \tan^2 z \,;$$

and thus the effect of refraction will be to diminish any vertical ordinate y by the quantity $c \tan^2 z$. Resolving this along and perpendicular to the radius vector r, and putting v for the position-angle of the vertex, we have for δr and $\delta \theta$, the corrections to radius vector and position-angle for the effect of refraction—

$$\delta r = + c \,.\, \tan^2 z \times r \,.\, \cos^2 (\theta - v) = + c \,.\, \tan^2 z \times r \times \frac{1 + \cos 2 (\theta - v)}{2},$$

$$\delta \theta = - c \,.\, \tan^2 z \,.\, \sin (\theta - v) \,.\, \cos (\theta - v) = - c \,.\, \tan^2 z \, \frac{\sin 2 (\theta - v)}{2}$$

The quantity δr thus found is the correction, on the supposition that a horizontal diameter of the Sun is taken as the scale. But, as the mean of two diameters at right angles has been used, the scale itself requires the correction

$$\delta \mathrm{R} = + c \,.\, \tan^2 z \times \mathrm{R} \times \tfrac{1}{2} \left\{ \frac{1 + \cos 2 (\theta_0 - v)}{2} + \frac{1 + \cos 2 (\theta_0 + 90^\circ - v)}{2} \right\} = + \tfrac{1}{2} c \,\mathrm{R} \,.\, \tan^2 z,$$

where R is the Sun's mean radius and θ_0, $\theta_0 + 90^\circ$ the position-angles of the two diameters measured. Thus the final correction to r becomes—

$$\delta r = + c \,.\, \tan^2 z \times r \times \frac{\cos 2 (\theta - v)}{2}.$$

The quantities $c \tan^2 z$, $-\frac{\sin 2(\theta - v)}{2}$, and $\frac{\cos 2(\theta - v)}{2}$ have been tabulated for use as follows, $c \tan^2 z$ being expressed in circular measure and in arc for application to distances and position-angles respectively :—

$c \tan^2 z$.

°	In Circular Measure.	In Arc.	z.	In Circular Measure.	In Arc.	z.	In Circular Measure.	In Arc.
	°	′	°		′	°		′
80	·0089	31	70	·0021	7	60	·0008	3
79	·0073	25	69	·0019	6½	58	·0007	2
78	·0061	21	68	·0017	6	56	·0006	2
77	·0052	18	67	·0015	5½	54	·0005	2
76	·0045	15	66	·0014	5	52	·0005	2
75	·0039	13	65	·0013	4½	50	·0004	1
74	·0034	11½	64	·0012	4	45	·0003	1
73	·0030	10	63	·0011	4	40	·0002	1
72	·0026	9	62	·0010	3	30	·0001	0
71	·0023	8	61	·0009	3			

Factors for Refraction.

$\theta - v$	$\theta - v$	$-\frac{\sin 2(\theta - v)}{2}$	$\frac{\cos 2(\theta - v)}{2}$	$\theta - v$	$\theta - v$	$-\frac{\sin 2(\theta - v)}{2}$	$\frac{\cos 2(\theta - v)}{2}$
°	°			°	°		
0	180	·00	+ ·50	95	275	+ ·09	− ·49
5	185	− ·09	+ ·49	100	280	+ ·17	− ·47
10	190	− ·17	+ ·47	105	285	+ ·25	− ·43
15	195	− ·25	+ ·43	110	290	+ ·32	− ·38
20	200	− ·32	+ ·38	115	295	+ ·38	− ·32
25	205	− ·38	+ ·32	120	300	+ ·43	− ·25
30	210	− ·43	+ ·25	125	305	+ ·47	− ·17
35	215	− ·47	+ ·17	130	310	+ ·49	− ·09
40	220	− ·49	+ ·09	135	315	+ ·50	·00
45	225	− ·50	·00	140	320	+ ·49	+ ·09
50	230	− ·49	− ·09	145	325	+ ·47	+ ·17
55	235	− ·47	− ·17	150	330	+ ·43	+ ·25
60	240	− ·43	− ·25	155	335	+ ·38	+ ·32
65	245	− ·38	− ·32	160	340	+ ·32	+ ·38
70	250	− ·32	− ·38	165	345	+ ·25	+ ·43
75	255	− ·25	− ·43	170	350	+ ·17	+ ·47
80	260	− ·17	− ·47	175	355	+ ·09	+ ·49
85	265	− ·09	− ·49	180	360	·00	+ ·50
90	270	·00	− ·50				

The position-angle of the Vertex v is readily taken from a globe.

The distance from centre in terms of the Sun's radius given in the *fourth* column is then readily found by dividing the measured distance r_0, as corrected for refraction, by the measured mean radius of the Sun, R; and the Position-Angle from the Sun's Axis given in the *fifth* column is obtained by applying to the Position-Angle (from the N. point) corrected for refraction the Position-Angle of the Sun's Axis derived from the "Auxiliary Tables for determining the Angle of Position of the Sun's Axis, and the Latitude and Longitude of the Earth referred to the Sun's Equator," by Warren De La Rue, F.R.S.

The *sixth* and *seventh* columns give the heliographic longitude and latitude of the spot, which are thus computed.* Let r be the measured distance of a spot from the centre of the Sun's apparent disk, R the measured radius of the Sun on the photograph, (R) the tabular semidiameter of the Sun in arc, and ρ, ρ' the angular distances of a spot from the centre of the apparent disk as viewed from the Sun's centre and from the Earth respectively. Then we have—

$$\rho' = \frac{r}{R}(R)\,;\ \text{and}\ \sin(\rho+\rho') = \frac{r}{R},$$

$$\text{whence}\ \rho = \sin^{-1}\frac{r}{R} - \rho'.$$

Log sin ρ and log cos ρ as computed from this formula are given in "Tables for the Reduction of Solar Observations No. 2," by Warren De La Rue, F.R.S. Then, if D, λ are the heliographic latitudes of the Earth and the Spot respectively, referred to the Sun's Equator, and L, l the heliographic longitudes reckoned from the ascending node of the Sun's Equator on the ecliptic, and χ the position-angle from the Sun's axis, we have by the ordinary equations of spherical trigonometry—

$$\sin\lambda = \cos\rho\sin D + \sin\rho\cos D\cos\chi$$
$$\sin(L - l) = \sin\chi\sin\rho\sec\lambda.$$

The quantities L and D are derived from Warren De La Rue's Auxiliary Tables before referred to, in the computation of which the following formulæ have been used—

$$\tan L = \cos I\tan(\odot - N)$$
$$\sin D = \sin I\sin(\odot - N)$$

where I is the inclination of the Sun's Equator to the ecliptic, N the longitude of the ascending node, and $\odot$ the longitude of the Sun.

* Researches on Solar Physics: Heliographical Positions and Areas of Sun Spots observed with the Kew Photoheliograph during the years 1862 and 1863, by W. De La Rue, B. Stewart, and B. Loewy. Phil. Trans. 1869.

The position-angle χ is given by the formula—

$$\chi = P + G + H$$

where P is the position-angle from the north point of the Sun, and G and H two auxiliary angles given by the formulæ—

$$\tan G = \tan \omega \cos \odot$$
$$\tan H = \tan I \cos (\odot - N)$$

where ω is the obliquity of the ecliptic.

It will be seen that G is the inclination of two planes through the line joining the centres of the Earth and Sun passing through the poles of the Earth and of the ecliptic respectively, and that H is the inclination of two planes through the same line and the poles of the Sun and of the ecliptic. The values assumed for I, N, ω in the computation of the Tables are 7° 15′, 74° 22′, and 23° 27′·5 respectively.

The Heliographic Longitude of the Spot is found from l, the Heliographic Longitude from Node, by subtracting the Reduction to the Prime Meridian, which is the Longitude of the Node at the epoch of the photograph, referred to the assumed Prime Meridian, the latter being the meridian which passed through the ascending node at mean noon, 1854, Jan. 1. The period of rotation assumed is 25·38 days.

The Heliographic Longitude and Latitude of the Centre of the Sun's Disk at the time of the exposure of each photograph are also given (in brackets) in the *sixth* and *seventh* columns respectively. The Longitude of the Centre of the Disk is found by subtracting the Reduction to the Prime Meridian from L, the Longitude of the Centre from the Node. The Latitude of the Centre is of course the same as D, the Heliographic Latitude of the Earth.

The measures of areas given in the *last three* columns were made with a glass diaphragm ruled into squares, with sides of one hundredth of an inch, and placed as nearly as possible in contact with the photographic film. The integral number of squares and parts of a square contained in the area of a spot or facula was estimated by the observer, two independent sets of measures being made by two observers. The mean of the two sets of measures has been taken for each photograph. The factor for converting the areas, as measured in ten-thousandths of a square inch, into millionths of the Sun's visible hemisphere, allowing for the effect of foreshortening, has been inferred by means of a table of double entry, giving the equivalent of one square for different values of the Sun's radius, and for different distances of the spot or facula from the Sun's centre, as measured by means of the position-micrometer.

The individual spots in a group have in some cases not been measured separately, but combined into a cluster of two or three small spots close together, the position of the centre of gravity and the aggregate area of the cluster being given. The actual number of individual spots is usually stated in the Notes.

§ 2. *Ledgers of Areas and Heliographic Positions of Groups of Sun Spots deduced from the measurement of the Solar photographs for each day in the year* 1896.

In these Ledgers the daily results for each group are collected together from the measures of the individual spots and given in a condensed form. The first column gives for each day, on which the group was observed, the Greenwich civil time at which each photograph was taken, expressed by the day of the month (civil reckoning) and the decimals of a day reckoning from Greenwich mean midnight. The second and third columns give the sums, for each day, of the projected areas of all the umbræ and whole spots comprised in the group, the projected area being the area as it is measured upon the photograph, uncorrected for foreshortening, and expressed in millionths of the Sun's apparent disk. The fourth and fifth columns give the sums for each day of the areas of all the umbræ and whole spots comprised in the group, corrected for foreshortening, and expressed in millionths of the Sun's visible hemisphere. The sixth and seventh columns give the mean longitude and latitude of the group, found by multiplying the longitude and latitude of each separately measured component of the group by its area, and dividing the sum of the products by the sum of the areas. The last column gives the mean longitude of the group from the central meridian, and is found by subtracting the longitude of the centre of the disk from the mean longitude of the group. At the foot of these daily results for each group are given the mean areas of umbræ and whole spots and the mean longitude and latitude for the period of observation.

§ 3. *Total Projected Areas of Sun Spots and Faculæ, for each day, and Mean Areas and Mean Heliographic Latitude of Sun Spots and Faculæ, for each Rotation of the Sun, and for the Year* 1896.

This section requires no further explanation.

W. H. M. CHRISTIE.

Royal Observatory, Greenwich.
1898 March 17.

ROYAL OBSERVATORY, GREENWICH.

MEASURES OF POSITIONS AND AREAS

OF

SUN SPOTS AND FACULÆ

ON

PHOTOGRAPHS

TAKEN WITH THE

PHOTOHELIOGRAPHS

AT GREENWICH, IN INDIA, AND IN MAURITIUS,

WITH THE DEDUCED

HELIOGRAPHIC LONGITUDES AND LATITUDES.

1896.

MEASURES of POSITIONS and AREAS of SUN SPOTS and FACULÆ on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DÛN in INDIA, and at the ROYAL ALFRED OBSERVATORY, MAURITIUS, in the Year 1896.

NOTE.—The Greenwich Civil Time at which the photograph was taken is expressed by the Day of the Year and decimals of a day, reckoning from Midnight, January 1d. 0h.

For convenience of reference the Month and Day of the Month (Civil Reckoning) are added.

The letter I. signifies that the photograph was taken in India; the letter M. that the photograph was taken in Mauritius; the time given is Greenwich Civil Time.

The position-angles are reckoned from the North Pole of the Sun's Axis in the direction N., E., S., W., N.

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
0d·269	AW, FT		0·956	297·3	309·6	+24·9			180
			0·928	283·1	307·1	+10·9			284
I.			0·927	307·8	301·0	+33·0			409
			0·810	285·9	292·7	+10·8			208
		4255a	0·993	259·9	323·8	−10·4	0	366	398f
		4256a	0·911	256·7	305·9	−13·5	36	149	
		4256	0·899	256·7	304·2	−13·4	0	7	
		4256d	0·896	258·8	303·9	−11·5	4	20	
		4256	0·892	258·0	303·4	−12·2	0	5	
		4256	0·888	256·6	302·8	−13·4	0	2	1082f
		4256e	0·885	257·2	302·4	−12·8	7	39	
		4256	0·878	258·4	301·6	−11·8	5	13	
		4256	0·877	257·9	301·5	−12·2	0	3	
		4256	0·875	255·5	301·1	−14·3	0	35	
		4263	0·210	359·4	240·5	+ 8·8	0	2	
		4263	0·198	4·7	239·5	+ 8·1	0	2	
		4263	0·214	9·3	238·4	+ 8·9	1	4	
		4263	0·221	14·5	237·2	+ 9·1	0	3	
		4263	0·205	16·1	237·1	+ 8·1	0	1	
		4263a	0·227	15·6	236·9	+ 9·3	4	13	
		4263	0·228	20·2	235·8	+ 9·1	0	1	
		4263	0·235	20·7	235·6	+ 9·4	0	2	
		4262a	0·337	37·3	228·4	+12·3	41	182	
		4262	0·334	42·5	227·2	+11·0	9	23	
		4262	0·330	44·7	226·8	+10·3	0	1	
		4262	0·372	49·3	223·8	+10·9	0	6	
		4262	0·382	47·3	223·8	+11·9	3	12	
		4262	0·390	46·3	223·7	+12·4	0	2	
		4262	0·364	53·0	223·3	+ 9·5	0	2	
		4262	0·395	47·2	223·2	+12·4	0	1	
		4264	0·611	106·4	203·6	−12·6	1	4	
		4264	0·630	107·7	202·4	−13·7	0	2	
			0·814	96·9	186·0	− 7·5			110
			0·870	117·9	182·0	−25·8			118
			0·907	69·7	177·8	+16·9			95

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
0d·269	AW, FT		0·898	100·9	176·6	−11·3			102
I.			0·981	104·5	161·3	−14·9			243
Jan. 1		Centre			(240·4)	(−3·3)	(111)	(902)	(3229)
1·217	AW, FT		0·925	283·7	294·2	+11·3			243
		4256a	0·977	256·7	305·9	−13·7	37	130	
I.		4256	0·965	256·7	302·9	−13·7	0	12	988f
		4256	0·962	257·7	302·2	−12·7	0	8	
		4263	0·292	316·3	239·7	+ 8·8	3	14	
		4263	0·285	317·3	239·2	+ 8·7	1	3	
		4263	0·276	320·2	238·3	+ 8·9	0	2	
		4263	0·273	321·9	237·8	+ 9·0	0	1	
		4263	0·264	323·9	237·0	+ 8·9	0	8	
		4262a	0·267	358·2	228·5	+12·0	34	160	
		4262	0·245	1·9	227·5	+10·7	6	24	
		4262	0·260	2·1	227·4	+11·6	2	11	
		4262	0·256	5·1	226·7	+11·3	0	2	
		4262	0·269	8·2	225·8	+12·0	0	1	
		4262	0·258	9·8	225·4	+11·3	0	13	
		4262	0·269	12·0	224·7	+11·8	0	2	
		4262	0·270	14·2	224·1	+11·7	0	1	
		4264	0·444	113·4	203·4	−13·2	0	2	
		4264	0·444	112·2	203·2	−12·7	0	1	
		4264	0·481	115·7	201·4	−15·0	0	4	
		4264	0·510	112·0	199·0	−13·9	4	12	
		4264	0·505	109·5	198·9	−12·7	0	2	
		4264	0·512	112·5	198·9	−14·3	0	1	
		4264	0·511	110·9	198·7	−13·4	0	1	
			0·940	106·3	158·1	−16·5			417
Jan. 2		Centre			(228·0)	(−3·4)	(87)	(415)	(1648)
2·270	AW, CL		0·972	256·2	290·8	−14·3			212
I.			0·949	286·6	283·8	+14·5			117

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.

The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4255, 1895 December 20–1896 January 1. A fine stream. On and after December 22 it consists of a large regular spot, *a*, followed by a long sparse stream of spots, mostly small, of which *b*, *c* and *d* are the principal. The stream diminishes from day to day up to December 29, when *a* remains alone. *a* increases slightly after this date.

Group 4256, 1895 December 21–1896 January 2. A very fine stream closely following Group 4255. Its principal members are:—*a*, a large regular spot; *b*, a very large composite spot; *c*, a large double spot, the latter being often measured in two parts. *c* has disappeared, and *b* has divided into two parts by December 29. The group diminishes steadily throughout its whole course.

Group 4262, 1895 December 27–1896 January 7. A large regular spot, *a*, followed by a short stream of spots, all small except the last one, *b*. *b* has disappeared by January 1, and *a* remains alone by January 6.

Group 4263, 1895 December 28–1896 January 2. A pair of very small spots, *a* and *b*, on December 28, *sp* Group 4262. The group has developed into a short stream by December 30. The spots are small and mostly unstable.

Group 4264, 1895 December 31–1896 January 5. A few very small unstable spots irregularly scattered.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
2d.270	AW, CL		0·934	274·1	282·7	+ 2·6			170
			0·927	262·0	282·1	− 8·8			120
I.			0·891	250·1	276·5	−19·3			146
		4262*a*	0·361	317·3	228·5	+12·0	34	162	
		4262	0·336	316·9	227·6	+10·7	3	15	
		4262	0·339	319·0	227·2	+11·4	0	9	
		4262	0·348	321·3	226·9	+12·3	0	3	
		4262	0·371	325·1	226·7	+14·2	0	5	
		4264	0·236	136·1	204·5	−13·2	2	8	
		4265*a*	0·666	56·4	178·4	+18·7	14	42	
		4265	0·677	55·9	177·8	+19·5	0	6	
		4265	0·698	57·4	175·7	+19·3	0	5	
			0·831	107·6	158·6	−16·5			406
			0·937	107·6	144·7	−17·7			371
Jan. 3		Centre			(214·1)	(−3·5)	(53)	(255)	(1542)
3·313	AW, FT		0·828	280·8	255·2	+ 6·9			217
		4262*a*	0·533	298·3	228·9	+11·4	33	155	
I.		4262	0·507	300·1	226·9	+11·5	0	4	
		4264	0·174	191·0	202·3	−13·4	0	3	
		4265*a*	0·509	42·7	179·1	+18·6	25	94	
		4265	0·505	43·9	178·9	+18·0	0	7	
		4265	0·535	44·1	177·3	+19·2	6	20	
		4265	0·521	46·7	177·1	+17·5	0	2	
		4265	0·533	46·9	176·3	+18·0	3	10	
		4265	0·547	46·3	175·8	+18·9	0	3	
		4266	0·715	111·9	156·3	−18·0	0	5	
		4266	0·715	111·4	156·2	−17·7	0	4	276*p*
		4266	0·729	109·8	154·8	−16·8	2	11	
			0·792	109·5	149·0	−17·6			148
			0·859	106·1	141·7	−15·6			129
			0·955	70·5	130·0	+17·4			373
			0·946	111·9	129·6	−21·9			367
			0·977	82·0	123·5	+ 7·0			246
Jan. 4		Centre			(200·4)	(−3·6)	(69)	(318)	(1756)
4·182	AW, FT		0·918	280·0	254·6	+ 7·7			187
			0·888	273·6	251·2	+ 1·5			109
I.			0·788	284·7	239·3	+ 9·2			120
		4262*a*	0·682	291·4	229·2	+11·6	33	121	
		4262	0·668	291·9	228·1	+11·6	1	8	122*c*
		4262	0·653	292·3	226·9	+11·4	3	7	
1896.				°	°	°			
4d.182	AW, FT	4267*a*	0·558	251·2	221·8	−13·5	0	4	
		4264	0·291	233·9	202·9	−13·4	0	3	
I.		4265*a*	0·409	23·3	179·2	+18·3	30	144	
		4265	0·408	27·4	177·7	+17·5	0	5	
		4265	0·426	26·2	177·6	+18·8	1	11	
		4265	0·438	26·3	177·2	+19·4	4	11	
		4265	0·450	29·6	175·4	+19·3	1	3	
			0·799	112·7	137·4	−20·3			199
			0·908	118·6	125·3	−27·4			127
			0·929	67·5	123·8	+19·3			658
			0·915	111·3	123·4	−20·9			178
			0·941	82·2	119·6	+ 6·0			233
Jan. 5		Centre			(189·0)	(−3·7)	(73)	(317)	(1933)
5·214	AW, FT		0·961	275·1	248·8	+ 3·8			114
			0·904	269·0	239·9	− 2·6			112
I.			0·865	259·7	235·2	−10·8			106
			0·880	282·9	235·6	+ 9·5			190
		4262*a*	0·826	287·0	229·0	+11·7	24	106	465*f*
		4267	0·796	257·4	227·9	−12·3	0	9	71*c*
		4267*a*	0·740	256·2	222·7	−12·8	2	14	
		4268*a*	0·307	203·2	182·8	−20·1	17	31	
		4268	0·292	200·9	181·7	−19·5	0	5	
		4268	0·310	198·5	181·4	−20·8	0	4	
		4268	0·323	195·8	180·8	−21·9	0	4	
		4268	0·292	187·9	177·8	−20·5	4	23	
		4265*a*	0·374	350·0	179·3	+17·7	25	127	
		4265	0·396	357·9	175·3	+19·4	2	3	
		4265	0·396	359·6	175·6	+19·4	0	8	
		4265	0·393	2·4	174·4	+19·2	0	17	
		4269	0·365	117·4	156·0	−13·3	0	2	
		4270	0·842	65·3	121·9	+18·3	5	22	999*n*
		4271	0·890	81·3	113·4	+ 6·0	2	20	315*c*
		4271	0·916	80·4	110·1	+ 7·2	0	63	
			0·801	80·7	123·1	+ 5·1			124
			0·818	112·7	121·9	−20·6			389
			0·896	120·5	113·7	−28·9			143
			0·952	112·3	103·4	−22·4			302
Jan. 6		Centre			(175·4)	(−3·8)	(81)	(458)	(3330)
6·196	CL, JW		0·966	259·8	237·7	−10·9			128
			0·964	280·6	235·9	+ 9·2			182
M.			0·953	251·4	234·9	−18·9			161

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4265, 1896 January 3–11. An irregular group on January 3; it increases in size up to January 5, when it consists of a large spot, *a*, followed at a little distance by a few small spots in a short straight stream. *a* has become regular and the small spots have disappeared by January 7.
Group 4266, January 4. Three very small spots.
Group 4267, January 5–7. A very small spot, *a*, with a distant companion on January 6.
Group 4268, January 6–10. Several small spots in a straight stream, appearing suddenly. *a*, the leader, is the largest and alone remains by January 8.
Group 4269, January 6. A very small spot.
Group 4270, January 6–7. A small spot, with a very small companion on January 7.
Group 4271, January 6–7. Two spots on January 6. The preceding spot has disappeared and the following spot broken up into several very small fragments by January 7.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
6d·196	CL, JW		0·892	280·7	224·4	+ 7·7			108
			0·888	287·4	222·8	+13·4			256
M.		4262*a*	0·931	283·9	229·4	+11·4	10	44	212*n*
		4267*a*	0·882	258·2	224·2	−12·3	2	7	204*c*
		4272*a*	0·738	248·1	208·5	−18·7	8	18	
		4272*b*	0·691	247·3	204·4	−18·3	1	6	
		4268*a*	0·459	230·9	184·6	−20·4	6	26	
		4268	0·390	220·8	178·2	−20·9	1	3	
		4268	0·395	219·8	178·1	−21·4	1	3	
		4265*a*	0·463	321·4	180·0	+17·5	26	112	
		4270	0·699	59·9	123·2	+17·5	2	8	250*c*
		4270	0·697	63·9	122·2	+14·9	0	2	
		4271	0·787	79·9	111·5	+ 5·5	0	6	
		4271	0·789	78·2	111·5	+ 6·9	0	2	125*c*
		4271	0·790	79·4	111·3	+ 5·9	0	4	
			0·798	54·3	116·9	+25·0			376
			0·821	53·9	111·5	+18·7			293
			0·866	113·6	103·5	−22·3			247
			0·926	122·6	96·4	−31·6			177
			0·956	85·4	90·0	+ 3·2			201
			0·968	91·7	87·0	− 2·7			122
Jan. 7		Centre			(162·4)	(−3·9)	(57)	(241)	(3042)
7·190	CL, AW		0·961	258·1	223·5	−12·6			152
			0·955	284·2	220·4	+12·3			186
I.			0·814	255·2	203·4	−14·4			101
		4272*a*	0·875	250·0	209·7	−19·4	42	217	
		4272	0·854	251·2	207·3	−18·1	0	6	328*c*
		4272*b*	0·824	250·2	204·0	−18·6	2	15	
		4268*a*	0·632	241·2	185·5	−20·9	7	21	
		4265*a*	0·609	305·5	180·5	+17·3	26	118	
		4273	0·460	113·1	123·6	−14·0	0	4	
			0·884	88·4	87·4	− 0·5			114
			0·935	99·4	80·0	−10·2			119
Jan. 8		Centre			(149·3)	(−4·0)	(77)	(381)	(1000)
8·451	CL, AW		0·938	257·5	202·6	−13·1			98
		4272*a*	0·972	251·7	209·5	−18·7	43	243	
		4272*b*	0·952	252·9	205·0	−17·5	9	46	401*c*
		4268*a*	0·812	248·0	185·9	−20·2	3	13	71*c*
		4265*a*	0·785	295·6	180·3	+17·1	22	122	205*nf*
			0·886	100·8	70·3	−11·4			390
Jan. 9		Centre			(132·7)	(−4·1)	(77)	(424)	(1165)
1896.				°	°	°			
9d·214	CL, FT	4272*a*	0·999	250·9	211·4	−19·3	0	412	240*f*
		4272*b*	0·995	252·1	207·9	−18·3	0	51	
I.		4268*a*	0·904	249·1	186·9	−20·7	0	6	148*sf*
		4265*a*	0·877	291·5	180·7	+16·6	15	93	131*nf*
			0·764	99·4	72·9	− 9·9			87
Jan. 10		Centre			(122·6)	(−4·2)	(15)	(562)	(606)
10·193	AW, FT		0·942	248·3	180·0	−21·9			133
			0·798	252·4	162·0	−16·6			150
I.		4265*a*	0·957	289·0	180·4	+16·8	19	62	165*nf*
			0·961	73·7	37·7	+14·4			295
			0·954	103·0	36·9	−13·7			202
Jan. 11		Centre			(109·7)	(−4·3)	(19)	(62)	(945)
11·403	AW, FT		0·912	252·9	159·7	−17·4			174
			0·806	253·3	147·1	−16·0			175
I.		4274	0·885	91·9	31·7	− 3·7	0	11	
		4274	0·908	93·7	28·7	− 5·2	0	7	223*c*
		4274*a*	0·910	92·4	28·4	− 4·0	0	12	
			0·849	70·2	38·6	+14·2			221
			0·880	104·3	32·3	−14·7			217
			0·953	95·5	21·4	− 6·6			104
Jan. 12		Centre			(93·9)	(−4·4)	(0)	(30)	(1114)
12·200	JW, AW		0·966	289·2	155·8	+17·2			128
			0·927	254·3	151·4	−16·3			397
M.			0·821	249·1	137·6	−19·7			135
		4275	0·620	304·5	115·4	+16·6	1	7	
		4275	0·601	305·9	113·7	+16·6	0	5	
		4276*a*	0·181	137·1	76·1	−12·2	3	12	
		4276	0·179	132·1	75·5	−11·4	1	11	
		4276	0·239	132·4	72·9	−13·8	0	2	
		4276	0·222	122·4	72·3	−11·3	0	15	
		4276	0·210	112·1	72·0	− 9·0	0	4	
		4276	0·262	129·5	71·3	−14·0	0	4	
		4276	0·256	126·7	71·2	−13·3	2	14	
		4274*a*	0·809	92·1	29·3	− 4·4	2	11	172*c*
			0·736	103·9	36·2	−13·4			153
			0·773	67·3	36·1	+14·3			277
			0·882	100·1	21·3	−11·1			367
			0·923	67·3	19·4	+18·9			441
			0·949	109·4	11·4	−19·9			219
Jan. 13		Centre			(83·3)	(−4·6)	(9)	(85)	(2289)

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4272, January 7–10. Two irregular spots, *a* and *b*. They have greatly increased in size by January 8.
Group 4273, January 8. A very small spot.
Group 4274, January 12–14. Three small spots on January 12. Only *a*, the last, remains by the succeeding day.
Group 4275, January 13–14. A pair of small spots.
Group 4276, January 13–16. A number of small unstable spots in an irregular stream. Only *a*, the leader, remains by January 15.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
13d·184	AW, CL		0·941	251·3	140·8	−19·2			249
			0·892	280·4	132·3	+ 7·1			216
I.			0·873	291·7	127·9	+16·3			266
			0·816	257·8	125·0	−12·7			101
			0·824	247·8	124·9	−20·9			94
			0·815	307·1	116·6	+26·2			128
		4275	0·760	295·6	115·7	+15·9	0	6	} 534*np*
		4275	0·741	296·9	113·7	+16·2	2	10	
		4276	0·199	217·6	77·5	−13·7	0	5	
		4276*a*	0·179	223·0	77·5	−12·2	4	16	
		4274*a*	0·656	90·4	29·5	− 3·9	1	8	
			0·825	64·7	19·1	+17·7			235
			0·932	55·1	8·6	+30·0			263
			0·941	65·2	4·0	+21·4			211
			0·938	117·4	1·1	−27·3			145
Jan. 14		Centre			(70·4)	(−4·7)	(7)	(45)	(2442)
14·531	AW, CL		0·919	291·3	116·3	+17·4			315
		4276*a*	0·452	251·8	78·7	−12·5	3	16	
			0·837	48·0	6·5	+30·8			144
Jan. 15		Centre			(52·7)	(−4·7)	(3)	(16)	(459)
15·187	AW, FT		0·958	289·3	114·7	+16·9			423
			0·948	279·5	114·3	+ 7·4			158
I.			0·934	239·9	112·3	−29·8			111
			0·884	248·0	105·6	−21·6			233
			0·948	300·6	104·6	+20·7			108
		4276*a*	0·578	254·2	78·7	−13·0	3	12	
		4277*a*	0·986	99·4	323·3	−10·0	0	103	128*c*
			0·871	52·6	351·9	+29·0			157
			0·931	65·1	339·4	+21·1			152
Jan. 16		Centre			(44·0)	(−4·8)	(3)	(115)	(1470)
16·198	AW, FT		0·961	248·2	105·2	−22·3			286
			0·924	241·0	97·4	−28·6			83
I.			0·905	274·0	95·0	+ 1·5			81
		4277*a*	0·920	98·5	323·5	− 9·8	20	123	255*f*
			0·813	45·0	348·5	+31·4			218
			0·885	59·7	334·3	+23·8			278
Jan. 17		Centre			(30·7)	(−4·9)	(20)	(123)	(1201)
1896.				°	°	°			
17d·402	AW, FT		0·860	260·8	74·4	−10·5			291
		4277*a*	0·778	99·0	323·8	−10·2	25	122	65*c*
I.		4278	0·947	102·6	303·3	−13·5	15	86	305*c*
			0·927	177·1	6·0	−72·4			106
			0·907	52·1	318·4	+31·1			119
			0·922	76·2	308·7	+12·4			191
			0·930	110·2	306·4	−20·6			173
Jan. 18		Centre			(14·9)	(−5·0)	(40)	(208)	(1250)
18·252	AW, FT		0·937	259·6	73·6	−11·5			318
			0·944	295·3	70·3	+21·8			120
I.		4277	0·601	102·0	327·0	−11·3	0	1	
		4277*a*	0·645	99·6	323·6	−10·1	32	132	76*c*
		4278*a*	0·870	102·4	303·1	−13·3	18	73	} 235*c*
		4278	0·928	102·0	295·3	−13·0	0	3	
			0·836	45·9	318·8	+32·0			107
			0·866	62·4	308·7	+20·8			111
			0·846	74·0	308·1	+10·6			90
			0·864	111·8	304·4	−21·4			142
			0·931	53·4	302·9	+31·3			247
			0·951	93·0	291·7	− 4·5			324
Jan. 19		Centre			(3·7)	(−5·1)	(50)	(209)	(1770)
19·490	AW, FT		0·851	290·2	42·5	+14·1			136
		4277	0·344	107·8	327·9	−10·9	0	6	
		4277	0·382	97·7	324·9	− 7·8	0	6	
		4277*a*	0·408	104·6	323·7	−10·7	23	120	
		4278*a*	0·696	104·7	303·6	−13·9	18	75	110*f*
			0·829	47·5	302·4	+30·3			131
			0·856	94·3	288·3	− 6·4			143
Jan. 20		Centre			(347·3)	(−5·2)	(41)	(207)	(520)
20·203	AW, FT		0·904	287·4	40·2	+13·3			112
			0·868	257·2	38·4	−13·7			155
I.			0·821	267·1	33·2	− 5·4			116
			0·802	294·0	27·3	+15·6			98
			0·727	264·5	24·7	− 7·7			105
			0·730	301·4	18·8	+18·3			160
		4277*a*	0·265	111·3	323·5	−10·6	21	134	
		4278*a*	0·577	106·7	303·4	−13·9	20	76	
			0·911	82·9	273·2	+ 4·3			68
Jan. 21		Centre			(338·0)	(−5·3)	(41)	(210)	(814)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4277, January 16–28. A large regular spot, *a*, with occasionally a very small companion.
Group 4278, January 18–29. A regular spot, *a*, with occasionally a very small companion.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
21d.309	AW, CL		0·965	257·6	38·8	−13·4			180
			0·887	254·4	26·1	−16·3			86
I.			0·845	261·4	21·3	−10·3			328
			0·865	294·5	19·0	+18·0			438
			0·824	307·7	10·0	+26·5			150
			0·767	320·4	358·4	+31·8			324
			0·701	316·2	355·9	+25·8			67
		4277*a*	0·094	179·5	323·3	−10·8	25	120	
		4278*a*	0·365	115·0	303·6	−14·0	20	71	
		4278	0·413	112·4	300·3	−14·0	0	3	
			0·928	72·3	257·8	+14·2			192
			0·933	85·6	255·1	+ 2·1			191
Jan. 22		Centre			(323·4)	(−5·4)	(45)	(194)	(1956)
22·187	AW, FT		0·895	261·2	15·6	−10·3			124
			0·916	292·4	14·5	+18·0			158
I.			0·859	302·8	4·1	+24·4			207
			0·873	318·3	358·2	+36·9			38
			0·786	310·8	353·4	+26·8			95
		4277*a*	0·219	244·8	323·4	−10·7	24	121	
		4278	0·202	152·9	306·3	−15·8	0	2	
		4278*a*	0·202	137·1	303·7	−14·0	13	58	
Jan. 23		Centre			(311·8)	(−5·5)	(37)	(181)	(622)
23·426	AW, CL		0·888	244·0	357·7	−25·6			90
			0·917	295·7	357·6	+20·9			270
			0·912	308·4	352·4	+31·6			143
		4277*a*	0·474	257·8	323·6	−10·7	22	108	
		4278	0·212	239·0	306·2	−11·7	0	2	
		4278*a*	0·208	224·0	304·1	−14·1	9	34	
		4279*a*	0·996	108·6	209·4	−19·0	31	157	
			0·937	72·8	228·6	+14·0			195
			0·935	101·2	225·9	−12·4			103
Jan. 24		Centre			(295·6)	(−5·6)	(62)	(301)	(801)
24·239	AW, CL		0·959	296·3	353·9	+23·2			167
			0·967	303·9	353·4	+30·7			134
I.			0·918	239·4	350·6	−30·2			113
			0·922	308·2	343·2	+31·9			96
			0·870	299·9	339·3	+22·5			161
			0·824	291·1	336·9	+13·8			127
1896.				°	°	°			
24d.239	AW, CL		0·811	308·7	329·6	+26·5			118
		4277*a*	0·629	259·8	323·7	−10·8	21	110	
I.		4278	0·368	247·5	305·2	−13·4	0	1	
		4278*a*	0·358	244·9	304·2	−14·0	9	39	
		4279*a*	0·968	107·6	208·5	−18·4	56	238	194*c*
			0·861	69·2	228·7	+14·7			178
			0·844	102·1	227·1	−13·3			144
			0·896	76·6	223·0	+ 9·3			90
			0·966	83·5	210·6	+ 4·8			102
Jan. 25		Centre			(284·8)	(−5·6)	(86)	(388)	(1624)
25·179	AW, JW		0·919	286·7	336·7	+12·8			101
			0·914	299·1	332·8	+23·6			235
I.			0·861	312·2	320·7	+31·6			199
		4277*a*	0·782	260·3	324·0	−11·1	21	109	111*c*
		4278	0·541	252·5	304·4	−14·2	5	23	
		4280	0·388	122·3	252·4	−17·3	0	1	
		4280	0·409	120·9	250·9	−17·4	0	4	
		4281	0·595	67·0	238·9	+ 8·6	0	4	
		4279*a*	0·896	108·0	208·6	−18·6	50	201	288*c*
			0·846	64·9	219·1	+17·7			125
			0·883	82·4	211·3	+ 4·0			102
Jan. 26		Centre			(272·4)	(−5·7)	(76)	(342)	(1161)
26·261	AW, JW		0·909	296·9	318·5	+21·4			171
			0·906	304·1	315·8	+27·5			113
I.			0·895	310·7	311·3	+32·3			172
			0·810	316·6	298·9	+31·6			86
		4277*a*	0·913	260·3	324·5	−11·3	22	109	264*c*
		4278*a*	0·729	255·6	304·8	−14·4	2	14	
		4281	0·373	53·1	240·8	+ 7·4	0	4	
		4281	0·386	51·9	240·4	+ 8·2	1	6	
		4281	0·421	54·3	238·3	+ 8·7	1	3	
		4281	0·432	53·8	237·6	+ 9·3	0	2	
		4281	0·429	55·7	237·3	+ 8·6	0	2	
		4282*a*	0·653	102·1	217·6	−12·3	3	11	
		4282	0·671	103·5	216·3	−13·3	1	5	
		4282	0·673	104·2	216·2	−13·8	0	3	
		4282	0·685	103·3	215·1	−13·3	0	7	
		4282	0·694	105·0	214·5	−14·6	1	7	
		4282*b*	0·699	104·4	214·1	−14·2	7	16	
		4279*a*	0·769	109·8	208·5	−18·9	30	167	434*f*
			0·962	109·2	183·2	−20·0			318
Jan. 27		Centre			(258·2)	(−5·8)	(68)	(356)	(1558)

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4279, January 25–February 6. A large spot, *a*, which eventually becomes regular. A very small companion is seen near it on February 1. *a* is measured in two parts on February 6.
Group 4280, January 26. Two very small spots.
Group 4281, January 26–February 2. A very small spot on January 26. Afterwards a number of small unstable spots in a short irregular stream.
Group 4282. January 27–February 2. A few small spots in a compact stream, forming one straight line with Group 4278. The group has increased in size by January 28, especially *a* and *b*, the first and last spots. The group decreases after January 29, *a* and *b* alone remaining by January 30, and breaking up before February 1.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
27d.527	CL, AW	4277*a*	0·990	259·8	324·0	−10·9	0	108	
		4278*a*	0·888	257·2	304·5	−14·1	0	16	
		4281	0·219	359·6	241·6	+ 6·7	0	7	
		4282*a*	0·402	105·5	218·3	−11·6	12	82	
		4282	0·454	112·1	215·8	−15·1	0	4	
		4282*b*	0·489	110·8	213·4	−15·2	10	34	
		4279*a*	0·580	115·8	208·0	−19·5	29	169	
		4283*a*	0·854	110·8	183·1	−20·8	4	24	
		4283*b*	0·859	111·1	182·5	−21·1	0	4	250*c*
		4283*c*	0·890	110·8	178·6	−21·2	0	7	
		4283*d*	0·890	109·5	178·5	−20·0	3	21	
Jan. 28		Centre			(241·5)	(−5·9)	(58)	(476)	(250)
28·208	AW, JW		0·942	308·1	294·3	+32·8			133
			0·883	329·9	271·4	+45·2			73
I.		4278*a*	0·949	257·0	304·9	−14·2	3	9	144*f*
		4281	0·258	328·1	240·5	+ 6·8	1	6	
		4281	0·265	330·2	240·2	+ 7·4	0	15	
		4281	0·269	336·2	238·9	+ 8·4	0	1	
		4281	0·268	337·5	238·5	+ 8·4	1	6	
		4281	0·262	339·6	237·9	+ 8·3	4	13	
		4281	0·251	338·4	237·9	+ 7·5	0	2	
		4281	0·272	343·9	237·0	+ 9·2	0	1	
		4282*a*	0·244	112·9	219·4	−11·2	15	81	
		4282	0·279	112·8	217·4	−11·9	0	5	
		4282	0·320	119·7	216·0	−14·7	0	3	
		4282*b*	0·362	117·4	213·2	−15·1	15	40	
		4279*a*	0·465	121·3	207·8	−19·3	30	171	
		4283*a*	0·763	111·8	183·7	−20·4	2	11	
		4283*a*	0·770	111·8	183·1	−20·4	2	11	416*c*
		4283*d*	0·815	109·6	178·4	−19·3	5	39	
		4283*c*	0·817	111·2	178·3	−20·7	0	9	
			0·811	64·4	183·0	+16·8			80
			0·890	64·8	174·3	+19·2			56
			0·909	62·5	172·4	+22·0			76
			0·922	109·2	165·0	−20·0			137
Jan. 29		Centre			(232·6)	(−5·9)	(78)	(423)	(1115)
29·515	AW, CL	4281	0·454	298·9	238·9	+ 7·1	0	13	
		4281	0·460	301·1	238·8	+ 8·2	0	7	
		4282*a*	0·133	230·7	221·4	−10·8	7	42	
		4282*b*	0·154	168·7	213·6	−14·7	9	34	
1896.				°	°	°			
29d.515	AW, CL	4279*a*	0·262	151·8	207·9	−19·3	29	159	
		4283*d*	0·611	114·0	179·3	−19·2	0	11	
Jan. 30		Centre			(215·4)	(−6·0)	(45)	(266)	(0)
30·476	AW, JW	4281	0·677	287·5	243·1	+ 7·1	0	6	
		4281	0·666	288·0	242·2	+ 7·2	1	11	
M.		4282*a*	0·342	255·2	222·3	−10·7	4	22	
		4282	0·287	234·0	216·6	−15·6	0	8	
		4282*b*	0·239	230·5	213·6	−14·7	4	25	
		4279*a*	0·246	200·2	207·8	−19·4	27	161	
		4284*a*	0·958	72·8	132·0	+14·5	20	95	673*f*
			0·919	110·3	135·5	−21·0			98
Jan. 31		Centre			(202·7)	(−6·1)	(56)	(328)	(771)
31·323	AW, JW	4281	0·808	284·8	243·5	+ 8·1	0	11	
		4281	0·805	283·2	243·5	+ 6·8	8	26	
I.		4281	0·798	283·5	242·8	+ 6·9	0	4	
		4281	0·794	284·4	242·3	+ 7·5	2	7	
		4281	0·788	285·5	241·5	+ 8·2	2	14	366*c*
		4281	0·781	284·1	241·1	+ 7·0	0	3	
		4281	0·770	283·4	240·3	+ 6·2	3	13	
		4281	0·773	285·9	240·1	+ 8·1	0	5	
		4281	0·760	287·1	238·7	+ 8·8	2	12	
		4282*a*	0·522	258·2	222·9	−11·4	4	18	
		4282	0·479	256·3	219·9	−12·0	0	5	
		4282	0·491	247·3	219·7	−16·4	0	11	
		4282	0·439	242·8	215·6	−17·2	0	2	
		4282*b*	0·393	245·9	213·3	−15·0	0	6	
		4279*a*	0·353	228·3	207·8	−19·5	36	159	
		4279	0·344	223·7	206·2	−20·4	0	4	
		4284*a*	0·894	70·1	131·5	+14·7	25	126	825*f*
			0·852	112·6	133·5	−22·5			127
			0·938	110·4	121·2	−21·3			191
Feb. 1		Centre			(191·6)	(−6·2)	(82)	(426)	(1509)
32·505	CL, JW	4281	0·937	280·8	244·0	+ 7·8	10	92	
		4281	0·916	281·6	240·7	+ 8·0	0	30	201*c*
		4281	0·899	280·2	238·7	+ 6·3	0	9	
		4285	0·778	255·6	227·1	−15·1	0	9	
		4285	0·768	256·8	226·2	−14·1	34	60	139*c*
		4285	0·755	254·4	224·9	−15·8	8	23	
		4285	0·733	253·4	222·9	−16·4	11	29	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4283, January 28–30. Four small spots, *a*, *b*, *c* and *d*, on January 28. *a* has divided into two by January 29. Only *d* remains by January 30.
Group 4284, January 31–February 8. A large regular spot, *a*, with some very small companions on February 5 and 8.
Group 4285, February 2–5. An irregular stream appearing suddenly *p* Group 4282, and developing with great rapidity.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
32d.505	CL, JW	4282*a*	0·737	260·3	223·6	−11·3	1	10	
		4279*a*	0·557	244·1	207·9	−19·3	15	116	
		4284*a*	0·755	64·4	131·5	+14·6	26	134	165*f*
			0·893	59·7	119·0	+23·5			136
			0·904	67·3	115·3	+17·4			177
			0·944	111·0	104·5	−21·9			155
Feb. 2		Centre			(176·0)	(−6·2)	(105)	(512)	(973)
33·465	AW, CL		0·979	279·4	240·3	+ 7·8			497
		4285	0·902	256·8	228·3	−14·6	46	305	
		4285	0·881	258·8	225·6	−12·8	2	12	
		4285	0·873	256·3	224·6	−15·0	0	27	
		4285	0·867	254·9	223·8	−16·2	0	6	
		4285	0·866	257·4	223·7	−14·0	0	25	211*c*
		4285	0·852	254·7	222·1	−16·3	9	72	
		4285	0·847	257·1	221·6	−14·3	7	72	
		4285	0·813	258·0	218·0	−13·4	0	5	
		4285	0·812	255·8	217·8	−15·1	10	63	
		4279*a*	0·709	249·2	207·8	−19·2	16	117	
		4284*a*	0·617	55·8	131·7	+14·9	28	144	
Feb. 3		Centre			(163·4)	(−6·3)	(118)	(848)	(708)
34·208	AW, JW		0·965	286·0	226·0	+13·6			170
I.			0·923	294·8	216·5	+20·0			117
			0·755	243·0	201·0	−24·4			89
		4285	0·975	255·9	231·7	−15·1	80	470	
		4285	0·957	257·2	227·5	−14·1	18	118	
		4285	0·948	255·6	225·8	−15·7	0	30	
		4285	0·943	256·4	224·9	−15·0	11	87	875*c*
		4285	0·934	254·2	223·4	−17·0	11	170	
		4285	0·923	256·3	221·6	−15·1	51	326	
		4285	0·903	255·1	218·6	−16·2	11	58	
		4279*a*	0·818	250·2	208·3	−19·8	19	122	1278*f*
		4286*a*	0·344	341·6	160·0	+12·6	8	18	
		4286	0·348	347·8	157·9	+13·4	0	4	
		4286	0·342	350·6	156·9	+13·3	0	13	
		4284*a*	0·505	44·7	132·1	+15·0	28	148	
			0·770	57·0	110·3	+20·2			225
Feb. 4		Centre			(153·6)	(−6·4)	(237)	(1564)	(1603)
35·188	AW, JW		0·858	247·5	199·6	−22·6			160
I.			0·713	247·6	185·2	−20·3			156
1896.				°	°	°			
35d.188	AW, JW	4285	0·996	254·6	227·1	−15·9	0	63	
		4285	0·991	253·7	224·2	−16·9	19	174	668*c*
I.		4285	0·985	255·5	221·9	−15·4	91	308	
		4285	0·974	255·0	218·6	−16·0	0	13	
		4279*a*	0·923	251·0	208·6	−20·0	18	99	203*c*
		4286*a*	0·473	313·5	161·2	+13·0	8	38	
		4286	0·450	315·2	159·6	+12·5	0	4	
		4286	0·442	318·6	158·1	+13·2	0	3	
		4286	0·429	320·5	156·9	+13·1	6	26	
		4284*a*	0·392	21·8	132·1	+14·9	23	122	
		4284	0·405	25·9	130·2	+15·0	1	6	
		4284	0·414	26·1	129·9	+15·4	0	5	
		4284	0·373	34·0	128·5	+11·7	0	4	
		4287*a*	0·956	100·1	67·1	−11·5	4	23	
		4287	0·957	99·1	67·0	−10·6	0	7	458*c*
		4287*b*	0·990	102·1	58·1	−12·8	0	29	
			0·886	99·6	77·9	−11·5			108
Feb. 5		Centre			(140·7)	(−6·4)	(170)	(924)	(1753)
36·476	AW, JW		0·868	250·6	184·1	−20·1			239
		4279*a*	0·993	249·9	208·8	−20·7	0	21	
M.		4279*a*	0·990	251·3	206·8	−19·3	9	43	183*f*
		4286*a*	0·677	297·9	161·5	+13·3	7	31	
		4284*a*	0·393	338·7	132·2	+15·0	14	96	
		4287	0·822	98·0	68·1	−10·3	0	3	
		4287*a*	0·824	99·1	67·9	−11·2	11	35	
		4287	0·884	102·9	61·1	−14·4	0	3	
		4287	0·888	102·2	60·6	−13·8	0	8	452*c*
		4287	0·894	100·1	59·9	−11·9	0	4	
		4287*b*	0·898	101·2	59·3	−12·9	0	19	
Feb. 6		Centre			(123·7)	(−6·5)	(41)	(263)	(874)
37·230	AW, JW		0·927	251·6	182·4	−19·5			268
		4288*a*	0·781	247·6	164·5	−21·5	1	9	
I.		4288	0·776	248·3	164·1	−20·9	0	3	109*c*
		4288	0·743	246·7	160·8	−21·5	0	6	
		4288	0·737	245·9	160·1	−22·0	0	5	
		4286*a*	0·789	292·4	162·1	+13·2	7	23	115*f*
		4286	0·773	295·3	159·9	+14·8	0	9	
		4284*a*	0·475	319·0	132·5	+14·8	10	59	
		4289	0·527	326·3	131·8	+19·8	0	4	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4286, February 4–8. A few small spots in a straight stream. The leader, *a*, is the only stable member of the group, and is seen alone on February 6 and 8.
Group 4287, February 5–12. A number of small spots in an irregular stream. The spots are mostly unstable, *a* and *b*, the first and last spots on February 5, being the most stable. A wide gap has formed between the preceding and following portions of the stream by February 8, and the following portion has disappeared by February 11.
Group 4288, February 7–8. A few very small spots irregularly arranged. Only the leader, *a*, remains by February 8.
Group 4289, February 7. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
37d·230	AW, JW	4287	0·707	98·0	68·6	−10·2	0	6	
		4287*a*	0·713	99·3	68·1	−11·2	7	17	
I.		4287	0·716	97·9	67·9	−10·2	0	3	
		4287	0·720	98·7	67·6	−10·8	0	2	
		4287	0·765	99·9	63·7	−11·7	2	18	
		4287	0·780	102·1	62·3	−13·5	0	6	
		4287	0·789	103·1	61·5	−14·3	0	5	462*c*
		4287	0·794	100·3	61·0	−12·1	0	6	
		4287	0·801	99·9	60·3	−11·8	0	7	
		4287*b*	0·808	101·2	59·6	−12·9	4	18	
		4287	0·812	103·6	59·3	−14·8	0	6	
		4287	0·830	102·0	57·4	−13·6	0	4	
			0·929	101·7	44·9	−13·3			114
Feb. 7		Centre			(113·8)	(−6·5)	(31)	(216)	(1068)
38·134	AW, FT		0·976	250·7	180·7	−20·3			157
		4288*a*	0·893	249·6	165·5	−21·2	5	27	261*c*
I.		4286*a*	0·894	288·5	162·3	+13·3	0	13	163*nf*
		4284*a*	0·603	305·3	132·4	+14·7	6	34	
		4284	0·588	304·5	131·7	+13·7	0	7	
		4284	0·580	303·7	131·5	+13·0	0	14	
		4287*a*	0·555	100·0	68·2	−11·0	6	22	
		4287	0·615	101·0	64·0	−12·0	1	28	
		4287	0·656	101·4	60·9	−12·4	1	8	
		4287	0·659	100·8	60·6	−12·1	0	5	
		4287	0·668	103·8	60·1	−14·1	0	12	
		4287*b*	0·671	101·7	59·7	−12·7	0	9	
		4287	0·684	99·6	58·6	−11·4	0	12	
			0·876	63·4	45·9	+19·5			83
			0·853	102·2	43·0	−13·8			112
			0·888	72·7	42·0	+12·1			92
Feb. 8		Centre			(101·9)	(−6·6)	(19)	(191)	(868)
39·217	AW, FT		0·966	249·3	163·8	−21·7			315
			0·956	272·4	160·1	+ 0·4			242
I.			0·953	287·1	157·3	+14·1			61
		4287*a*	0·342	103·3	67·9	−10·7	2	15	
		4287	0·395	103·9	64·7	−11·6	5	26	
		4287	0·494	101·7	58·1	−11·5	0	3	
		4287	0·502	104·4	57·8	−13·0	0	4	
		4287	0·502	102·6	57·7	−12·0	0	6	
		4290*a*	0·957	68·4	18·2	+18·4	4	34	289*p*
1896.				°	°	°			
39d·217	AW, FT		0·755	63·4	43·4	+15·0			162
I.			0·889	101·7	24·3	−13·4			98
Feb. 9		Centre			(87·6)	(−6·6)	(11)	(88)	(1167)
40·506	AW, JW		0·918	283·3	134·7	+ 6·7			93
			0·907	289·3	132·7	+14·3			133
			0·880	295·8	127·5	+18·9			211
		4287*a*	0·084	149·9	68·4	−10·9	4	11	
		4287	0·126	137·9	65·9	−12·0	0	3	
		4287	0·115	128·9	65·6	−10·8	0	4	
		4287	0·128	132·8	65·3	−11·7	3	6	
		4287	0·237	118·6	58·5	−13·0	0	6	
		4290*a*	0·838	63·6	19·0	+17·8	5	20	135*c*
		4291*a*	0·930	78·0	4·1	+ 8·6	1	13	177*c*
		4291	0·947	77·9	1·3	+ 9·2	0	5	
			0·951	64·1	3·7	+22·0			149
Feb. 10		Centre			(70·8)	(−6·7)	(13)	(68)	(898)
41·614	CL, JW		0·954	289·2	125·5	+16·0			199
			0·925	301·9	116·9	+26·1			128
			0·869	290·4	113·0	+14·0			84
		4287*a*	0·230	250·7	68·8	−10·9	3	10	
		4290*a*	0·698	55·8	18·9	+17·7	5	17	72*f*
		4291*a*	0·811	74·1	4·2	+ 8·7	8	30	
		4291	0·846	74·0	0·7	+ 9·7	7	32	146*c*
		4291	0·859	73·2	359·5	+10·7	2	11	
Feb. 11		Centre			(56·1)	(−6·7)	(25)	(100)	(629)
42·387	AW, CL		0·972	249·2	123·6	−21·7			196
			0·950	292·4	113·8	+18·8			257
		4287*a*	0·399	258·8	69·3	−10·7	0	6	
		4287	0·342	249·1	65·0	−13·4	0	8	
		4290	0·583	46·3	19·8	+17·6	0	4	
		4290*a*	0·593	47·0	18·9	+17·7	2	18	
		4290	0·617	48·4	17·0	+18·2	0	3	
		4291	0·687	70·2	5·3	+ 8·3	1	10	
		4291*a*	0·698	70·3	4·4	+ 8·5	10	68	
		4291	0·730	71·8	1·6	+ 8·4	0	10	
		4291	0·738	69·9	1·4	+ 9·9	1	9	213*c*
		4291	0·752	70·1	0·2	+10·1	9	43	
		4291	0·750	71·3	0·1	+ 9·2	0	6	
Feb. 12		Centre			(45·9)	(−6·8)	(23)	(185)	(666)

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4290, February 9–12. A small regular spot, *a*, with two very small companions on February 12.
Group 4291. February 10–21. A number of small spots in a short irregular stream. The group increases, especially as it regards the leader, *a*, up to February 15, when it consists of five principal spots, *a*, *b*, *c*, *d* and *e*. *a*, now a regular spot, alone remains by February 19. A few very small companions are seen near it on February 18.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
43d·402	AW, FT	4292	0·129	187·7	33·5	−14·1	2	13	
		4292	0·126	171·4	31·4	−14·0	1	9	
		4291*a*	0·522	61·1	5·1	+ 8·6	16	103	
		4291*b*	0·538	61·3	4·1	+ 9·0	6	27	
		4291	0·535	62·6	3·9	+ 8·2	2	8	
		4291*c*	0·572	62·6	1·7	+ 9·4	5	25	
		4291	0·567	64·1	1·6	+ 8·5	0	4	
		4291	0·590	64·3	0·1	+ 9·1	0	4	
		4291	0·608	61·0	359·8	+11·4	0	4	
		4291*d*	0·605	62·2	359·7	+10·6	8	45	
		4291	0·604	63·6	359·3	+ 9·9	1	5	
			0·938	60·6	328·6	+24·5			155
Feb. 13		Centre			(32·5)	(−6·8)	(41)	(247)	(155)
Feb. 14				No	photo	graph.			
45·229	AW,JW		0·983	259·9	88·9	−11·2			215
			0·836	260·0	65·6	−12·1			380
I.		4293*a*	0·957	285·4	79·2	+12·6	11	70	
		4293	0·950	286·1	77·7	+12·9	0	8	336*c*
		4293*b*	0·932	285·6	74·8	+11·8	25	94	
		4294	0·511	290·4	37·1	+ 4·2	0	4	
		4294	0·504	290·9	36·6	+ 4·3	2	5	
		4291*a*	0·272	8·4	6·2	+ 8·6	27	151	
		4291*b*	0·296	13·7	4·4	+ 9·8	5	23	
		4291	0·298	15·8	3·8	+ 9·7	0	2	
		4291*c*	0·309	22·2	1·7	+ 9·8	19	106	
		4291	0·327	21·5	1·5	+10·8	0	4	
		4291	0·319	23·7	1·0	+10·1	0	1	
		4291*d*	0·330	25·3	0·3	+10·5	3	14	
		4291*e*	0·348	24·9	359·9	+11·5	5	30	
			0·830	74·3	314·7	+ 8·9			115
Feb. 15		Centre			(8·5)	(−6·9)	(97)	(512)	(1046)
46·184	AW,JW		0·916	258·4	62·9	−13·4			507
		4293	0·988	283·4	75·0	+12·0	0	24	
I.		4293*b*	0·986	282·4	74·4	+10·9	35	158	221*c*
		4291*a*	0·322	325·3	6·5	+ 8·5	32	152	
		4291	0·304	328·4	5·1	+ 8·1	0	8	
		4291*c*	0·304	341·2	1·6	+ 9·7	15	89	
		4291	0·311	344·0	0·9	+10·3	0	5	
		4291*d*	0·311	346·7	0·1	+10·6	3	21	
		4291*e*	0·330	348·0	359·9	+11·8	3	10	
			0·931	53·9	295·8	+30·0			249
Feb. 16		Centre			(355·9)	(−7·0)	(88)	(467)	(977)
1896.				°	°	°			
47d·486	CL, AW		0·925	292·6	42·3	+17·8			98
			0·881	278·6	39·4	+ 4·2			68
		4291*a*	0·529	298·6	6·7	+ 8·4	18	153	
		4291*c*	0·470	306·1	1·2	+ 9·6	6	30	
			0·889	46·1	288·6	+33·7			113
Feb. 17		Centre			(338·8)	(−7·0)	(24)	(183)	(279)
48·200	AW,JW		0·956	258·0	43·3	−13·5			145
			0·956	276·8	41·4	+ 4·4			118
I.			0·921	294·1	32·0	+19·0			171
			0·863	256·8	29·6	−14·9			117
			0·838	303·5	18·6	+23·0			196
		4291*a*	0·659	291·2	7·6	+ 8·3	23	112	
		4291	0·616	295·0	3·7	+ 9·3	0	1	
		4291	0·598	296·2	3·2	+ 9·4	2	10	
		4291	0·609	296·2	2·9	+ 9·8	0	3	
		4295	0·978	71·2	254·4	+16·7	36	157	265*c*
			0·872	42·7	283·3	+35·1			88
			0·969	80·9	255·1	+ 7·0			151
Feb. 18		Centre			(329·4)	(−7·0)	(61)	(283)	(1251)
49·620	AW, FT	4291*a*	0·853	284·4	7·0	+ 8·4	12	106	147*f*
		4295	0·846	65·9	257·3	+16·0	20	167	
		4295	0·859	66·5	255·8	+16·0	0	12	
		4295	0·885	67·0	252·6	+16·6	0	29	304*c*
		4295	0·938	68·1	244·8	+17·7	10	136	
		4295	0·962	66·7	240·6	+20·1	0	4	
		4296	0·978	103·3	231·6	−14·4	56	542	450*c*
			0·848	90·3	252·6	− 4·0			42
			0·910	76·9	247·1	+ 8·8			155
Feb. 19		Centre			(310·6)	(−7·1)	(98)	(996)	(1098)
50·282	AW,JW	4291*a*	0·927	281·3	8·3	+ 7·7	21	137	364*f*
I.		4297	0·319	23·8	294·5	+ 9·9	0	9	
		4297	0·311	29·0	293·3	+ 8·7	0	7	
		4295	0·759	61·0	258·4	+16·5	40	129	
		4295	0·772	61·4	257·1	+16·7	9	27	
		4295	0·778	62·6	256·2	+16·0	0	17	
		4295	0·783	63·7	255·5	+15·4	0	4	
		4295	0·785	64·7	254·9	+14·8	2	10	
		4295	0·799	62·4	254·4	+16·9	15	61	437*c*

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Group 4292, February 13. A pair of small spots.
Group 4293, February 15–16. A considerable group first seen close to the West limb. It consists on February 15 of two principal spots, *a* and *b*, and a small companion. *b* and a small companion are alone seen on February 16.
Group 4294. February 15. A close pair of very small spots.
Group 4295, February 18–29. A great number of spots, several of which are large, in a magnificent stream. The individual members of the group undergo continual change, but the group itself continues throughout a fine straight stream.
Group 4296, February 19–March 2. A fine but very irregular stream. The main body of the group consists of a long straight stream, composed of large irregular spots close together in the preceding part, and of smaller scattered spots following them. A short stream of small and mostly unstable spots is seen north of the main stream, February 20–29; and a smaller and more unstable stream south of it, February 22–25. The entire group undergoes continual change.
Group 4297, February 20. Three very small faint spots, of which two are measured together.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
50d·282	AW, JW	4295	0·818	61·6	252·9	+18·3	0	9	
		4295	0·833	61·1	251·6	+19·3	0	12	
I.		4295	0·822	65·2	251·4	+15·7	2	12	
		4295	0·839	61·7	250·8	+19·0	0	6	
		4295	0·883	64·8	244·9	+18·3	24	171	
		4296	0·943	102·3	230·6	−14·0	160	678	
		4296	0·974	102·3	224·0	−13·6	0	51	691c
		4296	0·976	99·9	223·8	−11·1	0	56	
			0·843	74·4	246·9	+ 9·1			269
Feb. 20		Centre			(302·0)	(−7·1)	(273)	(1396)	(1761)
51·218	CL, AW		0·958	284·4	0·7	+11·6			148
		4291a	0·986	279·0	8·6	+ 7·6	38	221	313f
I.		4295	0·622	51·7	259·1	+16·5	39	229	
		4295	0·650	54·1	256·4	+16·5	35	172	
		4295	0·652	56·9	255·3	+15·0	5	27	
		4295	0·664	55·7	254·9	+16·1	0	11	
		4295	0·660	58·2	254·3	+14·6	0	12	396c
		4295	0·672	57·4	253·8	+15·4	0	19	
		4295	0·690	56·1	253·0	+16·9	0	3	
		4295	0·691	59·4	251·7	+15·0	0	13	
		4295	0·696	61·4	250·7	+14·0	0	2	
		4295	0·714	58·0	250·5	+16·7	22	75	
		4295	0·779	58·9	245·0	+18·7	26	93	128c
		4296	0·847	102·0	231·2	−13·9	127	677	
		4296	0·901	98·9	224·8	−11·1	5	47	
		4296	0·921	103·6	221·7	−15·3	0	79	1786c
		4296	0·936	105·6	219·3	−17·1	0	36	
		4296	0·941	103·2	218·4	−14·8	0	38	
			0·744	69·0	244·8	+10·4			354
			0·877	61·6	234·2	+20·7			117
Feb. 21		Centre			(289·6)	(−7·1)	(297)	(1754)	(3242)
52·414	CL, AW	4298	0·262	267·8	289·0	− 7·4	1	5	
		4298	0·251	267·6	288·4	− 7·5	8	19	
		4298	0·241	266·9	287·8	− 7·7	0	2	
		4298	0·229	265·9	287·1	− 7·8	0	3	
		4298a	0·195	270·0	285·1	− 7·0	3	12	
		4298	0·192	261·3	284·8	− 8·6	2	13	
		4295	0·449	31·7	259·7	+15·5	62	368	
		4295	0·448	35·8	258·2	+14·4	3	20	
		4295	0·475	38·1	256·2	+15·1	11	53	
1896.				°	°	°			
52d·414	CL, AW	4295	0·490	36·9	256·0	+16·2	3	10	
		4295	0·474	40·4	255·4	+14·4	3	12	
		4295	0·481	39·5	255·4	+15·0	4	19	
		4295	0·508	36·6	255·4	+17·2	1	10	
		4295	0·497	40·6	254·3	+15·4	0	22	
		4295	0·518	39·3	253·8	+16·9	0	2	
		4295	0·510	41·3	253·4	+15·9	0	9	
		4295	0·517	42·0	252·8	+15·9	2	27	
		4295	0·502	44·2	252·7	+14·4	0	21	
		4295	0·511	43·6	252·5	+15·1	7	28	
		4295	0·498	46·0	252·3	+13·6	1	7	
		4295	0·549	44·4	250·3	+16·5	19	110	
		4295	0·588	47·4	247·0	+17·1	0	2	
		4295	0·615	48·2	245·1	+17·9	20	87	
		4299a	0·455	93·2	246·6	− 7·8	2	6	
		4299	0·491	90·5	244·3	− 6·5	0	1	
		4299b	0·498	91·3	243·8	− 6·8	2	8	
		4296	0·641	100·6	233·8	−12·3	1	29	
		4296	0·653	104·0	233·1	−14·5	29	231	
		4296	0·652	101·6	233·0	−13·0	4	21	
		4296	0·667	101·9	231·9	−13·2	1	5	
		4296	0·676	107·3	231·6	−16·9	3	52	
		4296	0·687	104·2	230·4	−14·9	56	325	337c
		4296	0·709	106·4	228·8	−16·6	1	6	
		4296	0·743	99·3	225·5	−11·7	8	34	
		4296	0·749	105·1	225·2	−16·0	11	57	
		4296	0·765	105·3	223·8	−16·3	0	8	
		4296	0·765	104·5	223·7	−15·7	1	10	
		4296	0·813	105·0	220·1	−13·7	0	8	
		4296	0·810	106·6	219·5	−17·6	0	6	767f
		4296	0·812	103·7	219·1	−15·3	0	3	
		4296	0·815	107·3	219·0	−18·2	6	32	
		4300a	0·983	109·8	192·7	−20·7	8	56	377nf
Feb. 22		Centre			(273·8)	(−7·1)	(283)	(1759)	(1481)
53·431	CL, AW	4298	0·491	268·0	289·9	− 7·3	9	31	
		4298	0·467	268·1	288·3	− 7·3	0	5	
		4298	0·448	268·7	287·1	− 7·0	6	26	
		4298	0·432	266·1	286·1	− 8·2	0	6	
		4298	0·421	263·8	285·4	− 9·2	0	7	
		4298a	0·414	267·6	284·9	− 7·5	12	36	
		4295	0·375	358·1	261·1	+14·7	56	403	
		4295	0·370	3·9	258·9	+14·3	2	14	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4298, February 22–26. A few small spots in a short stream, wedge-shaped at first, but which straightens out later. *a*, the last spot, is the most stable and remains alone on February 25. A small companion is seen near it on February 26.
Group 4299, February 22–24. A wide pair of very small spots, *a* and *b*. A third very small spot is seen near them on February 22 and 23. Only *a* remains on February 24.
Group 4300, February 22–March 5. A large regular spot, *a*. A number of small spots have formed near it, *n*, *s* and *p*, by March 1, after which *a* diminishes in size.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
53d.431	CL, AW	4295	0·389	8·1	257·2	+15·4	33	275	
		4295	0·414	15·3	253·9	+16·3	1	3	
		4295	0·385	17·6	253·5	+14·3	0	2	
		4295	0·417	17·4	253·0	+16·2	7	64	
		4295	0·393	20·1	252·4	+14·5	1	5	
		4295	0·436	19·1	251·9	+17·1	3	14	
		4295	0·405	21·0	251·8	+15·0	4	34	
		4295	0·442	23·0	250·1	+16·8	21	179	
		4295	0·480	24·9	248·1	+18·7	0	3	
		4295	0·462	26·6	247·9	+17·3	0	5	
		4295	0·488	30·3	245·5	+17·8	9	57	
		4299*a*	0·217	94·3	247·8	− 8·0	2	8	
		4299	0·231	83·3	247·1	− 5·5	0	2	
		4299*b*	0·286	87·5	243·8	− 6·2	0	8	
		4296	0·445	104·9	234·3	−13·0	0	6	
		4296	0·463	108·5	233·5	−14·9	25	244	
		4296	0·478	111·0	232·8	−16·2	0	7	
		4296	0·490	112·2	232·2	−17·0	0	12	
		4296	0·483	105·2	231·9	−13·6	0	5	
		4296	0·504	112·2	231·3	−17·2	0	29	
		4296	0·503	109·8	231·0	−16·1	1	35	
		4296	0·503	107·2	230·7	−14·9	43	267	
		4296	0·523	110·5	229·8	−16·8	2	12	
		4296	0·544	112·0	228·5	−17·8	0	4	
		4296	0·564	107·5	226·6	−15·8	8	40	124*c*
		4296	0·566	100·5	225·9	−11·9	4	21	
		4296	0·586	108·4	225·1	−16·6	0	6	
		4296	0·590	107·0	224·7	−15·9	0	10	
		4296	0·605	104·8	223·4	−14·7	0	3	
		4296	0·666	110·0	219·2	−18·6	0	10	
		4296	0·665	106·6	219·0	−16·4	0	5	
		4296	0·669	105·9	218·6	−15·9	0	7	
		4296	0·674	109·3	218·5	−18·3	0	20	
		4296	0·683	109·0	217·7	−18·2	0	12	
		4300*a*	0·921	109·8	192·5	−21·0	18	139	307*c*
Feb. 23		Centre			(260·4)	(−7·2)	(267)	(2081)	(431)
54·430	AW, CL		0·966	259·8	323·2	−11·7			217
		4298	0·678	267·3	290·1	− 7·1	3	18	
		4298	0·653	267·3	288·2	− 7·2	4	28	
		4298	0·612	263·7	285·2	− 9·5	0	3	
		4298*a*	0·603	266·3	284·6	− 8·0	8	40	
		4298	0·603	264·7	284·6	− 8·9	2	7	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
54d.430	AW, CL	4295	0·417	322·9	262·2	+12·4	0	18	
		4295	0·440	326·4	261·8	+14·4	59	312	
		4295	0·457	331·6	260·4	+16·6	0	2	
		4295	0·417	329·4	259·9	+14·0	0	2	
		4295	0·418	330·5	259·5	+14·2	0	1	
		4295	0·407	331·5	258·8	+13·8	0	4	
		4295	0·422	335·0	257·9	+15·3	37	279	
		4295	0·407	338·4	256·2	+15·0	0	4	
		4295	0·417	349·2	252·0	+16·9	4	63	
		4295	0·390	348·5	251·9	+15·2	9	71	
		4295	0·415	354·4	249·7	+17·1	22	123	
		4295	0·428	4·1	245·5	+18·0	9	43	
		4299*a*	0·034	248·6	249·1	− 7·9	1	5	
		4296	0·269	119·9	233·4	−14·7	29	258	
		4296	0·303	124·9	232·3	−16·9	4	30	
		4296	0·308	116·3	230·8	−14·7	30	224	
		4296	0·366	123·3	228·6	−18·4	0	6	
		4296	0·363	113·8	227·3	−15·2	7	20	
		4296	0·369	104·2	226·0	−11·9	4	20	
		4296	0·385	114·5	226·0	−15·9	0	2	
		4296	0·384	113·4	225·9	−15·5	4	13	
		4296	0·392	113·0	225·4	−15·4	0	8	
		4296	0·391	110·7	225·2	−14·6	0	13	
		4296	0·438	112·2	222·4	−16·1	2	8	
		4296	0·442	113·9	222·4	−16·9	0	2	
		4296	0·495	112·9	218·9	−17·4	0	23	
		4296	0·514	113·9	217·8	−18·3	1	7	
		4296	0·516	112·4	217·4	−17·6	0	5	
		4296	0·523	114·1	217·2	−18·6	0	3	
		4300*a*	0·820	110·4	192·2	−20·8	20	107	152*c*
Feb. 24		Centre			(247·3)	(−7·2)	(259)	(1772)	(369)
55·608	AW, FT	4298*a*	0·791	265·3	284·4	− 8·1	0	15	103*p*
		4295	0·612	306·5	262·3	+15·1	68	340	
		4295	0·612	312·7	259·9	+18·1	1	11	
		4295	0·597	310·6	259·9	+16·5	0	4	
		4295	0·568	310·2	258·4	+15·0	31	327	
		4295	0·532	320·7	252·4	+17·5	0	12	
		4295	0·503	317·3	252·4	+14·9	0	8	
		4295	0·496	317·2	252·1	+14·6	0	4	
		4295	0·515	320·6	251·7	+16·6	0	9	
		4295	0·504	319·6	251·6	+15·7	0	8	
		4295	0·525	322·2	251·5	+17·7	9	26	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for day).
1896.				°	°	°			
55d·608	AW, FT	4295	0·501	322·0	250·5	+16·3	4	30	
		4295	0·512	324·0	250·1	+17·5	15	106	
		4295	0·489	324·2	249·1	+16·4	0	5	
		4295	0·487	332·0	245·7	+18·4	7	34	
		4296	0·132	193·7	233·6	−14·6	26	276	
		4296	0·167	186·2	232·9	−16·8	0	5	
		4296	0·131	179·7	231·7	−14·7	6	17	
		4296	0·145	179·1	231·7	−15·5	0	35	
		4296	0·124	170·5	230·6	−14·2	25	141	
		4296	0·161	168·9	230·0	−16·3	0	2	
		4296	0·175	170·2	230·0	−17·1	0	2	
		4296	0·098	158·0	229·7	−12·4	0	5	
		4296	0·176	166·4	229·3	−17·0	3	18	
		4296	0·103	152·4	229·0	−12·4	1	4	
		4296	0·156	147·8	226·9	−14·7	9	93	
		4296	0·122	131·2	226·4	−11·8	3	8	
		4296	0·226	130·3	221·5	−15·4	3	15	
		4296	0·212	122·8	221·3	−13·7	0	2	
		4300*a*	0·653	114·2	192·3	−21·1	22	118	
			0·906	70·0	170·3	+14·7			186
			0·912	108·7	165·2	−20·0			72
Feb. 25		Centre			(231·8)	(−7·2)	(233)	(1680)	(361)
56·250	AW, JW		0·947	251·6	295·7	−19·7			132
			0·927	311·9	279·0	+33·5			107
I.		4298	0·887	263·3	286·2	− 9·2	0	14	319*c*
		4298*a*	0·878	264·0	285·1	− 8·7	0	16	
		4295	0·711	299·3	263·1	+14·9	72	325	238*c*
		4295	0·710	304·4	261·2	+18·0	0	12	
		4295	0·698	304·1	260·4	+17·3	0	20	
		4295	0·669	301·6	259·3	+14·7	36	298	
		4295	0·615	307·2	253·7	+15·6	0	10	
		4295	0·626	309·5	253·6	+17·2	0	12	
		4295	0·595	306·2	252·9	+14·3	0	5	
		4295	0·603	308·2	252·7	+15·6	0	11	
		4295	0·595	308·9	251·9	+15·6	0	13	
		4295	0·599	311·1	251·3	+16·8	0	5	
		4295	0·603	312·0	251·2	+17·4	36	189	
		4295	0·591	310·4	251·1	+16·2	3	23	
		4295	0·578	310·6	250·3	+15·7	0	7	
		4295	0·571	317·3	247·3	+18·2	0	5	
		4295	0·563	319·1	246·1	+18·5	5	17	
		4296	0·222	233·4	233·9	−14·7	33	263	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
56d·250	AW, JW	4296	0·183	234·4	232·1	−13·2	0	11	
		4296	0·194	227·4	231·7	−14·7	3	9	
I.		4296	0·202	223·6	231·6	−15·6	2	28	
		4296	0·148	238·9	230·7	−11·6	0	15	
		4296	0·175	225·2	230·6	−14·2	30	136	
		4296	0·204	215·2	230·3	−16·8	0	26	
		4296	0·143	229·1	229·6	−12·5	0	6	
		4296	0·205	209·6	229·4	−17·4	0	12	
		4296	0·142	212·0	227·7	−14·1	0	5	
		4296	0·146	206·8	227·2	−14·7	3	53	
		4296	0·097	216·4	226·7	−11·7	1	7	
		4296	0·125	196·3	225·4	−14·1	0	5	
		4296	0·153	166·4	221·2	−15·7	0	29	
		4296	0·129	161·2	220·9	−14·2	0	8	
		4296	0·197	162·9	219·8	−18·0	0	4	
		4296	0·186	158·9	219·3	−17·1	0	12	
		4296	0·214	147·1	216·3	−17·5	0	7	
		4300*a*	0·552	117·7	191·9	−21·1	18	121	
		4301	0·818	68·6	172·1	+12·9	2	14	
		4301	0·846	69·2	169·1	+13·3	0	12	263*n*
			0·863	107·2	163·2	−18·5			117
Feb. 26		Centre			(223·3)	(−7·2)	(244)	(1765)	(1176)
57·417	AW, CL	4295	0·855	292·7	262·6	+15·2	67	325	
		4295	0·850	296·3	261·0	+17·9	8	50	
		4295	0·832	291·4	260·6	+13·3	0	7	323*c*
		4295	0·832	293·4	260·0	+14·9	27	187	
		4295	0·822	295·2	258·5	+15·9	0	15	
		4295	0·807	293·6	257·6	+14·3	0	29	
		4295	0·762	297·6	252·3	+15·5	0	5	
		4295	0·760	298·7	251·8	+16·2	0	8	
		4295	0·748	298·3	251·0	+15·5	0	18	169*c*
		4295	0·753	299·9	250·8	+16·8	17	106	
		4295	0·748	302·6	249·4	+18·4	11	50	
		4295	0·712	306·1	245·4	+19·1	0	5	
		4296	0·473	252·7	235·7	−14·5	13	101	
		4296	0·452	250·8	234·1	−15·0	0	10	
		4296	0·454	248·5	234·0	−16·0	0	2	
		4296	0·447	252·2	233·9	−14·3	2	11	
		4296	0·433	251·7	233·0	−14·3	5	48	
		4296	0·417	250·6	231·9	−14·6	6	33	
		4296	0·413	253·6	231·9	−13·3	1	8	
		4296	0·408	258·2	231·9	−11·4	5	25	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4301, February 26–March 2. A few small spots in an irregular straggling stream.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
57d.417	AW, CL	4296	0·394	251·4	230·5	−13·8	21	128	
		4296	0·379	256·7	230·0	−11·7	5	14	
		4296	0·357	249·1	228·0	−14·1	0	5	
		4296	0·355	247·5	227·7	−14·6	4	18	
		4296	0·329	255·8	226·9	−11·4	0	6	
		4296	0·338	244·3	226·3	−15·3	0	4	
		4296	0·294	237·0	222·8	−16·2	0	2	
		4296	0·286	238·4	222·6	−15·6	1	4	
		4296	0·292	227·3	221·0	−18·4	0	3	
		4296	0·261	235·5	220·8	−15·5	2	20	
		4296	0·278	227·9	220·5	−17·7	0	9	
		4296	0·260	231·1	220·1	−16·4	0	12	
		4296	0·258	219·6	217·9	−18·5	0	13	
		4296	0·200	226·9	216·7	−15·0	0	9	
		4300*a*	0·363	133·8	191·7	−21·4	25	102	
		4301	0·634	53·5	176·1	+16·0	0	5	
		4301	0·614	59·7	175·3	+12·0	0	7	
		4301	0·647	57·7	173·8	+14·3	2	8	
		4301	0·644	59·5	173·4	+13·1	4	15	
		4301	0·656	59·7	172·5	+13·4	0	9	
		4301	0·680	59·8	170·8	+14·3	0	6	
		4301	0·692	62·9	169·0	+12·8	7	20	
		4302*a*	0·965	108·3	131·9	−19·5	21	166	} 794*c*
		4302	0·991	110·0	123·7	−20·7	0	58	
			0·964	74·7	135·9	+12·6			193
			0·971	68·1	135·7	+19·2			235
Feb. 27		Centre			(208·0)	(−7·2)	(254)	(1686)	(1714)
58·130	AW,JW		0·842	284·2	253·9	+ 7·8			119
			0·777	291·6	246·0	+11·8			86
I.		4295	0·929	289·0	263·6	+14·7	87	364	
		4295	0·926	292·5	262·3	+17·7	0	34	
		4295	0·909	290·0	260·5	+14·8	36	170	
		4295	0·879	296·6	254·8	+19·3	0	4	} 641*c*
		4295	0·868	294·3	254·2	+16·9	0	18	
		4295	0·846	294·5	251·7	+16·3	7	103	
		4295	0·835	297·3	249·7	+18·1	0	49	
		4296	0·612	255·0	236·2	−14·9	5	84	
		4296	0·588	254·6	234·3	−14·9	0	24	
		4296	0·571	254·1	233·1	−15·0	7	36	
		4296	0·560	258·5	232·6	−12·4	9	119	
		4296	0·558	253·8	232·1	−15·0	6	23	
		4296	0·552	256·5	231·9	−13·4	0	3	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
58d.130	AW,JW	4296	0·537	254·4	230·7	−14·4	22	120	
		4296	0·524	259·1	230·2	−11·9	3	23	
I.		4296	0·507	256·8	228·9	−12·8	0	2	
		4296	0·501	252·5	228·1	−15·0	0	12	
		4296	0·476	250·5	226·2	−15·5	0	6	
		4296	0·433	247·0	223·0	−16·3	0	10	
		4296	0·423	248·7	222·6	−15·4	0	3	
		4296	0·409	243·0	221·0	−17·4	0	6	
		4296	0·403	245·8	221·0	−16·2	0	5	
		4296	0·397	240·1	219·7	−18·1	0	20	
		4296	0·382	243·9	219·5	−16·4	0	3	
		4296	0·385	238·2	218·7	−18·4	0	16	
		4300*a*	0·275	155·6	191·6	−21·6	19	121	
		4301	0·509	48·4	175·7	+13·1	0	10	
		4301	0·532	47·6	174·8	+14·4	0	7	
		4301	0·525	49·5	174·5	+13·3	6	28	
		4301	0·534	49·0	174·2	+13·9	0	3	
		4301	0·543	48·6	173·8	+14·5	0	3	
		4301	0·539	50·5	173·4	+13·5	0	5	
		4301	0·576	52·6	170·6	+14·1	0	15	
		4301	0·582	55·9	169·1	+12·8	4	15	
		4302*a*	0·919	107·8	131·0	−19·2	29	220	
		4302	0·953	109·1	125·0	−20·4	7	63	770*c*
			0·924	69·2	134·8	+16·1			321
Feb. 28		Centre			(198·6)	(−7·2)	(247)	(1747)	(1937)
59·217	AW,JW		0·921	284·0	249·1	+ 9·9			186
		4295	0·983	286·5	261·0	+14·7	66	424	}
M.		4295	0·978	288·2	259·2	+16·0	0	54	} 767*n*
		4295	0·942	290·2	251·0	+16·2	6	47	}
		4296	0·782	258·2	236·0	−13·7	12	76	
		4296	0·759	260·0	233·9	−12·3	17	67	
		4296	0·758	257·5	233·7	−14·1	0	27	
		4296	0·756	256·8	233·6	−14·7	0	13	
		4296	0·747	260·1	232·8	−12·2	0	12	} 291*c*
		4296	0·737	257·2	231·9	−14·3	3	41	
		4296	0·725	260·9	230·9	−11·6	0	7	
		4296	0·716	257·6	230·1	−13·9	23	98	
		4296	0·712	261·4	229·9	−11·1	4	19	
		4300*a*	0·272	206·0	191·5	−21·3	24	118	
		4301	0·347	19·3	177·5	+11·9	0	1	
		4301	0·361	20·0	177·0	+12·6	0	2	
		4301	0·363	21·6	176·4	+12·5	0	1	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4302, February 27–March 10. A number of irregular spots in a fine, nearly straight stream. The group on February 29 consists almost entirely of three large composite spots, *a*, *b* and *c*, but these change in shape, and the principal portions of *a* and *b* have amalgamated to make a large composite spot, *d*, by March 2. The smaller spots diminish after March 5, and *d* alone remains after March 7. A fresh outbreak is seen *sf d* on March 10.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
59d·217	AW,JW	4301	0·375	21·3	176·2	+13·3	0	2	
		4301	0·387	20·5	176·2	+14·2	0	8	
M.		4301	0·394	24·3	174·6	+13·9	5	25	
		4301	0·380	26·1	174·4	+12·8	0	3	
		4301	0·409	27·4	173·1	+14·1	0	5	
		4301	0·408	28·9	172·5	+13·8	1	6	
		4301	0·418	37·2	169·3	+12·4	2	11	
		4302*a*	0·791	109·0	131·9	−19·4	22	108	
		4302*b*	0·835	108·7	127·4	−19·5	16	205	620*c*
		4302*c*	0·867	108·5	123·6	−19·6	6	77	
			0·883	63·2	127·6	+19·6			203
Feb. 29		Centre			(184·2)	(−7·2)	(207)	(1457)	(2067)
60·236	AW,JW		0·968	263·0	246·9	− 8·6			116
			0·980	292·0	245·6	+19·8			292
I.			0·966	280·8	244·2	+ 8·4			185
			0·874	248·5	232·1	−22·3			77
			0·755	250·9	219·2	−18·1			344
		4296	0·912	257·6	237·4	−14·3	16	70	
		4296	0·897	259·3	235·2	−12·8	5	34	
		4296	0·874	257·2	232·4	−14·7	0	3	
		4296	0·864	261·0	231·1	−11·4	0	9	739*c*
		4296	0·861	257·8	230·8	−14·2	32	135	
		4296	0·842	257·8	228·7	−14·2	0	13	
		4296	0·842	259·5	228·7	−12·8	0	6	
		4300	0·476	235·6	195·8	−22·2	0	4	
		4300	0·455	236·1	194·6	−21·4	2	9	
		4300	0·451	231·7	193·3	−23·0	0	5	
		4300	0·452	230·5	193·0	−23·4	2	13	
		4300*a*	0·419	232·5	191·6	−21·5	22	106	
		4301	0·348	343·0	176·7	+12·1	1	6	
		4301	0·353	344·8	176·2	+12·6	7	28	
		4301	0·364	346·6	175·8	+13·4	0	3	
		4301	0·339	346·3	175·5	+11·9	0	3	
		4301	0·344	354·0	172·9	+12·7	1	3	
		4301	0·365	355·7	172·4	+14·0	2	24	
		4301	0·356	356·9	171·9	+13·4	0	2	
		4301	0·365	357·6	171·7	+14·0	0	5	
		4302	0·634	111·7	132·4	−19·3	0	8	
		4302*a*	0·648	111·7	131·3	−19·5	27	130	
		4302	0·650	108·9	130·8	−17·8	2	12	
		4302	0·669	109·3	129·3	−18·3	0	4	
		4302*b*	0·682	110·7	128·5	−19·3	54	251	
1896.				°	°	°			
60d·236	AW,JW	4302	0·705	109·2	126·3	−18·6	0	7	
		4302	0·712	110·1	125·9	−19·3	0	2	
I.		4302	0·716	107·6	125·3	−17·9	0	4	517*c*
		4302	0·737	110·6	123·8	−20·0	1	7	
		4302	0·744	111·5	123·2	−20·8	0	12	
		4302*c*	0·753	109·6	122·2	−19·5	25	172	
		4302	0·758	111·8	122·0	−21·2	0	20	
		4302	0·759	108·4	121·5	−18·7	0	5	
		4302	0·772	111·6	120·7	−21·2	0	8	
		4302	0·774	110·6	120·3	−20·5	0	12	
		4302	0·783	111·5	119·6	−21·3	0	10	
		4303*a*	0·973	100·0	93·3	−11·4	25	138	330*c*
		4303	0·986	98·8	89·6	− 9·9	0	54	
			0·863	57·3	118·7	+23·3			191
			0·912	110·0	104·2	−21·2			124
Mar. 1		Centre			(170·8)	(−7·3)	(224)	(1337)	(2915)
61·409	AW, CL		0·883	255·5	218·1	−16·2			417
			0·865	247·7	215·5	−22·9			123
		4296	0·985	257·7	236·6	−13·4	0	42	690*c*
		4296	0·961	258·3	230·4	−13·3	18	103	
		4300	0·670	245·9	196·3	−21·5	0	10	
		4300	0·647	246·6	194·6	−20·6	2	10	
		4300	0·641	245·4	193·9	−21·2	4	14	
		4300	0·628	242·0	192·3	−23·0	0	3	
		4300	0·613	248·4	192·3	−18·9	0	6	
		4300*a*	0·615	244·8	191·9	−21·1	16	103	
		4300	0·623	240·7	191·6	−23·7	2	10	
		4301	0·495	312·6	177·2	+12·7	1	9	
		4301	0·506	322·7	174·0	+16·8	0	4	
		4301	0·461	321·3	172·6	+14·0	0	9	
		4302	0·429	122·9	132·9	−20·2	0	2	
		4302	0·436	121·8	132·3	−20·0	3	11	
		4302	0·435	115·2	131·2	−17·4	0	2	
		4302	0·447	119·7	131·2	−19·5	8	85	
		4302	0·449	114·8	130·2	−17·5	0	14	
		4302*d*	0·473	117·8	129·2	−19·3	40	258	
		4302	0·495	116·2	127·5	−19·1	0	6	
		4302	0·511	115·7	126·3	−19·2	0	39	
		4302	0·535	116·9	125·0	−20·3	2	8	
		4302	0·532	113·6	124·6	−18·6	0	2	
		4302	0·540	115·8	124·4	−19·8	0	8	
		4302	0·545	114·3	123·8	−19·2	0	15	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4303, March 1–13. A large nearly regular spot, *a*, followed by a number of small spots in a loose stream. *a* undergoes several striking changes. It is divided by a broad bright bridge, nearly parallel to the equator, on March 4, and has divided into two regular spots by March 9. These are measured together on that date, but separately as *b* and *c* afterwards. The smaller spots have disappeared by March 8, and *b* by March 12.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
61d·409	AW, CL	4302	0·558	116·0	123·2	−20·4	0	4	
		4302	0·563	117·7	123·2	−21·4	0	12	
		4302c	0·569	114·3	122·1	−19·7	19	102	
		4302	0·579	117·5	122·0	−21·6	0	32	
		4303a	0·869	99·5	94·5	−11·9	31	225	
		4303	0·896	100·0	91·1	−12·2	0	8	
		4303	0·909	99·2	89·4	−11·4	0	21	473c
		4303	0·911	98·1	89·2	−10·4	0	13	
		4303	0·924	98·0	87·3	−10·2	2	11	
		4304a	0·973	74·2	81·3	+13·5	0	49	743c
			0·976	100·9	77·0	−12·2			123
Mar. 2		Centre			(155·4)	(−7·3)	(148)	(1250)	(2569)
62·503	AW, FT		0·963	255·1	216·5	−16·3			526
			0·945	248·2	213·1	−23·0			113
		4300	0·827	248·6	196·8	−21·8	0	7	
		4300	0·824	249·6	196·5	−20·9	0	8	
		4300	0·813	247·7	195·2	−22·3	1	16	
		4300	0·805	248·9	194·5	−21·3	2	23	
		4300	0·807	246·7	194·4	−23·0	3	10	
		4300	0·793	248·6	193·2	−21·4	0	4	320c
		4300	0·794	246·4	193·1	−23·2	0	8	
		4300a	0·780	248·8	192·0	−21·1	9	81	
		4300	0·776	251·8	191·9	−18·7	0	3	
		4300	0·774	245·3	190·9	−23·7	0	7	
		4305a	0·265	234·9	154·0	−15·9	1	6	
		4305	0·250	228·6	152·2	−16·6	0	6	
		4305	0·226	231·1	151·5	−15·3	2	10	
		4305	0·232	218·8	149·7	−17·7	10	32	
		4302	0·268	153·7	133·7	−21·1	0	6	
		4302	0·252	149·3	133·2	−19·7	0	7	
		4302d	0·279	138·8	129·8	−19·2	45	347	
		4302	0·296	141·7	129·8	−20·5	0	7	
		4302	0·305	132·1	127·2	−18·9	4	34	
		4302	0·367	127·6	123·1	−19·8	0	11	
		4302c	0·383	125·7	121·8	−19·8	20	60	
		4302	0·397	128·9	121·7	−21·3	0	10	
		4303	0·710	98·5	95·5	−11·2	4	34	
		4303a	0·722	99·7	94·5	−12·0	25	122	312c
		4303	0·782	97·2	89·2	−10·2	0	3	
		4303	0·801	96·8	87·4	− 9·8	1	8	
		4304a	0·892	70·8	81·2	+13·4	0	25	360c
		4304	0·914	71·3	78·2	+13·8	0	11	
1896.				°	°	°			
62d·503	AW, FT	4306	0·938	77·3	73·3	+ 9·2	0	6	83c
		4306	0·951	77·5	70·9	+ 9·5	0	7	
			0·945	99·3	69·4	−11·1			165
Mar. 3		Centre			(141·0)	(−7·3)	(127)	(919)	(1879)
63·527	AW, CL		0·777	294·9	173·8	+14·1			184
		4300	0·917	248·0	194·6	−23·0	0	9	
		4300	0·911	249·6	193·8	−21·6	5	22	
		4300	0·906	248·5	193·0	−22·5	0	6	549c
		4300a	0·899	250·2	192·1	−21·0	9	60	
		4300	0·890	248·2	190·8	−22·7	3	27	
		4305a	0·473	248·6	154·6	−16·5	16	66	
		4305	0·460	248·0	153·7	−16·5	0	4	
		4305	0·443	248·3	152·6	−16·0	3	10	
		4305	0·439	245·5	152·0	−17·1	3	18	
		4305	0·422	243·4	150·6	−17·6	4	25	
		4305	0·410	242·0	149·6	−17·8	0	2	
		4305	0·411	240·9	149·5	−18·3	4	19	
		4305	0·397	242·4	148·9	−17·3	0	1	
		4302	0·230	201·5	132·5	−19·6	0	27	
		4302	0·215	201·2	132·1	−18·8	0	1	
		4302	0·203	197·0	131·0	−18·5	0	3	
		4302	0·186	197·3	130·7	−17·5	0	3	
		4302d	0·214	191·8	130·0	−19·3	27	257	
		4302	0·201	181·2	127·7	−18·9	2	32	
		4302	0·218	167·3	124·5	−19·5	1	3	
		4302	0·209	161·5	123·4	−18·7	0	2	
		4302	0·226	161·3	123·0	−19·6	1	5	
		4302	0·222	159·0	122·6	−19·2	0	1	
		4302c	0·238	157·0	121·8	−19·8	13	82	
		4302	0·267	158·2	121·3	−21·6	0	4	
		4302	0·300	158·2	120·8	−23·3	0	4	
		4302	0·287	156·1	120·2	−22·4	1	4	
		4303	0·532	99·2	95·2	−11·1	13	99	
		4303a	0·546	100·7	94·3	−12·0	18	120	
		4303	0·554	98·1	93·6	−10·6	0	2	
		4303	0·573	99·4	92·4	−11·3	5	44	
		4303	0·598	99·4	90·5	−11·5	0	6	
		4303	0·619	97·3	89·0	−10·3	0	5	
		4303	0·630	100·0	88·2	−12·0	0	5	
		4303	0·629	97·2	88·2	−10·2	5	21	
		4303	0·643	95·8	87·2	− 9·3	2	5	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4304, March 2–7. A small spot, *a*, usually with a couple of very small companions.
Group 4305, March 3–8. Several small spots in an irregular stream, appearing suddenly *np* Group 4302. The group increases in size on the succeeding days, especially the leader. *a*, which has become a large regular spot by March 5, and which alone remains by March 8.
Group 4306, March 3–4. A pair of very small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
					°	°			
1896.									
63d·527	AW, CL	4304a	0·778	66·0	80·6	+13·5	4	26	216c
		4304	0·793	67·0	79·0	+13·3	0	4	
		4304	0·803	66·7	78·2	+13·8	1	4	
		4306	0·832	73·6	73·6	+ 9·3	0	8	120c
		4306	0·862	73·2	70·5	+10·5	0	6	
			0·876	100·3	65·6	−12·6			179
Mar. 4		Centre			(127·4)	(−7·3)	(140)	(1052)	(1248)
64·488	AW, FT		0·894	290·8	174·5	+14·9			265
		4300	0·976	249·6	193·8	−21·4	8	38	422c
		4300a	0·969	250·5	192·0	−20·7	8	38	
		4300	0·966	248·5	191·4	−22·6	4	28	
		4305a	0·661	254·3	156·0	−15·9	20	110	
		4305	0·643	252·7	154·5	−16·7	6	22	
		4305	0·631	252·7	153·6	−16·6	0	2	
		4305	0·607	253·2	151·8	−15·9	0	3	
		4305	0·603	250·7	151·3	−17·4	0	7	
		4305	0·594	252·9	150·8	−16·0	1	12	
		4305	0·595	249·7	150·5	−17·8	4	16	
		4305	0·589	248·9	150·0	−18·3	0	10	
		4302	0·362	233·2	132·6	−19·5	0	30	
		4302d	0·335	230·1	130·5	−19·4	38	290	
		4302	0·301	227·8	128·4	−18·7	4	49	
		4302	0·296	223·6	127·2	−19·5	0	3	
		4302	0·287	221·7	126·4	−19·5	0	12	
		4302	0·269	221·8	125·7	−18·7	0	1	
		4302	0·262	212·9	123·5	−19·9	0	2	
		4302	0·251	214·5	123·4	−19·1	0	5	
		4302	0·270	209·4	122·9	−20·8	0	9	
		4302	0·266	207·8	122·4	−20·8	0	3	
		4302c	0·245	208·7	121·9	−19·6	8	65	
		4302	0·285	201·2	121·2	−22·6	0	3	
		4302	0·268	200·8	120·7	−21·7	0	5	
		4302	0·283	198·6	120·4	−22·8	0	7	
		4302	0·268	197·3	119·7	−22·1	1	7	
		4302	0·230	197·6	119·0	−20·0	0	4	
		4303	0·329	108·1	96·2	−12·8	0	2	
		4303	0·343	109·3	95·5	−13·4	0	10	
		4303a	0·344	103·6	94·9	−11·5	40	268	
		4303	0·365	99·8	93·5	−10·3	0	4	
		4303	0·375	101·1	92·9	−10·9	3	11	
		4303	0·411	101·1	90·6	−11·2	0	6	
		4303	0·443	98·8	88·5	−10·4	0	4	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1896.									
64d·488	AW, FT	4303	0·450	101·8	88·2	−11·9	0	1	
		4303	0·455	96·0	87·6	− 9·2	2	6	
		4304a	0·640	58·6	81·0	+13·4	0	10	
		4304	0·653	58·0	80·1	+14·3	0	2	
		4304	0·651	59·0	79·9	+13·6	1	5	
			0·866	108·7	80·3	−24·2			45
			0·963	72·7	43·3	+14·4			127
Mar. 5		Centre			(114·8)	(−7·3)	(148)	(1110)	(859)
65·176	AW, JW		0·952	287·5	175·1	+14·2			387
			0·845	251·7	163·8	−19·3			66
I.		4305a	0·782	255·1	157·5	−16·2	21	133	153c
		4305	0·764	254·4	155·7	−16·6	2	9	
		4305	0·747	254·4	154·2	−16·5	0	14	
		4305	0·715	254·2	151·4	−16·4	0	4	
		4305	0·711	251·1	150·8	−18·6	0	22	
		4302	0·486	241·4	132·7	−19·9	0	9	
		4302d	0·460	240·4	130·8	−19·8	41	200	
		4302	0·452	236·4	129·5	−21·1	0	1	
		4302	0·434	239·6	129·1	−19·4	3	30	
		4302	0·419	240·5	128·3	−18·6	0	2	
		4302	0·413	236·8	127·3	−19·8	0	6	
		4302	0·401	236·0	126·4	−19·8	0	3	
		4302	0·404	233·9	126·1	−20·6	0	1	
		4302	0·358	231·5	123·0	−19·8	0	8	
		4302c	0·343	229·2	121·8	−19·9	6	34	
		4302	0·372	223·0	121·7	−22·8	0	2	
		4302	0·361	223·0	121·2	−22·4	0	21	
		4302	0·357	220·7	120·4	−22·7	0	1	
		4302	0·341	220·3	119·5	−22·2	1	3	
		4307	0·230	193·1	109·0	−20·2	0	3	
		4307	0·250	187·1	107·7	−21·6	0	11	
		4303a	0·196	112·6	95·2	−11·5	48	268	
		4303	0·227	107·5	93·1	−11·0	0	1	
		4303	0·231	105·7	92·8	−10·7	0	1	
		4303	0·283	106·7	89·8	−11·7	0	5	
		4303	0·292	99·9	88·9	− 9·9	0	5	
		4303	0·302	104·0	88·5	−11·1	0	7	
		4303	0·305	97·6	88·0	− 9·3	1	5	
		4304a	0·538	49·9	80·8	+13·7	0	5	
		4304	0·533	51·2	80·1	+12·8	0	2	
		4304	0·550	51·0	79·8	+13·7	0	2	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4307, March 6. Two small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
65d·176	AW,JW		0·913	68·7	43·7	+16·0			211
I.			0·920	102·1	38·1	−14·0			110
Mar. 6		Centre			(105·8)	(−7·3)	(123)	(818)	(927)
66·200	AW,JW	4305*a*	0·906	255·6	158·0	−16·1	20	143	
		4305	0·891	256·1	156·0	−15·6	4	24	307*f*
I.		4305	0·886	255·1	155·3	−16·6	3	16	
		4305	0·873	255·5	153·7	−16·2	0	7	
		4302	0·642	245·2	130·8	−21·2	3	12	
		4302*d*	0·636	247·9	130·8	−19·5	27	240	
		4302	0·584	246·4	126·7	−19·5	0	11	
		4302	0·582	244·3	126·2	−20·6	0	4	
		4302	0·547	239·4	122·8	−22·4	0	5	
		4302	0·533	238·8	121·7	−22·3	0	8	
		4302	0·520	242·3	121·6	−20·3	0	1	
		4302*c*	0·518	243·4	121·6	−19·7	5	15	
		4302	0·508	237·2	119·7	−22·4	0	18	
		4303*a*	0·089	215·4	95·3	−11·4	50	248	
		4303	0·083	141·2	89·3	−10·9	0	3	
		4303	0·100	134·9	88·2	−11·3	0	8	
		4303	0·108	128·9	87·4	−11·1	0	8	
		4304	0·420	29·2	80·1	+14·4	0	3	
		4304	0·403	31·2	80·0	+13·1	1	10	
			0·833	65·8	40·4	+15·6			118
			0·949	67·4	24·8	+18·7			205
			0·977	81·9	15·8	+ 6·3			326
Mar. 7		Centre			(92·3)	(−7·2)	(113)	(784)	(956)
67·223	CL, JW		0·907	290·8	140·1	+15·4			109
		4305*a*	0·981	255·0	158·9	−16·1	33	338	517*sf*
I.		4302*d*	0·792	251·1	131·0	−19·3	28	253	244*c*
		4303*a*	0·287	255·1	95·4	−11·1	30	229	
		4308	0·904	79·1	15·6	+ 6·6	0	24	407*c*
			0·789	59·8	32·9	+18·4			102
			0·927	60·7	16·9	+23·7			331
Mar. 8		Centre			(78·7)	(−7·2)	(91)	(844)	(1710)
68·311	AW,JW		0·958	290·2	134·4	+17·0			225
			0·929	260·6	133·4	−11·4			95
I.			0·872	299·7	118·8	+21·5			128
		4302*d*	0·915	251·9	131·6	−19·5	27	275	781*f*
1896.				°	°	°			
68d·311	AW,JW	4303*a*	0·516	259·8	95·6	−11·4	29	192	
		4309	0·445	317·6	82·3	+12·3	1	6	
I.		4309	0·436	318·6	81·6	+12·1	0	8	
			0·736	54·5	25·1	+19·8			89
			0·804	74·4	13·2	+ 8·0			293
			0·867	54·4	13·1	+25·9			131
Mar. 9		Centre			(64·5)	(−7·2)	(57)	(481)	(1742)
69·184	AW,JW		0·969	258·8	129·7	−12·7			195
		4302*d*	0·976	251·4	132·0	−19·7	27	278	888*f*
I.		4302	0·963	249·1	128·7	−22·0	8	56	
		4303*b*	0·685	260·7	96·5	−11·7	4	39	
		4303*c*	0·667	260·2	95·0	−11·9	19	118	
		4310	0·095	205·8	55·4	−12·1	0	4	
Mar. 10		Centre			(53·0)	(−7·2)	(58)	(495)	(1083)
70·367	AW,JW		0·983	250·2	118·6	−20·8			449
			0·754	294·9	81·9	+13·4			215
I.		4303*b*	0·856	260·9	96·8	−11·5	0	18	259*c*
		4303*c*	0·842	260·5	95·2	−11·9	20	105	
		4310	0·378	256·8	59·4	−11·6	0	6	
		4310	0·341	255·1	57·0	−11·9	0	23	
			0·956	174·4	24·7	+65·0			174
			0·956	167·0	9·8	+62·4			101
Mar. 11		Centre			(37·4)	(−7·2)	(20)	(152)	(1198)
71·208	AW,JW		0·830	290·3	79·0	+12·4			466
		4303*c*	0·931	259·8	95·6	−12·1	21	95	486*f*
I.		4310	0·565	259·4	60·7	−12·0	2	9	
		4310	0·529	261·4	58·3	−10·7	1	5	
		4310	0·520	259·7	57·6	−11·5	0	4	
Mar. 12		Centre			(26·3)	(−7·2)	(24)	(113)	(952)
72·205	CL, JW		0·938	247·3	83·8	−23·8			202
			0·934	287·7	79·2	+13·7			430
I.			0·850	257·3	71·8	−14·6			196
		4303*c*	0·989	258·2	95·7	−12·7	18	72	547*f*
		4310	0·739	260·3	61·0	−12·0	2	7	
		4310	0·734	261·4	60·6	−11·2	16	38	
		4310	0·712	261·5	58·8	−11·1	1	6	169*c*

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4308, March 8. A small spot.
Group 4309, March 9. A close pair of very small spots, perhaps a revival of Group 4304.
Group 4310, March 10–14. A few small unstable spots irregularly scattered. A short compact stream of small spots on March 13.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1896.									
72d·205	CL, JW	4310	0·699	260·9	57·7	−11·3	0	7	
		4310	0·689	260·5	56·9	−11·8	0	17	
I.		4310	0·686	259·6	56·6	−12·4	8	26	
			0·970	74·4	299·6	+13·2			551
Mar. 13		Centre			(13·1)	(−7·2)	(45)	(173)	(2095)
73·145	AW, JW		0·993	247·0	86·2	−23·6			289
			0·977	284·7	76·2	+12·7			150
I.			0·952	255·9	73·9	−15·6			246
		4311*a*	0·880	252·1	63·0	−19·1	7	22	210*c*
		4311	0·856	251·2	60·0	−19·7	0	2	
		4310	0·881	260·6	63·1	−11·7	6	27	332*c*
		4310	0·826	260·0	56·9	−12·3	3	18	
			0·888	70·8	301·4	+13·4			435
Mar. 14		Centre			(0·8)	(−7·1)	(16)	(69)	(1662)
74·502	CL, AW		0·966	260·2	58·8	−11·3			200
		4311*a*	0·980	252·0	62·8	−19·0	0	64	249*c*
		4311	0·963	251·8	58·6	−19·4	7	72	
		4312	0·274	233·0	356·0	−16·4	0	14	
		4312	0·269	226·8	354·7	−17·5	0	4	
		4313	0·517	26·7	328·6	+20·6	1	8	
Mar. 15		Centre			(342·9)	(−7·1)	(8)	(162)	(449)
75·610	AW, JW	4313	0·478	358·9	328·9	+21·3	0	10	
		4314	0·928	72·0	263·2	+13·7	7	29	
			0·961	94·6	254·0	− 6·4			126
Mar. 16		Centre			(328·3)	(−7·1)	(7)	(39)	(126)
76·474	AW, CL	4313	0·449	344·7	323·9	+18·5	0	7	
		4313	0·457	346·8	323·1	+19·3	0	2	
		4314	0·846	69·0	262·6	+13·7	7	25	146*nf*
			0·925	73·4	251·8	+12·4			72
			0·949	65·8	249·6	+20·3			261
Mar. 17		Centre			(316·8)	(−7·1)	(7)	(34)	(479)
77·245	CL, JW		0·955	296·0	14·5	+22·2			109
			0·907	284·6	9·6	+10·1			276
I.			0·837	307·9	353·9	+26·2			104
1896.									
77d·245	CL, JW	4315	0·810	266·5	1·0	− 7·0	0	11	
		4315	0·800	266·8	0·0	− 6·7	2	10	122*c*
I.		4315	0·786	265·3	358·8	− 8·1	2	15	
		4313	0·527	325·6	325·0	+19·0	12	57	
		4313	0·516	326·1	324·3	+18·6	0	4	
		4313	0·503	329·6	322·2	+18·9	1	8	
		4314	0·753	64·6	262·4	+13·8	13	36	62*c*
			0·872	38·5	263·3	+38·0			139
			0·751	69·3	261·3	+10·5			45
			0·807	56·8	260·4	+21·4			313
			0·834	69·5	253·7	+12·8			88
			0·805	94·1	252·8	− 7·5			124
			0·899	60·5	248·9	+22·7			266
			0·886	109·2	243·8	−20·3			105
			0·931	66·7	242·4	+18·7			370
			0·938	102·4	236·2	−14·1			365
			0·946	94·5	235·3	− 6·6			133
Mar. 18		Centre			(306·7)	(−7·0)	(30)	(141)	(2621)
78·481	AW, CL		0·924	254·4	358·6	−17·1			98
		4315	0·952	266·1	2·8	− 5·9	0	24	
		4315	0·930	265·6	359·0	− 6·7	0	9	166*c*
		4315	0·917	266·3	357·0	− 6·2	0	11	
		4313	0·702	308·7	325·9	+20·3	4	18	
		4313	0·692	308·1	325·5	+19·5	3	17	
		4313	0·667	309·5	323·2	+19·2	0	5	
		4314	0·566	53·9	262·4	+13·3	7	22	
		4316*a*	0·595	109·5	254·5	−17·1	6	14	
			0·783	57·6	245·8	+19·8			133
			0·789	103·3	237·9	−14·8			163
			0·887	96·0	227·4	− 8·6			97
			0·919	106·3	222·7	−17·8			832
			0·967	115·2	213·6	−26·1			97
Mar. 19		Centre			(290·3)	(−7·0)	(20)	(120)	(1586)
79·273	AW, JW		0·943	262·6	351·1	− 9·3			300
		4313	0·813	301·3	327·6	+20·3	5	29	
I.		4313	0·798	301·3	326·2	+19·7	0	3	144*c*
		4313	0·747	301·7	321·8	+18·0	0	2	
		4314	0·451	40·2	262·7	+13·4	3	22	
		4316*a*	0·452	113·3	254·4	−16·6	2	20	
		4317	0·985	108·1	198·3	−19·0	8	52	690*f*

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4311. March 14–15. A small spot, *a*, with a very small companion on March 14. *a* has greatly increased by March 14, and a second spot of equal size has formed *f* it.

Group 4312, March 15. A small faint spot with a very small faint companion.

Group 4313, March 15–21. A small faint spot on March 15 and 16. This has disappeared by March 17, but some very small spots are seen *sf* its place. The group has greatly increased by March 18, but diminishes again immediately, and shows itself very unstable.

Group 4314, March 16–21. A small spot.

Group 4315, March 18–19. A few small spots in a small cluster.

Group 4316, March 19–26. A small spot, *a*, on March 19 and 20. The group then rapidly changes; a number of spots, mostly small and unstable, appear, and the whole forms a variable cluster. *b*, the last spot on March 23, is the largest, and perhaps corresponds to *a*. *b* has divided into *c* and *d* by March 25.

Group 4317, March 20–24. A small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
79d.273	AW,JW		0·709	47·5	245·6	+22·8			293
			0·794	103·5	227·2	−15·0			394
I.			0·903	113·6	215·1	−24·3			158
			0·914	106·1	213·2	−17·5			346
Mar. 20		Centre			(280·0)	(−7·0)	(18)	(128)	(2325)
80·387	AW,JW		0·988	261·5	347·1	− 9·5			206
		4313	0·931	295·4	329·0	+20·6	7	22	268*f*
I.		4314	0·342	7·8	262·5	+12·8	0	7	
		4316	0·237	142·5	256·5	−17·7	1	3	
		4316	0·259	137·6	254·7	−17·8	0	6	
		4316	0·282	140·8	254·4	−19·4	0	2	
		4317	0·907	108·6	199·4	−19·8	7	37	435*c*
			0·796	105·7	212·3	−16·6			269
			0·817	116·5	211·3	−25·5			282
Mar. 21		Centre			(265·2)	(−6·9)	(15)	(77)	(1460)
81·496	AW, FT		0·971	292·6	323·0	+20·0			217
			0·829	291·6	303·0	+13·6			130
		4316	0·230	214·3	258·5	−17·8	0	12	
		4316	0·210	210·2	257·0	−17·2	1	9	
		4316	0·191	209·7	256·3	−16·4	0	5	
		4316	0·212	204·0	255·9	−18·0	0	2	
		4316	0·188	202·7	255·0	−16·8	2	14	
		4316	0·169	200·9	254·3	−15·9	4	11	
		4316	0·198	196·8	254·1	−17·8	7	23	
		4316	0·178	198·1	254·0	−16·6	0	4	
		4318	0·373	115·2	230·3	−15·6	0	8	
		4318	0·375	111·0	229·6	−14·1	0	11	
		4318	0·388	113·2	229·1	−15·2	0	4	
		4319	0·554	103·9	217·3	−13·4	0	5	
		4319	0·588	102·7	214·8	−13·0	0	3	
		4317	0·777	109·8	200·0	−19·7	7	26	267*c*
			0·956	75·0	180·1	+12·1			110
Mar. 22		Centre			(250·7)	(−6·9)	(21)	(137)	(724)
82·629	AW,CL		0·922	287·1	300·2	+12·9			187
		4316	0·415	243·1	258·4	−17·1	2	11	
		4316	0·354	242·1	254·6	−16·0	0	2	
		4316*b*	0·355	239·1	254·2	−16·9	9	70	
		4318	0·159	142·9	230·1	−14·0	0	7	
1896.				°	°	°			
82d.629	AW,CL	4318	0·208	144·2	228·4	−16·5	0	4	
		4319	0·306	110·0	218·6	−12·6	4	34	
		4319*a*	0·364	107·0	214·9	−12·4	8	94	
		4319	0·402	104·5	212·4	−12·1	3	16	
		4319	0·418	108·4	211·7	−13·8	0	1	
		4319	0·417	105·5	211·5	−12·6	1	6	
		4317	0·598	114·1	200·4	−19·7	4	17	
		4320*a*	0·962	104·4	160·6	−15·7	5	36	344*c*
			0·867	72·3	178·4	+11·7			145
			0·911	110·6	169·5	−21·5			127
Mar. 23		Centre			(235·7)	(−6·8)	(36)	(298)	(803)
83·411	AW, FT		0·966	283·6	298·4	+11·2			181
		4316	0·574	249·0	259·4	−17·5	0	16	
		4316	0·541	249·2	257·2	−16·9	0	5	
		4316	0·532	249·3	256·5	−16·6	0	3	
		4316	0·523	249·0	255·9	−16·6	1	12	
		4316*b*	0·511	247·8	254·9	−17·1	9	50	
		4319	0·131	129·2	219·5	−11·5	2	8	
		4319	0·140	133·0	219·4	−12·2	0	10	
		4319	0·153	129·1	218·5	−12·3	1	9	
		4319	0·158	130·0	218·3	−12·6	0	2	
		4319	0·184	129·9	217·1	−13·5	0	9	
		4319*a*	0·195	122·5	215·7	−12·7	9	77	
		4319	0·204	119·2	214·9	−12·4	0	3	
		4319	0·223	116·1	213·6	−12·3	0	7	
		4319	0·237	114·2	212·7	−12·2	0	12	
		4319	0·253	113·7	211·7	−12·5	0	8	
		4319	0·279	115·4	210·5	−13·4	0	2	
		4317	0·456	120·9	200·9	−19·7	0	14	
		4320*a*	0·899	104·1	160·8	−15·6	6	26	323*c*
			0·847	68·4	171·2	+14·3			71
			0·904	112·7	160·3	−23·4			93
Mar. 24		Centre			(225·4)	(−6·8)	(28)	(273)	(668)
84·457	AW, FT		0·805	297·7	259·8	+17·5			401
			0·725	308·7	248·9	+21·5			138
		4316	0·750	253·2	260·1	−17·1	0	7	
		4316	0·709	249·8	256·1	−19·0	3	16	
		4316	0·701	253·5	255·9	−16·4	0	8	
		4316	0·690	252·2	254·9	−17·2	0	4	142*c*
		4316*c*	0·688	253·4	254·8	−16·3	6	31	
		4316	0·691	250·4	254·7	−18·4	0	1	
		4316*d*	0·683	250·4	254·1	−18·3	3	28	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4318, March 22–23. Two or three very small faint spots.
Group 4319, March 22–28. A pair of very small spots on March 22. The group has greatly increased by the succeeding day and has become a considerable stream, *a*, the largest spot, being in the centre of the group. The other spots are small. The group has disappeared by March 27, except for a pair of very small spots at the *f* end of the stream.
Group 4320, March 23–29. A small regular spot, *a*, with a very small companion on March 27.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
84d.457	AW, FT	4319	0·168	233·9	219·6	−12·4	0	1	
		4319	0·150	234·8	218·8	−11·7	2	12	
		4319	0·143	214·1	216·3	−13·6	0	2	
		4319	0·148	211·9	216·2	−14·0	0	4	
		4319	0·108	223·8	216·0	−11·3	0	4	
		4319*a*	0·122	215·6	215·7	−12·5	5	77	
		4319	0·106	197·9	213·5	−12·6	0	4	
		4319	0·098	175·4	211·1	−12·4	0	2	
		4319	0·099	185·6	211·0	−12·4	1	10	
		4320*a*	0·780	104·8	160·2	−15·7	7	21	197*f*
		4321*a*	0·988	71·8	133·3	+16·7	13	136	270*c*
			0·952	106·4	138·4	−17·7			81
			0·973	111·7	133·5	−22·7			257
Mar. 25		Centre			(211·6)	(−6·8)	(40)	(368)	(1486)
85·401	AW, CL		0·908	282·8	262·5	+ 8·6	•		108
			0·896	291·2	259·1	+15·6			426
			0·788	294·4	246·8	+14·5			94
			0·814	305·3	245·3	+23·5			339
		4316	0·840	254·5	256·5	−16·6	0	4	
		4316	0·825	254·6	254·9	−16·5	0	2	309*sp*
		4316	0·815	252·4	253·8	−18·2	0	5	
		4316	0·815	251·2	253·7	−19·2	0	4	
		4319	0·309	251·3	216·4	−12·1	2	16	
		4319	0·310	246·0	216·0	−13·7	1	6	
		4319*a*	0·304	248·7	215·9	−12·7	1	17	
		4319	0·313	243·5	215·8	−14·4	0	2	
		4319	0·292	251·0	215·4	−11·9	0	8	
		4319	0·257	243·8	212·7	−13·0	2	12	
		4319	0·245	242·9	212·0	−12·9	0	11	
		4320*a*	0·641	106·9	159·7	−15·9	6	15	
		4321*a*	0·939	69·5	132·7	+16·6	31	311	
		4321	0·956	69·9	129·5	+16·9	0	3	513*c*
		4321*b*	0·979	69·0	124·2	+18·9	90	306	
			0·868	105·9	138·5	−17·1			87
			0·939	111·9	128·4	−22·8			696
Mar. 26		Centre			(199·1)	(−6·7)	(133)	(722)	(2572)
86·407	JW, AW		0·973	291·7	258·9	+19·3			206
			0·905	289·6	247·4	+14·6			124
			0·943	254·2	257·2	−17·1			341
			0·903	298·5	244·5	+22·1			392

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
86d.407	JW, AW		0·833	248·6	242·0	−21·5			73
			0·754	254·6	234·7	−16·0			204
		4319	0·462	255·3	212·9	−12·7	0	5	
		4319	0·450	255·0	212·1	−12·7	1	6	
		4320*a*	0·457	112·1	159·8	−15·9	2	10	
		4320	0·459	105·5	158·9	−13·0	0	4	
		4321*a*	0·828	65·7	134·3	+15·8	52	332	
		4321	0·853	66·1	131·6	+16·3	3	58	
		4321	0·892	64·2	127·6	+19·4	8	29	731*c*
		4321	0·903	64·0	126·3	+20·0	0	19	
		4321*b*	0·914	65·5	124·3	+19·2	91	447	
			0·866	112·3	125·8	−22·7			586
Mar. 27		Centre			(185·8)	(−6·7)	(157)	(910)	(2657)
87·204	AW, JW		0·974	253·8	253·4	−17·3			252
			0·964	289·3	246·7	+16·6			216
			0·953	299·1	242·0	+25·2			138
M.			0·894	247·3	238·9	−23·2			140
			0·818	255·8	230·4	−15·4			311
		4319	0·609	257·3	212·7	−13·0	0	3	
		4319	0·604	257·2	212·3	−13·0	0	1	
		4322	0·260	110·8	161·0	−11·7	1	7	
		4322	0·269	108·4	160·3	−11·3	0	4	
		4322	0·292	108·2	158·9	−11·6	1	3	
		4320*a*	0·305	121·7	159·7	−15·6	3	11	
		4321*a*	0·720	60·7	134·8	+15·6	42	290	
		4321	0·747	59·5	133·0	+17·4	3	37	
		4321	0·736	62·9	132·8	+14·7	5	17	
		4321	0·757	59·0	132·4	+18·1	0	7	
		4321	0·751	61·1	132·2	+16·5	6	56	401*c*
		4321	0·788	60·1	129·4	+18·6	6	22	
		4321	0·801	59·8	128·3	+19·3	2	14	
		4321	0·807	59·8	127·7	+19·5	0	6	
		4321*b*	0·836	61·6	124·3	+19·3	92	447	
		4323	0·814	84·8	121·4	+ 0·4	2	9	
			0·829	112·6	119·6	−22·4			374
			0·973	98·5	98·0	− 9·8			293
Mar. 28		Centre			(175·3)	(−6·6)	(163)	(934)	(2125)
88·173	CL, JW		0·936	262·5	232·4	− 9·3			170
			0·919	251·3	229·9	−19·8			338
I.			0·807	255·3	216·5	−15·7			414
		4320*a*	0·168	163·5	159·7	−15·8	2	9	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4321, March 25–April 6. A fine stream of spots inclined at a considerable angle to the equator. It consists chiefly of two large composite spots, *a* and *b*, and a number of small spots between them. *b* has divided into two principal parts, *c* and *d*, by March 30; *a* into three, *e*, *f* and *g*, by March 31; and *d* into three, *h*, *j*, and *k*, by April 2. The group declines rapidly after this, and *e* alone remains by April 5.
Group 4322, March 28. Three very small faint spots.
Group 4323, March 28. A small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
88d·173	CL,JW	4321*a*	0·590	51·0	134·1	+16·0	48	322	
		4321	0·589	54·5	133·0	+14·3	0	7	
I.		4321	0·613	51·9	132·4	+16·5	13	41	
		4321	0·633	51·0	131·5	+17·8	0	4	
		4321	0·640	51·6	130·9	+17·7	0	6	
		4321	0·648	53·0	129·8	+17·4	0	3	
		4321	0·649	53·7	129·5	+17·0	0	2	
		4321	0·683	52·2	127·8	+19·3	3	10	
		4321	0·666	55·5	127·7	+16·8	2	13	
		4321	0·691	52·5	127·1	+19·5	0	4	
		4321	0·686	55·0	126·5	+17·8	0	2	
		4321	0·710	52·3	125·8	+20·4	0	11	
		4321	0·701	54·2	125·7	+18·9	2	11	
		4321*b*	0·727	54·8	123·5	+19·7	90	403	
			0·789	110·6	110·8	−20·3			112
			0·895	100·5	98·5	−12·4			319
			0·978	74·1	86·9	+14·0			272
Mar. 29		Centre			(162·5)	(−6·6)	(160)	(848)	(1625)
89·502	AW,CL		0·939	255·3	215·6	−16·0			601
			0·842	252·1	202·4	−18·5			136
		4324	0·195	151·9	139·5	−16·3	0	3	
		4324	0·227	148·0	137·8	−17·5	0	3	
		4321	0·369	27·9	134·9	+12·6	0	7	
		4321*a*	0·417	26·2	134·0	+15·5	39	349	
		4321	0·395	29·1	133·6	+13·7	2	26	
		4321	0·453	28·4	132·0	+17·1	0	6	
		4321	0·460	30·2	131·1	+17·0	0	3	
		4321	0·474	33·7	129·1	+16·9	0	2	
		4321	0·509	31·7	128·6	+19·3	0	2	
		4321	0·470	36·1	128·3	+16·0	0	1	
		4321	0·483	36·8	127·5	+16·5	0	4	
		4321	0·512	33·8	127·5	+18·9	0	4	
		4321	0·529	34·0	126·8	+19·8	0	10	
		4321	0·514	36·1	126·5	+18·3	4	32	
		4321*c*	0·562	37·2	123·8	+20·4	14	98	
		4321*d*	0·542	39·9	123·6	+18·5	44	244	
		4325	0·887	77·8	84·2	+ 7·7	0	4	} 201*c*
		4325	0·909	77·4	81·4	+ 8·6	0	11	
		4326*a*	0·982	101·2	65·1	−12·2	17	147	} 446*c*
		4327*a*	0·984	107·3	63·8	−18·2	25	125	
			0·909	69·1	83·2	+15·9			175
Mar. 30		Centre			(145·0)	(−6·5)	(145)	(1081)	(1559)
1896.				°	°	°			
90d·644	AW,CL		0·920	252·2	197·5	−18·9			310
			0·858	290·8	185·6	+14·1			74
		4321*e*	0·373	347·1	134·9	+14·9	24	156	
		4321	0·344	346·1	134·8	+13·1	0	5	
		4321*f*	0·348	349·5	133·7	+13·6	3	33	
		4321*g*	0·388	351·9	133·2	+16·1	20	89	
		4321	0·352	355·2	131·7	+14·1	0	1	
		4321	0·364	356·3	131·4	+14·8	0	4	
		4321	0·376	357·1	131·1	+15·6	3	14	
		4321	0·386	357·4	131·0	+16·2	0	7	
		4321	0·412	358·4	130·7	+17·8	0	10	
		4321	0·430	359·0	130·5	+18·9	0	8	
		4321	0·358	358·8	130·4	+14·5	1	6	
		4321	0·394	359·7	130·1	+16·7	0	7	
		4321	0·442	3·5	128·4	+19·7	0	3	
		4321	0·416	4·5	128·0	+18·0	1	8	
		4321	0·421	6·2	127·3	+18·3	1	4	
		4321	0·431	6·5	127·1	+18·9	1	6	
		4321	0·422	7·3	126·8	+18·3	0	6	
		4321	0·438	7·0	126·8	+19·3	0	7	
		4321	0·447	7·4	126·5	+19·8	0	2	
		4321	0·428	8·9	126·0	+18·5	0	5	
		4321	0·456	9·8	125·3	+20·3	0	3	
		4321	0·459	10·6	124·9	+20·4	0	1	
		4321*d*	0·431	13·1	124·1	+18·3	24	217	
		4321*c*	0·463	12·7	123·8	+20·4	14	56	
		4321	0·455	15·1	122·8	+19·7	0	1	
		4328	0·252	4·4	128·9	+ 8·1	4	19	
		4328	0·255	11·0	127·2	+ 8·1	2	10	
		4328	0·252	14·1	126·5	+ 7·7	0	2	
		4326*a*	0·900	100·7	65·3	−12·4	20	127	} 733*c*
		4327*a*	0·909	106·8	64·0	−18·0	29	131	
		4329	0·945	103·1	58·3	−14·5	0	35	
			0·960	114·0	55·1	−24·9			152
Mar. 31		Centre			(130·0)	(−6·4)	(147)	(983)	(1269)
91·222	JW,FT		0·981	252·7	202·5	−18·2			125
			0·903	248·0	187·2	−22·6			261
I.			0·916	288·4	185·8	+14·0			54
		4321*e*	0·427	330·0	135·1	+15·4	31	180	
		4321*f*	0·399	330·9	133·9	+14·1	0	44	
		4321*g*	0·429	334·7	133·4	+16·5	20	104	
		4321	0·428	338·2	131·9	+17·0	0	4	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4324, March 30. A pair of very small spots.
Group 4325, March 30–April 9. Two small spots in a mass of bright faculæ. The group is not seen on March 31 and April 1, but a fresh outburst has occurred by April 2, when a single small spot is seen. The group consists of a small close pair on April 3, and of an irregular stream of spots, mostly small and unstable, on the succeeding days.
Group 4326, March 30–April 10. A large composite spot, *a*. *a* has divided into two portions, *b* and *c*, by April 2, of which *b* is a regular spot. A very small companion is sometimes seen *f* them. *b* alone remains by April 8.
Group 4327, March 30–April 11. A large regular spot, *a*.
Group 4328, March 31–April 6. A few spots, mostly small and unstable, in a short irregular stream.
Group 4329, March 31–April 7. One or two small spots, *f* Groups 4326 and 4327, but in an intermediate latitude. The group is not seen on April 2, 5 or 6.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
91d.222	JW,FT	4321	0·402	337·7	131·5	+15·4	0	8	
		4321	0·444	340·4	131·4	+18·3	0	2	
I.		4321	0·413	339·9	130·9	+16·4	2	6	
		4321	0·392	340·1	130·3	+15·2	0	4	
		4321	0·434	347·6	128·0	+18·6	0	3	
		4321	0·442	349·9	127·1	+19·3	0	18	
		4321	0·438	352·9	125·7	+19·3	0	14	
		4321*d*	0·431	355·7	125·3	+18·9	27	138	
		4321	0·454	354·6	125·0	+20·4	0	1	
		4321*c*	0·461	356·9	123·9	+20·9	12	61	
		4328	0·295	333·4	130·0	+ 8·9	5	16	
		4328	0·280	334·3	129·4	+ 8·2	0	5	
		4328	0·260	343·4	126·7	+ 8·0	0	18	
		4330	0·249	6·1	120·9	+ 7·9	0	5	
		4330	0·247	8·9	120·2	+ 7·7	0	6	
		4330	0·242	13·0	119·3	+ 7·2	0	4	
		4331*a*	0·254	19·9	117·4	+ 7·4	4	17	
		4326*a*	0·839	100·0	65·0	−11·9	22	121	
		4327*a*	0·853	106·6	63·6	−17·5	36	164	548*c*
		4329	0·901	101·9	57·6	−13·5	0	20	
		4329	0·909	101·5	56·5	−13·1	0	3	
		4332	0·971	72·9	48·8	+14·9	7	68	129*c*
			0·909	113·2	56·8	−23·7			72
April 1		Centre			(122·4)	(−6·4)	(166)	(1034)	(1189)
92·402	AW,JW		0·974	246·2	184·9	−24·5			220
		4321*e*	0·582	307·6	135·2	+15·3	15	133	
		4321*f*	0·559	306·9	134·1	+14·0	2	37	
		4321*g*	0·564	310·7	133·1	+15·9	9	23	
		4321	0·554	311·7	132·2	+15·9	0	7	
		4321	0·544	310·0	132·2	+14·7	0	33	
		4321*h*	0·526	323·2	126·2	+18·9	2	14	
		4321*j*	0·516	325·3	125·7	+19·0	12	43	
		4321*c*	0·529	327·7	124·3	+20·5	0	17	
		4321*k*	0·520	328·5	123·6	+20·2	1	16	
		4321	0·504	327·1	123·6	+19·0	4	27	
		4328	0·481	297·0	132·3	+ 6·9	0	7	
		4328	0·469	296·8	131·6	+ 6·5	0	5	
		4330	0·355	311·1	122·4	+ 7·4	0	6	
		4330*a*	0·339	311·4	121·6	+ 6·9	5	33	
		4330	0·335	316·4	120·2	+ 7·8	0	2	
		4330	0·329	317·8	119·6	+ 7·9	0	6	
		4331*b*	0·293	320·1	117·7	+ 6·7	1	14	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
92d.402	AW,JW	4331*c*	0·304	322·8	117·4	+ 7·8	0	11	
		4331*d*	0·285	321·8	117·0	+ 6·7	0	14	
		4325	0·454	56·7	84·3	+ 8·6	2	13	
		4326*b*	0·665	100·6	65·1	−11·7	14	59	
		4326*c*	0·666	102·5	65·1	−13·0	3	10	
		4326	0·674	101·5	64·4	−12·4	0	5	
		4327*a*	0·685	109·4	64·3	−17·8	21	135	
		4332	0·861	69·8	50·7	+13·8	4	20	273*c*
			0·958	69·5	36·8	+17·5			473
April 2		Centre			(106·8)	(−6·3)	(95)	(690)	(966)
93·187	AW,JW		0·927	256·9	165·0	−14·5			131
			0·890	251·3	159·6	−19·5			179
I.		4321*e*	0·700	299·2	135·5	+15·0	24	152	
		4321*f*	0·685	298·0	134·8	+13·8	5	17	
		4321*g*	0·675	301·7	132·9	+15·7	8	19	246*c*
		4321	0·679	302·7	132·8	+16·4	0	2	
		4321	0·652	301·5	131·4	+14·8	0	1	
		4321	0·628	309·6	126·9	+18·1	0	3	
		4321*h*	0·626	311·0	126·2	+18·7	5	15	
		4321*j*	0·617	312·3	125·1	+18·9	4	36	
		4321*c*	0·625	314·6	124·6	+20·4	2	10	
		4321	0·613	314·9	123·8	+20·0	1	6	
		4321*k*	0·604	313·8	123·7	+19·0	6	20	
		4328	0·624	290·5	132·4	+ 7·5	7	32	
		4328	0·620	292·3	131·7	+ 8·5	1	4	
		4328	0·593	293·9	129·5	+ 8·6	0	4	
		4328	0·576	292·0	128·8	+ 7·1	0	5	
		4328	0·570	293·2	128·2	+ 7·6	5	13	
		4330*a*	0·487	296·2	122·4	+ 6·7	9	28	
		4331*b*	0·415	299·2	117·7	+ 5·8	0	4	
		4331*c*	0·422	302·2	117·4	+ 7·1	10	29	
		4331*d*	0·412	301·9	116·9	+ 6·7	0	3	
		4325	0·329	33·6	85·8	+ 9·6	2	9	
		4325	0·325	35·7	85·4	+ 9·1	2	5	
		4326*c*	0·523	104·5	65·2	−13·0	0	6	
		4326*b*	0·528	101·3	64·7	−11·3	16	62	
		4326	0·543	102·3	63·7	−12·0	0	3	
		4327*a*	0·559	112·3	63·7	−17·5	23	145	
		4329	0·589	103·4	60·5	−13·0	0	2	
		4329	0·619	102·1	58·3	−12·4	7	21	
		4329	0·629	101·6	57·5	−12·2	0	1	
		4332	0·772	65·3	50·2	+14·5	10	36	176*c*

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4330, April 1–5. Three very small spots, *f* Group 4328, on April 1. A small regular spot, *a*, with a few very small companions on April 2. *a* remains alone by April 3.
Group 4331, April 1–4. A small spot, *a*, *f* Group 4330, on April 1. *a* has expanded and divided into three parts, *b*, *c* and *d*, by April 2. Only *c*, which corresponds to *a* in place, remains by April 4. Groups 4328, 4330 and 4331 form together one straggling irregular stream.
Group 4332, April 1–5. A small regular spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
93d·187	AW,JW	4333	0·904	70·4	34·9	+14·7	2	8	
		4333	0·921	72·2	32·1	+13·7	0	3	
I.		4333	0·926	71·6	31·5	+14·4	0	6	195c
		4333	0·934	72·0	30·2	+14·3	3	11	
			0·818	59·6	47·8	+20·3			72
			0·885	64·2	39·0	+19·3			118
			0·955	80·7	24·9	+ 6·9			303
			0·981	89·2	17·8	− 0·5			153
April 3		Centre			(96·4)	(−6·3)	(152)	(721)	(1573)
94·153	AW,JW		0·948	252·0	155·9	−19·0			222
			0·915	287·0	147·3	+12·8			136
I.			0·833	254·4	140·2	−16·4			134
			0·776	244·7	133·4	−23·4			261
		4321e	0·829	292·9	135·8	+15·0	24	143	
		4321f	0·820	291·5	135·3	+13·7	0	5	235c
		4321h	0·752	301·6	126·1	+18·7	0	6	
		4321k	0·734	303·4	123·9	+19·0	0	6	211c
		4328	0·793	285·2	134·1	+ 8·1	8	38	
		4328	0·776	285·3	132·6	+ 7·8	0	9	
		4328	0·752	284·4	130·7	+ 6·6	6	18	196c
		4328	0·727	286·8	128·1	+ 7·7	0	4	
		4330a	0·663	287·7	123·0	+ 6·9	4	15	
		4331c	0·594	290·8	117·6	+ 7·0	0	13	
		4325	0·269	350·9	86·2	+ 9·2	3	7	
		4325	0·284	351·7	86·1	+10·0	3	20	
		4325	0·260	353·6	85·4	+ 8·8	0	3	
		4325	0·273	354·0	85·3	+ 4·4	0	4	
		4325	0·273	357·0	84·5	+ 9·6	0	5	
		4325	0·260	1·7	83·3	+ 8·8	0	6	
		4325	0·248	4·1	82·8	+ 8·1	0	4	
		4326c	0·324	112·3	65·9	−13·0	2	20	
		4326b	0·335	106·7	64·7	−11·4	8	51	
		4327	0·384	122·2	63·8	−17·7	23	148	
		4329	0·446	106·3	57·8	−12·8	2	13	
		4332	0·633	57·9	50·2	+14·4	7	19	
		4333	0·788	65·3	36·0	+15·0	0	9	
		4333a	0·803	65·4	34·6	+15·4	7	32	191c
		4333	0·822	64·6	33·1	+16·8	0	8	
		4333	0·844	68·1	29·8	+14·7	2	7	
			0·836	83·4	27·7	+ 2·0			80

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
94d·153	AW,JW		0·927	84·6	16·4	+ 2·7			218
			0·952	65·2	15·9	+21·3			222
I.			0·985	96·4	3·2	− 7·4			156
April 4		Centre			(83·7)	(−6·2)	(99)	(613)	(2262)
95·149	CL, JW								
			0·919	252·8	137·8	−18·2			332
I.			0·869	236·3	128·9	−32·1			122
			0·852	277·0	128·1	+ 2·7			68
			0·849	245·1	127·9	−24·3			414
			0·873	298·0	125·9	+20·8			661
		4321e	0·928	288·4	135·8	+14·6	29	128	598n
		4328	0·918	281·9	135·5	+ 8·4	21	81	
		4328	0·899	281·7	133·0	+ 7·7	0	16	480c
		4328	0·877	280·8	130·4	+ 6·5	8	72	
		4330a	0·819	282·6	123·9	+ 6·7	0	12	311f
		4325	0·392	314·4	86·9	+10·0	0	11	
		4325	0·384	313·6	86·8	+ 9·5	0	23	
		4325	0·378	315·7	86·0	+ 9·8	0	18	
		4325	0·321	317·1	83·2	+ 7·6	0	3	
		4326c	0·141	151·0	66·5	−13·1	0	27	
		4326b	0·137	135·7	64·9	−11·7	11	43	
		4327	0·236	152·0	63·8	−18·0	22	133	
		4332	0·477	44·1	50·6	+14·2	3	9	
		4333a	0·654	57·2	35·8	+15·7	12	47	
		4333	0·662	58·5	34·8	+15·3	0	8	
		4333	0·663	59·7	34·4	+14·6	0	10	
		4333	0·673	58·8	34·0	+15·4	0	19	298c
		4333	0·696	60·2	31·9	+15·4	0	10	
		4333	0·702	59·2	31·7	+16·3	0	5	
		4333	0·713	58·2	31·2	+17·3	0	13	
		4333	0·716	59·4	30·6	+16·7	9	28	
		4334	0·766	86·7	20·8	− 1·5	2	12	142c
		4334	0·791	86·2	18·6	− 0·8	0	7	
		4335	0·933	94·9	1·3	− 6·8	3	26	544f
			0·917	59·7	10·1	+24·6			192
		Centre			(70·5)	(−6·1)	(120)	(761)	(4162)
April 5									
96·189	AW,JW		0·957	245·2	130·8	−25·5			263
			0·898	280·1	119·4	+ 6·3			260
I.			0·883	246·6	118·6	−23·5			198
		4321e	0·991	285·5	136·9	+14·4	0	119	424f

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4333, April 3–13. A few small spots in an irregular stream on April 3. The group increases greatly in size from day to day up to April 8, and becomes a fine broad complex stream. The individual spots are in a constant state of change. The most easily recognized are lettered *a* to *f*, but these also change greatly, and *b*, *d* and *e* are each sometimes divided into two parts. On April 8, *a*, *d* and *e* are large composite spots, *a* being specially complex in structure.
Group 4334, April 5. A pair of small spots.
Group 4335, April 5–6. A single small spot on April 5. A wide pair of very small spots on April 6.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1896.									
96d.189	AW,JW	4321*h*	0·954	291·5	125·9	+18·4	0	11	445*c*
		4328	0·987	279·1	136·3	+ 7·9	27	133	399*n*
I.		4328	0·962	278·5	129·8	+ 6·5	0	18	
		4325	0·556	296·7	86·9	+ 9·2	2	10	
		4325	0·539	298·9	85·3	+ 9·7	7	37	
		4325	0·514	297·1	84·2	+ 8·1	0	3	
		4325	0·513	301·6	83·0	+10·1	0	1	
		4325	0·495	298·6	82·7	+ 8·2	2	15	
		4325	0·495	300·7	82·2	+ 9·1	0	2	
		4325	0·486	299·6	82·0	+ 8·4	0	4	
		4326*c*	0·209	233·2	66·7	−13·2	0	7	
		4326*b*	0·182	236·2	65·7	−11·9	12	48	
		4327*a*	0·241	209·1	63·9	−18·1	18	153	
		4333	0·495	41·9	36·8	+15·6	7	39	
		4333*a*	0·508	44·4	35·2	+15·5	17	100	
		4333	0·509	47·4	34·1	+14·4	0	10	
		4333	0·533	44·3	34·0	+16·8	8	36	
		4333*b*	0·523	46·2	33·8	+15·6	1	21	
		4333	0·529	46·8	33·3	+15·6	0	4	
		4333*c*	0·516	49·2	33·2	+14·1	0	15	
		4333	0·542	47·4	32·4	+15·9	0	7	
		4333	0·532	49·1	32·3	+14·8	0	23	
		4333	0·552	47·6	31·8	+16·3	0	8	
		4333*d*	0·544	50·2	31·3	+14·9	3	11	
		4333*e*	0·576	47·3	30·6	+17·5	49	193	
		4335	0·808	93·1	2·8	− 6·1	1	5	250*c*
		4335	0·849	96·2	358·4	− 8·5	0	7	
			0·893	55·7	1·2	+26·8			85
			0·901	102·0	352·0	−13·5			69
			0·923	96·9	349·1	− 8·7			226
April 6		Centre			(56·8)	(−6·1)	(154)	(1040)	(2619)
97·438	AW.JW		0·953	246·7	113·4	−24·0			108
			0·865	257·5	100·5	−13·8			106
		4325	0·769	287·4	88·1	+ 9·3	4	25	
		4325	0·751	289·0	86·3	+10·0	5	18	
		4325	0·725	287·2	84·5	+ 8·1	0	11	
		4325	0·730	290·7	84·1	+10·6	0	4	
		4325	0·718	287·0	84·0	+ 7·8	0	3	
		4325	0·723	290·8	83·6	+10·6	0	10	
		4325	0·709	287·2	83·2	+ 7·7	0	1	
		4325	0·700	288·1	82·4	+ 8·1	8	48	
		4325	0·695	289·8	81·6	+ 9·1	0	7	
		4336	0·596	304·0	70·8	+14·3	0	4	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
				°	°	°			
1896.									
97d.438	AW,JW	4326*b*	0·450	255·4	66·6	−11·9	4	13	
		4327*a*	0·439	240·2	63·8	−18·1	20	137	
		4329	0·355	250·2	60·2	−12·6	1	13	
		4329	0·340	244·7	58·7	−14·0	0	1	
		4333*a*	0·374	9·5	36·6	+15·6	64	322	
		4333	0·347	11·9	36·1	+13·8	0	5	
		4333	0·373	15·9	34·3	+15·0	2	8	
		4333*b*	0·382	15·5	34·2	+15·5	4	26	
		4333*c*	0·368	18·1	33·5	+14·4	0	10	
		4333	0·398	20·5	32·0	+15·9	0	2	
		4333	0·422	19·7	31·8	+17·4	0	2	
		4333	0·400	22·3	31·3	+15·7	0	1	
		4333	0·393	23·2	31·1	+15·2	0	10	
		4333*d*	0·384	23·8	31·1	+14·6	4	21	
		4333*e*	0·436	23·3	29·9	+17·7	26	193	
		4333	0·400	26·3	29·8	+15·0	1	8	
		4333	0·393	26·8	29·8	+14·6	1	9	
			0·957	94·6	326·9	− 6·2			260
April 7		Centre			(40·3)	(−6·0)	(144)	(912)	(474)
98·617	CL,FT		0·964	264·7	99·7	− 6·7			66
			0·928	292·6	89·1	+18·4			61
		4325	0·914	283·6	89·0	+ 9·9	7	19	
		4325	0·902	283·6	87·3	+ 9·6	0	12	
		4325	0·886	283·6	85·3	+ 9·2	0	23	
		4325	0·882	284·5	84·6	+ 9·8	0	19	286*c*
		4325	0·882	285·3	84·5	+10·5	0	12	
		4325	0·866	285·8	82·5	+10·5	2	11	
		4325	0·858	283·2	82·1	+ 8·1	22	57	
		4326*b*	0·675	259·1	67·2	−11·7	3	11	
		4327*a*	0·642	248·9	63·7	−18·0	18	121	
		4333*a*	0·425	329·8	37·6	+15·7	70	399	
		4333	0·444	332·8	37·0	+17·4	2	13	
		4333	0·417	334·6	35·5	+16·3	0	6	
		4333	0·393	334·4	34·9	+14·9	0	6	
		4333*b*	0·393	337·1	33·9	+15·3	9	53	
		4333	0·411	341·5	32·6	+17·0	0	4	
		4333*f*	0·416	344·9	31·3	+17·7	3	27	
		4333	0·392	345·0	30·8	+16·3	0	9	
		4333	0·419	346·8	30·6	+18·1	0	20	
		4333*d*	0·370	345·8	30·2	+15·0	32	178	
		4333*e*	0·414	349·0	29·5	+18·0	24	132	
			0·838	93·3	327·8	− 6·0			236
April 8		Centre			(24·8)	(−5·9)	(192)	(1132)	(649)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4336, April 7. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
99d.538	AW,JW		0·977	288·0	87·8	+16·2			281
			0·901	290·8	73·5	+15·9			325
		4325	0·946	281·2	82·1	+ 8·6	14	90	1109c
		4326b	0·820	260·1	67·9	−11·5	5	18	} 302c
		4327a	0·779	251·6	63·4	−18·0	19	122	
		4333a	0·544	311·4	37·6	+15·7	61	449	
		4333b	0·508	315·9	34·1	+15·8	0	6	
		4333b	0·488	316·0	33·1	+15·0	2	9	
		4333f	0·501	323·8	30·7	+18·2	4	42	
		4333	0·461	319·0	30·7	+14·7	3	18	
		4333d	0·453	321·5	29·5	+15·0	26	128	
		4333e	0·489	326·0	29·3	+18·2	27	143	
April 9		Centre			(12·6)	(−5·9)	(161)	(1025)	(2017)
100·637	FT,JW		0·936	263·2	67·8	− 8·4			79
			0·848	248·1	55·7	−21·6			164
		4326b	0·941	260·1	68·8	−11·3	2	15	} 738c
		4327a	0·902	253·1	62·8	−17·7	21	126	
		4333a	0·709	299·5	37·9	+15·9	60	439	
		4333	0·680	299·9	35·6	+15·2	0	3	
		4333	0·679	300·7	35·4	+15·7	0	8	
		4333	0·689	304·4	34·7	+18·3	0	5	
		4333b	0·658	300·7	33·8	+14·9	0	9	
		4333f	0·647	306·8	31·0	+17·9	1	5	
		4333	0·626	304·5	30·4	+15·9	0	8	
		4333d	0·608	302·9	29·8	+14·3	7	86	
		4333d	0·619	305·5	29·6	+16·0	4	11	
		4333e	0·636	308·8	29·5	+18·5	22	215	
April 10		Centre			(358·1)	(−5·8)	(117)	(930)	(981)
101·532	JW,CL		0·959	257·9	60·4	−13·3			445
			0·925	253·2	54·4	−17·7			127
			0·909	244·4	51·4	−25·6			85
			0·925	287·9	51·3	+14·1			268
		4327a	0·968	253·2	62·6	−17·7	14	103	318c
		4333a	0·822	294·2	37·4	+16·1	90	517	
		4333b	0·784	294·6	33·8	+15·2	0	7	
		4333	0·786	296·4	33·4	+16·6	5	19	
		4333e	0·759	300·4	29·8	+18·4	0	22	} 438c
		4333d	0·739	295·0	29·8	+14·1	8	43	
		4333d	0·743	298·2	29·1	+16·3	3	10	
		4333e	0·748	300·5	28·8	+18·1	19	119	
April 11		Centre			(346·3)	(−5·7)	(139)	(840)	(1681)
1896.				°	°	°			
102d.578	CL,JW	4333a	0·929	289·6	37·8	+15·9	71	461	
		4333d	0·875	289·8	30·4	+14·3	7	31	} 566c
		4333e	0·866	294·9	28·1	+18·3	11	79	
April 12		Centre			(332·5)	(−5·6)	(89)	(571)	(566)
103·404	AW,JW	4333a	0·982	287·5	38·3	+16·0	45	522	
		4333d	0·947	287·5	30·3	+14·6	0	14	} 837c
			0·863	104·4	261·8	−15·2			157
			0·915	112·6	255·5	−22·8			76
April 13		Centre			(321·6)	(−5·5)	(45)	(536)	(1070)
104·197	FT,JW		0·982	274·6	29·6	+ 3·4			171
I.			0·973	287·9	25·2	+15·9			387
			0·774	262·1	1·9	− 9·6			191
			0·888	184·9	322·4	−67·2			59
		4337	0·871	58·8	256·9	+23·7	0	10	} 328c
		4337	0·871	59·6	256·6	+23·0	0	9	
			0·821	107·5	256·1	−17·5			259
			0·943	64·1	245·0	+22·2			262
			0·941	103·7	242·7	−10·9			290
April 14		Centre			(311·1)	(−5·5)	(0)	(19)	(1947)
105·380	AW,JW		0·909	261·6	1·1	− 9·9			244
			0·825	262·3	351·3	− 9·4			207
			0·718	52·2	258·0	+21·8			121
			0·840	57·6	245·1	+23·3			207
			0·847	64·1	242·2	+18·6			96
			0·816	101·7	240·7	−12·7			167
			0·894	97·8	231·8	− 9·5			85
			0·900	107·4	231·2	−18·0			186
			0·956	101·5	222·0	−12·6			206
April 15		Centre			(295·5)	(−5·4)	(0)	(0)	(1519)
106·677	AW,JW		0·948	263·6	350·1	− 7·8			334
			0·794	266·9	331·0	− 5·7			126
			0·865	103·5	218·4	−14·4			167
			0·920	110·1	211·3	−20·6			351
			0·978	109·5	199·5	−20·2			580
April 16		Centre			(278·4)	(−5·3)	(0)	(0)	(1558)

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Group 4337, April 14. A pair of faint small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
107d.450	JW,AW		0·891	264·7	331·1	− 7·1			218
			0·851	110·2	210·1	−19·9			224
			0·927	109·6	199·9	−20·1			378
April 17		Centre			(268·0)	(−5·2)	(0)	(0)	(820)
108·387	JW,AW		0·957	264·9	329·0	− 6·4			252
		4338	0·238	204·2	261·5	−17·5	0	4	
		4339	0·729	110·8	209·9	−18·6	0	6	
			0·884	178·3	213·9	−66·9			55
			0·824	112·5	201·1	−21·4			162
			0·824	107·7	200·5	−17·5			108
April 18		Centre			(255·7)	(−5·1)	(0)	(10)	(577)
109·512	JW,AW	4340	0·154	205·7	244·7	−13·0	0	4	
		4340	0·143	199·8	243·6	−12·7	0	3	
		4339*a*	0·474	119·2	215·2	−17·8	12	60	
		4339	0·488	118·2	214·1	−17·8	0	6	
		4339	0·492	117·5	213·7	−17·5	0	6	
		4339	0·505	119·8	213·3	−18·9	0	3	
		4339	0·505	118·5	213·1	−18·3	0	8	
		4339	0·501	116·4	212·9	−17·3	0	3	
		4339	0·528	118·4	211·5	−18·9	0	22	
		4339	0·528	116·6	211·2	−18·0	4	23	
			0·866	118·8	182·4	−27·3			77
			0·953	102·1	168·0	−13·1			134
April 19		Centre			(240·8)	(−5·0)	(16)	(138)	(211)
110·187	AW,JW	4341	0·464	249·4	258·3	−13·8	1	4	
		4341	0·446	246·0	256·7	−15·0	2	5	
I.		4340	0·273	237·7	245·6	−13·3	0	2	
		4340	0·260	230·8	243·8	−14·3	0	5	
		4340	0·238	223·5	241·6	−14·9	1	6	
		4339*a*	0·353	129·8	215·4	−17·8	13	60	
		4339	0·395	127·4	212·7	−18·6	0	5	
		4339	0·418	126·5	211·2	−19·0	2	10	
		4339	0·417	125·2	210·9	−18·5	0	5	
		4339	0·422	123·8	210·3	−18·2	1	5	
		4339	0·420	122·6	210·2	−17·7	0	2	
			0·809	120·9	180·4	−27·7			132
			0·916	106·3	165·4	−16·9			248
April 20		Centre			(231·9)	(−5·0)	(20)	(109)	(380)
1896.				°	°	°			
111d.397	JW, FT		0·831	295·0	268·0	+17·5			138
		4341	0·727	255·4	262·3	−14·0	7	16	
		4341	0·718	255·1	261·5	−14·1	4	9	
		4341	0·708	254·5	260·6	−14·4	0	4	
		4341	0·674	255·3	257·9	−13·5	1	13	
		4341	0·659	252·6	256·5	−15·1	5	14	
		4340	0·532	252·4	247·3	−13·4	5	21	
		4340	0·522	254·7	246·9	−12·1	1	2	
		4340	0·509	250·6	245·5	−14·0	0	1	
		4340	0·497	249·9	244·6	−14·1	9	24	
		4340	0·481	248·6	243·4	−14·4	2	5	
		4340	0·470	248·4	242·7	−14·3	0	2	
		4340	0·469	244·9	242·1	−15·9	6	17	
		4340	0·456	247·5	241·7	−14·4	1	3	
		4340	0·448	247·1	241·1	−14·4	0	6	
		4340	0·440	247·4	240·7	−14·2	0	5	
		4339*a*	0·220	179·6	215·9	−17·5	8	31	
		4342	0·940	75·8	147·8	+11·6	1	6	} 400*c*
		4342	0·950	76·6	145·9	+11·1	0	6	
			0·924	72·0	151·0	+14·6			140
			0·959	104·6	142·0	−15·4			231
			0·975	70·1	141·5	+18·1			193
			0·975	78·7	140·1	+ 9·9			443
April 21		Centre			(216·0)	(−4·9)	(50)	(185)	(1545)
112·516	FT, JW		0·854	253·7	259·7	−16·4			132
		4341	0·890	257·1	264·2	−13·7	7	21	
		4341	0·878	256·7	262·7	−14·0	0	5	
		4340	0·736	256·1	248·3	−13·5	2	7	
		4340	0·702	254·5	245·3	−14·3	0	6	
		4340	0·695	255·3	244·8	−13·6	9	25	
		4340	0·658	254·5	241·8	−13·8	0	2	
		4339*a*	0·327	226·2	215·5	−17·7	7	22	
		4342	0·825	71·9	148·1	+12·0	9	24	148*c*
			0·893	76·4	139·7	+ 9·9			90
			0·935	67·3	135·4	+19·2			214
			0·965	83·6	127·2	+ 4·9			125
April 22		Centre			(201·2)	(−4·8)	(34)	(112)	(709)
113·624	JW,AW		0·953	252·1	259·4	−18·5			175
			0·966	293·6	258·2	+21·3			147
			0·902	248·7	250·7	−21·2			94

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4338, April 18. A very small spot.
Group 4339, April 18–23. A very small spot on April 18. A short irregular stream of small spots on April 19 and 20, of which *a*, the leader, is largest. *a* alone remains by April 21, but is accompanied by a distant companion on April 23.
Group 4340, April 19–22. A pair of very small spots *p* Group 4339 on April 19. A few very small spots in an irregular stream on the succeeding days.
Group 4341, April 20–23. A pair of very small spots *p* Group 4340 on April 20. A few very small spots in an irregular stream on the succeeding days.
Group 4342, April 21–30. A pair of very small spots on April 21. A number of small unstable spots in an irregular stream on April 23 and the succeeding days. The group undergoes continual change as to size, appearance, and composition.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
113d.624	JW,AW		0·912	293·8	248·6	+19·4			236
			0·851	256·4	244·9	−14·0			263
		4341	0·981	257·5	265·9	−13·1	18	93	400*nf*
		4339*a*	0·515	243·5	215·4	−17·4	3	13	
		4339	0·486	236·8	212·1	−19·7	2	9	
		4342	0·650	65·4	149·6	+12·0	4	8	
		4342	0·653	66·1	149·2	+11·6	1	4	
		4342	0·662	64·3	149·0	+12·9	0	8	
		4342	0·660	66·3	148·7	+11·6	2	5	
		4342	0·666	67·2	148·0	+11·3	1	8	
		4342	0·676	68·1	147·1	+10·9	3	8	
		4342	0·690	68·6	145·9	+11·0	0	6	
		4342	0·708	68·6	144·5	+11·5	2	6	
		4342	0·712	69·4	144·0	+11·0	0	4	
		4342	0·717	68·6	143·8	+11·7	0	3	
		4342	0·717	69·6	143·6	+11·0	2	6	
		4342	0·722	70·7	142·9	+10·4	0	7	
		4342	0·726	71·2	142·5	+10·1	0	11	
		4343*a*	0·979	97·3	108·0	− 8·1	14	57	829*n*
			0·832	66·0	134·2	+16·9			156
			0·819	78·4	132·9	+ 6·7			111
			0·897	84·6	123·4	+ 2·7			380
			0·921	66·4	123·2	+19·6			328
			0·926	77·2	120·4	+10·0			135
			0·932	119·6	118·7	−29·2			126
			0·957	119·0	113·5	−29·1			174
April 23		Centre			(186·6)	(−4·7)	(52)	(256)	(3554)
114·409	CL,JW		0·913	257·3	242·3	−13·5			194
		4342	0·517	58·1	149·7	+11·7	0	1	
		4342	0·530	59·2	148·6	+11·7	15	48	
		4342	0·555	62·3	146·3	+10·9	3	9	
		4342	0·594	64·1	143·3	+11·1	7	30	
		4343*a*	0·926	97·0	108·2	− 8·2	12	46	495*c*
			0·793	82·8	124·4	+ 2·9			109
			0·835	63·8	124·0	+18·9			153
			0·956	69·2	106·2	+18·3			103
April 24		Centre			(176·2)	(−4·6)	(37)	(134)	(1054)
115·404	JW,FT		0·969	250·0	239·2	−20·5			122
			0·954	255·0	235·8	−15·7			219
		4342	0·364	40·5	149·1	+11·7	21	135	
1896.				°	°	°			
115d.404	JW,FT	4342	0·389	48·1	145·9	+10·7	6	43	
		4342	0·417	52·8	143·4	+10·3	0	3	
		4342	0·429	50·1	143·4	+11·7	0	6	
		4342	0·449	51·6	142·0	+12·0	0	4	
		4342	0·435	55·5	141·7	+10·0	0	1	
		4342	0·470	54·8	140·0	+11·6	0	2	
		4344	0·797	68·3	113·4	+14·2	0	8	
		4344	0·812	65·6	112·6	+16·8	0	2	
		4344	0·810	67·8	112·3	+15·0	0	6	
		4344	0·838	67·5	109·5	+16·0	0	6	
		4344	0·850	65·6	108·8	+17·9	5	17	
		4344	0·883	66·6	104·7	+18·2	1	7	
		4343*a*	0·822	97·2	107·7	− 8·5	9	31	
			0·960	71·7	91·6	−16·2			99
			0·960	78·3	90·6	+ 9·9			144
April 25		Centre			(163·0)	(−4·5)	(42)	(271)	(584)
116·518	AW,FT		0·856	249·3	206·5	−20·0			317
		4342	0·292	354·5	149·9	+12·5	10	103	
		4342	0·289	359·0	148·6	+12·4	0	3	
		4342	0·290	2·5	147·6	+12·4	0	4	
		4342	0·278	4·2	147·1	+11·6	0	3	
		4342	0·277	10·5	145·4	+11·3	7	47	
		4342	0·294	12·0	144·7	+12·3	0	10	
		4342	0·290	17·2	143·3	+11·7	0	2	
		4342	0·299	17·6	143·0	+12·1	1	4	
		4344	0·704	58·8	109·2	+17·9	6	29	
		4344	0·734	59·6	106·7	+18·5	0	4	98*c*
		4344	0·760	61·5	103·8	+18·1	4	20	
		4343*a*	0·650	97·2	107·8	− 8·0	5	12	
		4343	0·703	94·1	103·6	− 6·0	0	9	
		4343	0·709	97·2	103·2	− 8·2	3	12	
			0·884	74·5	88·1	+11·5			316
April 26		Centre			(148·3)	(−4·4)	(36)	(262)	(731)
117·606	CL,FT		0·940	255·1	204·1	−15·5			45
			0·946	236·9	203·8	−32·6			103
			0·937	249·5	203·5	−20·8			470
			0·937	242·5	202·8	−27·3			74
		4345	0·532	239·4	162·8	−19·5	0	2	
		4345	0·503	245·7	162·2	−15·7	1	4	
		4345	0·500	244·2	161·7	−16·3	4	20	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ aré expressed in millionths of the Sun's visible Hemisphere.

Group 4343, April 23–28. A regular spot, *a*, which diminishes from day to day. One or two small companions are seen following it on April 26 and 27.
Group 4344, April 25–28. A few small unstable spots in an irregular stream.
Group 4345, April 27–30. A few small unstable spots in an irregular stream.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
117d.606	CL,FT	4345	0·458	241·7	158·7	−16·5	2	6	
		4345	0·455	242·6	158·6	−16·0	0	4	
		4342	0·409	312·9	151·7	+12·1	6	33	
		4342	0·419	315·3	151·4	+13·2	0	2	
		4342	0·413	314·5	151·4	+12·7	1	7	
		4342	0·409	316·2	150·7	+13·0	5	15	
		4342	0·423	319·9	150·2	+14·7	0	4	
		4342	0·383	317·2	149·3	+12·1	3	10	
		4342	0·341	324·7	145·5	+11·9	2	8	
		4342	0·341	325·0	145·4	+11·9	2	7	
		4342	0·345	327·7	144·7	+12·7	0	2	
		4342	0·336	327·0	144·6	+12·1	4	26	
		4342	0·319	326·1	144·3	+11·1	1	3	
		4344	0·539	46·1	109·9	+18·0	4	11	
		4344	0·541	47·1	109·4	+17·7	1	2	
		4344	0·558	48·1	108·1	+18·0	0	1	
		4344	0·578	48·6	106·8	+18·6	1	3	
		4344	0·569	50·5	106·6	+17·4	1	4	
		4344	0·602	51·9	104·1	+18·0	3	12	
		4343*a*	0·435	99·5	108·3	− 8·0	2	7	
		4343	0·507	99·2	103·6	− 8·4	0	6	
			0·875	68·6	76·0	+16·3			133
			0·917	103·3	67·3	−13·9			361
			0·926	109·4	66·2	−19·6			122
April 27		Centre			(133·9)	(−4·3)	(43)	(199)	(1308)
118·527	CL,FT		0·968	251·2	197·6	−19·3			193
			0·877	239·1	180·8	−28·9			42
		4345	0·679	249·6	163·2	−16·8	0	4	
		4345	0·675	250·4	163·0	−16·2	4	14	
		4345	0·631	250·5	159·6	−15·4	0	2	
		4345	0·619	249·7	158·6	−15·7	0	2	
		4342	0·564	298·0	152·1	+11·7	8	21	
		4342	0·551	297·1	151·5	+10·9	0	3	
		4342	0·559	299·5	151·4	+12·3	0	4	
		4342	0·561	303·7	150·4	+14·4	0	3	
		4342	0·535	300·6	149·7	+12·1	0	6	
		4342	0·530	302·2	149·0	+12·7	0	3	
		4342	0·518	303·1	148·0	+12·6	0	5	
		4342	0·502	302·7	147·2	+12·0	0	3	
		4342	0·470	300·3	145·9	+ 9·9	0	4	
		4342	0·479	305·0	145·3	+12·1	1	4	
		4342	0·482	307·9	144·6	+13·3	0	2	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
118d.527	CL,FT	4342	0·474	306·9	144·5	+12·6	0	4	
		4342	0·466	305·8	144·3	+11·9	3	11	
		4342	0·430	313·1	140·4	+13·1	0	4	
		4346	0·142	341·4	124·3	+ 3·6	0	6	
		4344	0·426	27·6	109·8	+18·0	2	5	
		4343*a*	0·238	107·4	108·5	− 8·2	2	6	
			0·894	108·3	58·6	−18·2			115
			0·908	83·2	57·2	+ 4·4			61
			0·927	71·1	56·3	+15·7			116
			0·953	115·8	49·5	−25·9			118
			0·984	74·2	43·7	+14·7			497
April 28		Centre			(121·7)	(−4·2)	(20)	(116)	(1142)
119·397	AW,CL	4345	0·815	252·5	164·3	−16·6	0	7	
		4342	0·707	291·0	152·5	+11·6	0	12	
		4347	0·497	336·8	122·5	+23·0	1	5	
			0·852	69·8	54·7	+14·8			138
			0·945	71·9	41·7	+15·6			743
April 29		Centre			(110·3)	(−4·1)	(1)	(24)	(881)
120·500	CL,FT		0·916	248·5	161·5	−21·2			96
			0·882	296·0	153·4	+20·6			60
		4345	0·912	253·0	161·4	−17·2	0	9	175*c*
		4345	0·884	256·3	157·7	−14·0	0	2	
		4342	0·855	286·0	152·5	+11·5	0	9	
		4342	0·850	288·0	151·6	+13·0	0	4	
		4342	0·832	286·3	150·0	+11·1	0	6	172*c*
		4342	0·756	286·4	142·9	+ 9·6	0	2	
		4342	0·764	291·2	142·6	+13·3	1	6	
		4348	0·151	153·3	91·7	−11·7	1	3	
		4348	0·159	151·3	91·2	−12·0	0	2	
		4348	0·144	144·9	90·9	−10·7	0	8	
		4348	0·163	148·2	90·7	−12·0	5	14	
			0·769	64·1	49·6	+16·8			28
			0·833	68·6	42·4	+15·3			251
			0·912	68·7	32·9	+17·5			213
April 30		Centre			(95·7)	(−4·0)	(7)	(65)	(995)
121·604	AW, FT		0·939	264·3	171·0	− 6·7			119
			0·920	284·4	146·3	+11·6			263
			0·862	255·5	140·4	−14·5			41

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4346, April 28. A very small faint spot.
Group 4347, April 29. A very small spot.
Group 4348, April 30–May 6. A number of spots, mostly small and unstable, in an irregular stream. *a*, the leader, is the largest, and increases in size from day to day.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
121d·604	AW, FT		0·880	292·2	139·5	+17·4			239
			0·847	243·8	137·2	−24·1			49
			0·754	282·5	128·7	+ 6·7			47
		4348	0·226	233·8	91·8	−11·5	0	7	
		4348	0·217	234·6	91·4	−11·0	0	5	
		4348	0·209	229·4	90·4	−11·7	3	17	
			0·779	65·7	33·7	+16·0			95
			0·951	95·7	9·1	− 6·6			166
May 1		Centre			(81·1)	(−3·9)	(3)	(29)	(1019)
122·259	CL,FT		0·980	263·4	151·0	− 7·2			232
			0·941	287·8	140·4	+15·3			902
I.			0·913	253·5	138·1	−16·6			136
			0·858	244·5	129·9	−23·7			140
			0·840	279·5	128·6	+ 5·9			274
			0·765	287·8	120·1	+11·0			95
			0·781	301·1	118·0	+21·1			338
		4348	0·414	252·6	96·0	−10·6	1	10	
		4348	0·398	251·9	94·9	−10·6	0	9	
		4348	0·390	250·0	94·2	−11·2	0	3	
		4348	0·375	250·3	93·4	−10·8	4	15	
		4348	0·341	247·8	91·1	−11·0	3	10	
		4348	0·333	244·8	90·2	−11·8	9	21	
			0·688	55·7	35·4	+19·8			142
			0·839	60·2	20·7	+22·3			107
			0·899	96·2	8·3	− 7·3			202
			0·935	106·4	3·2	−16·7			78
May 2		Centre			(72·4)	(−3·8)	(17)	(68)	(2646)
123·300	AW,JW		0·937	278·1	127·3	+ 6·3			178
			0·924	244·1	125·2	−25·3			129
I.			0·905	295·2	119·6	+20·9			234
			0·883	304·9	113·7	+28·2			106
		4348*a*	0·638	258·2	97·9	−10·4	6	35	
		4348	0·620	257·9	96·5	−10·4	3	23	
		4348	0·600	257·7	95·0	−10·3	0	7	
		4348	0·596	255·6	94·5	−11·5	0	8	
		4348	0·586	256·7	93·9	−10·7	6	21	
		4348	0·551	256·2	91·5	−10·7	0	11	
		4348	0·529	253·6	89·7	−11·8	2	21	
May 3		Centre			(58·6)	(−3·7)	(17)	(126)	(647)
1896.				°	°	°			
124d·397	AW, FT		0·949	248·5	115·5	−21·5			122
			0·948	292·4	112·6	+19·9			322
			0·903	265·7	108·6	− 5·4			275
			0·863	271·8	103·5	− 0·3			82
			0·943	328·6	95·9	+51·3			108
			0·807	286·7	95·9	+11·2			140
		4348*a*	0·832	260·8	100·3	− 9·6	14	75	
		4348	0·824	259·8	99·4	−10·4	0	4	
		4348	0·819	260·9	99·0	− 9·5	0	7	
		4348	0·806	258·8	97·6	−11·1	2	6	
		4348	0·799	259·0	96·9	−11·0	0	2	
		4348	0·779	259·9	95·1	−10·2	0	3	173*c*
		4348	0·769	259·1	94·1	−10·7	3	22	
		4348	0·749	259·6	92·4	−10·2	0	2	
		4348	0·722	257·9	89·9	−11·3	0	11	
		4348	0·719	258·6	89·7	−10·7	0	1	
		4349	0·915	111·6	338·5	−21·2	0	14	92*f*
			0·934	162·8	1·8	−65·8			72
			0·757	108·2	355·9	−16·0			51
			0·913	39·9	352·0	+42·2			38
			0·954	155·3	346·1	−62·0			77
May 4		Centre			(44·1)	(−3·6)	(19)	(147)	(1552)
125·413	AW, FT		0·965	266·9	105·5	− 3·9			291
			0·910	284·0	94·6	+11·1			198
			0·884	290·8	90·0	+16·5			127
			0·830	283·6	85·3	+ 9·2			167
		4348*a*	0·943	261·1	101·3	− 9·6	15	129	
		4348	0·936	259·9	100·1	−10·7	0	39	
		4348	0·909	259·0	96·0	−11·5	0	52	509*c*
		4348	0·892	259·8	93·8	−10·7	0	19	
		4350*a*	0·704	93·6	346·0	− 5·1	0	16	
		4350*b*	0·743	93·8	342·8	− 5·2	2	12	
			0·850	113·7	333·9	−21·9			245
May 5		Centre			(30·7)	(−3·5)	(17)	(267)	(1537)
126·193	AW,JW		0·965	259·3	95·3	−11·3			591
			0·965	284·3	93·6	+12·8			401
I.			0·916	279·1	85·7	+ 6·9			209
		4348*a*	0·993	260·6	103·8	− 9·8	0	174	
		4350*a*	0·563	92·2	346·1	− 4·0	2	5	
		4350*b*	0·616	93·8	342·4	− 5·1	0	10	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4349, May 4–12. A small spot on May 4, not seen on May 5, but reappearing by May 6. A number of closely connected small spots in the form of a horse-shoe on May 7. The group breaks up and diminishes after this date.
Group 4350, May 5–8. A pair of small spots, *a* and *b*, on May 5. *b* has a very small companion on May 6. *a* remains alone on May 7, and has a very small companion on May 8.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
126d·193	AW,JW	4350	0·619	93·3	342·1	− 4·7	0	2	
I.		4349	0·696	116·6	338·8	−20·7	0	7	275*f*
May 6		Centre			(20·3)	(−3·4)	(2)	(198)	(1476)
127·503	AW, FT		0·907	315·9	56·9	+38·7			67
			0·850	325·8	43·1	+42·1			78
		4350*a*	0·252	93·8	348·6	− 4·1	4	11	
		4349	0·528	128·1	336·6	−21·8	0	1	
		4349	0·532	126·7	336·0	−21·3	6	54	
		4349	0·536	124·8	335·2	−20·6	2	9	
		4349	0·544	124·1	334·5	−20·5	0	3	
		4349	0·556	126·4	334·4	−22·0	0	11	
		4349	0·572	126·7	333·4	−22·7	6	31	
		4349	0·583	125·5	332·3	−22·5	0	4	
			0·886	101·1	300·9	−11·3			56
May 7		Centre			(3·1)	(−3·2)	(18)	(124)	(201)
128·446	AW, FT	4351	0·669	270·3	32·4	− 2·1	6	18	
		4350*a*	0·033	111·5	348·8	− 3·8	2	14	
		4350	0·045	81·4	348·1	− 2·7	0	4	
		4349	0·372	149·2	338·8	−21·6	0	4	
		4349	0·377	144·1	337·0	−20·8	1	11	
		4349	0·397	139·9	334·8	−20·6	0	2	
		4349	0·428	140·8	333·7	−22·3	2	17	
		4349	0·438	139·7	332·8	−22·4	0	8	
May 8		Centre			(350·6)	(−3·1)	(11)	(78)	(0)
129·479	JW,AW		0·929	286·3	43·5	+13·9			271
			0·858	293·4	34·0	+18·6			198
		4349	0·311	181·0	338·4	−21·1	0	17	
		4349	0·334	169·0	334·2	−22·0	0	8	
			0·898	100·3	273·2	−10·6			82
			0·941	105·9	267·0	−16·0			470
May 9		Centre			(337·0)	(−3·0)	(0)	(25)	(1021)
130·495	AW,JW		0·944	269·2	34·2	− 1·7			124
			0·953	289·8	33·7	+17·8			170
		4349	0·413	220·8	340·3	−20·9	0	3	
		4349	0·399	218·8	339·0	−20·8	0	5	
		4349	0·402	217·2	338·7	−21·4	0	1	
1896.				°	°	°			
130d·495	AW,JW	4349	0·371	212·0	335·7	−21·1	6	14	
		4349	0·361	211·9	335·3	−20·6	0	6	
		4352*a*	0·973	107·3	246·9	−17·5	0	38	183*c*
			0·815	106·8	269·8	−15·3			258
			0·887	105·7	261·5	−15·3			268
May 10		Centre			(323·6)	(−2·9)	(6)	(67)	(1003)
131·419	CL,FT	4349	0·535	232·0	338·2	−21·7	0	7	
		4349	0·494	235·9	336·8	−18·6	0	4	
		4349	0·506	230·9	336·6	−21·1	1	8	
		4349	0·509	229·1	335·7	−22·0	0	5	
		4353	0·820	67·9	259·2	+16·2	0	10	
		4353	0·838	66·2	257·8	+18·1	0	9	
		4352*a*	0·903	108·0	247·4	−17·4	5	19	273*c*
			0·773	108·8	263·8	−16·2			122
May 11		Centre			(311·3)	(−2·8)	(6)	(62)	(395)
132·419	JW, FT		0·953	263·7	10·4	− 6·8			220
			0·947	274·2	8·9	+ 3·1			56
			0·932	299·7	2·5	+26·4			114
			0·894	256·2	1·1	−13·6			166
			0·935	308·1	0·4	+33·9			94
			0·883	267·5	0·0	− 3·5			159
			0·782	262·6	349·3	− 7·4			145
		4349	0·717	244·0	341·3	−20·3	0	3	96*c*
		4349	0·706	243·9	340·4	−20·0	1	3	
		4352*a*	0·788	110·2	247·5	−17·5	6	13	255*p*
			0·793	57·2	251·6	+23·5			34
			0·855	69·7	241·9	+15·7			104
			0·918	60·0	236·0	+26·1			176
			0·891	100·4	235·3	−10·5			119
			0·922	110·2	231·7	−19·6			346
May 12		Centre			(298·1)	(−2·7)	(7)	(19)	(2084)
133·421	CL, AW		0·809	243·2	336·3	−23·0			255
		4352*a*	0·639	114·2	247·4	−17·2	1	7	
		4352	0·647	114·8	246·9	−17·8	0	3	
			0·896	107·1	221·8	−16·5			157
May 13		Centre			(284·8)	(−2·6)	(1)	(10)	(412)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4351, May 8. A small spot.
Group 4352, May 10–15. A small spot, *a*, with a small companion on May 13 and 14.
Group 4353, May 11. A pair of small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
134d.434	FT, JW		0·953	266·3	343·8	− 4·3			102
			0·904	246·4	334·9	−22·4			389
		4354	0·245	150·5	264·4	−14·7	0	2	
		4354	0·251	149·9	264·0	−15·0	0	2	
		4352*a*	0·467	123·2	247·5	−17·1	2	5	
		4352	0·508	124·4	245·3	−18·9	1	10	
			0·806	112·7	219·5	−19·7			70
			0·908	114·2	207·7	−22·9			211
			0·961	104·7	197·7	−14·8			214
May 14		Centre			(271·5)	(−2·5)	(3)	(19)	(986)
135·430	AW, JW		0·961	247·6	331·6	−22·2			317
		4352*a*	0·311	145·2	247·6	−17·0	0	2	
			0·879	110·6	197·9	−19·1			120
			0·899	103·9	194·6	−13·5			124
May 15		Centre			(258·2)	(−2·3)	(0)	(2)	(561)
136·448							0	0	0
May 16		Centre			(244·8)	(−2·2)	(0)	(0)	(0)
137·371	FT, JW		0·662	248·9	272·3	−15·4			113
			0·926	107·9	165·4	−17·4			125
I.			0·975	76·1	156·5	+13·1			373
			0·979	101·4	154·4	−11·6			230
May 17		Centre			(232·6)	(−2·1)	(0)	(0)	(841)
138·236	AW, JW		0·755	250·6	268·8	−15·9			271
		4355	0·529	97·6	189·5	− 5·8	3	10	
M.		4355	0·546	98·6	188·4	− 6·3	0	1	
		4355	0·570	100·1	186·9	− 7·4	3	11	
		4356	0·900	102·9	157·5	−12·4	0	8	
		4356	0·921	104·3	154·6	−14·0	0	6	263*c*
		4356	0·925	104·9	154·1	−14·5	0	5	
			0·883	99·6	159·4	− 9·5			51
			0·907	76·2	157·3	+11·6			242
			0·921	111·7	155·2	−20·8			117
			0·969	76·0	146·6	+13·0			237
May 18		Centre			(221·2)	(−2·0)	(6)	(41)	(1181)
1896.				°	°	°			
139d.496	FT, JW		0·903	253·7	268·3	−15·5			381
			0·868	290·0	262·3	+16·2			142
		4355	0·230	107·3	191·7	− 5·8	3	8	
		4355	0·237	105·6	191·2	− 5·5	0	1	
		4355	0·242	104·8	190·9	− 5·4	0	2	
		4355	0·252	106·9	190·4	− 6·0	0	3	
		4355	0·252	105·6	190·3	− 5·7	0	3	
		4355	0·258	106·6	190·1	− 6·0	0	1	
		4355	0·304	104·9	187·3	− 6·3	4	11	
		4355	0·308	106·4	187·2	− 6·9	0	1	
		4355	0·313	108·8	187·1	− 7·6	0	5	
			0·804	70·7	153·1	+14·2			282
			0·899	75·4	141·7	+12·2			124
			0·938	67·8	137·1	+20·0			179
May 19		Centre			(204·4)	(−1·9)	(7)	(35)	(1108)
140·482	CL, JW		0·957	284·6	263·3	+13·4			107
			0·959	253·1	257·9	− 2·1			209
			0·845	250·1	247·7	−17·7			195
		4357	0·386	216·1	205·3	−19·8	1	10	
		4355	0·070	198·0	192·6	− 5·6	2	10	
		4355	0·074	190·5	192·2	− 5·9	2	24	
		4355	0·064	182·8	191·6	− 5·5	0	1	
		4355	0·056	170·9	190·9	− 5·0	0	1	
		4355	0·075	165·0	190·1	− 5·9	0	4	
		4355	0·112	140·4	187·3	− 6·7	0	4	
		4355	0·106	135·8	187·2	− 6·2	4	9	
		4355	0·121	142·8	187·2	− 7·3	0	3	
		4358	0·968	68·9	117·8	+19·9	0	12	140*f*
May 20		Centre			(191·4)	(−1·8)	(9)	(78)	(651)
141·408	AW, JW		0·920	252·5	245·3	−16·7			305
		4355	0·251	254·1	193·2	− 5·5	2	11	
		4355	0·244	253·5	192·7	− 5·5	0	3	
		4355	0·226	251·5	191·6	− 5·6	0	1	
		4355	0·217	248·1	190·8	− 6·2	0	2	
		4355	0·212	252·2	190·8	− 5·2	0	1	
		4355	0·208	247·8	190·3	− 6·0	0	2	
		4355	0·199	246·1	189·7	− 6·2	0	5	
		4355	0·183	241·6	188·5	− 6·8	0	6	
		4355	0·174	238·7	187·8	− 7·0	0	3	
		4355	0·161	241·5	187·3	− 6·2	1	4	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4354, May 14. A pair of very small spots.
Group 4355, May 18–22. A few small unstable spots in an irregular stream.
Group 4356, May 18. A few very small faint spots in a bright group of faculæ.
Group 4357, May 20–23. A small spot *sp* Group 4355 on May 20. The group is not seen on May 21. A few small unstable spots in an irregular stream on May 22 and 23.
Group 4358, May 20. A small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
141d·408	AW, JW	4359*a*	0·956	99·4	106·4	− 9·5	6	55	378*c*
			0·951	91·8	107·4	− 2·3			133
May 21		Centre			(179·2)	(−1·6)	(9)	(93)	(816)
142·150	CL, JW		0·949	255·1	240·4	−14·6			214
			0·932	295·4	235·1	+22·9			217
I.			0·925	304·0	231·9	+30·4			289
			0·895	245·5	230·9	−22·5			286
		4357	0·650	244·3	207·0	−17·5	2	7	
		4357	0·654	242·3	206·9	−18·9	0	7	
		4357	0·644	241·0	205·8	−19·3	0	12	
		4357	0·633	243·0	205·5	−17·8	1	3	
		4357	0·631	241·4	205·0	−18·7	2	7	
		4355	0·417	260·6	193·6	− 5·3	2	14	
		4355	0·377	259·4	191·1	− 5·4	0	4	
		4355	0·375	256·1	190·7	− 6·6	0	7	
		4355	0·369	261·6	190·7	− 4·5	0	4	
		4355	0·366	257·3	190·2	− 6·0	0	3	
		4355	0·363	252·7	189·7	− 7·5	0	14	
		4355	0·342	254·8	188·6	− 6·6	3	12	
		4359*a*	0·895	99·1	106·1	− 8·8	10	104	405*p*
		4359	0·907	100·6	104·6	−10·3	0	28	
			0·781	61·7	122·2	+20·7			222
			0·831	93·3	113·4	+ 1·9			194
			0·885	55·1	112·9	+29·6			249
May 22		Centre			(169·3)	(−1·5)	(20)	(226)	(2076)
143·215	CL, JW		0·925	248·5	221·6	−20·3			170
		4357	0·824	249·0	209·0	−18·0	2	7	
I.		4357	0·809	247·7	207·2	−18·7	5	31	
		4357	0·795	247·2	205·7	−18·8	2	10	246*c*
		4357	0·791	246·5	205·2	−19·3	6	18	
		4357	0·788	245·3	204·7	−20·1	0	2	
		4359*a*	0·762	100·8	106·1	− 9·1	20	87	144*c*
			0·741	50·5	115·4	+27·0			169
			0·858	88·1	96·4	+ 0·9			127
			0·876	101·9	94·6	−11·1			335
			0·891	70·6	94·2	+16·5			137
			0·929	80·6	87·6	+ 8·2			106
May 23		Centre			(155·2)	(−1·4)	(35)	(155)	(1434)
1896.				°	°	°			
144d·480	FT, JW		0·934	249·7	206·5	−19·3			167
			0·853	249·3	195·5	−18·3			55
			0·813	264·0	192·7	− 5·6			103
		4359*a*	0·540	105·6	106·9	− 9·5	9	53	
		4359	0·544	104·0	106·5	− 8·6	0	3	
			0·860	108·2	80·5	−16·3			117
			0·910	100·9	73·5	−10·4			113
			0·935	105·8	70·0	−15·2			73
May 24		Centre			(138·6)	(−1·3)	(9)	(56)	(628)
145·405	AW, JW		0·966	252·4	200·7	−17·3			130
			0·903	264·3	190·5	− 5·6			182
		4359*a*	0·364	114·4	106·6	− 9·8	7	29	
		4359	0·392	120·6	106·1	−12·6	0	1	
		4359	0·388	118·6	105·9	−11·8	0	2	
		4360	0·557	56·6	97·3	+16·8	3	9	
		4360	0·587	57·3	95·2	+17·4	0	2	
			0·879	104·0	65·4	−12·9			164
			0·962	67·1	54·1	+21·6			142
			0·958	74·1	54·0	+14·9			153
May 25		Centre			(126·2)	(−1·2)	(10)	(43)	(771)
146·466	AW, JW	4359*a*	0·175	148·3	106·9	− 9·6	6	19	
		4360	0·377	32·9	99·9	+17·3	0	7	
		4360	0·433	41·4	94·8	+17·8	4	12	
		4361	0·661	105·0	71·9	−10·6	0	3	
		4361	0·667	106·6	71·6	−11·8	1	11	
		4361	0·662	102·6	71·5	− 9·1	7	27	
		4361	0·674	103·9	70·7	−10·1	0	16	
		4361	0·673	102·4	70·6	− 9·1	6	26	
		4361	0·686	103·6	69·7	−10·1	2	20	
		4361	0·705	103·4	68·2	−10·2	0	1	
		4361	0·713	102·8	67·5	− 9·9	0	2	
		4361	0·716	102·2	67·2	− 9·5	1	8	
			0·868	68·4	54·3	+18·0			226
			0·912	75·5	47·6	+12·7			127
			0·926	93·7	44·6	− 3·9			103
			0·963	69·6	39·4	+19·3			153
May 26		Centre			(112·2)	(−1·1)	(27)	(152)	(609)
147·397	AW, JW		0·858	287·0	157·4	+14·0			193
		4359*a*	0·197	218·5	107·0	− 9·7	6	18	
		4360	0·314	357·3	100·8	+17·3	1	6	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4359, May 21–29. A regular spot, *a*, which diminishes from day to day. *a* is occasionally followed by one or two small companions.
Group 4360, May 25–27. Two or three very small unstable spots.
Group 4361, May 26–June 4. A few small spots in an irregular stream on May 26. The group undergoes frequent changes on the succeeding days, and rapidly increases in size, forming, by May 28, a fine complex stream. Three large composite spots, *a*, *b* and *c*, form in the course of the development of the group, of which *a* is much the largest. All three undergo constant change.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
147d·397	AW,JW	4360	0·306	1·6	99·4	+16·9	0	1	
		4360	0·311	6·3	97·9	+17·1	0	2	
		4361*a*	0·464	107·7	73·4	− 8·9	8	38	
		4361	0·475	111·4	73·3	−10·8	0	2	
		4361	0·483	109·8	72·5	−10·2	0	2	
		4361	0·485	107·2	72·0	− 9·1	3	14	
		4361	0·494	108·8	71·7	−10·0	1	7	
		4361	0·496	107·6	71·4	− 9·4	0	1	
		4361	0·517	108·9	70·2	−10·4	0	3	
		4361	0·535	108·1	68·9	−10·3	0	4	
		4361	0·555	106·8	67·4	−10·0	7	23	
		4362*a*	0·797	93·6	47·3	− 3·5	1	5	} 176*c*
		4362	0·832	92·0	43·8	− 2·2	3	12	
			0·822	71·8	47·7	+ 9·6			275
			0·933	68·4	33·0	+19·7			137
May 27		Centre			(99·9)	(−0·9)	(30)	(138)	(781)
148·394	FT,JW		0·953	258·1	158·7	−11·6			145
			0·938	286·5	153·7	+12·6			105
			0·862	283·5	145·3	+11·2			67
		4359*a*	0·378	245·0	107·1	− 9·9	5	22	
		4361	0·253	123·6	74·5	− 8·8	9	53	
		4361*a*	0·277	121·0	73·0	− 8·9	17	153	
		4361	0·291	124·4	72·7	−10·2	4	22	
		4361	0·320	120·5	70·6	−10·1	1	6	
		4361	0·329	119·2	69·9	−10·0	4	15	
		4361	0·342	121·4	69·6	−11·0	8	43	
		4361	0·346	118·2	68·8	−10·2	0	4	
		4361	0·345	115·3	68·5	− 9·2	0	4	
		4361	0·348	114·4	68·2	− 9·0	0	11	
		4361	0·359	116·1	67·8	− 9·8	4	18	
		4361	0·370	115·6	67·1	− 9·9	3	15	
		4361	0·365	113·3	67·0	− 9·1	0	5	
		4362*a*	0·634	94·6	47·7	− 3·6	9	44	}
		4362	0·690	92·8	43·4	− 2·5	0	4	
		4362	0·690	92·0	43·3	− 2·0	0	4	} 56*c*
		4362	0·698	94·2	42·8	− 3·5	0	9	
		4363	0·962	107·2	13·4	−16·8	0	11	} 281*c*
		4363	0·962	108·0	13·4	−17·5	0	9	
May 28		Centre			(86·8)	(−0·8)	(64)	(452)	(654)
149·634	FT,JW		0·947	288·5	140·2	+17·2			193
			0·930	294·8	136·2	+22·6			99
		4359*a*	0·616	254·3	107·2	−10·2	0	4	
1896.				°	°	°			
149d·634	FT,JW	4361*a*	0·167	201·1	73·8	− 9·6	66	493	
		4361	0·147	189·9	71·8	− 9·0	1	6	
		4361	0·152	187·8	71·5	− 9·3	0	1	
		4361	0·166	185·3	71·2	−10·2	0	10	
		4361	0·183	184·0	71·0	−11·2	1	24	
		4361	0·139	181·2	70·5	− 8·6	3	17	
		4361	0·171	178·9	70·1	−10·6	6	29	
		4361	0·158	175·4	69·6	− 9·8	3	34	
		4361	0·190	176·1	69·5	−11·6	12	44	
		4361	0·170	173·7	69·2	− 9·8	3	11	
		4361	0·158	167·6	68·3	− 9·6	6	22	
		4361	0·186	167·9	68·1	−11·1	1	4	
		4361	0·145	164·4	68·0	− 8·7	0	3	
		4361	0·158	162·1	67·5	− 9·3	12	26	
		4361	0·170	159·1	66·8	− 9·8	3	15	
		4361	0·211	150·4	64·2	−11·3	0	5	
		4361	0·197	136·7	62·5	− 8·9	0	2	
		4362*a*	0·369	98·1	48·9	− 3·6	6	30	
		4362	0·403	95·6	46·7	− 2·9	0	2	
		4362	0·431	96·2	45·0	− 3·3	0	3	
		4362	0·441	95·9	44·4	− 3·2	1	12	
		4362	0·449	95·3	43·8	− 3·0	0	2	
		4362	0·468	99·9	42·8	− 5·2	0	4	
		4363	0·853	109·5	13·4	−16·9	1	4	} 315*p*
		4363	0·856	110·1	13·1	−17·4	5	13	
			0·865	98·3	10·8	− 7·5			98
			0·938	103·1	1·2	−12·5			105
May 29		Centre			(70·3)	(−0·7)	(130)	(820)	(810)
150·173	AW,JW		0·955	286·7	134·8	+15·7			104
I.			0·958	294·8	134·4	+23·5			137
			0·870	294·3	120·9	+20·6			127
			0·828	305·9	112·8	+28·6			162
		4361	0·238	234·6	74·5	− 8·5	5	30	
		4361	0·232	237·1	74·5	− 7·8	0	2	
		4361	0·281	219·0	73·6	−13·1	0	4	
		4361	0·262	222·0	73·5	−11·8	0	9	
		4361*a*	0·236	228·5	73·5	− 9·6	106	395	
		4361	0·219	234·2	73·5	− 8·0	1	26	
		4361	0·252	223·8	73·4	−11·0	8	35	
		4361	0·241	221·0	72·4	−11·0	0	5	
		4361	0·193	225·0	71·1	− 8·4	2	34	
		4361	0·175	227·4	70·6	− 7·4	0	4	
		4361*b*	0·203	214·7	69·9	−10·2	16	168	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4362, May 27–30. A few spots, mostly very small and unstable, in an irregular stream. *a*, the leader, is the most stable, and is the largest after May 27.
Group 4363, May 28–30. A pair of small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
150d.173	AW,JW	4361	0·176	216·6	69·3	− 8·7	0	2	
		4361	0·218	208·1	69·2	−11·6	10	33	
I.		4361	0·197	209·6	68·9	−10·4	5	12	
		4361	0·224	205·0	68·7	−12·3	0	1	
		4361	0·175	209·9	68·2	− 9·3	3	18	
		4361	0·202	204·6	68·1	−11·1	1	6	
		4361	0·159	210·1	67·8	− 8·5	0	5	
		4361	0·201	201·6	67·5	−11·3	0	1	
		4361*c*	0·164	204·4	67·1	− 9·2	18	71	
		4361	0·135	209·9	67·1	− 7·3	0	3	
		4361	0·133	206·0	66·6	− 7·4	0	5	
		4362*a*	0·249	100·7	49·1	− 3·2	2	16	
		4362	0·300	99·9	46·1	− 3·5	0	2	
		4362	0·303	96·3	45·7	− 2·5	0	4	
		4363	0·791	110·4	12·8	−16·3	0	4	
		4363	0·794	111·2	12·7	−17·0	3	8	308*f*
			0·914	77·6	358·0	+11·1			125
May 30		Centre			(63·2)	(−0·6)	(180)	(903)	(963)
151·445	FT,JW		0·936	267·7	115·5	− 2·4			69
			0·941	294·7	114·3	+23·0			239
M.			0·847	255·5	103·2	−12·6			393
		4361	0·483	256·3	74·4	− 7·0	0	3	
		4361*a*	0·482	249·7	73·5	−10·1	73	470	
		4361	0·460	246·1	71·6	−11·2	4	53	
		4361	0·448	251·1	71·6	− 8·8	0	5	
		4361	0·461	242·8	71·0	−12·6	0	3	
		4361*b*	0·434	244·6	69·7	−11·1	21	113	
		4361	0·415	249·2	69·3	− 8·9	1	15	
		4361	0·434	241·4	69·2	−12·4	5	24	
		4361	0·411	248·5	69·0	− 9·1	2	10	
		4361	0·408	247·0	68·6	− 9·6	2	17	
		4361	0·408	244·8	68·2	−10·4	0	3	
		4361	0·419	240·3	68·1	−12·4	0	1	
		4361	0·413	241·2	67·9	−11·9	4	17	
		4361*c*	0·387	246·0	67·2	− 9·5	30	160	
		4361	0·396	240·8	66·9	−11·6	0	11	
		4364*a*	0·984	110·8	327·3	−20·6	57	277	
May 31		Centre			(46·3)	(−0·5)	(199)	(1182)	(701)
152·427	AW,JW		0·942	257·4	93·2	−12·0			354
		4361*a*	0·659	255·1	73·5	−10·0	63	463	
		4361	0·654	251·6	72·6	−12·1	0	6	
		4361	0·646	251·9	72·1	−11·8	0	2	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
152d.427	AW,JW	4361	0·630	255·2	71·4	− 9·5	0	3	
		4361	0·621	252·5	70·3	−11·0	5	31	
		4361	0·611	256·0	70·1	− 8·7	0	2	
		4361	0·608	253·3	69·5	−10·3	0	2	
		4361*b*	0·613	250·2	69·4	−12·2	9	54	
		4361	0·601	254·8	69·2	− 9·3	0	7	
		4361	0·604	252·2	69·1	−10·9	0	3	
		4361	0·608	248·5	68·8	−13·1	0	2	
		4361	0·604	249·0	68·6	−12·7	0	3	
		4361	0·589	250·3	67·7	−11·7	14	51	
		4361*c*	0·575	253·7	67·3	− 9·5	30	196	
		4364*a*	0·929	112·3	326·8	−20·8	53	287	636*f*
June 1		Centre			(33·4)	(−0·3)	(174)	(1112)	(990)
153·475	AW,JW		0·808	246·6	70·9	−18·8			190
		4361*a*	0·819	257·4	73·6	−10·4	82	397	
		4361	0·795	256·4	71·2	−10·9	2	10	
		4361	0·794	257·6	71·2	− 9·9	0	3	
		4361	0·787	258·3	70·6	− 9·3	0	6	
		4361	0·781	257·8	70·0	− 9·6	0	7	
		4361	0·782	253·5	69·6	−12·9	0	13	
		4361	0·775	252·7	68·8	−13·4	0	6	
		4361	0·769	253·8	68·6	−12·5	2	10	675*c*
		4361	0·763	258·6	68·5	− 8·8	0	3	
		4361	0·763	258·0	68·4	− 9·2	0	3	
		4361	0·760	253·6	67·6	−12·5	12	22	
		4361*c*	0·752	256·9	67·3	− 9·9	18	142	
		4361	0·748	255·0	66·8	−11·3	0	5	
		4361	0·741	257·8	66·5	− 9·1	1	5	
		4364*a*	0·829	115·5	326·4	−21·0	61	303	396*nf*
		4365*a*	0·984	100·1	300·2	−10·0	14	136	206*c*
June 2		Centre			(19·5)	(−0·2)	(192)	(1071)	(1467)
154·190	AW, FT		0·933	248·8	77·4	−19·8			117
			0·736	300·8	52·8	+22·0			92
I.			0·690	290·2	51·6	+13·7			86
			0·760	210·6	40·6	−40·8			44
		4361	0·928	258·4	77·5	−10·8	0	17	
		4361*a*	0·903	258·4	73·9	−10·5	66	466	
		4361	0·878	258·7	70·7	−10·0	4	22	
		4361	0·876	254·7	70·1	−13·4	0	19	1147*c*
		4361	0·858	255·2	68·0	−12·7	5	30	
		4361*c*	0·847	258·2	67·1	−10·0	23	89	
		4361	0·841	257·4	66·4	−10·6	5	35	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4364, May 31–June 12. A large regular spot, *a*, followed by several small companions on June 3, 5, 7, and 8. *a* has become markedly elliptical by June 5, the major axis being inclined at a considerable angle to the sun's equator.
Group 4365, June 2–13. A large spot, *a*, with occasionally a small companion.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
154d·190	AW, FT	4364*a*	0·740	118·8	326·2	−20·9	81	348	
		4364	0·760	116·6	323·9	−19·9	3	7	
I.		4364	0·763	117·8	323·9	−20·9	4	22	512*f*
		4364	0·775	116·9	322·6	−20·6	2	20	
		4364	0·783	117·7	322·1	−21·4	0	3	
		4365*a*	0·947	100·2	299·2	− 9·7	50	209	350*c*
			0·755	107·4	322·5	−13·1			34
June 3		Centre			(10·0)	(−0·1)	(243)	(1287)	(2382)
155·416	JW, AW	4361*a*	0·986	259·7	73·8	−10·2	18	360	
		4361	0·957	259·8	66·5	− 9·8	0	14	727*c*
		4366	0·450	227·3	14·0	−17·7	1	9	
		4364*a*	0·560	130·7	326·8	−21·4	58	367	
		4365*a*	0·810	102·3	300·6	− 9·9	36	134	
		4365	0·825	102·0	299·0	− 9·9	0	15	224*f*
June 4		Centre			(353·8)	(0·0)	(113)	(899)	(951)
156·468	AW, JW		0·940	294·0	48·0	+22·5			250
			0·931	286·3	47·5	+15·2			328
			0·917	266·6	46·1	− 3·2			183
		4366	0·626	241·1	14·8	−17·4	1	11	
		4367	0·147	8·6	338·6	+ 8·5	0	3	
		4367	0·192	18·9	336·3	+10·6	0	3	
		4364*a*	0·423	150·0	326·8	−21·2	61	340	
		4364	0·447	147·1	324·8	−21·8	0	1	
		4364	0·456	146·1	324·1	−22·0	0	5	
		4364	0·533	144·1	319·8	−25·3	0	8	
		4365*a*	0·651	105·3	300·5	− 9·7	21	158	
		4365	0·698	105·7	296·9	−10·7	0	7	
			0·928	105·6	272·8	−14·4			349
			0·940	72·0	271·0	+16·9			152
			0·966	79·3	265·3	+10·4			120
June 5		Centre			(339·9)	(+0·2)	(83)	(536)	(1382)
157·465	AW, JW		0·965	287·3	40·7	+16·8			157
			0·836	285·5	22·3	+13·1			109
		4367	0·271	297·9	340·6	+ 7·5	2	7	
		4364*a*	0·368	180·6	326·9	−21·2	61	347	
		4365*a*	0·471	111·5	300·4	− 9·6	19	143	
			0·804	69·1	275·2	+16·8			106
			0·837	107·6	271·4	−14·4			101
			0·944	108·6	257·3	−17·4			172
June 6		Centre			(326·7)	(+0·3)	(82)	(497)	(645)
1896.				°	°	°			
158d·649	AW, JW	4367	0·518	284·7	341·3	+ 7·9	0	5	
		4364*a*	0·448	215·2	327·1	−21·1	60	328	
		4364	0·420	217·0	326·6	−19·2	0	3	
		4365*a*	0·260	133·7	300·2	− 9·9	18	126	
June 7		Centre			(311·1)	(+0·4)	(78)	(462)	(0)
159·464	AW, FT		0·963	251·3	13·3	−17·8			163
		4364*a*	0·562	229·7	327·4	−20·8	73	351	
		4364	0·541	224·1	324·1	−22·4	0	4	
		4365*a*	0·185	179·5	300·1	−10·1	20	134	
		4365	0·210	165·7	297·2	−11·2	0	6	
			0·839	112·8	245·7	−18·6			158
June 8		Centre			(300·2)	(+0·5)	(93)	(495)	(321)
160·248	AW, JW		0·780	237·9	335·9	−24·0			118
		4364*a*	0·683	237·0	327·6	−21·3	72	334	154*c*
I.		4365	0·298	228·4	302·9	−10·8	0	4	
		4365*a*	0·261	222·3	300·2	−10·5	30	113	
		4365	0·258	218·6	299·2	−11·0	0	5	
		4365	0·252	215·2	298·3	−11·3	0	3	
		4365	0·249	209·2	296·9	−11·9	0	8	
		4365	0·255	205·2	296·2	−12·7	0	5	
		4368*a*	0·719	114·5	246·8	−16·9	2	14	114*c*
		4369*a*	0·972	106·0	214·3	−15·4	0	238	257
June 9		Centre			(289·8)	(+0·6)	(104)	(724)	(643)
161·218	AW, JW		0·909	279·2	341·9	+ 8·6			95
			0·917	241·4	340·1	−25·7			92
I.		4364*a*	0·813	243·0	327·8	−21·2	72	300	304*p*
		4365	0·455	247·0	302·0	− 9·6	0	8	
		4365*a*	0·435	242·7	300·1	−10·9	21	121	
		4368*a*	0·534	123·9	249·5	−16·7	8	33	
		4368	0·559	123·3	247·8	−17·2	0	5	
		4368	0·555	121·5	247·6	−16·2	0	8	
		4368	0·586	119·7	245·1	−16·2	5	20	
		4368	0·590	120·8	245·1	−16·9	0	7	
		4368	0·607	119·6	244·4	−16·8	9	27	
		4369*a*	0·886	108·1	216·2	−15·6	68	210	
		4369	0·910	107·2	212·9	−15·3	7	37	
		4369	0·918	108·3	211·9	−16·5	0	13	
		4369	0·923	106·4	210·9	−14·8	0	9	824*c*

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4366, June 4–5. A small spot.
Group 4367, June 5–7. A wide pair of very small spots on June 5. A very small spot on June 6 and 7.
Group 4368, June 9–18. A small spot on June 9. The group rapidly increases in size on the succeeding days. On June 10 it consists of a number of small spots in an irregular stream; *a*, the leader, being the largest and most distinct. *a* speedily becomes a large composite spot, and undergoes several changes of shape. Its major axis on June 13 is almost at right angles to that of the following part of the group and to the equator. The following spots diminish after June 13, and *a* remains alone by June 17.
Group 4369, June 9–20. A fine irregular stream, of which the leader, *a*, is a large well-defined spot. On June 13 the group presents the unusual appearance of three straight streams, the centre one nearly parallel to the equator, the other two nearly at right angles to it. The group undergoes many changes, and on June 15 forms but a single stream, nearly straight and parallel to the equator, the great bulk of the group having coalesced into two large composite spots, *a* and *b*. These have broken up again by June 16, though a large part of *a* still remains intact, and by June 18 the group consists of a large regular spot, *a*, followed by a few small spots in a straight stream. By June 20, *a* remains alone.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
161d·218	AW,JW	4369	0·942	108·0	207·9	−16·7	3	50	
		4369	0·955	107·4	205·5	−16·3	23	127	
I.		4369	0·963	108·8	203·9	−17·9	17	64	
			0·944	99·4	206·9	− 8·6			170
June 10		Centre			(277·0)	(+0·7)	(233)	(1019)	(1485)
162·208	AW,JW	4364*a*	0·918	246·9	328·1	−20·7	51	290	550*sf*
		4365*a*	0·619	251·6	300·4	−11·2	19	99	
I.		4368*a*	0·356	146·2	251·9	−16·3	18	67	
		4368	0·368	147·4	251·9	−17·1	0	8	
		4368	0·389	145·5	250·5	−17·8	0	2	
		4368	0·368	140·5	249·8	−15·6	4	20	
		4368	0·384	142·5	249·7	−16·8	0	5	
		4368	0·416	139·1	247·3	−17·4	4	16	
		4368	0·401	135·9	247·0	−15·9	2	6	
		4368	0·424	137·1	246·3	−17·2	0	8	
		4368	0·429	135·2	245·5	−16·8	2	9	
		4368	0·450	134·0	244·1	−17·3	4	19	
		4368	0·444	131·9	243·7	−16·3	0	4	
		4368	0·450	132·2	243·5	−16·7	3	10	
		4369*a*	0·737	112·8	219·3	−14·8	55	215	
		4369	0·754	110·3	217·0	−14·6	0	6	
		4369	0·771	110·4	215·6	−15·0	3	15	
		4369	0·780	110·4	214·8	−15·1	0	4	
		4369	0·781	109·3	214·5	−14·3	6	57	
		4369	0·815	108·7	211·1	−14·6	0	3	
		4369	0·823	109·2	210·4	−15·1	0	8	749*c*
		4369	0·840	110·6	208·9	−16·6	4	19	
		4369	0·857	110·4	206·9	−16·9	2	9	
		4369	0·863	111·1	206·4	−17·6	2	25	
		4369	0·864	110·1	206·1	−16·8	5	26	
		4369	0·868	112·2	206·0	−18·6	8	26	
			0·831	100·5	208·4	− 8·2			326
June 11		Centre			(263·8)	(+0·9)	(192)	(976)	(1625)
163·468	JW, FT	4364*a*	0·991	249·6	328·4	−20·1	42	250	350*sf*
		4365*a*	0·812	257·0	300·4	− 9·9	13	85	239*s*
		4368	0·332	202·9	254·9	−16·8	0	2	
		4368*a*	0·316	197·3	252·8	−16·5	43	264	
		4368	0·284	195·0	251·5	−14·9	0	5	
		4368	0·293	193·4	251·2	−15·5	2	9	
		4368	0·293	190·0	250·2	−15·7	0	4	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
163d·468	JW,FT	4368	0·304	188·1	249·8	−16·5	0	4	
		4368	0·314	187·5	249·6	−17·1	0	4	
		4368	0·312	186·2	249·2	−17·0	0	2	
		4368	0·319	182·3	248·0	−17·5	1	12	
		4368	0·290	181·0	247·5	−15·8	4	17	
		4368	0·296	177·6	246·5	−16·1	7	32	
		4368	0·305	176·9	246·2	−16·6	0	7	
		4368	0·323	171·8	244·4	−17·5	0	8	
		4368	0·305	169·8	244·0	−16·4	9	69	
		4369*a*	0·531	125·0	220·3	−16·8	44	239	
		4369	0·515	119·1	219·7	−13·6	0	3	
		4369	0·553	119·8	217·5	−15·0	0	5	
		4369	0·556	118·3	217·0	−14·4	0	4	
		4369	0·575	118·4	215·8	−15·0	0	6	
		4369	0·576	118·6	215·7	−15·1	0	5	
		4369	0·581	117·4	215·1	−14·6	0	3	
		4369	0·592	117·8	214·5	−15·1	5	16	507*c*
		4369	0·597	116·1	213·7	−14·4	3	22	
		4369	0·608	115·8	212·9	−14·5	6	18	
		4369	0·679	114·4	207·4	−15·5	5	22	
		4369	0·700	120·4	207·4	−19·9	3	27	
		4369	0·684	115·0	207·2	−16·0	0	3	
		4369	0·706	118·7	206·4	−19·0	1	14	
		4369	0·708	116·4	205·7	−17·6	3	10	
June 12		Centre			(247·2)	(+1·0)	(191)	(1171)	(1096)
164·473	FT,JW	4365*a*	0·919	258·9	300·0	− 9·8	7	74	317*s*
		4368*a*	0·438	225·9	253·1	−16·7	59	364	
		4368	0·395	227·0	251·3	−14·5	0	7	
		4368	0·396	222·4	250·0	−15·9	1	10	
		4368	0·384	222·4	249·5	−15·3	0	7	
		4368	0·386	219·4	248·7	−16·2	0	3	
		4368	0·395	217·1	248·4	−17·2	0	2	
		4368	0·368	216·9	247·2	−16·0	4	19	
		4368	0·380	215·1	247·1	−16·9	0	3	
		4368	0·366	214·8	246·5	−16·3	5	12	
		4368	0·360	211·9	245·4	−16·6	10	30	
		4368	0·354	209·1	244·3	−16·9	7	23	
		4370	0·253	30·8	226·4	+13·6	1	5	
		4370	0·285	34·5	224·4	+14·6	1	7	
		4369*a*	0·382	143·9	220·5	−16·8	46	274	
		4369	0·379	138·4	218·9	−15·3	3	40	
		4369	0·397	139·6	218·5	−16·5	1	8	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4370, June 13. A pair of very small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
164d·473	FT,JW	4369	0·374	135·1	218·3	−14·3	11	51	
		4369	0·401	132·9	216·4	−14·7	24	68	
		4369*b*	0·425	129·5	214·3	−14·6	17	111	
		4369	0·449	127·4	212·4	−14·8	0	3	
		4369	0·461	127·7	211·9	−15·3	8	22	
		4369	0·502	126·0	209·1	−16·1	0	7	
		4369	0·547	131·6	208·3	−20·3	2	6	
		4369	0·545	129·8	207·8	−19·3	0	1	
		4369	0·551	131·1	207·8	−20·2	0	2	
		4369	0·522	124·3	207·4	−16·1	7	36	
		4369	0·547	128·4	207·2	−18·8	0	6	
		4369	0·565	130·4	206·8	−20·4	0	5	
		4369	0·550	127·3	206·7	−18·4	1	11	
		4369	0·539	124·6	206·5	−16·8	0	13	
		4369	0·551	125·3	206·0	−17·5	0	3	
		4369	0·551	124·3	205·7	−17·1	0	3	
			0·934	104·1	166·0	−12·7			335
			0·955	73·7	161·9	+15·9			200
June 13		Centre			(234·0)	(+1·1)	(215)	(1236)	(852)
165·511	JW,AW		0·972	257·1	295·8	−12·3			186
			0·842	253·7	276·0	−13·0			135
		4368*a*	0·602	240·0	253·0	−16·5	37	312	
		4368	0·583	238·4	251·3	−16·7	0	2	
		4368	0·575	240·4	251·3	−15·4	0	2	
		4368	0·564	239·3	250·3	−15·7	1	6	
		4368	0·524	236·6	247·1	−15·6	0	3	
		4368	0·515	233·4	245·7	−16·8	8	25	
		4368	0·501	231·7	244·4	−16·9	3	17	
		4369*a*	0·296	178·9	219·9	−16·0	85	459	
		4369	0·313	174·4	218·4	−16·9	0	7	
		4369	0·282	170·4	217·4	−14·9	10	37	
		4369	0·265	169·4	217·3	−13·8	0	3	
		4369	0·273	167·9	216·8	−14·3	0	6	
		4369	0·296	165·2	215·7	−15·4	0	1	
		4369	0·299	162·9	215·0	−15·3	1	4	
		4369*b*	0·284	160·8	214·7	−14·3	28	149	
		4369	0·311	161·4	214·3	−15·9	0	1	
		4369	0·312	160·2	213·9	−15·8	0	2	
		4369	0·318	159·1	213·5	−16·0	0	4	
		4369	0·319	157·5	212·9	−15·9	0	1	
		4369	0·316	153·1	211·7	−15·1	0	4	
		4369	0·330	153·9	211·6	−16·0	2	13	
1896.				°	°	°			
165d·511	JW,AW	4369	0·353	148·3	209·1	−16·2	0	2	
		4369	0·366	147·3	208·3	−16·7	4	29	
		4369	0·372	145·2	207·5	−16·6	0	7	
		4369	0·363	143·3	207·2	−15·7	6	17	
		4369	0·392	142·4	205·8	−16·9	0	7	
			0·843	106·3	164·3	−13·0			184
			0·892	71·5	158·2	+17·0			173
June 14		Centre			(220·2)	(+1·2)	(185)	(1120)	(678)
166·433	AW,JW		0·918	286·8	273·8	+16·0			105
			0·905	259·5	272·0	− 8·9			128
			0·894	249·9	269·3	−17·2			168
		4368*a*	0·741	246·5	252·9	−16·2	28	262	
		4368	0·733	244·7	251·7	−17·2	0	3	
		4368	0·718	245·6	250·7	−16·2	0	4	
		4368	0·716	244·7	250·4	−16·8	2	7	
		4368	0·709	246·6	250·3	−15·3	0	4	
		4368	0·701	246·0	249·5	−15·5	0	12	
		4368	0·701	244·4	249·1	−16·6	3	15	
		4368	0·688	243·9	248·0	−16·5	3	11	
		4368	0·680	243·8	247·3	−16·3	5	15	
		4369*a*	0·355	215·5	220·3	−15·4	72	468	
		4369	0·368	209·2	218·8	−17·3	0	3	
		4369	0·358	209·7	218·6	−16·7	1	5	
		4369	0·316	206·2	216·3	−15·0	0	2	
		4369	0·280	205·8	215·2	−13·2	0	1	
		4369*b*	0·293	202·6	214·6	−14·3	38	230	
		4369	0·288	192·7	211·7	−14·9	0	2	
		4369	0·293	186·0	209·8	−15·5	0	6	
		4369	0·298	183·0	208·9	−15·9	0	1	
		4369	0·313	181·8	208·6	−16·8	1	6	
		4369	0·309	180·1	208·1	−16·6	0	3	
		4369	0·326	179·1	207·7	−17·5	0	2	
		4369	0·290	177·8	207·3	−15·4	1	4	
		4369	0·346	175·6	206·4	−18·7	0	2	
		4369	0·329	174·9	206·2	−17·7	0	4	
		4369	0·316	173·6	205·9	−16·9	0	3	
		4371	0·237	41·5	198·8	+11·6	7	16	
		4371	0·252	42·2	198·1	+12·1	0	1	
		4371	0·257	43·5	197·6	+12·1	0	1	
		4371	0·260	48·4	196·6	+11·3	4	11	
		4371	0·300	42·9	195·9	+14·0	0	1	
		4371	0·288	48·6	195·3	+12·3	0	3	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4371. June 15–18. A number of small spots in a straight stream. The group appears suddenly of its full size, and diminishes from day to day afterwards.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
166d.433	AW,JW	4371	0·294	50·1	194·7	+12·2	7	26	
		4371	0·296	52·7	194·1	+11·7	0	5	
			0·771	68·6	159·5	+17·2			228
			0·918	63·7	143·4	+24·6			111
			0·926	71·4	141·1	+17·7			62
June 15		Centre			(208·0)	(+1·4)	(172)	(1139)	(802)
167·459	AW,JW	4368	0·881	249·7	254·0	−17·1	6	25	
		4368*a*	0·868	250·6	252·6	−16·0	32	147	735*c*
		4368	0·857	249·3	251·0	−16·8	5	24	
		4368	0·828	248·4	247·7	−16·8	7	53	
		4369*a*	0·522	236·9	221·2	−15·2	65	300	
		4369	0·503	231·7	218·6	−16·7	5	28	
		4369	0·490	234·3	218·6	−15·2	19	139	
		4369	0·455	233·9	216·6	−14·1	0	7	
		4369	0·460	231·6	216·2	−15·2	5	34	
		4369	0·445	231·5	215·4	−14·7	4	18	
		4369*b*	0·421	230·0	213·8	−14·3	36	181	
		4369	0·394	223·8	210·7	−15·0	0	2	
		4369	0·387	215·3	207·9	−16·9	4	20	
		4372	0·405	301·8	215·1	+13·7	0	3	
		4371	0·193	326·0	200·7	+10·7	5	18	
		4371	0·178	339·6	198·0	+11·1	0	1	
		4371	0·183	340·4	198·0	+11·4	0	1	
		4371	0·179	3·2	193·8	+11·8	3	16	
		4373	0·322	159·3	187·6	−16·0	0	5	
		4373	0·322	157·1	187·0	−15·7	0	3	
		4373	0·324	150·2	184·9	−14·8	0	7	
		4374	0·491	109·3	166·6	− 8·0	0	4	
			0·883	61·3	135·3	+25·8			133
			0·873	74·0	134·5	+14·7			224
June 16		Centre			(194·4)	(+1·5)	(196)	(1036)	(1092)
168·402	AW,JW	4368*a*	0·948	252·5	251·8	−16·0	29	207	780*sf*
		4369*a*	0·679	245·9	221·6	−14·8	71	320	
		4369	0·656	244·1	219·5	−15·3	3	32	
		4369	0·659	242·6	219·3	−16·3	0	6	
		4369	0·644	244·1	218·6	−15·0	3	25	
		4369	0·627	243·4	217·2	−15·0	0	20	
		4369	0·608	242·3	215·6	−15·1	0	49	
		4369*b*	0·580	242·2	213·7	−14·3	8	77	
		4369	0·572	240·0	212·7	−15·2	0	5	
1896.				°	°	°			
168d.402	AW,JW	4371	0·366	294·5	201·6	+10·2	1	12	
			0·961	102·8	108·8	−11·9			254
June 17		Centre			(181·9)	(+1·6)	(115)	(753)	(1034)
169·451	CL,JW		0·920	245·5	232·0	−21·7			86
		4368*a*	0·994	253·8	250·7	−15·9	28	151	740*f*
		4369*a*	0·829	250·9	221·9	−14·7	66	318	
		4369	0·818	252·9	221·1	−12·9	0	5	
		4369	0·807	250·0	219·5	−14·9	3	10	
		4369	0·802	250·4	219·1	−14·5	1	5	
		4369	0·770	249·2	215·9	−14·7	2	34	440*c*
		4369	0·764	248·3	215·2	−15·3	0	4	
		4369	0·751	249·3	214·3	−14·2	3	17	
		4369	0·741	249·1	213·4	−14·1	5	22	
		4369	0·732	249·1	212·6	−13·9	4	32	
		4371	0·572	285·5	201·9	+10·2	1	5	
		4371	0·489	294·7	195·0	+13·3	2	10	
			0·909	59·2	105·6	+28·4			162
			0·904	104·6	104·6	−12·4			200
			0·916	72·6	102·4	+16·6			91
June 18		Centre			(168·0)	(+1·7)	(115)	(613)	(1719)
170·395	AW,JW		0·942	244·4	223·0	−23·3			109
			0·905	283·3	219·9	+12·8			178
			0·833	244·8	208·6	−19·7			447
		4369*a*	0·933	253·6	223·1	−14·6	87	361	
		4369	0·904	254·5	218·8	−13·1	0	10	643*c*
		4369	0·879	253·0	215·4	−14·0	2	9	
		4369	0·864	252·8	213·6	−13·8	0	7	
		4375	0·904	69·7	92·0	+19·1	4	18	209*c*
		4375	0·939	69·3	86·7	+20·0	0	5	
			0·822	108·9	102·4	−14·4			185
			0·865	54·3	100·5	+31·3			172
			0·963	103·8	82·3	−12·7			193
June 19		Centre			(155·6)	(+1·8)	(93)	(410)	(2136)
171·480	C,JW		0·964	282·2	215·6	+12·3			186
			0·952	262·9	212·8	− 6·2			162
			0·829	282·6	196·6	+11·5			127
			0·707	277·2	185·9	+ 6·5			115
		4369*a*	0·992	254·8	223·1	−14·9	89	384	1279*sf*

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4372, June 16. A very small spot.
Group 4373, June 16. Three very small spots.
Group 4374, June 16. A very small spot.
Group 4375, June 19–29. A fine straight stream undergoing much change. It consists chiefly of two composite spots on June 22 and 23. The group extends in length up to June 25, after which the great spots break up and the group rapidly diminishes.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
171d·480	C, JW	4375	0·779	66·7	92·1	+19·2	0	11	
		4375	0·808	67·3	89·2	+19·3	2	8	
		4375	0·814	67·8	88·5	+19·0	0	2	
		4375	0·827	68·4	87·0	+18·9	0	6	
		4375	0·839	67·9	85·8	+19·5	1	11	
		4375	0·843	67·2	85·6	+20·1	0	6	
		4375	0·846	67·9	85·1	+19·6	3	17	
			0·887	110·4	81·0	−17·1			148
			0·947	102·9	71·0	−11·6			406
June 20		Centre			(141·2)	(+1·9)	(95)	(445)	(2423)
172·440	AW, JW		0·973	249·6	203·3	−19·3			428
			0·959	258·8	201·1	−10·1			92
			0·943	281·4	198·8	+11·4			126
		4375	0·630	60·6	93·0	+19·7	0	2	
		4375	0·645	61·8	91·6	+19·4	0	2	
		4375	0·657	62·4	90·6	+19·3	22	78	
		4375	0·671	61·8	89·6	+20·1	1	10	
		4375	0·678	62·7	88·9	+19·7	0	10	
		4375	0·683	61·9	88·7	+20·3	0	13	
		4375	0·689	62·8	88·0	+20·0	0	2	
		4375	0·693	64·5	87·3	+18·9	0	4	
		4375	0·703	63·9	86·6	+19·5	10	60	
		4375	0·716	64·1	85·5	+19·8	1	8	
		4375	0·722	63·8	85·1	+20·1	2	15	
			0·773	114·0	81·1	−16·9			141
			0·853	108·2	72·0	−14·3			293
			0·911	102·7	64·0	−10·7			146
June 21		Centre			(128·5)	(+2·1)	(36)	(204)	(1226)
173·418	CL, JW	4376	0·398	182·2	116·4	−21·2	19	74	
		4376	0·386	182·0	116·3	−20·4	2	9	
		4376	0·390	181·2	116·0	−20·7	0	5	
		4376	0·401	179·6	115·3	−21·4	0	3	
		4376	0·405	172·1	112·1	−21·4	1	9	
		4376	0·378	169·7	111·4	−19·5	30	105	
		4375	0·468	52·2	92·6	+18·7	0	2	
		4375	0·491	52·3	91·3	+19·4	36	183	
		4375	0·491	55·3	90·5	+18·1	0	1	
		4375	0·515	53·9	89·4	+19·6	0	3	
		4375	0·531	50·9	89·3	+21·5	0	3	
		4375	0·525	53·2	89·0	+20·3	0	6	
1896.				°	°	°			
173d·418	CL, JW	4375	0·538	52·9	88·3	+20·8	0	9	
		4375	0·531	55·0	88·1	+19·7	0	9	
		4375	0·555	56·5	86·2	+19·7	36	241	
			0·928	70·6	48·1	+18·8			337
			0·936	85·2	46·0	+ 5·3			171
			0·952	94·8	43·8	− 3·9			264
June 22		Centre			(115·5)	(+2·2)	(124)	(662)	(772)
174·608	AW, JW		0·889	286·6	161·9	+15·8			229
			0·886	261·3	161·4	− 6·6			79
			0·884	251·7	159·9	−15·0			158
			0·861	295·9	157·1	+23·3			129
		4376	0·493	219·4	119·2	−20·1	38	289	
		4376	0·479	216·7	117·5	−20·3	3	16	
		4376	0·496	214·1	117·2	−22·0	0	9	
		4376	0·465	217·3	117·1	−19·4	0	2	
		4376	0·495	212·7	116·5	−22·4	0	5	
		4376	0·440	213·7	114·7	−19·2	0	2	
		4376	0·429	211·5	113·5	−19·2	0	3	
		4376	0·457	208·3	113·2	−21·4	10	49	
		4376	0·438	209·4	113·0	−20·1	7	54	
		4376	0·426	209·4	112·6	−19·5	0	2	
		4376	0·421	207·6	111·7	−19·6	0	4	
		4376	0·412	208·2	111·6	−18·9	1	6	
		4376	0·421	204·3	110·4	−20·3	3	21	
		4376	0·402	205·6	110·4	−19·0	12	72	
		4375	0·319	21·4	92·7	+19·5	21	118	
		4375	0·326	25·6	91·3	+19·3	3	15	
		4375	0·323	27·6	90·7	+18·9	0	5	
		4375	0·327	28·9	90·2	+18·9	0	2	
		4375	0·343	27·5	90·1	+20·0	2	6	
		4375	0·358	27·4	89·7	+20·8	0	7	
		4375	0·355	33·4	87·9	+19·5	0	13	
		4375	0·379	35·8	86·2	+20·1	54	399	
		4375	0·421	44·5	81·6	+19·6	0	1	
		4375	0·424	45·6	81·2	+19·3	0	3	
		4375	0·434	44·4	81·0	+20·2	0	2	
		4375	0·441	45·2	80·4	+20·2	0	2	
		4377	0·816	96·2	45·6	− 3·7	0	4	} 263*f*
		4377	0·824	96·2	44·8	− 3·6	0	3	
			0·813	70·2	46·7	+17·4			171
			0·830	86·0	43·9	+ 4·7			132

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4376, June 22–28. A stream of spots appearing suddenly close to the central meridian, and chiefly collected in two clusters. The group has greatly increased by June 23. The preceding cluster is the most definite, and tends to assume a regular outline.
Group 4377, June 23. A pair of very small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
174d·608	AW, JW		0·884	62·0	40·8	+25·7			169
			0·944	71·2	29·6	+18·5			111
June 23		Centre			(99·8)	(+2·3)	(154)	(1118)	(1441)
175·679	CL, JW	4376	0·661	236·4	121·2	−19·4	64	379	
		4376	0·636	234·6	118·9	−19·6	0	15	
		4376	0·620	232·3	117·0	−20·1	0	3	
		4376	0·613	232·5	116·6	−19·8	0	3	
		4376	0·603	231·1	115·5	−20·1	0	2	
		4376	0·600	231·7	115·5	−19·7	0	2	
		4376	0·603	228·8	114·6	−21·2	5	18	
		4376	0·610	227·5	114·5	−22·2	1	19	
		4376	0·606	226·8	114·0	−22·4	0	3	
		4376	0·578	230·8	113·8	−19·3	0	6	
		4376	0·598	226·3	113·3	−22·2	3	22	
		4376	0·578	228·0	112·8	−20·6	23	131	
		4376	0·558	228·5	111·8	−19·5	3	10	
		4376	0·546	226·1	110·3	−20·0	4	18	
		4376	0·536	227·8	110·3	−18·9	4	44	
		4375	0·323	337·1	93·2	+19·7	17	124	
		4375	0·310	340·6	91·8	+19·3	1	4	
		4375	0·318	342·1	91·5	+20·0	0	9	
		4375	0·313	343·7	90·9	+19·8	0	9	
		4375	0·298	345·5	90·1	+19·1	0	14	
		4375	0·323	348·0	89·7	+20·8	0	5	
		4375	0·290	349·0	88·9	+18·9	0	13	
		4375	0·312	351·0	88·6	+20·3	0	2	
		4375	0·300	352·1	88·1	+19·7	0	34	
		4375	0·286	351·9	88·0	+18·8	0	4	
		4375	0·301	359·6	85·7	+19·8	41	349	
		4375	0·319	10·5	82·1	+20·6	0	2	
			0·940	111·0	17·8	−18·8			107
June 24		Centre			(85·6)	(+2·4)	(166)	(1244)	(107)
176·621	AW, FT		0·913	296·5	137·3	+25·1			90
			0·894	288·7	135·7	+17·8			211
			0·921	319·5	131·7	+45·6			141
		4376	0·810	243·7	123·3	−19·4	57	360	
		4376	0·782	243·0	120·4	−19·1	3	16	
		4376	0·783	242·2	120·3	−19·7	0	8	434c
		4376	0·765	240·6	118·2	−20·3	0	10	
		4376	0·758	241·9	118·0	−19·1	1	19	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
176d·621	AW, FT	4376	0·756	237·6	116·4	−22·0	0	8	
		4376	0·727	237·5	114·0	−21·1	8	30	
		4376	0·730	236·1	113·7	−22·0	7	48	
		4376	0·717	236·2	112·8	−21·5	0	2	611c
		4376	0·705	237·3	112·2	−20·4	22	129	
		4376	0·690	238·6	111·5	−19·0	4	9	
		4376	0·673	238·5	110·2	−18·6	0	41	
		4376	0·675	237·0	109·9	−19·5	4	26	
		4375	0·440	306·6	94·7	+17·5	0	3	
		4375	0·438	312·6	93·0	+19·5	31	120	
		4375	0·420	313·6	91·8	+19·2	0	6	
		4375	0·423	315·6	91·4	+20·0	6	26	
		4375	0·404	317·1	90·0	+19·5	2	11	
		4375	0·405	318·4	89·7	+20·0	0	1	
		4375	0·411	319·6	89·6	+20·6	2	5	
		4375	0·388	316·6	89·4	+18·7	0	2	
		4375	0·396	318·1	89·3	+19·5	0	4	
		4375	0·406	324·1	87·9	+21·5	0	4	
		4375	0·393	322·2	87·9	+20·4	1	3	
		4375	0·382	320·6	87·9	+19·5	5	32	
		4375	0·391	325·8	86·7	+21·2	3	10	
		4375	0·399	327·0	86·6	+21·9	0	1	
		4375	0·364	325·5	85·7	+19·8	50	296	
		4375	0·346	329·7	83·7	+19·8	2	15	
		4375	0·324	328·5	83·3	+18·4	4	14	
		4375	0·336	332·2	82·6	+19·7	0	10	
		4375	0·344	333·4	82·5	+20·3	1	11	
		4375	0·320	335·4	81·2	+19·3	0	3	
		4375	0·328	337·6	80·7	+20·1	9	30	
		4378	0·235	187·2	74·8	−11·0	1	8	
		4378	0·234	185·4	74·4	−11·0	0	12	
		4378	0·202	183·2	73·8	− 9·1	0	2	
		4378	0·272	182·6	73·8	−13·2	0	4	
			0·882	6·4	60·4	+63·5			78
			0·846	112·8	18·3	−17·7			208
			0·851	95·6	14·8	− 3·5			131
			0·959	110·3	1·7	−18·6			92
June 25		Centre			(73·1)	(+2·5)	(223)	(1339)	(1996)
177·453	CL, JW	4376	0·907	246·9	124·3	−19·7	79	332	
		4376	0·865	246·8	118·9	−18·5	0	15	
		4376	0·856	246·6	117·8	−18·4	0	6	
		4376	0·834	244·6	114·9	−19·4	6	30	
		4376	0·830	240·7	113·4	−22·4	0	57	520c

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4378, June 25. A few small faint spots irregularly scattered.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
177d·453	CL, JW	4376	0·819	242·3	112·7	−20·7	41	239	
		4376	0·801	244·2	111·5	−18·7	0	14	
		4376	0·790	244·1	110·4	−18·4	0	36	
		4376	0·788	243·1	110·0	−19·1	0	21	
		4375	0·572	301·3	93·3	+19·5	15	92	
		4375	0·545	303·2	90·9	+19·6	8	46	
		4375	0·525	306·4	88·8	+20·4	0	7	
		4375	0·501	304·5	87·8	+18·7	0	9	
		4375	0·515	309·2	87·4	+21·3	0	21	
		4375	0·510	308·1	87·4	+20·6	0	9	
		4375	0·505	310·2	86·4	+21·3	0	6	
		4375	0·507	312·0	86·0	+22·2	0	6	
		4375	0·481	308·8	85·5	+19·9	33	254	
		4375	0·490	312·4	84·9	+21·7	0	2	
		4375	0·445	311·6	82·7	+19·6	0	6	
		4375	0·432	314·1	81·3	+19·9	0	11	
		4375	0·425	316·2	80·3	+20·3	19	46	
		4379	0·951	105·7	351·6	−14·1	0	12	284c
June 26		Centre			(62·1)	(+2·6)	(201)	(1277)	(804)
178·218	AW, FT	4376	0·966	248·1	124·7	−20·4	52	310	
		4376	0·959	249·7	123·3	−18·6	0	38	
M.		4376	0·938	248·9	119·2	−18·7	0	6	
		4376	0·915	247·1	115·2	−19·7	0	4	
		4376	0·910	243·6	113·6	−22·5	0	7	917c
		4376	0·895	245·3	112·0	−20·6	36	172	
		4376	0·883	247·1	110·9	−18·7	0	10	
		4376	0·877	247·1	110·1	−18·5	0	5	
		4375	0·699	295·8	93·7	+19·7	4	25	
		4375	0·682	296·0	92·3	+19·5	0	6	
		4375	0·671	295·6	91·5	+18·9	0	1	
		4375	0·673	296·8	91·4	+19·7	4	34	
		4375	0·663	296·9	90·6	+19·5	0	3	
		4375	0·654	298·7	89·5	+20·4	0	2	
		4375	0·648	300·1	88·7	+21·1	0	1	
		4375	0·632	299·9	87·6	+20·6	1	11	
		4375	0·634	301·1	87·4	+21·3	0	3	
		4375	0·625	299·3	87·2	+20·0	1	11	
		4375	0·612	300·1	86·1	+20·1	17	65	
		4375	0·591	300·8	84·4	+19·8	12	76	
		4375	0·571	301·6	82·9	+19·7	0	3	
		4375	0·543	304·6	80·2	+20·3	5	29	
		4379a	0·880	107·3	352·2	−13·8	5	13	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
178d·218	AW, FT	4379	0·895	106·7	350·2	−13·6	0	4	361c
M.		4379b	0·913	106·4	347·7	−13·8	0	23	
June 27		Centre			(51·9)	(+2·7)	(137)	(862)	(1278)
179·202	CL, JW		0·898	303·3	99·7	+30·9			84
			0·877	245·0	96·6	−20·2			77
I.		4376	0·974	244·9	113·0	−23·7	0	39	640c
		4376	0·972	246·7	112·9	−21·9	74	271	
		4375	0·817	291·8	92·2	+19·3	0	8	
		4375	0·798	291·5	90·3	+18·7	0	8	210c
		4375	0·798	292·8	90·1	+19·8	0	8	
		4375	0·771	294·2	87·3	+20·3	0	12	
		4375	0·771	295·1	87·1	+20·9	0	18	
		4375	0·760	293·6	86·4	+19·6	0	11	
		4375	0·752	294·5	85·5	+20·1	18	46	
		4375	0·755	295·9	85·4	+21·1	2	9	282c
		4375	0·736	293·8	84·2	+19·2	13	64	
		4375	0·725	294·5	83·1	+19·5	3	16	
		4375	0·695	295·7	80·4	+19·6	0	8	
		4379a	0·755	111·8	352·7	−14·3	0	9	
		4379	0·771	110·6	352·5	−13·8	0	4	
		4379	0·782	110·1	350·0	−13·7	5	16	303c
		4379	0·811	111·1	347·4	−15·2	0	4	
		4379b	0·810	109·6	347·2	−14·0	14	48	
			0·866	112·2	341·9	−17·5			170
			0·913	118·2	337·2	−24·2			90
			0·966	112·9	326·5	−21·2			248
June 28		Centre			(38·9)	(+2·8)	(129)	(599)	(2104)
180·494	FT, AW		0·844	251·5	77·2	−13·8			284
			0·762	246·8	68·3	−15·4			102
		4375	0·901	292·0	85·2	+21·1	0	10	646p
		4375	0·889	290·9	83·7	+19·9	10	50	
		4380a	0·432	120·5	359·8	− 9·9	9	33	
		4380	0·445	119·7	358·9	− 9·9	0	7	
		4380	0·467	118·4	357·3	−10·1	0	7	
		4380b	0·490	115·2	355·3	− 9·3	6	28	
		4379a	0·552	121·1	352·9	−13·9	10	30	
		4379	0·588	117·0	349·5	−13·0	4	13	
		4379b	0·606	117·1	348·3	−13·5	8	42	
		4379	0·615	118·3	348·0	−14·4	0	6	
			0·894	116·3	322·4	−21·8			304
June 29		Centre			(21·9)	(+3·0)	(47)	(226)	(1336)

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4379, June 26–July 3. A few spots, mostly small and unstable, in a straight stream. *a* and *b*, the first and last spots, are the most stable.
Group 4380, June 29–July 6. A few spots, mostly small and unstable, in a straight stream *np* Group 4379. *a* and *b*, the first and last spots, are seen throughout, but undergo much change.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
181d·490	AW, FT		0·971	289·8	84·7	+20·0			609
			0·939	255·5	76·9	−12·4			167
			0·900	248·1	69·9	−18·1			144
		4380*a*	0·263	148·8	0·7	− 9·9	2	20	
		4380*b*	0·313	132·7	355·2	− 9·2	7	31	
		4379*a*	0·390	140·8	353·9	−14·6	5	16	
		4379*b*	0·436	129·9	348·6	−13·3	4	10	
		4381	0·731	123·0	327·7	−21·1	2	15	183*sf*
			0·856	147·3	329·0	−43·5			235
			0·818	117·1	318·0	−19·9			114
			0·916	102·2	303·5	− 9·9			111
June 30		Centre			(8·6)	(+3·1)	(20)	(92)	(1563)
182·191	AW, FT		0·962	260·4	72·6	− 8·4			246
			0·906	254·1	62·5	−12·9			359
I.			0·944	347·6	47·8	+69·7			85
			0·692	259·2	42·1	− 5·1			298
		4380	0·240	185·2	0·6	−10·6	0	7	
		4380*a*	0·239	179·4	359·1	−10·6	9	23	
		4380	0·246	175·0	358·1	−11·0	0	2	
		4380	0·226	172·0	357·5	− 9·7	0	2	
		4380	0·227	167·2	356·4	− 9·6	0	4	
		4380	0·236	167·9	356·4	−10·1	0	4	
		4380	0·231	165·3	355·9	− 9·7	1	11	
		4380*b*	0·229	160·8	354·9	− 9·3	6	42	
		4379*a*	0·325	165·1	354·4	−15·0	7	17	
		4379	0·335	158·3	352·0	−14·9	0	3	
		4379	0·323	157·1	351·9	−14·1	0	2	
		4379*b*	0·340	148·6	348·8	−13·7	3	11	
		4381	0·631	129·7	328·1	−21·0	2	14	285*nf*
		4382	0·942	76·4	289·0	+13·9	0	15	} 332*c*
		4383	0·985	76·3	278·9	+14·1	0	22	
			0·768	123·0	315·3	−22·4			88
			0·864	128·7	307·8	−30·7			158
			0·819	105·2	306·0	−10·5			69
July 1		Centre			(359·3)	(+3·2)	(28)	(179)	(1920)
183·673	AW, JW		0·909	292·3	44·3	+21·6			132
		4380*a*	0·420	236·2	0·5	−10·4	9	52	
		4380	0·385	230·8	357·4	−10·9	1	6	
		4380	0·357	232·6	356·4	− 9·3	3	29	
		4380*b*	0·340	232·7	355·6	− 8·7	12	65	
		4380	0·330	230·5	354·7	− 8·9	1	3	
1896.				°	°	°			
183d·673	AW, JW	4380	0·345	224·5	354·0	−11·0	0	3	
		4379*a*	0·391	218·9	354·4	−14·5	0	18	
		4379	0·371	215·3	352·5	−14·3	0	3	
		4379	0·367	213·8	351·9	−14·4	2	12	
		4382	0·782	75·2	288·9	+13·6	0	4	163*c*
		4383	0·867	75·1	280·1	+14·6	1	10	292*c*
July 2		Centre			(339·8)	(+3·3)	(29)	(205)	(587)
184·469	CL, JW		0·956	290·7	42·1	+20·8			213
			0·938	263·8	38·4	− 4·6			143
			0·848	248·5	24·3	−16·1			229
		4380*a*	0·578	246·8	1·8	−10·3	8	55	
		4380	0·556	246·2	0·3	−10·0	3	17	
		4380	0·542	246·1	359·4	− 9·7	0	4	
		4380	0·539	247·3	359·4	− 9·1	0	2	
		4380	0·522	247·6	358·4	− 8·5	0	4	
		4380	0·518	244·9	357·6	− 9·7	1	9	
		4380	0·507	245·6	357·1	− 9·1	0	7	
		4380*b*	0·490	246·0	356·1	− 8·4	12	89	
		4379	0·529	235·4	355·9	−14·4	2	8	
		4379	0·540	231·2	355·2	−16·6	0	3	
		4379	0·506	233·4	354·0	−14·4	0	3	
		4382	0·652	73·1	289·5	+13·6	4	10	}
		4382	0·655	71·5	289·5	+14·6	0	4	} 374*c*
		4383	0·751	73·5	281·4	+14·6	0	8	}
			0·986	107·6	250·6	−16·7			617
July 3		Centre			(329·3)	(+3·4)	(30)	(223)	(1576)
185·435	CL, JW		0·908	247·7	18·5	−18·5			144
		4380*a*	0·740	253·4	2·2	− 9·8	0	7	}
		4380*a*	0·737	252·6	1·8	−10·3	7	27	}
		4380*a*	0·722	252·8	0·6	− 9·8	9	27	}
		4380	0·679	250·8	356·9	−10·2	5	34	} 219*c*
		4380	0·673	252·6	356·8	− 8·9	2	14	}
		4380	0·673	251·9	356·7	− 9·4	0	3	}
		4380	0·659	253·0	355·8	− 8·4	2	18	}
		4380*b*	0·650	252·1	355·0	− 8·7	14	36	}
		4382	0·479	68·5	289·3	+13·3	0	4	
		4382	0·484	67·1	289·2	+14·0	0	5	
		4384*a*	0·921	107·8	251·4	−14·9	7	36	312*s*
			0·899	100·9	253·5	− 8·2			155
July 4		Centre			(316·4)	(+3·5)	(46)	(211)	(830)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4381, June 30–July 1. A small spot.
Group 4382, July 1–4. A small spot on July 1 and 2. A close pair on July 3 and 4.
Group 4383, July 1–3. A small spot *f* Group 4382.
Group 4384, July 4–7. A small spot, *a*, with a close faint companion on July 7.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
186d.605	JW, FT		0·762	241·8	345·9	−18·5			130
		4380*a*	0·891	257·1	2·6	− 9·8	0	12	
		4380	0·881	257·0	1·3	− 9·6	1	26	
		4380	0·843	255·7	356·8	−10·0	1	16	203*c*
		4380*b*	0·823	256·4	354·9	− 9·1	5	43	
		4385*a*	0·510	70·4	271·6	+13·0	1	7	
		4384*a*	0·795	111·1	251·2	−14·3	2	19	
July 5		Centre			(301·0)	(+3·6)	(10)	(123)	(333)
187·412	CL, FT		0·853	246·3	345·3	−17·9			182
			0·811	228·9	334·8	−29·6			152
		4380*a*	0·957	258·6	2·2	− 9·8	0	29	
		4380*b*	0·912	258·3	354·8	− 9·1	9	75	1159*c*
		4385*a*	0·334	61·2	272·9	+12·8	3	7	
		4384*a*	0·685	116·4	251·0	−14·9	5	16	145*c*
		4386*a*	0·975	106·4	214·8	−15·1	19	107	
		4386	0·986	105·4	211·4	−14·5	0	12	246*f*
		4387*a*	0·983	97·4	211·6	− 6·6	0	98	187*c*
			0·750	122·1	247·7	−20·8			219
			0·950	16·8	243·8	+67·8			60
			0·847	124·4	239·3	−26·2			129
			0·848	66·0	233·8	+22·2			70
			0·856	76·5	231·7	+13·5			301
			0·920	127·6	231·0	−32·2			188
			0·940	118·1	224·5	−24·8			145
			0·945	108·9	221·7	−16·5			590
			0·937	79·8	220·7	+10·9			262
July 6		Centre			(290·3)	(+3·7)	(36)	(344)	(4035)
188·425	FT, JW		0·983	258·0	355·2	−11·1			225
			0·957	249·8	347·5	−18·0			206
			0·841	237·2	327·8	−24·7			254
		4385*a*	0·171	16·7	274·1	+13·2	2	22	
		4385	0·174	22·7	273·0	+13·0	0	4	
		4385	0·180	24·1	272·6	+13·2	0	1	
		4385	0·179	28·6	271·9	+12·8	1	6	
		4385	0·198	26·3	271·7	+14·0	0	3	
		4385	0·190	31·7	271·0	+13·1	0	7	
		4385*b*	0·183	35·7	270·7	+12·3	6	20	
		4384*a*	0·528	126·2	250·9	−14·7	3	14	
		4384	0·542	127·5	250·5	−15·8	0	12	
1896.				°	°	°			
188d.425	FT, JW	4388*a*	0·832	112·1	223·8	−16·0	0	17	
		4388*b*	0·854	111·8	221·4	−16·3	0	38	377*c*
		4388*c*	0·862	111·6	220·4	−16·4	0	9	
		4386*a*	0·897	108·6	215·5	−14·8	15	103	
		4386	0·906	106·6	214·0	−13·3	0	19	994*f*
		4387*a*	0·913	98·8	211·9	− 6·5	13	86	558*c*
			0·846	80·2	219·2	+10·3			267
			0·947	77·8	205·5	+12·8			73
July 7		Centre			(276·9)	(+3·8)	(40)	(361)	(2954)
189·426	CL, JW		0·918	241·5	325·7	−24·2			257
		4385*a*	0·237	312·2	274·0	+13·0	0	17	
		4385*b*	0·182	320·8	270·4	+12·0	0	10	
		4388*a*	0·705	118·2	223·5	−16·5	0	13	
		4388*b*	0·730	117·1	221·2	−16·5	0	6	
		4386*a*	0·777	112·7	216·0	−14·8	21	93	
		4386	0·791	110·7	214·3	−13·7	2	17	239*c*
		4387*a*	0·795	101·6	212·2	− 6·8	15	74	288*f*
		4389	0·909	110·6	201·2	−16·8	11	53	597*c*
			0·751	117·9	219·7	−17·8			199
			0·898	117·4	204·3	−22·4			268
July 8		Centre			(263·7)	(+3·9)	(49)	(283)	(1848)
190·400	AW, JW		0·945	242·5	317·4	−24·3			292
		4385*a*	0·425	292·0	274·4	+12·8	0	10	
I.		4388*a*	0·552	128·2	223·9	−16·3	3	9	
		4386*a*	0·628	119·5	216·4	−14·7	18	92	253*c*
		4386	0·645	117·1	214·6	−13·8	0	5	
		4387*a*	0·637	105·6	212·9	− 6·7	12	52	257*f*
		4389*a*	0·801	114·4	201·3	−16·7	8	25	359*c*
			0·794	122·4	204·4	−22·4			224
July 9		Centre			(250·7)	(+4·0)	(41)	(193)	(1385)
191·669	AW, JW		0·844	289·2	290·9	+18·4			137
			0·822	283·4	289·0	+13·4			185
		4386*a*	0·426	137·4	216·8	−14·3	11	71	
		4386	0·464	133·1	213·6	−14·6	0	4	
		4386	0·481	131·0	212·1	−14·5	0	11	
		4386	0·500	131·7	211·3	−15·6	0	7	
		4387*a*	0·406	117·2	212·8	− 6·9	9	43	
		4389	0·619	125·9	202·4	−17·8	0	3	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4385, July 5–9. A small spot, *a*. On July 7 a stream of small spots, the last and largest of which is *b*, is seen following *a*. Only *a* and *b* are seen on July 8, and only *a* on July 9.
Group 4386, July 6–14. A regular spot, *a*, usually attended by a very small companion.
Group 4387, July 6–13. A regular spot, *a*, which diminishes from day to day.
Group 4388, July 7–9. Three small spots, *a*, *b*, and *c*. *c* has disappeared by July 8, *b* by July 9.
Group 4389, July 8–12. A small spot, *a*, with a very small companion on July 10 and 11.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
191d.669	AW,JW	4389*a*	0·621	123·5	201·4	−16·6	3	16	
		4390	0·989	107·3	154·4	−16·4	0	31	355*p*
			0·906	112·6	172·4	−18·4			86
July 10		Centre			(234·0)	(+4·1)	(23)	(186)	(763)
192·414	AW,JW		0·927	282·2	292·2	+12·9			153
			0·892	290·0	286·8	+19·7			104
			0·851	285·4	282·2	+15·3			231
		4386*a*	0·333	159·0	217·1	−13·9	13	53	
		4387*a*	0·269	133·7	212·9	− 6·6	7	14	
		4389*a*	0·504	133·4	201·8	−16·3	0	3	
		4389	0·511	132·9	201·2	−16·5	0	1	
		4391	0·843	108·3	169·1	−12·9	0	4	415*c*
		4390	0·949	109·4	155·0	−16·9	0	8	
			0·856	116·5	169·7	−20·0			77
July 11		Centre			(224·1)	(+4·2)	(20)	(83)	(980)
193·506	AW,JW		0·957	285·3	283·0	+15·9			153
			0·902	281·8	274·1	+12·6			85
		4392	0·824	274·7	265·1	+ 6·3	0	2	56*c*
		4392	0·815	276·3	264·2	+ 7·7	0	5	
		4386*a*	0·351	202·8	217·6	−14·6	10	35	
		4387*a*	0·205	199·8	213·6	− 6·8	4	16	
		4389*a*	0·373	161·2	202·4	−16·3	1	5	
		4393	0·229	98·1	196·5	+ 2·4	0	7	
		4391	0·716	114·0	167·5	−13·7	0	2	96*f*
		4390	0·823	112·1	157·5	−15·4	0	6	
		4390	0·836	113·7	156·6	−17·1	0	2	334*f*
		4390	0·831	111·4	156·5	−15·1	0	9	
July 12		Centre			(209·6)	(+4·3)	(15)	(89)	(724)
194·407	AW,JW		0·835	249·0	251·3	−14·9			124
		4386*a*	0·466	226·0	217·9	−14·7	4	18	
		4386	0·409	219·9	213·3	−14·0	0	1	
		4387*a*	0·338	235·0	213·8	− 6·9	3	11	
		4394	0·283	209·3	205·7	− 9·9	0	2	
		4391	0·522	123·3	171·3	−12·7	4	20	
		4391	0·530	122·7	170·6	−12·7	0	2	
		4391	0·535	123·3	170·5	−13·1	0	3	
		4391	0·548	123·6	169·8	−13·7	0	1	
		4391	0·560	122·4	168·7	−13·6	0	1	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
194d.407	AW,JW	4391	0·567	123·0	168·5	−14·1	0	3	
		4391	0·572	121·2	167·6	−13·4	0	4	
		4390	0·666	116·2	159·9	−13·6	0	2	
		4390	0·669	116·8	159·9	−14·1	2	7	
		4390	0·671	116·2	159·6	−13·7	0	1	
		4390	0·698	116·2	157·5	−14·6	3	11	180*c*
		4390	0·712	118·8	157·2	−16·7	0	3	
		4390	0·714	115·7	156·2	−14·7	4	19	
		4390	0·721	115·3	155·5	−14·7	0	4	
		4395*a*	0·972	112·6	124·2	−20·8	86	501	540*c*
			0·824	114·0	146·0	−16·8			144
			0·916	61·8	132·4	+27·5			98
			0·939	78·9	127·6	+12·0			289
July 13		Centre			(197·7)	(+4·4)	(106)	(614)	(1375)
195·421	CL, JW		0·901	250·5	245·8	−15·4			235
			0·853	241·4	237·7	−21·4			86
		4386*a*	0·629	240·0	218·4	−14·6	3	13	
		4396	0·571	233·2	212·6	−16·0	0	6	
		4397	0·485	221·6	203·9	−16·9	0	5	
		4391	0·358	143·7	171·8	−12·3	7	47	
		4391	0·381	142·8	170·7	−13·0	0	6	
		4391	0·411	140·7	168·8	−14·1	0	3	
		4391	0·411	137·4	167·8	−13·2	0	10	
		4390	0·479	132·6	163·0	−14·7	0	2	
		4390	0·487	129·7	161·7	−13·9	0	6	
		4390	0·493	129·2	161·2	−14·0	0	3	
		4390	0·512	127·4	159·6	−14·0	0	6	
		4390	0·531	126·5	158·3	−14·3	0	8	
		4390	0·538	127·7	158·2	−15·1	0	3	
		4390	0·550	124·9	156·7	−14·3	0	8	
		4398	0·826	80·8	128·6	+10·1	0	16	213*c*
		4395*a*	0·897	114·4	124·4	−19·5	90	569	880*c*
		4395	0·931	112·9	119·1	−19·4	3	20	
		4399*a*	0·966	113·6	112·6	−21·4	44	216	
July 14		Centre			(184·3)	(+4·5)	(147)	(947)	(1414)
196·513	AW,JW		0·923	243·7	232·8	−22·1			143
			0·838	246·4	223·0	−16·9			285
			0·822	237·3	218·5	−23·3			69
			0·729	244·6	212·6	−14·9			231
		4391	0·296	188·8	172·4	−12·3	0	4	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.

The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4390, July 10–21. A small spot on July 10. The group changes from day to day, its usual character being that of a number of spots, mostly small and unstable, in a straight but discontinuous stream.

Group 4391, July 11–17. A very small spot on July 11 *p* Group 4390. The group changes from day to day, its usual character being that of a number of spots, mostly small and unstable, in a short straight stream. The group is not seen on July 16.

Group 4392, July 12. Two very small spots. Group 4393, July 12. A very small spot. Group 4394, July 13. A very small spot.

Group 4395, July 13–24. A very large, nearly regular spot, *a*, with occasionally some small companions. *a* becomes strongly elliptical, especially as to its umbra, after passing the central meridian on July 19.

Group 4396, July 14. A very small spot *f* Group 4386. Group 4397, July 14. A very small spot *f* Group 4396. Group 4398, July 14. A small spot.

Group 4399, July 14–25. A large number of spots, mostly small, in a fine cluster, *sf* Group 4395. The group changes from day to day, stretching out towards Group 4395, July 19–21, with which it may have formed one magnificent group before coming into view at the east limb. The largest and most stable spots are lettered *a*, *b*, *c*, and *d*. *a* is a large regular spot; *b* has broken up by July 19, and *c* is the largest portion of it: *d* is a large spot forming in advance of the group on July 24 and 25.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
196d·513	AW,JW	4391	0·301	184·5	171·2	−12·8	0	1	
		4391	0·311	176·8	168·8	−13·4	0	1	
		4390	0·354	158·8	162·2	−14·7	1	7	
		4390	0·353	154·0	160·7	−13·9	2	6	
		4390	0·361	152·3	159·9	−14·0	0	2	
		4390	0·383	149·9	158·4	−14·8	0	4	
		4390	0·395	151·0	158·4	−15·6	1	7	
		4395*a*	0·786	121·2	124·0	−20·8	100	566	
		4395	0·794	118·8	122·3	−19·8	0	16	
		4395	0·826	117·8	119·1	−19·8	2	13	
		4399	0·877	121·6	114·7	−24·7	3	14	
		4399	0·873	118·7	114·2	−22·2	0	14	1268*c*
		4399*a*	0·889	117·2	111·8	−21·5	19	149	
		4399*b*	0·899	121·0	111·6	−25·2	12	62	
		4399	0·903	117·1	109·9	−22·0	5	29	
		4400	0·943	69·8	99·1	+20·6	0	10	
		4400	0·944	69·8	98·9	+20·6	0	13	
		4400*a*	0·944	71·3	98·9	+19·2	25	149	392*c*
		4400	0·952	68·9	97·4	+21·5	0	15	
		4400	0·957	70·1	96·3	+20·4	0	18	
July 15		Centre			(169·8)	(+4·6)	(170)	(1100)	(2388)
197·227	CL,FT		0·929	250·3	225·9	−16·3			331
M.			0·895	238·5	217·8	−25·4			220
			0·824	248·9	212·7	−14·4			291
			0·801	257·5	212·2	− 7·1			114
			0·737	241·6	202·9	−17·0			211
		4390	0·336	188·9	163·5	−14·6	9	35	
		4390	0·322	181·8	161·0	−14·0	0	6	
		4390	0·320	177·9	159·7	−13·8	1	6	
		4390	0·345	174·7	158·5	−15·3	2	9	
		4390	0·345	171·3	157·3	−15·1	0	12	
		4395	0·672	125·3	125·1	−19·0	0	26	
		4395*a*	0·696	126·8	123·9	−20·8	78	464	293*c*
		4395	0·739	122·4	119·0	−19·8	2	11	
		4395	0·750	121·0	117·6	−19·3	0	2	
		4399	0·801	125·8	114·9	−24·7	0	9	
		4399	0·800	124·9	114·7	−24·0	0	17	
		4399	0·791	122·2	114·5	−21·7	4	18	
		4399	0·802	122·8	113·7	−22·5	0	9	
		4399*a*	0·815	120·4	111·6	−21·2	19	140	624*c*
		4399*b*	0·837	124·2	110·8	−25·0	26	104	
		4399	0·837	122·4	110·1	−23·7	0	3	
		4399	0·835	120·1	109·5	−21·8	2	9	
1896.				°	°	°			
197d·227	CL,FT	4400*a*	0·876	70·4	99·6	+19·4	35	234	878*f*
		4400*b*	0·878	68·2	99·5	+21·4	10	104	
M.			0·833	112·0	107·4	−15·3			109
			0·939	58·6	91·3	+31·1			55
July 16		Centre			(160·4)	(+4·7)	(188)	(1218)	(3126)
198·469	AW,JW		0·957	251·2	214·6	−16·4			431
			0·940	280·2	214·4	+11·3			107
			0·905	260·6	207·7	− 6·4			221
			0·869	246·1	200·4	−18·0			572
		4391	0·501	233·3	168·2	−13·0	0	3	
		4390	0·495	224·8	165·2	−16·0	0	2	
		4390	0·483	223·9	164·3	−15·8	1	8	
		4390	0·470	224·5	163·9	−15·0	3	11	
		4390	0·437	217·6	160·0	−15·6	0	6	
		4390	0·412	215·4	158·2	−14·9	0	2	
		4390	0·409	209·9	156·2	−16·0	0	2	
		4390	0·404	206·0	154·6	−16·5	0	1	
		4395	0·502	143·2	125·5	−19·1	1	7	
		4395	0·505	142·2	125·0	−18·9	0	2	
		4395	0·510	142·5	124·9	−19·3	0	2	
		4395*a*	0·538	143·4	124·0	−21·0	82	450	
		4395	0·541	138·8	121·9	−19·5	0	3	
		4399	0·612	134·6	116·3	−21·2	0	3	
		4399	0·636	133·5	114·3	−21·7	1	5	
		4399	0·634	132·4	114·0	−21·1	0	1	
		4399	0·645	133·0	113·6	−21·9	0	4	
		4399	0·664	133·4	112·5	−23·0	1	5	
		4399	0·681	135·6	112·4	−25·0	0	7	
		4399*a*	0·663	130·6	111·4	−21·5	22	125	
		4399	0·682	133·1	111·2	−23·7	0	6	252*c*
		4399	0·692	133·4	110·7	−24·3	3	19	
		4399*b*	0·700	134·5	110·6	−25·3	7	66	
		4399	0·693	132·0	109·9	−23·6	0	7	
		4399	0·704	133·0	109·8	−24·3	0	2	
		4399	0·701	132·5	109·6	−24·2	0	5	
		4399	0·681	127·7	109·0	−20·7	0	6	
		4399	0·686	128·6	109·0	−21·4	0	3	
		4400	0·690	66·0	102·1	+19·9	0	2	
		4400	0·706	65·1	100·9	+20·8	0	8	
		4400*a*	0·718	67·8	99·4	+19·2	56	313	
		4400*b*	0·727	64·4	99·3	+21·7	5	103	
		4400	0·737	65·4	98·2	+21·2	0	6	765*f*

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4400, July 15–23. A number of spots in a fine cluster, the southern portion of which is the larger. The group has divided by July 20 into a parallel pair of short straight streams. The individual spots undergo great changes; the largest and most persistent are *a* and *b*. *b* is measured as two on July 19. *c* is a large fragment broken off from *a*.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
198d·469	AW,JW	4400	0·746	64·8	97·5	+21·9	0	3	
		4400	0·749	64·2	97·4	+22·4	0	3	
		4400	0·749	65·6	97·1	+21·3	0	1	
		4400	0·755	67·1	96·3	+20·3	0	6	
			0·906	113·5	82·8	−18·9			62
			0·891	74·8	81·0	+15·7			75
			0·920	106·7	79·3	−13·3			134
July 17		Centre			(144·0)	(+4·8)	(182)	(1208)	(2619)
199·458	JW,FT		0·970	257·5	205·3	−10·9			171
			0·944	249·1	198·4	−17·8			515
		4390	0·632	238·3	164·5	−15·3	0	5	
		4390	0·626	237·2	163·8	−15·7	0	2	
		4390	0·621	238·1	163·8	−15·0	0	2	
		4390	0·611	236·2	162·5	−15·6	5	12	
		4390	0·600	237·7	162·3	−14·5	0	2	
		4390	0·585	235·7	160·7	−15·0	0	8	
		4390	0·592	234·1	160·6	−16·0	0	4	
		4390	0·583	233·8	160·0	−15·8	0	8	
		4390	0·575	233·8	159·5	−15·5	3	7	
		4390	0·552	230·3	156·9	−16·2	3	13	
		4390	0·544	230·7	156·6	−15·7	2	8	
		4390	0·526	227·7	154·6	−16·2	2	8	
		4401	0·423	282·9	155·4	+ 9·9	1	3	
		4395	0·406	168·6	126·0	−18·5	2	7	
		4395	0·405	167·7	125·6	−18·4	0	2	
		4395a	0·447	165·9	124·1	−20·8	92	460	
		4395	0·429	162·2	122·9	−19·2	0	4	
		4399	0·459	150·1	116·9	−18·6	0	4	
		4399	0·503	149·5	115·0	−20·9	1	5	
		4399	0·515	149·0	114·3	−21·4	1	9	
		4399	0·525	149·4	114·1	−22·0	2	11	
		4399	0·544	149·5	113·4	−23·2	7	18	
		4399	0·528	147·4	113·1	−21·6	6	48	
		4399	0·546	147·0	112·1	−22·5	3	10	
		4399	0·560	147·8	111·9	−23·5	0	6	
		4399	0·570	148·2	111·6	−24·3	2	8	
		4399a	0·536	144·4	111·3	−21·2	30	134	
		4399	0·590	148·4	110·9	−25·5	0	3	
		4399	0·569	145·5	110·3	−23·3	8	23	
		4399	0·578	145·6	110·0	−23·8	3	8	
		4399b	0·592	147·0	110·0	−25·1	8	30	
		4399	0·574	144·1	109·4	−23·1	0	8	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
199d·458	JW,FT	4399	0·582	144·6	109·3	−23·6	0	6	
		4399	0·551	140·2	108·8	−20·4	0	7	
		4399	0·582	143·4	108·7	−23·2	0	13	
		4399	0·567	141·6	108·6	−21·8	0	6	
		4399	0·562	139·1	107·7	−20·6	1	6	
		4400	0·522	58·5	102·6	+20·1	0	4	
		4400	0·535	60·4	101·4	+19·5	8	33	
		4400	0·555	58·6	100·4	+21·0	16	45	
		4400	0·542	63·5	100·2	+18·2	0	6	
		4400b	0·575	57·7	99·3	+22·0	14	139	
		4400a	0·565	62·4	98·9	+19·3	39	230	
		4400	0·596	58·9	97·5	+22·0	0	2	
			0·770	68·0	81·5	+20·0			347
			0·945	101·1	61·3	− 8·8			98
July 18		Centre			(130·8)	(+4·9)	(259)	(1377)	(1131)
200·677	AW,JW		0·874	252·8	173·3	−12·4			162
		4390	0·816	248·2	166·1	−14·6	0	2	
		4390	0·801	245·6	164·0	−16·2	0	2	
		4390	0·796	246·0	163·7	−15·7	14	32	
		4390	0·792	245·1	163·0	−16·2	0	3	
		4390	0·787	246·2	162·9	−15·3	0	3	266c
		4390	0·771	243·7	160·8	−16·5	0	4	
		4390	0·762	243·9	160·0	−16·1	5	15	
		4390	0·756	244·8	159·8	−15·3	2	12	
		4390	0·751	245·4	159·5	−14·7	0	2	
		4390	0·749	244·8	159·2	−15·1	0	3	
		4395a	0·459	199·0	124·0	−20·8	89	447	
		4395	0·472	195·0	122·3	−22·2	0	2	
		4399	0·437	186·8	118·1	−25·0	0	2	
		4399	0·436	183·1	116·2	−20·8	0	1	
		4399	0·452	182·0	115·8	−21·9	0	1	
		4399	0·452	181·0	115·3	−21·9	0	5	
		4399	0·440	180·7	115·1	−21·1	0	2	
		4399	0·455	180·3	115·0	−22·0	0	1	
		4399	0·447	180·3	115·0	−21·6	0	1	
		4399	0·436	177·1	113·4	−20·8	0	4	
		4399	0·445	175·5	112·7	−21·3	0	17	
		4399	0·473	175·6	112·5	−23·2	3	11	
		4399	0·486	175·0	112·2	−23·9	0	3	
		4399	0·473	173·6	111·5	−23·0	8	71	
		4399a	0·450	172·4	111·1	−21·5	29	136	
		4399	0·472	170·8	110·1	−22·8	0	10	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4401, July 18. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
200d·677	AW,JW	4399	0·407	168·7	110·0	−18·6	0	2	
		4399c	0·480	169·5	109·4	−23·2	5	40	
		4399	0·491	168·9	108·9	−23·8	0	5	
		4399	0·451	166·9	108·5	−21·1	0	5	
		4400	0·333	38·0	102·3	+20·0	0	3	
		4400	0·322	41·3	101·9	+18·7	0	11	
		4400	0·332	40·4	101·7	+19·4	0	4	
		4400	0·338	39·6	101·6	+19·8	0	1	
		4400	0·327	44·9	100·8	+18·1	0	3	
		4400	0·353	40·6	100·7	+20·3	0	2	
		4400b	0·383	39·6	99·6	+21·9	7	47	
		4400	0·334	49·4	99·5	+17·3	3	18	
		4400a	0·360	46·5	98·8	+19·0	34	227	
		4400	0·405	40·4	98·4	+22·6	0	4	
		4400b	0·395	42·2	98·3	+21·7	4	25	
		4400	0·404	43·7	97·4	+21·6	0	1	
		4400	0·385	49·4	96·8	+19·2	0	1	
		4402a	0·604	79·3	77·9	+10·3	4	13	
		4402	0·627	81·3	76·1	+ 9·3	0	3	
			0·883	104·5	54·7	−10·4			90
			0·930	67·8	46·4	+22·4			135
			0·975	103·3	39·2	−11·8			105
July 19		Centre			(114·8)	(+4·9)	(207)	(1207)	(758)
201·411	AW,JW		0·944	254·0	173·6	−13·3			190
		4390	0·885	249·5	164·2	−15·4	10	38	
		4390	0·850	248·8	160·1	−15·0	0	3	
		4390	0·852	247·8	160·0	−15·9	0	5	455c
		4390	0·850	248·1	159·9	−15·6	0	4	
		4395	0·523	221·1	126·3	−18·4	0	2	
		4395a	0·526	215·3	124·0	−20·5	89	427	
		4399	0·470	202·4	116·1	−20·6	0	2	
		4399	0·480	201·3	115·9	−21·5	0	7	
		4399	0·459	198·5	114·0	−20·7	0	2	
		4399	0·438	199·5	114·0	−19·3	0	1	
		4399	0·445	198·2	113·6	−19·8	0	1	
		4399	0·440	198·2	113·5	−19·6	0	1	
		4399	0·492	195·3	113·1	−23·2	0	5	
		4399	0·439	197·1	112·9	−19·7	0	1	
		4399	0·462	195·7	112·8	−21·2	0	1	
		4399	0·494	194·0	112·6	−23·5	0	2	
		4399	0·478	194·0	112·3	−22·5	6	53	
		4399	0·492	192·8	111·9	−23·5	0	1	
1896.				°	°	°			
201d·411	AW,JW	4399a	0·454	192·6	111·2	−21·2	19	124	
		4399	0·493	191·1	111·0	−23·8	0	2	
		4399	0·477	191·3	110·9	−22·7	8	33	
		4399	0·494	189·1	110·0	−24·0	0	1	
		4399	0·507	188·4	109·8	−24·9	0	1	
		4399	0·490	187·9	109·3	−23·8	0	2	
		4399c	0·470	187·6	108·9	−22·5	8	52	
		4399	0·491	186·9	108·8	−24·0	0	3	
		4399	0·454	187·5	108·7	−21·6	0	4	
		4399	0·439	187·3	108·5	−20·6	0	3	
		4399	0·486	184·8	107·6	−23·8	0	4	
		4400	0·252	6·2	103·5	+19·5	0	1	
		4400	0·237	9·0	102·9	+18·6	0	1	
		4400	0·243	13·5	101·7	+18·7	0	1	
		4400	0·256	14·7	101·2	+19·4	0	1	
		4400	0·280	15·4	100·6	+20·7	0	2	
		4400b	0·297	16·8	99·8	+21·5	8	69	
		4400a	0·264	21·1	99·3	+19·3	28	191	
		4400	0·236	24·6	99·2	+17·4	0	1	
		4400	0·334	16·7	99·1	+23·7	0	1	
		4400	0·239	26·7	98·7	+17·4	0	1	
		4400	0·330	18·2	98·7	+23·3	0	2	
		4400	0·311	20·2	98·5	+22·0	4	16	
		4400	0·323	19·2	98·5	+22·8	0	2	
		4400	0·282	28·7	96·9	+19·3	0	1	
		4402a	0·452	76·3	78·7	+10·7	2	9	
		4403	0·792	107·6	55·1	−10·6	1	8	93c
		4403	0·816	106·3	52·6	−10·2	0	6	
			0·874	67·4	44·7	+22·2			130
			0·936	102·2	37·3	− 9·5			111
July 20		Centre			(105·1)	(+5·1)	(183)	(1098)	(979)
202·404	CL,JW		0·850	247·8	146·7	−15·8			190
		4390	0·967	252·7	164·9	−15·3	0	12	341f
		4395a	0·653	229·6	124·0	−20·6	90	418	
		4395	0·632	228·4	122·1	−20·3	0	2	
		4399	0·590	223·6	117·7	−20·6	3	9	
		4399	0·590	221·9	116·9	−21·4	0	12	
		4399	0·585	220·9	116·2	−21·5	0	3	
		4399	0·567	219·9	114·8	−21·1	0	12	
		4399	0·564	216·3	113·0	−22·2	1	12	
		4399	0·554	216·3	112·6	−21·7	0	1	
		4399	0·567	213·6	111·9	−23·3	0	15	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4402, July 19–21. A small spot, *a*, with a very small companion on July 19.
Group 4403, July 20–29. A pair of very small spots on July 20. The group undergoes constant change, and has become a short stream of small spots by July 21, which has greatly increased in size by July 24, and has divided into two clusters by July 25. *a*, the leader, on July 23, becomes a very large regular spot, but soon diminishes again.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
202d·404	CL.JW	4399a	0·538	214·9	111·2	−21·3	21	140	
		4399	0·555	212·3	110·7	−23·1	0	21	
		4399	0·565	211·4	110·7	−24·0	0	6	
		4399	0·558	210·6	110·0	−23·8	0	4	
		4399c	0·539	210·9	109·4	−22·6	8	30	
		4399	0·552	208·8	108·9	−24·0	0	5	
		4399	0·544	208·9	108·6	−23·5	0	5	
		4399	0·530	209·8	108·5	−22·4	0	4	
		4399	0·544	207·6	107·9	−23·8	0	1	
		4400	0·270	323·6	101·6	+17·6	0	5	
		4400	0·260	324·5	101·1	+17·2	0	3	
		4400a	0·279	329·6	100·5	+18·9	19	106	
		4400b	0·311	333·8	100·4	+21·2	6	35	
		4400	0·249	329·3	99·6	+17·4	0	3	
		4400	0·271	333·1	99·4	+19·0	0	13	
		4400	0·253	331·3	99·3	+17·8	0	2	
		4400	0·320	338·7	99·2	+22·4	0	2	
		4400	0·336	340·1	99·1	+23·4	0	6	
		4400	0·327	339·7	99·0	+22·8	1	4	
		4400	0·313	339·0	98·9	+22·0	1	6	
		4400c	0·276	335·5	98·9	+19·5	10	46	
		4400	0·213	336·0	97·2	+16·3	0	5	
		4402a	0·234	65·1	79·6	+10·6	0	3	
		4403	0·629	113·7	56·3	−10·5	0	1	
		4403	0·630	114·1	56·3	−10·7	0	3	
		4403	0·640	113·8	55·5	−10·9	2	7	
		4403	0·663	112·2	53·5	−10·5	4	10	
		4403	0·668	111·3	52·9	−10·1	1	7	
			0·763	64·8	43·9	+22·4			122
			0·903	67·2	27·7	+22·8			77
July 21		Centre			(92·0)	(+5·1)	(167)	(979)	(730)
203·510	FT,JW		0·958	252·2	148·2	−15·4			336
		4395a	0·794	238·9	123·7	−20·6	87	439	
		4395	0·773	239·8	122·2	−19·2	0	42	
		4399	0·745	236·2	118·5	−20·5	2	7	
		4399	0·715	231·8	114·5	−22·0	0	2	
		4399	0·702	231·7	113·5	−21·5	0	3	
		4399	0·698	230·7	112·8	−22·0	0	4	
		4399	0·702	228·4	112·1	−23·5	0	19	
		4399a	0·674	230·6	111·1	−21·0	23	121	
		4399	0·684	228·6	110·9	−22·5	0	4	
		4399	0·690	227·0	110·6	−23·7	0	1	784c

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
203d·510	FT.JW	4399	0·691	226·3	110·4	−24·1	0	2	
		4399	0·680	227·9	110·3	−22·7	0	6	
		4399	0·675	227·3	109·7	−22·8	1	6	
		4399	0·681	226·1	109·6	−23·7	0	10	
		4399c	0·666	227·6	109·3	−22·2	9	20	
		4399	0·667	225·7	108·5	−23·2	0	2	
		4399	0·657	226·7	108·3	−22·2	0	6	
		4399	0·651	227·6	108·3	−21·5	0	4	
		4399	0·618	225·9	105·5	−20·9	0	4	
		4400	0·498	298·6	104·6	+18·4	0	6	
		4400	0·499	299·7	104·4	+18·9	0	2	
		4400	0·489	299·5	103·9	+18·6	0	2	
		4400	0·468	300·3	102·4	+18·3	0	1	
		4400a	0·447	302·3	100·7	+18·6	14	87	
		4400	0·463	307·1	100·5	+20·9	0	2	
		4400	0·447	304·7	100·1	+19·5	0	2	
		4400	0·476	311·8	99·9	+23·3	0	1	
		4400	0·468	311·7	99·5	+22·9	0	1	
		4400c	0·435	305·6	99·2	+19·5	9	24	
		4400	0·430	308·9	98·1	+20·5	1	5	
		4400	0·433	311·6	97·6	+21·5	0	2	
		4404	0·454	189·0	81·7	−21·4	1	3	
		4403	0·435	129·2	57·3	−11·0	0	2	
		4403	0·443	129·5	57·0	−11·5	0	1	
		4403	0·455	128·6	56·1	−11·6	2	5	
		4403	0·462	128·5	55·7	−11·9	0	2	
		4403	0·470	125·4	54·4	−11·0	0	10	
		4403	0·477	123·6	53·6	−10·5	1	5	
		4403	0·487	124·2	53·2	−11·1	0	2	
			0·966	101·8	3·8	−10·0			272
July 22		Centre			(77·3)	(+5·2)	(150)	(867)	(1392)
204·393	AW.JW		0·869	282·3	126·1	+13·3			138
		4395a	0·892	243·8	124·0	−20·4	79	438	
		4399	0·806	236·3	112·1	−22·9	0	2	
		4399	0·809	235·2	112·0	−23·8	0	5	
		4399	0·802	234·3	111·0	−24·2	3	11	1097c
		4399a	0·785	238·0	110·9	−20·9	19	121	
		4399c	0·782	235·8	109·7	−22·2	12	54	
		4400a	0·603	294·2	100·9	+18·6	7	29	
		4400c	0·586	296·4	99·3	+19·5	1	7	
		4400	0·576	294·4	99·0	+18·2	0	2	
		4400	0·528	307·2	92·7	+23·3	0	6	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4404, July 22. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
204d·393	AW, JW	4403*a*	0·309	156·3	58·4	−11·1	6	17	
		4403	0·337	145·3	54·4	−10·9	0	6	
			0·936	103·3	358·0	−10·4			208
July 23		Centre			(65·6)	(+5·3)	(127)	(698)	(1443)
205·412	AW, JW		0·947	282·2	124·0	+13·3			121
		4395*a*	0·968	247·2	124·2	−20·4	76	452	
		4399*d*	0·910	243·1	112·9	−21·7	10	78	
		4399	0·909	240·5	111·9	−23·9	0	5	
		4399	0·900	241·9	111·2	−22·4	0	4	1391*c*
		4399*a*	0·892	243·7	110·6	−20·5	22	86	
		4399*c*	0·886	241·9	109·3	−21·8	7	47	
		4403*a*	0·306	205·3	59·8	−10·6	17	68	
		4403	0·302	200·1	58·2	−11·0	0	13	
		4403	0·315	196·3	57·4	−12·2	3	31	
		4403	0·300	193·0	56·1	−11·6	0	11	
		4403	0·287	191·3	55·5	−10·9	4	21	
		4403	0·279	187·1	54·2	−10·7	0	28	
			0·755	104·9	5·0	− 7·5			135
			0·812	113·1	1·7	−15·1			98
			0·889	105·4	351·6	−11·1			295
July 24		Centre			(52·2)	(+5·4)	(139)	(844)	(2040)
206·479	AW, JW		0·893	286·5	101·4	+17·2			427
			0·808	293·8	90·9	+22·4			549
		4399*d*	0·980	246·2	112·9	−21·9	0	116	
		4399	0·974	245·5	111·2	−22·4	0	43	
		4399*a*	0·969	247·1	110·2	−20·6	25	142	983*c*
		4399*c*	0·962	245·8	108·2	−21·4	0	11	
		4403*a*	0·468	235·7	61·0	−10·2	29	175	
		4403	0·432	226·1	56·5	−12·1	0	9	
		4403	0·419	225·6	55·7	−11·8	3	13	
		4403	0·403	227·5	55·5	−10·5	0	10	
		4403	0·402	225·4	54·9	−11·1	12	41	
		4403	0·387	227·6	54·8	− 9·9	0	7	
July 25		Centre			(38·0)	(+5·5)	(69)	(567)	(1959)
207·575	FT, AW		0·966	289·8	99·3	+20·5			718
			0·855	291·5	81·8	+21·2			513
			0·878	246·8	81·0	−17·4			141
		4403*a*	0·669	248·7	62·6	− 9·8	16	136	
1896.				°	°	°			
207d·575	FT, AW	4403	0·598	242·3	56·1	−11·5	4	15	
		4403	0·578	243·1	55·0	−10·4	12	52	
			0·909	122·6	324·8	−26·6			118
July 26		Centre			(23·5)	(+5·5)	(32)	(203)	(1490)
208·428	FT, JW		0·943	292·2	83·2	+22·8			521
			0·942	250·3	79·6	−16·5			169
		4403*a*	0·803	253·4	63·4	− 9·8	11	88	
		4403	0·785	252·8	61·6	− 9·8	0	4	
		4403	0·730	248·3	55·9	−11·6	0	2	
		4403	0·721	249·4	55·4	−10·6	0	3	
		4403	0·715	249·1	54·9	−10·7	0	5	
		4403	0·714	249·6	54·9	−10·3	4	10	
		4403	0·707	249·2	54·2	−10·4	1	5	
		4405*a*	0·955	101·1	300·9	− 8·9	3	21	288*nf*
			0·970	78·0	295·6	+13·0			180
July 27		Centre			(12·2)	(+5·6)	(19)	(138)	(1158)
209·429	JW, CL	4403*a*	0·919	256·7	64·0	− 9·8	9	41	
		4403	0·895	255·6	60·5	−10·2	0	4	
		4403	0·875	255·0	57·9	−10·2	0	2	277*c*
		4403	0·850	253·9	54·9	−10·4	0	5	
		4403	0·842	254·3	54·2	− 9·9	0	9	
		4405*a*	0·857	103·5	301·8	− 8·5	7	59	
		4405	0·863	102·6	301·0	− 7·8	0	22	
		4405	0·868	103·4	300·6	− 8·6	0	6	180*c*
		4405	0·898	102·4	296·7	− 8·5	0	5	
			0·882	78·0	296·8	+13·3			94
			0·925	69·1	291·1	+21·5			75
July 28		Centre			(359·0)	(+5·7)	(16)	(153)	626
210·450	AW, JW		0·939	250·0	52·3	−16·5			53
		4403*a*	0·984	258·6	63·7	−10·1	0	17	276*sf*
		4405*a*	0·704	108·9	303·3	− 8·9	8	47	151*f*
		4405	0·712	107·8	302·4	− 8·4	4	16	
			0·883	74·9	283·2	+16·0			94
July 29		Centre			(345·5)	(+5·8)	(12)	(80)	(574)
211·658	AW, JW		0·954	292·3	42·7	+23·0			181
		4405	0·457	114·6	304·9	− 5·7	0	6	
		4405*a*	0·486	120·9	304·6	− 9·2	15	38	

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4405, July 27–August 6. A small composite spot. *a*, followed by a few small companions. *a* increases greatly in size, and has divided into two portions, *b* and *c*, by August 4.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
211d·658	AW,JW	4405	0·478	114·5	303·7	− 6·2	0	6	
		4405	0·524	116·7	301·4	− 8·5	1	6	
		4405	0·526	116·8	301·3	− 8·6	1	5	
			0·890	81·7	266·3	+10·0			182
			0·977	105·5	253·9	−13·8			228
July 30		Centre			(329·5)	(+5·8)	(17)	(61)	(591)
212·620	AW,JW	4405*a*	0·317	142·4	305·6	− 8·8	8	52	
		4405	0·329	141·6	304·9	− 9·2	0	13	
		4405	0·305	136·7	304·7	− 7·1	0	9	
		4405	0·347	140·4	303·9	− 9·8	0	3	
			0·921	107·5	252·3	−13·7			180
July 31		Centre			(316·8)	(+5·9)	(8)	(77)	(180)
213·428	AW,JW	4405*a*	0·244	180·0	306·1	− 8·1	16	104	
		4405	0·247	175·9	305·1	− 8·2	0	2	
		4405	0·258	175·8	305·0	− 8·9	0	2	
		4405	0·261	171·1	303·8	− 8·9	0	5	
			0·888	111·1	247·0	−15·6			124
			0·961	108·2	234·9	−15·6			136
Aug. 1		Centre			(306·1)	(+6·0)	(16)	(113)	(260)
214·268	FT, AW		0·952	252·5	4·5	−14·6			123
			0·872	250·3	352·5	−13·9			50
M.		4405*a*	0·312	218·8	306·3	− 8·1	14	93	
		4405	0·307	215·2	305·3	− 8·5	0	4	
		4405	0·313	211·5	304·5	− 9·4	0	1	
		4405	0·300	210·7	303·9	− 8·9	0	5	
		4405	0·292	210·2	303·5	− 8·5	0	2	
			0·962	110·3	224·0	−17·6			481
			0·961	99·8	222·4	− 7·7			103
			0·969	79·8	218·7	+11·4			141
Aug. 2		Centre			(295·0)	(+6·1)	(14)	(105)	(898)
215·520	AW,JW	4405*a*	0·516	243·8	306·1	− 7·8	22	106	
		4405	0·505	242·3	305·1	− 8·1	0	3	
		4405	0·510	238·1	304·4	−10·1	0	3	
			0·860	115·9	223·9	−18·6			490
			0·896	98·2	215·8	− 4·6			111
			0·886	79·0	215·6	+12·6			112
			0·951	109·0	209·4	−15·9			225
Aug. 3		Centre			(278·4)	(+6·1)	(22)	(112)	(938)
1896.				°	°	°			
216d·404	AW,JW		0·884	236·8	321·6	−25·4			89
		4405	0·677	253·9	307·5	− 6·1	0	2	
		4405*b*	0·678	251·6	307·1	− 7·6	9	23	
		4405*c*	0·665	250·7	306·0	− 7·9	10	31	
		4405	0·670	246·9	305·4	−10·4	1	4	
		4406	0·762	117·2	222·1	−16·0	0	2	72*c*
		4406	0·798	115·2	218·4	−15·8	3	12	
			0·844	123·3	216·6	−23·7			272
			0·869	111·0	209·9	−14·8			189
			0·877	101·8	207·1	− 7·3			87
			0·954	114·0	198·4	−20·6			267
Aug. 4		Centre			(266·8)	(+6·2)	(23)	(74)	(976)
217·406	CL,JW		0·744	251·1	298·9	− 9·5			110
		4405*b*	0·834	256·3	308·2	− 7·8	6	25	136*c*
		4405	0·816	257·7	306·6	− 6·2	0	4	
		4405*c*	0·812	255·3	305·8	− 8·1	9	39	
		4405	0·799	256·6	304·8	− 6·8	0	7	
			0·800	113·2	204·3	−14·3			235
			0·888	119·1	196·8	−22·2			226
			0·922	111·7	190·0	−17·2			241
			0·959	100·5	181·4	− 8·2			200
Aug. 5		Centre			(253·5)	(+6·3)	(15)	(75)	(1148)
218·396	AW, CL	4405*b*	0·936	259·2	308·3	− 7·8	0	7	244*sf*
		4405*c*	0·918	258·4	305·4	− 8·0	0	5	
			0·789	122·5	195·3	−20·6			123
			0·929	108·6	175·1	−14·7			126
			0·921	70·5	172·8	+20·4			80
Aug. 6		Centre			(240·4)	(+6·3)	(0)	(12)	(573)
219·406	CL, AW		0·958	257·8	298·6	− 9·8			189
			0·931	281·2	296·2	+12·7			164
			0·904	294·1	291·8	+24·5			43
			0·832	285·4	283·5	+16·3			89
			0·906	112·5	166·0	−17·2			306
Aug. 7		Centre			(227·0)	(+6·4)	(0)	(0)	(791)
220·164	CL,JW		0·945	291·9	288·7	+22·8			102
			0·933	284·4	286·6	+15·7			162
I.			0·845	255·6	272·6	− 8·5			167

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4406, August 4. Two very small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
220d·164	CL,JW		0·809	121·8	169·8	−20·9			148
I.			0·904	111·5	156·0	−16·3			378
			0·947	69·3	145·0	+21·6			139
Aug. 8		Centre			(217·0)	(+6·4)	(0)	(0)	(1096)
221·236	CL,FT		0·962	256·5	275·1	−11·1			236
		4407*a*	0·994	110·2	122·1	−19·2	43	292	
M.			0·746	118·1	159·9	−15·8			126
			0·863	112·3	147·1	−15·5			118
Aug. 9		Centre			(202·9)	(+6·5)	(43)	(292)	(480)
Aug. 10			No	Photo	graph.				
223·468	JW,AW		0·844	245·5	226·5	−16·6			238
			0·829	234·5	221·0	−24·3			158
		4407*a*	0·839	118·1	122·0	−19·2	36	262	203*c*
			0·903	126·4	117·6	−28·8			339
			0·951	115·8	106·2	−22·0			524
			0·924	73·7	105·2	+17·5			312
			0·979	67·4	93·5	+23·5			101
Aug. 11		Centre			(173·4)	(+6·6)	(36)	(262)	(1875)
224·268	CL,JW		0·899	260·5	225·5	− 5·5			159
			0·912	246·4	224·2	−18·3			530
I.			0·881	232·5	215·2	−28·5			242
			0·766	240·0	206·7	−17·8			170
		4407*a*	0·749	123·4	121·3	−19·4	60	278	174*n*
			0·818	130·8	118·5	−27·7			410
			0·899	120·8	105·2	−23·9			1039
			0·853	72·2	104·0	+18·6			519
			0·966	110·1	91·0	−17·4			353
			0·960	67·2	87·8	+23·7			277
Aug. 12		Centre			(162·7)	(+6·6)	(60)	(278)	(3873)
225·533	AW,JW		0·936	282·6	216·2	+14·1			148
			0·932	260·4	213·5	− 6·4			179
			0·950	240·0	211·8	−25·7			99
			0·920	248·4	209·3	−16·9			331
			0·867	241·5	200·4	−20·6			99
			0·819	236·7	193·6	−22·2			150
		4407*a*	0·586	138·0	121·6	−19·7	44	247	
		4408	0·859	118·5	92·7	−20·3	0	4	
		4408	0·866	117·1	91·5	−19·4	3	12	353*c*
		4408	0·877	117·9	90·4	−20·6	0	3	
1896.				°	°	°			
225d·533	AW,JW	4409*a*	0·940	71·0	75·2	+20·1	11	94	559*np*
			0·702	142·8	117·4	−28·1			113
			0·787	128·7	103·8	−24·5			507
			0·912	109·0	83·4	−14·3			101
Aug. 13		Centre			(146·1)	(+6·7)	(58)	(360)	(2639)
226·314	JW,FT		0·946	254·8	204·4	−12·0			189
			0·888	262·8	197·4	− 3·2			583
I.			0·722	244·1	177·4	−13·4			61
		4407*a*	0·503	151·4	120·9	−19·7	53	229	
		4408	0·744	119·1	93·2	−16·3	0	3	
		4408	0·761	122·7	93·1	−19·3	2	7	
		4408	0·784	121·3	90·7	−19·3	14	28	439*f*
		4408	0·783	119·2	90·0	−17·8	1	6	
		4409*a*	0·873	70·4	74·7	+20·3	33	110	760*n*
			0·679	149·4	112·4	−29·6			153
			0·714	133·3	101·2	−23·8			451
			0·839	139·0	94·1	−34·3			277
			0·864	109·7	79·2	−13·3			56
			0·927	53·9	68·3	+35·9			74
			0·939	103·6	67·9	−10·3			130
Aug. 14		Centre			(135·7)	(+6·7)	(103)	(383)	(3173)
227·488	AW,JW		0·953	249·0	189·1	−17·7			128
			0·858	251·4	176·4	−12·1			112
			0·857	240·7	173·2	−20·8			86
			0·779	246·0	167·2	−13·8			75
		4407*a*	0·454	181·6	121·1	−20·1	47	245	
		4407	0·451	173·9	117·4	−19·7	0	4	
		4407	0·463	172·7	116·7	−20·4	0	3	
		4408	0·567	132·5	94·6	−16·3	0	3	
		4408	0·602	136·7	94·4	−19·8	2	8	
		4408	0·605	134·7	93·4	−19·0	9	22	
		4408	0·608	135·3	93·4	−19·5	0	4	
		4408	0·615	135·0	92·9	−19·7	0	2	
		4408	0·602	132·4	92·6	−17·9	0	2	
		4408	0·634	134·5	91·6	−20·4	0	15	
		4408	0·633	133·0	91·0	−19·6	7	20	
		4408	0·651	133·3	90·0	−20·6	6	37	
		4408	0·635	130·7	89·9	−18·6	4	16	
		4408	0·646	130·6	89·2	−19·0	2	9	
		4409*a*	0·723	68·7	74·7	+20·0	12	74	170*f*
		4409	0·740	72·4	72·8	+17·6	2	7	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4407, August 9–21. A large regular spot, *a*, with a pair of very small companions *f* on August 15, and one very small companion *sp* on August 17.
Group 4408. August 13–21. A number of scattered spots, chiefly small. The group has divided into two clusters by August 18, after which it rapidly disappears. It is not seen on August 20.
Group 4409, August 13–24. A regular spot, *a*, with a very small companion on August 13, 15 and 16. *a* has broken up by August 19, and the group is not seen on August 20. It has revived again by August 21, and consists of a number of small spots in two irregular clusters. The last spot, *b*, alone remains by August 24.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for day).
1896.				°	°	°			
227d·488	AW, JW		0·755	129·1	80·9	−23·2			127
			0·822	63·5	65·9	−25·5			92
			0·877	80·8	58·5	+11·3			92
			0·905	106·0	58·0	−11·3			281
Aug. 15		Centre			(120·3)	(+6·8)	(91)	(471)	(1163)
228·487	AW, JW	4407*a*	0·508	206·1	120·8	−20·4	31	231	
		4408	0·496	157·4	95·4	−20·5	0	3	
		4408	0·488	155·6	94·8	−19·7	8	24	
		4408	0·496	156·1	94·8	−20·2	0	3	
		4408	0·488	153·8	94·0	−19·2	0	2	
		4408	0·478	151·0	93·1	−18·0	0	4	
		4408	0·512	153·7	93·1	−20·6	0	4	
		4408	0·495	152·0	92·9	−19·2	2	10	
		4408	0·517	149·1	90·8	−19·7	4	13	
		4408	0·521	146·8	89·6	−19·3	4	27	
		4408	0·538	148·3	89·6	−20·7	14	46	
		4408	0·557	148·0	88·7	−21·6	1	17	
		4409	0·560	63·0	75·1	+20·4	0	1	
		4409*a*	0·568	64·5	74·2	+19·9	17	82	
		4410	0·892	107·1	46·7	−11·9	0	5	
		4410	0·896	107·5	46·3	−12·4	0	4	205*c*
		4410	0·926	107·6	42·2	−13·4	0	9	
Aug. 16		Centre			(107·1)	(+6·8)	(81)	(485)	(205)
299·394	AW, CL		0·959	252·1	165·6	−14·9			155
			0·881	248·0	152·8	−15·7			154
		4407	0·634	220·8	121·5	−22·5	0	3	
		4407*a*	0·606	222·0	120·5	−20·4	46	240	
		4411	0·507	195·8	103·5	−22·2	0	2	
		4411	0·493	195·8	103·3	−21·4	0	3	
		4408	0·461	182·6	96·3	−20·4	5	21	
		4408	0·462	180·8	95·4	−20·5	0	4	
		4408	0·453	180·6	95·3	−20·0	0	3	
		4408	0·450	178·4	94·2	−19·8	3	12	
		4408	0·442	176·5	93·4	−19·2	0	1	
		4408	0·464	176·2	93·1	−20·6	0	7	
		4408	0·447	174·6	92·5	−19·4	0	3	
		4408	0·465	171·8	91·0	−20·4	0	3	
		4408	0·455	170·9	90·6	−19·7	1	8	
		4408	0·440	170·1	90·4	−18·7	0	1	
		4408	0·474	169·8	89·9	−20·8	0	3	
		4408	0·450	168·0	89·3	−19·2	3	18	
		4408	0·470	168·2	89·1	−20·4	11	46	
1896.				°	°	°			
229d·394	AW, CL	4409	0·408	56·2	74·0	+19·5	12	63	
		4410	0·831	112·2	42·7	−14·1	6	22	149*p*
		4410	0·832	111·2	42·3	−13·4	0	16	
		4412	0·948	88·0	23·4	+ 4·2	0	6	137*f*
Aug. 17		Centre			(95·0)	(+6·9)	(87)	(485)	(595)
230·224	CL, FT		0·935	251·5	150·2	−14·6			213
		4407*a*	0·702	231·5	119·7	−20·3	34	217	167*c*
		4408	0·501	203·4	96·2	−20·6	4	24	95*c*
		4408	0·482	201·8	94·9	−19·8	3	25	
		4408	0·452	192·5	89·9	−19·2	0	5	
		4408	0·378	195·3	89·9	−14·4	0	4	
		4408	0·460	191·9	89·8	−19·8	0	6	
		4408	0·437	190·9	89·0	−18·4	0	8	
		4408	0·455	189·7	88·7	−19·7	0	6	185*c*
		4408	0·465	188·9	88·4	−20·3	6	24	
		4408	0·435	186·9	87·1	−18·6	0	5	
		4408	0·436	184·7	86·2	−18·8	0	6	
		4408	0·417	182·8	85·2	−17·7	0	5	
		4409*a*	0·276	36·4	74·0	+19·7	14	51	
		4410	0·687	116·3	45·1	−12·3	0	18	177
		4410	0·731	116·6	41·8	−14·0	3	26	
		4412	0·870	89·1	23·7	+ 2·7	4	20	183*f*
			0·723	220·1	52·4	−27·7			269
Aug. 18		Centre			(84·0)	(+6·9)	(68)	(450)	(1289)
231·252	AW, FT		0·855	250·3	125·9	−12·8			282
			0·843	227·9	116·4	−29·7			253
			0·749	236·7	111·8	−19·1			164
			0·717	219·1	101·2	−27·9			187
			0·740	209·8	96·6	−33·7			81
		4407*a*	0·830	239·1	120·0	−20·8	29	200	126*c*
		4408	0·617	222·0	96·7	−21·1	3	12	
		4408	0·609	221·5	96·0	−20·8	1	7	
		4408	0·599	221·5	95·5	−20·4	0	2	
		4408	0·562	219·0	92·4	−19·4	0	4	
		4408	0·545	212·3	88·6	−20·8	2	6	
		4409	0·225	339·5	75·3	+19·0	0	1	
		4409	0·229	341·2	75·0	+19·3	1	8	
		4409	0·224	343·8	74·3	+19·3	5	12	
		4409	0·198	348·5	72·9	+18·1	0	2	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4410, August 16–19. A few small unstable spots.
Group 4411, August 17. Two very small spots.
Group 4412, August 17–19. One small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
231d·252	AW, FT	4410	0·488	125·3	46·7	−10·0	0	1	
		4410	0·516	128·0	46·0	−12·2	0	4	
M.		4410	0·525	128·2	45·6	−12·7	0	1	
		4410	0·579	126·8	42·0	−14·2	1	15	
		4412	0·718	91·1	24·7	+ 4·0	2	5	69
Aug. 19		Centre			(70·5)	(+6·9)	(44)	(280)	(1162)
232·408	AW, JW		0·821	232·4	101·0	−25·2			965
			0·785	289·7	106·8	+19·8			168
		4407*a*	0·935	244·4	119·5	−20·9	21	202	273*c*
		4413	0·895	284·4	119·4	+16·0	0	8	1278*f*
Aug. 20		Centre			(55·2)	(+7·0)	(21)	(210)	(1533)
233·399	AW, JW		0·901	286·4	107·0	+17·8			284
			0·933	236·5	103·5	−27·8			300
			0·888	230·1	94·2	−30·5			134
			0·749	293·5	89·8	+22·2			117
		4407*a*	0·988	247·3	119·5	−21·1	23	172	341*f*
		4408	0·857	241·5	95·2	−20·0	0	2	254*p*
		4408	0·793	236·4	87·0	−21·1	2	7	91*c*
		4409	0·573	295·0	75·5	+19·8	0	2	
		4409	0·544	291·0	74·1	+17·2	3	10	
		4409	0·555	295·7	74·1	+19·9	0	3	
		4409	0·531	291·3	73·2	+17·2	0	5	
		4409	0·524	290·6	72·8	+16·6	0	1	
		4409	0·542	298·8	72·6	+21·2	0	1	
		4409	0·515	293·9	71·7	+18·1	0	5	
		4409	0·507	295·7	70·8	+18·8	0	2	
		4409	0·498	295·4	70·3	+18·5	1	5	
		4409	0·490	299·7	69·0	+20·3	0	2	
		4414	0·419	230·2	61·0	− 8·9	0	3	
		4414	0·410	229·8	60·5	− 8·7	0	2	
		4414	0·412	225·8	59·5	−10·0	0	1	
		4414	0·405	225·2	59·0	− 9·8	0	2	
		4415	0·265	111·7	27·9	+ 1·2	0	6	
		4415	0·274	107·4	27·0	+ 2·1	0	1	
		4415	0·291	110·9	26·4	+ 0·8	0	7	
			0·804	111·9	352·3	−13·0			113
			0·877	116·3	346·1	−19·0			91
Aug. 21		Centre			(42·1)	(+7·0)	(29)	(239)	(1725)
1896.				°	°	°			
234d·397	CL, AW		0·959	287·1	103·6	+18·4			244
			0·959	239·2	96·2	−26·9			289
			0·933	244·1	92·8	−21·1			336
			0·921	250·1	92·6	−15·3			106
			0·950	232·6	91·8	−32·2			139
			0·847	291·8	86·8	+22·2			218
			0·857	244·5	82·9	−17·6			55
			0·855	236·2	79·8	−24·0			174
		4409	0·724	287·5	75·0	+17·4	5	20	
		4409	0·718	288·3	74·5	+18·0	4	23	
		4409	0·716	289·4	74·2	+18·7	0	1	
		4409	0·712	287·2	74·1	+17·1	3	13	
		4409	0·695	290·0	72·4	+18·9	0	4	
		4409	0·689	290·3	71·8	+19·0	0	4	
		4409	0·669	290·5	70·2	+18·9	1	5	
		4409*b*	0·665	289·1	70·0	+17·8	6	26	
		4409	0·662	290·1	69·7	+18·5	0	3	
		4414	0·605	244·5	62·4	− 9·3	3	8	
		4414	0·567	242·1	59·3	− 9·3	0	1	
		4414	0·565	241·2	58·9	− 9·7	3	6	
		4414	0·549	243·6	58·5	− 8·0	0	1	
		4415	0·102	177·7	28·7	+ 1·2	3	12	
		4415	0·105	174·0	28·3	+ 1·1	0	2	
		4415	0·094	166·7	27·7	+ 1·8	4	17	
		4415	0·102	167·0	27·6	+ 1·3	0	4	
		4415	0·096	159·9	27·0	+ 1·9	0	1	
		4415	0·104	160·6	26·9	+ 1·4	0	4	
		4415	0·107	151·7	26·0	+ 1·6	1	4	
		4415	0·101	144·4	25·5	+ 2·3	0	1	
		4415	0·112	143·8	25·1	+ 1·9	0	4	
		4415	0·100	126·4	24·3	+ 3·6	1	4	
		4415	0·114	132·6	24·1	+ 2·6	1	4	
		4415	0·095	115·6	24·0	+ 4·6	2	4	
		4415	0·113	117·5	23·2	+ 4·0	0	1	
			0·973	101·7	314·0	− 9·6			166
Aug. 22		Centre			(28·9)	(+7·0)	(37)	(177)	(1727)
235·193	CL, JW		0·916	292·9	85·4	+23·8			320
			0·945	242·7	84·0	−22·9			782
I.			0·813	287·2	72·9	+18·1			309
		4409	0·837	285·9	75·6	+17·2	5	22	
		4409	0·831	286·3	74·9	+17·5	2	13	
		4409	0·829	285·8	74·7	+17·1	2	9	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4413, August 20. One small spot.
Group 4414, August 21–22. A few small spots.
Group 4415. August 21–27. A few small faint spots irregularly scattered on August 21. The group increases on the succeeding days, and has become a straight stream composed chiefly of three distinct clusters by August 24. The preceding cluster has become a large well-defined spot, *a*, by August 25.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
235d·193	CL,JW	4409	0·790	288·2	70·6	+18·7	0	5	
		4409	0·788	287·4	70·5	+18·0	0	4	
I.		4409*b*	0·780	287·6	69·7	+18·1	2	11	
		4415	0·223	244·4	29·9	+ 1·5	4	12	
		4415	0·214	242·1	29·3	+ 1·3	0	4	
		4415	0·209	245·5	29·3	+ 2·0	5	12	
		4415	0·203	242·8	28·8	+ 1·7	3	21	
		4415	0·185	239·4	27·5	+ 1·6	0	3	
		4415	0·159	243·5	26·6	+ 3·0	0	3	
		4415	0·175	234·4	26·5	+ 1·2	2	10	
		4415	0·153	248·2	26·5	+ 3·8	1	3	
		4415	0·162	236·4	26·1	+ 1·9	3	10	
		4415	0·151	237·6	25·7	+ 2·4	0	5	
		4415	0·148	232·8	25·1	+ 2·0	0	4	
		4415	0·136	231·0	24·4	+ 2·2	1	5	
		4415	0·121	238·3	24·3	+ 3·5	0	2	
			0·940	124·5	316·3	−29·0			171
			0·947	101·6	308·9	− 8·6			442
Aug. 23		Centre			(18·4)	(+7·1)	(30)	(158)	(2024)
236·477	CL,JW		0·931	293·8	70·8	+24·7			113
			0·874	254·6	60·0	− 9·8			143
		4409*b*	0·921	286·9	69·3	+18·3	0	12	350*c*
		4415	0·501	261·7	31·0	+ 2·1	2	6	
		4415	0·491	262·8	30·5	+ 2·7	10	45	
		4415	0·487	261·2	30·1	+ 2·0	8	19	
		4415	0·476	263·8	29·6	+ 3·3	6	17	
		4415	0·465	265·4	29·0	+ 4·2	1	9	
		4415	0·464	264·3	28·8	+ 3·7	0	2	
		4415	0·459	260·9	28·2	+ 2·2	0	5	
		4415	0·442	259·9	27·1	+ 2·0	0	3	
		4415	0·428	262·6	26·4	+ 3·3	10	27	
		4415	0·425	265·2	26·4	+ 4·4	1	6	
		4415	0·428	260·0	26·2	+ 2·3	3	22	
		4415	0·403	259·5	24·7	+ 2·3	0	2	
		4415	0·397	260·7	24·4	+ 2·9	0	1	
		4415	0·400	258·3	24·4	+ 1·9	0	3	
		4415	0·390	265·6	24·3	+ 4·8	0	3	
		4415	0·393	257·7	23·9	+ 1·8	0	4	
		4415	0·386	263·4	23·9	+ 4·0	11	42	
		4415	0·388	259·9	23·8	+ 2·7	8	22	
		4415	0·377	264·5	23·4	+ 4·6	0	2	
		4415	0·371	262·1	22·9	+ 3·7	0	3	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
236d·477	CL,JW		0·832	105·8	307·5	− 8·9			140
			0·970	105·2	287·9	−12·8			293
Aug. 24		Centre			(1·4)	(+7·1)	(60)	(255)	(1039)
237·236	AW, FT		0·938	257·1	59·2	− 9·5			162
		4415*a*	0·643	264·7	31·1	+ 2·1	12	118	
M.		4415	0·620	267·2	29·6	+ 3·9	0	13	
		4415	0·621	263·8	29·4	+ 1·8	0	3	
		4415	0·599	265·5	28·0	+ 3·1	3	11	
		4415	0·589	265·2	27·2	+ 2·9	0	6	
		4415	0·584	263·6	26·8	+ 2·1	3	27	
		4415	0·577	265·5	26·4	+ 3·2	0	7	
		4415	0·574	267·2	26·3	+ 4·2	0	4	
		4415	0·547	263·6	24·2	+ 2·5	4	23	
		4415	0·540	266·3	24·0	+ 4·0	3	49	
			0·916	114·4	289·7	−19·0			135
			0·919	105·3	287·1	−11·0			258
Aug. 25		Centre			(351·4)	(+7·1)	(25)	(261)	(555)
238·417	AW,JW		0·945	252·1	33·7	−14·3			219
		4415*a*	0·825	267·9	31·2	+ 2·3	17	86	
		4415	0·814	267·7	30·1	+ 2·3	2	9	
		4415	0·808	267·6	29·5	+ 2·3	0	5	
		4415	0·801	268·6	28·9	+ 3·2	0	5	
		4415	0·778	267·2	26·7	+ 2·3	0	4	286*c*
		4415	0·750	269·6	24·4	+ 4·4	3	10	
		4415	0·747	268·8	24·1	+ 3·9	0	2	
		4416	0·722	112·3	293·1	−10·7	0	4	205*c*
		4416	0·722	111·6	293·0	−10·2	4	14	
		4416	0·766	110·5	289·1	−10·7	0	2	
			0·813	118·7	287·3	−18·3			142
			0·859	105·5	279·0	− 9·4			221
Aug. 26		Centre			(335·8)	(+7·1)	(26)	(141)	(1073)
239·429	AW, FT	4415*a*	0·930	269·8	30·7	+ 2·5	13	106	442*f*
		4415	0·917	270·3	28·9	+ 3·2	0	6	
		4416*a*	0·543	122·7	294·8	−10·7	25	108	
		4416	0·557	120·2	293·3	−10·0	2	8	
		4416	0·588	120·4	291·4	−11·1	0	4	
		4416	0·593	117·6	290·3	− 9·9	1	5	
		4416	0·598	115·6	289·4	− 8·9	1	4	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4416, August 26–September 4. A number of spots in a fine straight continuous stream. The leader, *a*, is a large regular spot on August 27: the stream terminates in a cluster somewhat denser and broader than the body of the group, from which *b* has formed by August 27, and *c* to the north of *b* by August 29. *a* remains throughout the largest of the three; *b* is the next largest till September 1, after which it rapidly diminishes, and has disappeared by September 3.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
239d·429	AW, FT	4416	0·606	115·4	288·9	− 9·1	0	3	
		4416	0·614	117·1	288·8	−10·3	0	4	
		4416	0·626	117·5	288·1	−10·9	1	4	
		4416*b*	0·629	116·1	287·5	−10·2	15	70	
			0·738	111·8	278·4	−10·7			146
			0·929	108·3	257·2	−14·0			83
Aug. 27		Centre			(322·4)	(+7·2)	(58)	(322)	(671)
240·537	FT, JW		0·981	270·8	26·7	+ 2·3			523
			0·791	250·0	356·8	−11·0			38
		4416*a*	0·372	147·3	296·0	−11·1	24	132	
		4416	0·383	143·7	294·5	−10·9	2	10	
		4416	0·372	141·7	294·3	− 9·9	0	4	
		4416	0·392	143·5	294·1	−11·3	3	7	
		4416	0·377	140·9	293·9	−10·0	0	2	
		4416	0·387	142·0	293·8	−10·9	1	4	
		4416	0·405	139·9	292·5	−11·0	1	3	
		4416	0·400	137·4	291·9	−10·2	0	3	
		4416	0·420	137·6	291·1	−11·1	0	3	
		4416	0·394	132·0	290·7	− 8·4	0	1	
		4416	0·413	134·8	290·6	−10·0	0	1	
		4416	0·421	135·6	290·4	−10·6	3	13	
		4416	0·422	132·0	289·3	− 9·5	10	21	
		4416	0·439	130·8	288·2	− 9·8	1	6	
		4416*b*	0·453	130·7	287·5	−10·4	18	106	
		4416	0·457	128·5	286·6	− 9·8	0	2	
			0·813	112·6	257·4	−13·7			31
			0·902	113·0	247·7	−17·1			77
			0·965	108·4	236·1	−15·6			223
Aug. 28		Centre			(307·8)	(+7·2)	(63)	(318)	(892)
241·479	AW, JW	4416*a*	0·322	184·5	296·9	−11·4	39	198	
		4416	0·300	182·8	296·3	−10·2	0	3	
		4416	0·316	179·4	295·2	−11·1	7	22	
		4416	0·316	177·2	294·5	−11·1	0	4	
		4416	0·315	173·1	293·2	−11·0	0	2	
		4416	0·321	171·0	292·5	−11·2	0	1	
		4416	0·321	169·9	292·1	−11·1	1	8	
		4416	0·322	168·4	291·6	−11·1	0	7	
		4416	0·315	166·8	291·2	−10·6	3	7	
		4416	0·337	166·4	290·8	−11·9	0	1	
		4416	0·324	165·0	290·5	−11·0	0	1	
1896.				°	°	°			
241d·479	AW, JW	4416	0·277	160·8	290·1	− 7·9	0	1	
		4416	0·326	163·6	290·0	−11·0	0	5	
		4416	0·313	161·4	289·6	−10·0	1	3	
		4416*c*	0·290	159·1	289·4	− 8·5	6	32	
		4416	0·302	158·7	289·0	− 9·1	0	4	
		4416	0·315	157·8	288·5	− 9·8	9	22	
		4416	0·329	158·6	288·4	−10·7	0	20	
		4416	0·310	155·5	288·0	− 9·2	0	3	
		4416*b*	0·330	154·5	287·1	−10·2	14	80	
			0·809	116·1	246·4	−16·2			110
			0·865	110·7	239·1	−13·9			165
			0·947	115·2	228·9	−21·1			303
			0·953	107·9	226·0	−14·6			119
Aug. 29		Centre			(295·4)	(+7·2)	(80)	(424)	(697)
242·234	AW, JW	4416*a*	0·375	212·2	297·1	−11·4	59	264	
		4416	0·359	208·9	295·5	−11·2	0	19	
I.		4416	0·329	204·5	293·3	−10·3	2	9	
		4416	0·346	201·6	292·8	−11·6	1	8	
		4416	0·335	200·3	292·2	−11·1	1	20	
		4416	0·328	194·6	290·2	−11·3	0	18	
		4416	0·287	194·9	289·7	− 8·9	0	5	
		4416	0·313	193·1	289·5	−10·5	0	7	
		4416*c*	0·275	192·7	288·9	− 8·3	14	58	
		4416	0·292	190·6	288·5	− 9·4	0	12	
		4416	0·323	188·8	288·3	−11·3	0	10	
		4416*b*	0·305	186·4	287·4	−10·4	30	150	
		4417*a*	0·978	110·3	210·9	−18·0	26	176	314*c*
			0·833	101·7	230·6	− 5·6			200
			0·881	115·8	228·7	−18·7			548
Aug. 30		Centre			(285·4)	(+7·2)	(133)	(756)	(1062)
243·259	CL, JW	4416*a*	0·524	234·6	297·6	−11·1	53	236	
		4416	0·464	229·1	292·7	−10·9	2	19	
I.		4416	0·452	229·5	292·3	−10·3	0	5	
		4416	0·432	227·5	290·7	−10·1	0	5	
		4416	0·416	224·1	288·9	−10·4	0	7	
		4416*c*	0·389	227·3	288·6	− 8·4	21	86	
		4416	0·414	222·1	288·3	−11·0	0	21	
		4416*b*	0·397	222·6	287·7	−10·0	22	123	
		4417*a*	0·908	113·1	211·0	−17·5	41	207	899*nf*
			0·833	121·4	222·4	−21·1			640
Aug. 31		Centre			(271·9)	(+7·2)	(139)	(709)	(1539)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4417, August 30–September 9. A large double spot *a*, measured as one until September 5, when it has divided to form a pair of regular spots *b* and *c*; *b*, which lies to the north of *c*, has diminished by September 8 and is not seen on September 9.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
244d·204	FT,JW	4416	0·702	245·3	299·9	−11·6	0	3	
		4416*a*	0·678	244·5	297·6	−11·3	50	258	
I.		4416	0·648	243·9	295·6	−10·7	0	8	
		4416	0·615	242·0	292·8	−10·7	0	31	
		4416	0·589	239·9	290·5	−11·0	0	2	
		4416	0·582	241·0	290·4	−10·2	0	9	
		4416*c*	0·542	242·7	288·4	− 8·1	19	92	
		4416*b*	0·548	238·8	287·7	−10·2	10	93	
		4418	0·334	178·2	258·8	−12·3	0	6	
		4417*a*	0·807	117·9	211·2	−17·5	24	197	270*c*
		4417	0·817	116·7	209·9	−16·9	2	16	
			0·790	128·0	216·7	−23·8			380
			0·913	112·4	197·6	−17·1			854
Sept. 1		Centre			(259·4)	(+7·2)	(105)	(715)	(1504)
245·488	CL,AW	4416*a*	0·851	252·0	297·8	−11·2	43	280	250*c*
		4416	0·833	252·1	295·9	−10·6	0	2	
		4416*c*	0·754	252·9	288·9	− 7·8	17	60	101*c*
		4416*b*	0·755	250·0	288·3	−10·0	12	35	
		4419	0·468	153·3	229·7	−17·6	0	3	
		4419	0·456	151·9	229·5	−16·6	0	4	
		4419	0·499	154·8	229·4	−19·7	2	14	
		4419	0·471	151·2	228·7	−17·3	0	2	
		4419	0·471	148·1	226·8	−22·7	0	1	
		4417*a*	0·636	129·4	211·5	−17·6	23	141	
		4417	0·648	127·7	210·1	−17·2	0	2	
			0·744	118·7	199·9	−15·6			186
			0·875	117·3	186·9	−19·7			208
			0·965	109·5	171·0	−16·6			155
Sept. 2		Centre			(242·4)	(+7·2)	(97)	(544)	(900)
246·501	AW,JW		0·801	253·3	279·7	− 8·8			103
		4416*a*	0·945	255·3	297·5	−11·3	38	310	
		4416	0·902	254·5	290·9	−10·6	0	4	405*c*
		4416*c*	0·883	256·8	289·0	− 8·1	7	59	
		4416	0·886	253·1	288·6	−11·3	0	2	
		4417*a*	0·509	145·1	211·3	−17·7	26	175	
		4417	0·517	142·2	209·7	−17·2	0	8	
		4417	0·551	139·4	207·0	−17·9	0	3	
			0·671	130·8	196·4	−19·8			126
			0·779	123·9	185·5	−20·5			157
			0·907	114·4	168·6	−18·5			195
Sept. 3		Centre			(229·0)	(+7·3)	(71)	(561)	(986)
1896.				°	°	°			
247d·178	AW,JW		0·896	252·6	280·7	−12·0			212
		4416*a*	0·985	256·4	297·9	−12·0	50	384	561*c*
I.		4416*c*	0·944	258·3	288·9	− 8·5	17	88	
		4417*a*	0·449	160·2	210·9	−17·7	27	150	
		4417	0·447	156·3	209·2	−16·9	0	5	
			0·855	118·8	167·3	−20·0			218
			0·910	109·3	157·8	−14·2			160
			0·952	88·3	147·7	+ 3·9			144
Sept. 4		Centre			(220·0)	(+7·3)	(94)	(627)	(1295)
248·407	AW,JW		0·917	249·3	266·6	−15·7			84
		4420	0·663	253·1	243·2	− 5·5	2	11	
		4420	0·659	251·8	242·7	− 6·2	0	2	
		4420	0·651	252·9	242·3	− 5·3	0	4	
		4417*b*	0·437	197·4	211·6	−17·4	10	59	
		4417*c*	0·445	195·2	210·8	−18·1	14	42	
		4421	0·886	89·2	141·4	+ 4·1	2	9	178*f*
			0·974	108·0	129·9	+15·6			585
Sept. 5		Centre			(203·8)	(+7·3)	(28)	(127)	(847)
249·230	CL,JW		0·846	241·4	244·8	−19·5			150
			0·737	234·7	232·5	−19·6			205
I.		4420	0·786	256·4	243·0	− 6·0	0	9	
		4420	0·771	257·7	241·9	− 4·7	0	3	176*c*
		4420	0·763	257·2	241·1	− 4·9	0	3	
		4417*b*	0·513	216·3	211·5	−17·5	12	40	
		4417*c*	0·512	212·9	210·0	−18·4	9	34	
			0·766	118·8	148·7	−16·5			99
			0·926	109·0	128·4	−14·6			647
Sept. 6		Centre			(193·0)	(+7·3)	(21)	(89)	(1277)
250·198	AW,FT		0·894	259·7	242·1	− 5·8			185
			0·880	243·3	236·4	−19·3			290
I.			0·770	258·4	229·1	− 4·2			131
			0·775	234·0	222·5	−21·7			198
		4417*b*	0·641	230·8	211·5	−17·6	7	27	
		4417*c*	0·633	229·2	210·3	−18·1	14	44	109*c*
		4417	0·626	227·0	209·0	−18·9	0	2	
		4422	0·795	113·2	131·7	−13·5	0	2	
		4422	0·833	112·8	127·9	−14·4	0	2	
		4422	0·837	113·4	127·7	−15·0	2	6	
		4422	0·841	112·7	127·1	−14·6	0	16	780*c*
		4422	0·847	112·1	126·3	−14·3	0	5	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4418, September 1. A very small spot.
Group 4419, September 2. A few small spots.
Group 4420, September 5–6. Three small spots.
Group 4421, September 5. One small spot.
Group 4422, September 7–14. A number of spots, mostly small, closely following each other in a curved stream; two considerable spots, *a* and *b*, have formed by September 9, in the middle and at the end of the group; a third, *c*, has formed at the head by the succeeding day; *c* has disappeared by September 12, *b* by September 13. On September 13 and 14 the group consists only of *a* and another spot preceding it.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
250d·198	AW,FT	4422	0·857	110·8	124·9	−13·6	0	2	
		4422	0·868	112·4	124·1	−15·3	12	34	
I.		4423	0·942	115·3	114·7	−20·9	2	10	322*c*
			0·944	123·8	117·1	−28·6			233
			0·932	71·6	110·4	+19·8			182
Sept. 7		Centre			(180·2)	(+7·3)	(37)	(150)	(2430)
251·248	AW,FT		0·891	258·9	228·3	− 6·5			194
			0·894	242·4	224·6	−20·7			529
I.			0·830	230·2	212·5	−27·1			168
			0·815	219·7	205·2	−33·1			138
			0·622	234·7	198·5	−14·8			256
		4417*b*	0·773	240·8	211·6	−17·0	3	15	666*c*
		4417*c*	0·770	239·9	211·0	−17·5	7	25	
		4424	0·370	178·7	166·4	−14·3	0	4	
		4424	0·390	178·0	166·1	−15·6	9	25	
		4424	0·352	176·1	165·5	−13·2	1	17	
		4424	0·377	175·5	165·2	−14·7	0	5	
		4424	0·349	172·7	164·3	−12·9	0	4	
		4424	0·387	172·7	164·0	−15·3	0	7	
		4424	0·345	169·6	163·3	−12·5	0	5	
		4424*a*	0·389	170·1	162·9	−15·2	1	25	
		4424	0·387	168·4	162·3	−15·0	0	4	
		4424	0·401	167·9	161·9	−15·7	1	8	
		4424*b*	0·358	165·4	161·6	−12·9	14	32	
		4424	0·390	164·1	160·6	−14·7	0	5	
		4424	0·391	162·6	160·0	−14·6	0	4	
		4424	0·421	161·6	159·0	−16·3	0	10	
		4422	0·680	120·2	129·7	−14·2	2	8	
		4422	0·691	119·2	128·6	−14·0	5	21	421*c*
		4422	0·751	120·7	124·5	−17·2	0	2	
		4422	0·752	118·4	123·7	−15·7	0	7	
			0·874	126·3	115·0	−26·8			613
			0·863	71·9	106·8	+19·3			114
			0·917	116·5	105·7	−20·8			332
Sept. 8		Centre			(166·9)	(+7·3)	(43)	(233)	(3431)
252·606	AW,JW		0·990	265·6	229·5	− 3·3			635
			0·971	244·4	219·8	−22·7			338
			0·948	235·4	212·0	−29·6			175
			0·902	227·5	200·9	−33·2			77
			0·785	234·3	191·7	−22·0			215
		4417*c*	0·918	247·3	210·8	−17·5	0	14	485*f*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
252d·606	AW,JW	4425	0·779	242·8	194·3	−15·9	2	11	
		4425	0·772	243·4	193·9	−15·2	6	27	164*c*
		4425	0·750	242·4	191·7	−15·1	0	10	
		4425	0·742	243·0	191·3	−14·4	0	5	
		4425	0·743	241·3	190·8	−15·6	0	5	
		4424	0·503	221·4	168·5	−15·3	4	11	
		4424	0·494	220·4	167·7	−15·3	4	38	
		4424	0·479	221·0	167·2	−14·3	0	2	
		4424	0·493	217·5	166·5	−16·2	6	12	
		4424	0·452	219·9	165·7	−13·4	0	2	
		4424	0·475	215·6	165·0	−15·8	2	6	
		4424	0·460	216·5	164·8	−14·8	0	3	
		4424	0·446	218·1	164·8	−13·6	1	5	
		4424	0·464	215·8	164·7	−15·1	3	6	
		4424	0·437	217·3	164·1	−13·4	0	3	
		4424*a*	0·454	213·8	163·5	−15·1	8	54	
		4424	0·447	211·4	162·3	−15·4	0	2	
		4424*b*	0·406	211·3	160·9	−13·2	21	111	
		4424	0·432	208·6	160·7	−15·2	7	43	
		4424	0·431	205·4	159·4	−15·8	0	2	
		4422	0·482	140·9	130·1	−15·1	9	29	
		4422	0·488	139·1	129·1	−14·8	8	25	
		4422	0·484	137·5	128·8	−14·1	0	2	
		4422	0·484	136·6	128·5	−13·8	0	3	
		4422	0·499	137·0	127·9	−14·6	4	13	
		4422	0·508	135·0	126·7	−14·3	4	17	
		4422	0·531	135·7	125·8	−15·7	0	2	
		4422*a*	0·518	133·6	125·7	−14·3	10	41	
		4422	0·531	133·9	125·2	−15·0	1	3	
		4422	0·562	132·2	122·9	−15·6	5	15	
		4422*b*	0·574	132·9	122·5	−16·5	26	69	
		4422	0·581	131·9	121·7	−16·4	0	6	
		4426*a*	0·976	80·9	70·2	+10·4	11	67	312*c*
			0·785	137·7	111·0	−29·8			347
			0·852	124·1	98·0	−24·0			439
			0·911	64·7	82·3	+26·0			148
			0·935	93·1	79·6	− 0·3			172
			0·932	87·7	79·5	+ 4·8			126
			0·938	72·6	77·7	+18·8			410
Sept. 9		Centre			(148·4)	(+7·2)	(142)	(664)	(4043)
253·362	AW,FT		0·937	250·1	204·5	−15·8			583
I.			0·867	239·5	191·8	−21·9			222

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4423, September 7. A small spot.
Group 4424, September 8–14. A fine group consisting of a number of spots arranged in two parallel streams, which appears suddenly near the central meridian preceding Group 4422. It comprises two large spots, *a* and *b*, and a number of smaller spots on September 8: *c* has formed by September 10; *b* has diminished by September 11, and has disappeared by the succeeding day: *c* has disappeared by September 13, leaving *a* alone.
Group 4425, September 9–12. A few small spots in two clusters on September 9 *p* Group 4424. The group has increased by the succeeding day, and on September 11 the two clusters have coalesced to form *a* and *b*: *b* alone is seen on September 12.
Group 4426, September 9–18. A regular spot, *a*, occasionally accompanied by a few small companions. The group is overtaken and absorbed by Group 4428.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
253d·362	AW,FT	4425	0·877	246·8	195·3	−16·3	0	24	
		4425	0·873	247·5	195·1	−15·6	5	52	
I.		4425	0·850	247·4	192·5	−14·9	15	52	
		4425	0·843	246·9	191·6	−15·0	1	4	408c
		4425	0·844	245·9	191·4	−15·9	0	19	
		4425	0·838	245·6	190·7	−15·9	0	10	
		4425	0·830	246·2	190·1	−15·1	0	7	
		4425	0·822	246·2	189·3	−14·9	0	6	
		4424	0·625	234·2	170·0	−15·3	0	3	
		4424c	0·613	232·8	168·7	−15·5	21	116	
		4424	0·594	233·0	167·6	−14·6	6	46	
		4424	0·600	229·8	166·8	−16·4	5	19	
		4424	0·585	230·8	166·3	−15·3	2	23	
		4424	0·555	231·6	164·9	−13·7	5	21	
		4424a	0·565	228·4	164·3	−15·5	36	134	
		4424	0·557	229·4	164·2	−14·7	0	5	
		4424	0·549	224·2	161·8	−16·5	2	11	
		4424	0·532	224·4	161·0	−15·7	1	7	
		4424b	0·505	226·7	160·5	−13·6	24	101	
		4424	0·519	222·9	159·8	−15·6	11	49	
		4422c	0·407	161·4	130·7	−15·4	13	80	
		4422	0·400	157·2	129·2	−14·4	6	28	
		4422	0·405	155·4	128·4	−14·4	0	3	
		4422	0·412	152·7	127·2	−14·4	1	7	
		4422a	0·418	150·6	126·2	−14·3	21	62	
		4422	0·466	145·3	122·5	−15·6	0	8	
		4422b	0·482	146·4	122·3	−16·7	22	80	
		4422	0·467	144·0	121·9	−15·2	0	6	
		4422	0·476	144·0	121·6	−15·7	0	3	
		4422	0·489	145·0	121·5	−16·6	0	4	
		4422	0·483	144·3	121·4	−16·2	1	4	
		4427	0·853	94·2	80·3	+ 0·3	0	3	185np
		4427	0·874	94·4	78·0	− 0·3	0	5	
		4426a	0·928	81·5	69·7	+10·6	16	100	
		4428	0·975	79·4	60·3	+11·9	30	162	697c
		4428	0·983	78·2	57·9	+12·9	0	139	
		4428	0·991	78·5	55·0	+12·3	0	201	
			0·835	141·9	99·3	−35·5			95
			0·796	129·2	95·7	−25·0			192
			0·888	119·5	82·1	−22·0			204
			0·917	128·9	81·9	−31·3			117
			0·854	69·9	79·5	+20·9			721
			0·945	65·5	66·4	+25·5			81
Sept. 10		Centre			(138·4)	(+7·2)	(244)	(1604)	(3505)

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
254d·258	CL, AW		0·964	244·9	196·5	−21·8			144
			0·904	241·3	185·3	−22·1			123
I.			0·854	234·8	176·7	−24·9			122
		4425a	0·956	250·7	196·2	−16·0	28	135	555c
		4425b	0·926	249·2	190·7	−16·2	35	128	
		4424c	0·738	241·1	168·6	−15·7	40	218	
		4424	0·727	239·0	167·0	−16·5	4	15	
		4424	0·714	239·8	166·3	−15·5	0	7	
		4424a	0·692	238·0	164·0	−15·8	42	154	490c
		4424	0·677	241·3	164·0	−13·3	0	5	
		4424	0·676	235·6	162·0	−16·6	0	3	
		4424b	0·634	237·1	159·7	−14·1	17	55	
		4424	0·644	234·1	159·4	−16·1	0	9	
		4422c	0·400	192·8	131·9	−15·7	5	24	
		4422	0·386	187·5	129·6	−15·2	0	6	
		4422a	0·369	179·3	126·3	−14·4	18	73	
		4422	0·396	176·9	125·3	−15·6	0	4	
		4422b	0·418	169·5	122·1	−17·0	16	57	
		4422	0·405	167·1	121·2	−16·0	0	6	
		4426a	0·834	81·8	69·6	+10·9	21	76	252f
		4428	0·911	80·3	60·3	+11·8	51	252	
		4428	0·943	76·4	55·1	+15·2	0	61	
		4428	0·948	78·4	54·3	+13·3	133	1049	1353c
		4428	0·986	75·8	45·0	+15·1	0	611	
		4428	0·992	73·3	42·2	+17·4	0	485	
			0·836	135·4	83·4	−31·3			276
			0·863	127·5	76·5	−27·1			76
			0·838	70·4	69·5	+20·3			354
			0·889	63·7	63·8	+26·6			84
Sept. 11		Centre			(126·6)	(+7·2)	(410)	(3433)	(3829)
255·212	CL,FT	4425b	0·987	252·3	192·0	−16·1	0	138	320cc
		4424c	0·865	247·7	169·6	−15·7	31	185	
I.		4424	0·850	246·4	167·1	−15·7	0	4	
		4424	0·841	245·8	166·7	−15·9	0	13	1015c
		4424a	0·821	244·5	164·3	−16·2	22	99	
		4424	0·772	243·9	159·7	−14·9	4	22	
		4429	0·815	282·3	169·0	+14·2	2	6	
		4429a	0·803	282·5	167·8	+14·3	5	34	200c
		4429	0·793	281·0	166·8	+13·1	0	4	
		4429	0·770	283·1	164·6	+14·7	0	2	
		4422	0·482	220·9	133·0	−14·5	0	5	
		4422	0·495	219·2	132·9	−15·7	3	14	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4427, September 10. Two very small spots *sp* Group 4426.
Group 4428, September 10–22. A very fine group consisting of an almost continuous stream of most unusual length. The group, which presents a series of curves concave to the equator, comprises a number of large spots mostly irregular in shape and showing fine detail, but as they lie close to each other, and combine and divide frequently, it is not possible to follow any particular spot for long.
Group 4429, September 12–14. A well-defined spot, *a*, with two or three small companions on September 12 and 13; only *a* remains by September 14.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
255d·212	CL,FT	4422	0·494	217·9	132·3	−16·0	0	6	
		4422	0·483	217·4	131·7	−15·6	3	21	
I.		4422	0·480	215·8	130·9	−16·0	3	15	
		4422	0·432	210·7	127·1	−14·7	2	14	
		4422*a*	0·422	209·4	126·3	−14·4	24	62	
		4422	0·434	201·0	123·3	−16·7	0	4	
		4422*b*	0·440	198·8	122·5	−17·4	6	19	
		4422	0·414	199·2	122·1	−15·8	0	4	
		4430	0·578	68·5	79·7	+18·1	0	4	
		4430	0·593	70·3	78·4	+17·4	1	8	
		4426*a*	0·691	81·5	70·0	+11·1	13	47	115*c*
		4428	0·794	80·4	61·0	+12·0	55	262	
		4428	0·806	81·7	59·9	+11·0	0	20	
		4428	0·819	81·9	58·6	+10·7	0	9	
		4428	0·821	79·7	58·4	+12·6	38	196	
		4428	0·838	79·0	56·6	+13·1	7	70	
		4428	0·852	79·4	55·1	+12·8	44	224	
		4428	0·852	76·3	55·1	+15·4	0	28	
		4428	0·881	78·4	51·6	+13·6	84	487	
		4428	0·887	76·3	50·9	+15·4	0	11	
		4428	0·904	78·6	48·6	+13·4	0	22	1766*c*
		4428	0·905	75·7	48·4	+16·0	3	31	
		4428	0·907	77·8	48·2	+14·1	5	34	
		4428	0·912	77·6	47·5	+14·3	5	38	
		4428	0·918	74·9	46·6	+16·7	11	139	
		4428	0·919	72·7	46·4	+18·7	0	20	
		4428	0·927	74·3	45·2	+17·2	0	21	
		4428	0·928	77·3	45·1	+14·4	59	403	
		4428	0·929	73·4	44·8	+18·1	37	212	
		4428	0·945	74·8	42·0	+16·8	34	119	
			0·739	68·0	66·9	+21·1			136
			0·814	61·7	60·6	+27·1			143
			0·832	68·5	57·7	+21·9			199
			0·985	89·2	34·0	+ 2·1			723
Sept. 12		Centre			(114·0)	(+7·2)	(501)	(3076)	(4617)
256·677	JW,FT		0·944	283·6	166·4	+15·2			323
		4424*a*	0·956	250·7	164·3	−16·0	9	43	388*c*
		4429*a*	0·956	283·2	168·7	+14·7	11	43	
		4429	0·943	282·5	166·1	+14·1	0	23	
		4429	0·942	283·4	166·0	+15·0	0	8	
		4422	0·704	239·8	133·6	−15·1	3	11	
		4422*a*	0·624	235·4	126·6	−14·6	6	18	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
256d·677	JW,FT	4426*a*	0·412	79·0	70·5	+11·1	9	28	
		4428	0·541	79·6	61·9	+11·7	28	214	
		4428	0·561	80·8	60·5	+11·1	6	22	
		4428	0·584	79·2	58·9	+12·1	24	192	
		4428	0·602	81·3	57·5	+11·0	0	4	
		4428	0·616	78·4	56·6	+12·8	29	195	
		4428	0·632	81·0	55·3	+11·3	0	3	
		4428	0·642	79·9	54·6	+12·0	21	120	
		4428	0·651	77·3	54·1	+13·7	15	98	
		4428	0·672	77·5	52·4	+13·7	10	120	
		4428	0·681	79·6	51·6	+12·4	6	16	
		4428	0·697	76·3	50·4	+14·7	0	6	
		4428	0·705	77·8	49·7	+13·7	7	57	
		4428	0·720	75·6	48·6	+15·3	9	129	
		4428	0·721	78·5	48·4	+13·3	9	54	
		4428	0·735	74·5	47·4	+16·2	8	72	
		4428	0·742	75·1	46·7	+15·9	1	4	
		4428	0·744	72·9	46·7	+17·5	0	18	
		4428	0·743	77·3	46·5	+14·3	21	146	
		4428	0·751	73·7	46·0	+16·9	4	18	
		4428	0·761	72·9	45·1	+17·7	0	14	
		4428	0·762	77·6	44·8	+14·1	28	174	
		4428	0·776	72·9	43·7	+17·8	20	133	
		4428	0·787	75·2	42·5	+16·1	9	120	
		4431	0·857	92·5	36·0	+ 1·6	0	8	239*c*
			0·836	113·2	42·2	−14·9			79
Sept. 13		Centre			(94·7)	(+7·2)	(293)	(2111)	(1029)
257·215	CL. AW		0·796	213·0	135·0	−16·4			558
		4424*a*	0·984	251·5	164·2	−16·6	18	85	399*f*
I.		4429*a*	0·981	283·5	167·5	+14·6	0	28	338*f*
		4422	0·735	239·8	128·8	−16·3	5	13	316*s*
		4422*a*	0·699	239·2	125·9	−15·3	2	15	
		4426*a*	0·304	76·4	70·1	+11·0	10	39	
		4428	0·441	75·1	61·7	+13·0	0	7	
		4428	0·450	74·1	61·2	+13·6	1	10	
		4428	0·446	78·8	61·1	+11·4	62	262	
		4428	0·466	73·4	60·2	+14·1	0	8	
		4428	0·476	72·7	59·6	+14·5	0	3	
		4428	0·485	77·4	58·6	+12·4	43	199	
		4428	0·485	80·5	58·5	+10·9	3	11	
		4428	0·503	81·4	57·2	+10·6	0	17	
		4428	0·507	78·6	57·1	+12·0	9	32	
		4428	0·526	76·6	55·9	+13·2	31	103	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4430, September 12. Two small spots.
Group 4431, September 13–18. A few very small unstable spots irregularly arranged. The group is not seen on September 16.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
257d·215	CL, AW	4428	0·555	78·4	53·8	+12·4	10	87	
		4428	0·570	75·9	52·9	+13·9	46	243	
I.		4428	0·595	76·8	51·1	+13·6	2	7	
		4428	0·604	78·9	50·3	+12·4	6	17	
		4428	0·605	77·1	50·3	+13·6	0	8	
		4428	0·615	76·6	49·6	+13·9	0	9	
		4428	0·629	76·5	48·6	+14·1	6	27	
		4428	0·641	77·7	47·6	+13·4	16	77	
		4428	0·648	74·0	47·3	+15·9	35	215	
		4428	0·649	76·5	47·0	+14·3	0	3	
		4428	0·667	71·8	46·1	+17·5	0	4	
		4428	0·673	74·0	45·4	+16·0	0	11	
		4428	0·677	72·2	45·2	+17·4	5	19	
		4428	0·677	76·8	44·8	+14·3	91	382	
		4428	0·685	72·0	44·6	+17·5	3	9	
		4428	0·684	74·3	44·4	+16·0	0	7	
		4428	0·692	71·9	44·0	+17·7	0	3	
		4428	0·700	70·5	43·5	+18·7	0	17	
		4428	0·704	74·8	42·8	+15·8	6	26	
		4428	0·710	71·9	42·5	+17·9	28	116	
		4428	0·706	75·6	42·5	+15·3	0	3	
		4428	0·718	74·9	41·6	+15·9	6	99	
		4431	0·795	93·5	35·2	+ 1·6	0	3	546c
			0·800	117·4	39·8	−16·8			116
			0·911	111·4	25·7	−16·1			174
			0·893	93·2	24·7	+ 0·5			208
			0·892	84·5	24·0	+ 8·2			220
			0·906	84·8	22·2	+ 7·8			183
Sept. 14		Centre			(87·5)	(+7·2)	(444)	(2224)	(3058)
258·433	CL, AW		0·912	250·6	133·9	−14·4			422
			0·855	243·8	125·1	−18·0			197f
			0·796	234·9	116·0	−22·2			152
			0·806	221·4	110·1	−31·6			172
		4426a	0·073	15·6	70·4	+11·2	7	19	
		4428	0·141	54·6	64·8	+11·9	4	18	
		4428	0·133	66·2	64·4	+10·2	0	2	
		4428	0·153	52·2	64·4	+12·6	0	2	
		4428	0·137	66·6	64·2	+10·3	0	3	
		4428	0·134	71·8	64·1	+ 9·5	0	2	
		4428	0·164	53·9	63·7	+12·7	0	3	
		4428	0·151	63·8	63·6	+11·0	6	33	
		4428	0·162	66·0	62·9	+10·9	c	1	
		4428	0·188	61·8	61·8	+12·2	26	169	
1896.				°	°	°			
258d·433	CL, AW	4428	0·224	63·1	59·7	+12·8	26	168	
		4428	0·223	70·4	59·2	+11·3	2	6	
		4428	0·241	65·2	58·6	+12·8	6	21	
		4428	0·237	72·4	58·2	+11·1	0	6	
		4428	0·242	69·9	58·1	+11·8	0	4	
		4428	0·256	63·1	58·0	+13·6	0	3	
		4428	0·252	67·2	57·8	+12·6	1	4	
		4428	0·267	60·1	57·7	+14·7	0	6	
		4428	0·261	67·1	57·3	+12·8	9	16	
		4428	0·256	72·3	57·2	+11·4	0	5	
		4428	0·282	59·1	57·0	+15·3	0	6	
		4428	0·274	65·1	56·8	+13·6	1	8	
		4428	0·278	63·9	56·7	+14·0	0	10	
		4428	0·267	74·1	56·4	+11·1	0	2	
		4428	0·281	69·0	56·0	+12·7	18	111	
		4428	0·325	62·1	54·2	+15·6	0	3	
		4428	0·333	68·3	53·0	+13·9	55	398	
		4428	0·352	61·9	52·7	+16·3	0	4	
		4428	0·365	74·0	50·5	+12·5	12	74	
		4428	0·379	70·2	50·0	+14·1	1	6	
		4428	0·384	73·2	49·4	+13·1	4	21	
		4428	0·397	67·6	49·2	+15·4	0	13	
		4428	0·394	70·0	49·1	+14·4	10	24	
		4428	0·415	64·6	48·5	+16·9	0	2	
		4428	0·404	72·5	48·2	+13·6	12	61	
		4428	0·415	67·3	48·2	+15·8	16	128	
		4428	0·429	70·8	46·9	+14·6	18	78	
		4428	0·443	65·6	46·6	+17·1	1	3	
		4428	0·439	68·6	46·5	+15·7	0	2	
		4428	0·449	67·5	46·0	+16·4	0	9	
		4428	0·454	65·6	45·9	+17·3	0	6	
		4428	0·453	74·7	44·9	+13·3	12	106	
		4428	0·465	71·2	44·5	+15·0	17	122	
		4428	0·471	68·4	44·5	+16·4	0	10	
		4428	0·491	63·7	43·9	+18·9	1	8	
		4428	0·482	70·3	43·5	+15·7	2	8	
		4428	0·488	69·5	43·2	+16·2	0	6	
		4428	0·487	71·5	43·0	+15·3	0	2	
		4428	0·495	68·5	42·9	+16·8	0	10	
		4428	0·507	65·8	42·5	+18·3	3	61	
		4428	0·503	70·9	42·0	+15·8	5	73	
		4431	0·588	97·1	35·9	+ 1·7	2	6	
			0·941	109·1	4·6	−15·2			226
Sept. 15		Centre			(71·5)	(+7·2)	(277)	(1872)	(1169)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.

The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
259d·447	CL,JW		0·978	254·8	133·7	−13·2			326
			0·936	246·9	123·3	−18·7			317
			0·864	238·5	110·9	−22·6			325
			0·893	228·5	110·0	−32·0			136
			0·805	232·0	102·2	−24·7			69
			0·834	219·4	98·1	−34·7			79
		4432	0·852	284·7	117·0	+16·2	0	4	
		4432	0·842	286·0	115·8	+17·3	0	5	
		4432	0·834	285·2	115·0	+16·6	0	16	
		4426*a*	0·221	289·1	70·3	+11·1	4	15	
		4428	0·145	292·0	65·9	+10·2	0	4	
		4428	0·134	290·8	65·4	+ 9·8	0	3	
		4428	0·144	302·5	65·2	+11·4	17	154	
		4428	0·125	290·1	64·9	+ 9·5	0	8	
		4428	0·130	301·3	64·6	+11·0	0	3	
		4428	0·122	299·7	64·3	+10·6	0	8	
		4428	0·113	289·3	64·3	+ 9·2	2	8	
		4428	0·101	296·1	63·4	+ 9·6	2	20	
		4428	0·104	306·5	63·0	+10·6	3	26	
		4428	0·113	319·5	62·4	+12·0	19	138	
		4428	0·134	328·4	62·2	+13·7	0	3	
		4428	0·083	306·9	61·9	+ 9·9	4	11	
		4428	0·078	329·3	60·4	+10·9	9	74	
		4428	0·105	339·9	60·2	+12·7	29	166	
		4428	0·093	352·8	58·8	+12·4	0	2	
		4428	0·116	353·7	58·8	+13·7	0	4	
		4428	0·116	356·5	58·5	+13·7	1	5	
		4428	0·099	358·7	58·2	+12·8	6	20	
		4428	0·083	359·3	58·2	+11·9	0	8	
		4428	0·073	3·8	57·8	+11·3	0	3	
		4428	0·067	14·7	57·1	+10·8	0	3	
		4428	0·102	13·3	56·7	+12·8	23	185	
		4428	0·078	20·8	56·5	+11·3	0	4	
		4428	0·136	13·8	56·2	+14·7	1	5	
		4428	0·136	16·6	55·8	+14·6	1	6	
		4428	0·085	31·0	55·6	+11·3	0	5	
		4428	0·158	16·0	55·5	+15·8	0	4	
		4428	0·160	18·7	55·1	+15·8	1	6	
		4428	0·109	31·7	54·8	+12·4	0	12	
		4428	0·161	24·7	54·1	+15·5	0	5	
		4428	0·141	33·5	53·5	+13·8	41	322	
		4428	0·117	43·0	53·4	+12·0	0	2	
		4428	0·185	29·9	52·6	+16·2	5	43	
		4428	0·141	44·1	52·4	+12·8	5	24	
1896.				°	°	°			
259d·447	CL,JW	4428	0·138	50·1	51·9	+12·1	0	6	
		4428	0·170	42·5	51·3	+14·3	13	100	
		4428	0·190	41·2	50·7	+15·2	3	43	
		4428	0·162	52·5	50·6	+12·7	16	125	
		4428	0·184	47·5	50·1	+14·2	3	14	
		4428	0·174	57·8	49·5	+12·4	3	10	
		4428	0·213	43·8	49·3	+15·9	5	38	
		4428	0·196	51·5	49·0	+14·0	6	17	
		4428	0·208	49·8	48·7	+14·7	1	4	
		4428	0·199	56·1	48·4	+13·4	11	51	
		4428	0·233	47·9	47·8	+15·9	6	57	
		4428	0·256	46·6	46·9	+17·1	0	2	
		4428	0·235	54·2	46·8	+14·9	17	62	
		4428	0·252	49·6	46·6	+16·3	3	18	
		4428	0·258	53·2	45·8	+15·9	0	2	
		4428	0·240	62·3	45·5	+13·3	11	77	
		4428	0·257	57·0	45·3	+15·0	2	7	
		4428	0·273	52·6	45·1	+16·5	0	5	
		4428	0·265	59·8	44·5	+14·6	15	71	
		4428	0·275	56·7	44·4	+15·6	3	10	
		4428	0·290	52·8	44·2	+16·9	0	3	
		4428	0·286	56·6	43·8	+16·0	0	3	
		4428	0·304	54·0	43·3	+17·2	0	2	
		4428	0·292	59·4	43·1	+15·4	1	4	
		4428	0·302	56·6	42·9	+16·4	0	4	
		4428	0·304	60·1	42·3	+15·6	0	16	
		4428	0·320	55·3	42·2	+17·3	2	9	
		4428	0·316	57·2	42·1	+16·6	0	7	
Sept. 16		Centre			(58·1)	(+7·1)	(294)	(2021)	(1252)
260·212	AW,FT		0·959	248·6	117·7	−18·1			232
			0·901	285·2	113·0	+16·8			241
I.			0·953	233·0	111·7	−32·0			281
			0·907	241·5	107·2	−22·1			334
			0·831	291·5	104·2	+21·8			248
			0·832	231·0	94·2	−26·7			209
		4433	0·521	257·5	78·4	− 0·3	0	3	
		4426*a*	0·381	281·1	70·3	+10·7	5	14	
		4428	0·301	278·0	65·5	+ 9·2	3	27	
		4428	0·301	284·2	65·2	+11·0	36	249	
		4428	0·285	288·5	64·0	+12·0	0	42	
		4428	0·269	281·5	63·4	+ 9·9	5	61	
		4428	0·264	289·3	62·7	+11·9	32	135	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4432, September 16. A few small spots.
Group 4433, September 17. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.			°	°	°	°			
260d·212	AW,FT	4428	0·244	283·1	61·9	+10·1	6	43	
		4428	0·226	287·0	60·6	+10·7	3	58	
I.		4428	0·233	294·6	60·5	+12·5	55	188	
		4428	0·213	288·8	59·8	+10·9	0	8	
		4428	0·227	304·3	59·1	+14·3	0	1	
		4428	0·222	302·2	59·1	+13·8	0	3	
		4428	0·206	297·1	58·8	+12·4	8	47	
		4428	0·197	292·5	58·6	+11·3	0	4	
		4428	0·206	302·1	58·3	+13·3	10	46	
		4428	0·179	301·8	56·9	+12·4	27	227	
		4428	0·200	316·3	56·2	+15·3	0	22	
		4428	0·183	315·4	55·6	+14·6	0	2	
		4428	0·154	313·8	54·5	+13·1	15	113	
		4428	0·189	328·8	53·8	+16·3	0	3	
		4428	0·140	324·4	52·8	+13·6	15	188	
		4428	0·175	333·2	52·7	+16·0	6	24	
		4428	0·153	334·6	51·9	+15·0	0	1	
		4428	0·155	338·6	51·3	+15·4	0	1	
		4428	0·131	337·9	50·9	+14·1	9	65	
		4428	0·101	336·2	50·4	+12·4	12	117	
		4428	0·088	342·0	49·6	+11·9	0	6	
		4428	0·127	348·0	49·6	+14·3	2	13	
		4428	0·148	350·4	49·5	+15·4	5	73	
		4428	0·131	354·4	48·8	+14·6	0	5	
		4428	0·110	355·1	48·6	+13·4	21	92	
		4428	0·177	359·2	48·2	+17·3	0	3	
		4428	0·179	359·4	48·1	+17·4	0	5	
		4428	0·148	2·8	47·6	+15·6	3	16	
		4428	0·162	5·2	47·1	+16·3	7	60	
		4428	0·137	8·9	46·8	+14·9	5	38	
		4428	0·113	13·9	46·4	+13·4	0	2	
		4428	0·113	21·9	45·5	+13·1	13	69	
		4428	0·137	19·0	45·4	+14·6	0	1	
		4428	0·150	17·9	45·3	+15·3	0	15	
		4428	0·143	26·0	44·3	+14·4	12	75	
		4428	0·188	19·3	44·3	+17·2	0	8	
		4428	0·166	25·2	43·8	+15·7	3	12	
		4428	0·176	25·5	43·5	+16·2	0	1	
		4428	0·203	21·6	43·5	+18·0	0	3	
		4428	0·185	28·6	42·7	+16·3	0	7	
		4428	0·205	27·5	42·3	+17·5	0	5	
		4428	0·177	33·7	42·2	+15·6	0	1	
		4428	0·230	31·4	40·8	+18·3	0	1	
		4431	0·222	112·3	36·2	+ 2·2	0	2	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
260d·212	AW,FT	4431	0·219	107·8	36·0	+ 3·2	0	4	
I.		4431	0·243	107·0	34·6	+ 2·9	0	1	
		4434*a*	0·987	78·2	326·2	+12·7	0	34	216*c*
Sept. 17		Centre			(48·0)	(+7·1)	(318)	(2244)	(1761)
261·278	CL,FT								
			0·954	226·2	94·7	−38·0			73
I.			0·920	239·6	94·3	−24·3			375
			0·758	262·3	82·4	− 1·2			84
			0·732	291·1	80·4	+20·3			356
			0·727	291·4	77·2	−10·2			332
			0·809	221·7	73·0	−31·7			234
			0·642	215·1	57·9	−25·1			76
		4426*a*	0·590	278·7	70·2	+10·9	3	14	
		4428	0·522	279·5	65·4	+11·0	124	685	
		4428	0·485	277·1	63·0	+ 9·6	0	9	
		4428	0·469	278·9	61·9	+10·4	14	131	
		4428	0·453	284·0	60·6	+12·6	87	329	
		4428	0·448	279·3	60·5	+10·6	0	6	
		4428	0·443	276·7	60·3	+ 9·3	0	6	
		4428	0·452	287·5	60·2	+14·1	0	3	
		4428	0·442	280·8	60·0	+11·1	1	7	
		4428	0·431	279·8	59·4	+10·6	1	9	
		4428	0·441	289·8	59·2	+15·0	0	1	
		4428	0·431	288·7	58·7	+14·4	1	5	
		4428	0·411	288·3	57·5	+14·0	4	44	
		4428	0·402	291·1	56·6	+14·9	0	6	
		4428	0·396	293·9	55·9	+15·9	3	38	
		4428	0·378	288·0	55·5	+13·3	23	88	
		4428	0·385	293·9	55·2	+15·6	0	2	
		4428	0·374	296·2	54·3	+16·2	3	27	
		4428	0·347	291·9	53·2	+14·1	12	71	
		4428	0·335	288·9	52·8	+13·0	4	34	
		4428	0·344	298·0	52·2	+16·0	3	13	
		4428	0·320	288·6	51·9	+12·6	0	3	
		4428	0·337	298·4	51·8	+15·9	0	4	
		4428	0·321	291·8	51·7	+13·6	0	14	
		4428	0·309	291·0	51·1	+13·1	1	7	
		4428	0·295	289·3	50·4	+12·4	9	78	
		4428	0·305	298·2	50·0	+15·1	40	199	
		4428	0·283	286·2	49·9	+11·4	0	2	
		4428	0·290	292·8	49·8	+13·3	2	11	
		4428	0·276	294·0	48·8	+13·3	28	108	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4434. September 17–23. A spot, *a*, large on September 18 but diminishing after, with occasionally one or more small companions.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
261d·278	CL,FT	4428	0·284	305·8	47·7	+16·5	10	55	
		4428	0·290	309·1	47·5	+17·4	2	16	
I.		4428	0·251	298·2	47·0	+13·7	0	7	
		4428	0·263	304·4	46·8	+15·4	2	16	
		4428	0·268	308·8	46·4	+16·6	0	10	
		4428	0·228	301·5	45·4	+13·8	22	150	
		4428	0·282	319·9	45·0	+19·4	0	11	
		4428	0·211	300·9	44·6	+13·2	0	5	
		4428	0·219	309·5	43·9	+15·0	2	16	
		4428	0·224	312·2	43·8	+15·7	2	8	
		4428	0·254	320·7	43·6	+18·3	2	19	
		4428	0·251	324·2	42·8	+18·7	0	1	
		4428	0·223	318·9	42·7	+16·7	0	3	
		4428	0·237	322·8	42·5	+17·9	3	22	
		4428	0·205	322·4	41·4	+16·3	0	3	
		4431	0·083	211·3	36·4	+ 3·1	1	3	
		4431	0·119	194·2	35·6	+ 0·5	0	2	
		4431	0·089	197·2	35·4	+ 2·3	1	4	
		4431	0·120	191·8	35·3	+ 0·4	0	1	
		4431	0·091	192·7	35·0	+ 2·0	0	2	
		4431	0·074	192·8	34·8	+ 3·0	0	3	
		4434	0·910	79·6	327·7	+12·4	0	3	
		4434a	0·912	78·7	327·4	+13·2	19	105	295c
		4434	0·948	77·9	321·6	+13·7	0	22	
			0·940	100·0	325·3	− 6·9			311
Sept. 18		Centre			(33·9)	(+7·1)	(429)	(2441)	(2136)
262·397	AW,FT		0·903	264·3	83·0	− 2·0			154
			0·875	290·3	80·6	+21·2			317
			0·872	301·6	78·9	+30·9			114
			0·903	232·8	74·5	−29·2			361
			0·772	288·7	69·6	+18·9			266
		4428	0·740	277·6	67·2	+10·4	82	556	
		4428	0·701	277·7	64·0	+10·4	11	61	
		4428	0·701	281·9	63·9	+13·4	6	39	
		4428	0·699	280·2	63·4	+12·3	12	84	
		4428	0·672	278·0	61·7	+10·7	9	88	
		4428	0·664	281·3	60·9	+12·8	64	279	
		4428	0·654	275·8	60·3	+ 9·2	0	4	
		4428	0·645	284·2	59·3	+14·6	0	27	
		4428	0·642	281·9	59·2	+13·1	5	27	
		4428	0·639	278·6	59·1	+10·9	2	14	
		4428	0·619	281·1	57·5	+12·4	17	108	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
262d·397	AW,FT	4428	0·618	285·2	57·1	+14·9	3	9	
		4428	0·617	284·5	57·1	+14·5	0	2	
		4428	0·610	283·0	56·7	+13·6	5	12	
		4428	0·608	285·4	56·4	+15·0	0	4	
		4428	0·604	281·6	56·4	+12·7	0	18	
		4428	0·597	283·0	55·8	+13·4	0	3	
		4428	0·599	286·1	55·7	+15·3	0	1	
		4428	0·585	282·7	54·9	+13·1	1	5	
		4428	0·577	282·4	54·4	+13·0	0	2	
		4428	0·573	281·6	54·1	+12·5	0	2	
		4428	0·569	282·3	53·8	+12·8	3	6	
		4428	0·577	288·3	53·8	+16·3	3	10	
		4428	0·560	282·5	53·2	+12·9	0	1	
		4428	0·559	284·6	52·9	+14·0	9	56	
		4428	0·542	283·8	51·8	+13·4	0	6	
		4428	0·530	284·5	50·9	+13·7	0	7	
		4428	0·524	282·1	50·7	+12·4	12	78	
		4428	0·527	286·7	50·5	+14·8	10	48	
		4428	0·525	289·9	50·0	+16·4	0	8	
		4428	0·526	293·1	49·6	+18·0	0	2	
		4428	0·514	288·3	49·5	+15·4	8	41	
		4428	0·516	290·4	49·4	+16·5	0	8	
		4428	0·507	286·9	49·2	+14·7	5	12	
		4428	0·502	283·8	49·1	+13·0	17	93	
		4428	0·517	293·2	49·0	+17·9	0	2	
		4428	0·501	286·1	48·8	+14·1	2	5	
		4428	0·496	288·0	48·3	+15·1	4	22	
		4428	0·496	290·9	48·0	+16·5	0	6	
		4428	0·489	290·5	47·5	+16·1	0	2	
		4428	0·482	291·7	46·9	+16·5	2	12	
		4428	0·472	286·8	46·9	+14·1	0	14	
		4428	0·473	289·2	46·7	+15·3	0	9	
		4428	0·482	297·4	46·0	+19·1	0	1	
		4428	0·456	285·6	45·9	+13·4	9	35	
		4428	0·457	287·3	45·8	+14·1	0	24	
		4428	0·468	299·1	44·8	+19·5	1	12	
		4428	0·439	286·8	44·7	+13·7	2	9	
		4428	0·459	298·4	44·4	+19·0	0	1	
		4428	0·455	297·4	44·3	+18·5	0	1	
		4428	0·448	295·3	44·2	+17·5	0	6	
		4428	0·445	296·2	43·9	+17·8	0	1	
		4428	0·445	298·8	43·4	+18·9	0	3	
		4428	0·418	290·7	43·0	+15·0	0	3	
		4428	0·429	296·5	42·9	+17·5	0	2	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.

The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
262d·397	AW,FT	4428	0·417	293·0	42·6	+15·9	0	2	
		4428	0·420	296·8	42·2	+17·4	3	16	
		4428	0·411	295·4	41·9	+16·7	0	4	256*p*
		4434*a*	0·760	78·3	329·4	+13·6	15	86	
		4434	0·775	78·8	328·1	+13·1	0	12	
		4434	0·813	79·9	324·4	+12·3	3	13	340*c*
		4434	0·819	79·0	323·8	+13·1	0	9	
		4435*a*	0·983	102·7	301·7	−11·0	22	174	
		4435	0·988	104·5	300·4	−13·0	0	23	
		4435	0·991	102·9	298·8	−11·7	0	56	529*c*
		4435	0·994	105·1	297·8	−14·1	0	45	
			0·889	29·8	328·6	+55·2			111
			0·860	106·7	322·5	−10·5			300*c*
			0·911	72·4	312·8	+18·9			129
Sept. 19		Centre			(19·2)	(+7·1)	(347)	(2331)	(2877)
263·422	AW,JW		0·903	290·2	70·7	+21·2			249
			0·944	238·4	69·6	−26·7			139
			0·800	288·2	58·7	+18·7			132
		4428	0·880	277·0	67·7	+ 9·5	73	535	
		4428	0·853	279·4	64·6	+11·7	14	123	
		4428	0·850	277·7	64·3	+10·3	0	3	
		4428	0·835	277·8	62·6	+10·3	0	29	
		4428	0·819	278·4	61·0	+10·9	14	85	
		4428	0·819	282·3	61·0	+14·1	0	9	
		4428	0·816	280·5	60·7	+12·6	44	248	
		4428	0·811	278·0	60·2	+10·6	0	8	
		4428	0·809	282·4	59·9	+14·1	0	5	
		4428	0·803	281·8	59·4	+13·7	4	28	
		4428	0·801	279·5	59·2	+11·8	0	7	
		4428	0·798	278·0	58·9	+10·6	0	10	
		4428	0·795	280·9	58·6	+12·9	2	6	
		4428	0·787	279·2	57·9	+11·6	0	3	
		4428	0·783	280·0	57·5	+12·2	7	43	
		4428	0·779	281·5	57·1	+13·4	0	3	
		4428	0·771	282·2	57·1	+13·8	0	3	
		4428	0·777	283·7	56·8	+15·0	0	5	
		4428	0·753	281·0	54·7	+12·9	0	6	
		4428	0·747	284·7	54·0	+15·6	5	24	
		4428	0·733	286·2	52·7	+16·6	2	7	578*c*
		4428	0·729	282·6	52·5	+14·0	6	48	
		4428	0·720	281·6	51·8	+13·2	3	19	
		4428	0·717	280·9	51·6	+12·7	0	12	
1896.				°	°	°			
263d·422	AW,JW	4428	0·706	280·3	50·7	+12·3	4	50	
		4428	0·705	286·4	50·3	+16·5	0	4	
		4428	0·703	283·2	50·3	+14·3	0	4	
		4428	0·702	285·5	50·1	+15·9	1	9	
		4428	0·696	284·6	49·7	+15·2	11	31	
		4428	0·696	283·8	49·7	+14·6	3	10	
		4428	0·696	283·5	49·7	+14·4	0	2	
		4428	0·696	286·4	49·6	+16·7	0	4	
		4428	0·686	283·1	49·0	+14·1	1	6	
		4428	0·687	285·9	48·8	+16·0	0	7	
		4428	0·683	284·5	48·6	+15·0	11	27	
		4428	0·666	283·4	47·3	+14·1	0	12	
		4428	0·645	282·7	45·7	+13·5	0	10	
		4428	0·647	292·1	44·9	+19·5	0	7	
		4428	0·633	287·0	44·5	+16·2	0	9	
		4428	0·609	289·1	42·5	+17·1	0	6	
		4428	0·578	283·0	40·8	+13·3	0	4	
		4434*a*	0·576	76·5	330·5	+13·5	14	69	
		4434	0·600	76·6	328·8	+13·7	1	5	
		4434	0·624	78·6	326·0	+12·6	0	3	
		4434	0·661	79·1	324·1	+12·5	0	4	
		4434	0·671	78·2	323·4	+13·1	0	2	
		4435*a*	0·917	104·9	301·4	−10·7	29	153	
		4435	0·932	107·5	299·7	−13·5	8	38	
		4435	0·932	105·7	299·3	−11·9	3	18	
		4435	0·934	105·3	299·0	−11·6	3	14	
		4435*b*	0·939	106·7	298·4	−13·0	16	128	
		4435	0·945	104·6	296·3	−12·5	0	26	
		4435	0·957	106·7	295·2	−13·7	3	30	1073*c*
		4435	0·961	103·9	293·8	−11·3	0	18	
		4435*c*	0·963	105·8	293·7	−13·1	23	86	
		4435	0·967	107·7	293·3	−15·0	0	7	
		4435*d*	0·970	104·2	291·9	−11·9	12	79	
		4435	0·973	103·1	290·6	−11·4	0	26	
			0·965	98·8	292·1	− 6·6			125
Sept. 20		Centre			(5·6)	(+7·0)	(317)	(2177)	(2296)
264·493	AW,JW		0·939	288·7	62·4	+20·0			459
			0·736	263·1	38·2	− 0·3			79
		4428	0·976	278·2	69·6	+ 9·5	51	213	
		4428	0·970	277·7	68·1	+ 9·2	6	68	
		4428	0·957	280·2	65·5	+11·8	10	89	
		4428	0·957	281·3	65·5	+12·8	0	7	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4435, September 19–30. A fine broad irregular stream of spots. A pair of large spots, *a* and *b*, are the leaders. The centre of the group is made up mostly of small faint unstable spots. The following part of the group is broader, and contains a large spot, *d*, with two considerable companions, *c* and *e*, and a number of smaller spots. The central and following portions of the group diminish, and only *a* and *b*, followed by two or three small spots, remain by September 28.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
264d·493	AW,JW	4428	0·937	278·9	61·7	+10·8	0	36	
		4428	0·934	280·8	61·3	+12·6	51	325	
		4428	0·924	280·5	59·7	+12·4	0	4	
		4428	0·916	280·0	58·5	+12·0	3	11	
		4428	0·871	282·3	52·6	+14·1	5	52	
		4428	0·857	281·4	51·0	+13·4	0	12	2060c
		4428	0·855	280·0	50·8	+12·2	2	34	
		4428	0·845	282·7	49·6	+14·5	0	5	
		4428	0·845	283·6	49·6	+15·3	2	9	
		4428	0·842	280·4	49·3	+12·6	8	43	
		4428	0·840	282·4	49·1	+14·3	0	7	
		4428	0·836	283·3	48·6	+14·9	7	28	
		4428	0·822	282·9	47·2	+14·6	0	7	
		4428	0·813	281·5	46·2	+13·4	0	3	
		4428	0·810	280·5	46·0	+12·6	0	4	
		4434a	0·359	70·6	331·2	+13·4	15	50	
		4436	0·509	126·5	326·9	−11·2	2	8	
		4436	0·557	122·1	322·9	−11·1	1	6	
		4436	0·564	122·5	322·6	−11·5	0	1	
		4436	0·568	122·2	322·3	−11·4	4	9	
		4435a	0·803	109·1	301·1	−10·8	21	157	
		4435	0·815	110·5	300·3	−12·3	0	7	
		4435	0·816	109·8	300·1	−11·7	0	4	
		4435b	0·822	111·3	299·8	−13·1	25	150	
		4435	0·825	109·7	299·2	−11·9	0	8	
		4435	0·838	109·6	297·8	−12·2	2	13	
		4435	0·843	108·8	297·1	−11·7	0	3	753c
		4435	0·848	108·1	296·4	−11·3	10	42	
		4435	0·867	106·8	294·0	−10·8	3	13	
		4435c	0·875	109·7	293·8	−13·5	12	147	
		4435	0·873	108·2	293·7	−12·1	0	13	
		4435d	0·888	107·5	291·7	−12·0	30	250	
			0·905	101·4	288·3	− 7·2			143
Sept. 21		Centre			(351·5)	(+7·0)	(270)	(1838)	(3494)
265·603	AW,FT		0·876	273·4	38·2	− 6·3			84
			0·877	265·7	37·6	− 0·4			201
		4428	0·997	280·0	63·4	+10·5	0	56	
		4428	0·995	281·6	62·2	+12·3	64	369	
		4428	0·966	282·8	52·8	+14·1	6	43	2233c
		4428	0·959	280·6	51·1	+12·1	0	20	
		4428	0·948	280·8	49·0	+12·4	0	6	
		4428	0·906	285·2	42·3	+16·7	0	10	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
265d·603	AW,FT	4434a	0·142	38·3	331·6	+13·4	9	34	
		4434	0·164	39·4	330·7	+14·2	0	2	
		4436a	0·354	156·4	328·5	−12·0	6	17	
		4436	0·360	155·8	328·2	−12·2	0	2	
		4436	0·357	151·5	326·8	−11·3	1	5	
		4436	0·388	145·7	323·9	−11·9	0	2	
		4436	0·392	144·5	323·4	−11·7	2	10	
		4436	0·394	142·5	322·7	−11·2	1	3	
		4435a	0·639	116·3	301·3	−10·7	27	148	
		4435b	0·656	119·7	301·1	−13·3	20	112	
		4435	0·658	118·4	300·6	−12·6	1	7	
		4435	0·661	118·0	299·8	−12·4	0	3	
		4435	0·682	116·9	298·4	−12·5	1	8	
		4435	0·696	115·1	296·9	−11·8	6	19	
		4435	0·704	116·8	296·8	−13·1	1	13	
		4435	0·704	116·1	296·6	−12·7	0	8	
		4435	0·704	114·6	296·1	−11·7	0	1	
		4435	0·711	116·2	296·1	−13·0	0	2	488c
		4435	0·717	115·9	295·5	−13·0	0	5	
		4435	0·738	114·3	293·4	−12·6	2	9	
		4435c	0·745	116·0	293·3	−14·0	11	58	
		4435	0·744	110·9	292·0	−10·4	3	14	
		4435	0·760	114·9	291·8	−13·7	2	8	
		4435	0·750	111·2	291·6	−10·8	1	11	
		4435d	0·757	113·6	291·6	−12·7	25	159	
		4435	0·771	114·5	290·7	−13·8	0	3	
		4435e	0·772	111·8	289·9	−11·9	9	85	
			0·828	126·1	289·7	−24·5			77
			0·814	106·0	283·7	− 8·7			194
Sept. 22		Centre			(336·8)	(+7·0)	(198)	(1252)	(3277)
266·472	FT, JW		0·978	284·3	44·5	+15·4			1099
			0·955	269·2	37·9	+ 1·3			221
		4434	0·168	317·5	332·1	+13·9	1	3	
		4434	0·154	316·3	331·6	+13·3	6	24	
		4434	0·130	321·6	330·1	+12·7	0	5	
		4436a	0·334	191·8	329·5	−12·1	8	22	
		4436	0·329	189·0	328·4	−12·0	4	10	
		4436	0·312	181·0	325·7	−11·2	0	1	
		4436	0·326	174·5	323·6	−12·0	1	3	
		4437	0·136	355·9	326·0	+14·7	1	3	
		4437	0·117	7·8	324·5	+13·6	0	4	
		4438	0·228	64·6	313·3	+12·4	2	13	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4436, September 21–24. A few small unstable spots in an irregular straggling stream. The leader, *a*, and a very small companion alone remain by September 24.
Group 4437, September 23. A pair of very small faint spots *f* Group 4434.
Group 4438, September 23–25. A few small unstable spots in an irregular stream *f* Group 4437.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
266d·472	FT,JW	4438	0·258	70·4	311·1	+11·7	0	2	
		4438	0·263	67·9	311·0	+12·4	0	3	
		4435*b*	0·515	130·5	301·8	−13·2	20	96	
		4435*a*	0·496	126·6	301·6	−10·8	27	136	
		4435	0·521	128·6	300·8	−12·6	1	14	
		4435	0·520	128·1	300·7	−12·4	0	2	
		4435	0·557	125·0	297·6	−12·5	2	6	
		4435	0·567	126·3	297·5	−13·5	0	3	
		4435	0·565	125·3	297·3	−13·0	5	15	
		4435	0·559	123·5	297·1	−11·9	4	14	
		4435	0·569	122·5	296·9	−11·7	0	2	
		4435	0·570	124·0	296·6	−12·5	0	26	
		4435*c*	0·620	122·8	293·1	−13·8	11	55	
		4435	0·605	117·5	292·5	−10·4	1	6	
		4435	0·604	116·8	292·3	−10·0	0	2	
		4435	0·612	117·2	291·9	−10·5	3	10	
		4435	0·635	122·0	291·8	−13·9	1	6	
		4435*d*	0·631	119·9	291·4	−12·6	40	171	
		4435	0·642	121·4	291·2	−13·8	0	3	
		4435	0·631	117·4	290·7	−11·2	0	1	
		4435	0·646	119·9	290·4	−13·1	1	7	
		4435*e*	0·648	117·4	289·6	−11·7	15	77	
		4435	0·677	117·8	287·6	−12·9	0	2	
Sept. 23		Centre			(325·4)	(+6·9)	(154)	(747)	(1320)
267·494	AW,CL		0·865	242·7	6·3	−19·4			148
		4436*a*	0·435	222·9	329·4	−12·0	2	10	
		4436	0·432	221·8	329·0	−12·1	0	4	
		4438	0·105	336·8	314·3	+12·4	4	12	
		4438	0·105	345·2	313·5	+12·7	0	1	
		4438	0·084	14·8	310·6	+11·6	0	8	
		4438	0·080	20·3	310·3	+11·2	0	3	
		4439	0·246	352·0	314·0	+21·0	0	3	
		4439	0·268	356·9	312·8	+22·4	0	1	
		4439	0·250	358·8	312·2	+21·3	0	2	
		4435*b*	0·383	153·8	302·0	−13·3	16	80	
		4435*a*	0·353	149·9	301·6	−10·9	27	138	
		4435	0·371	150·9	301·3	−12·0	0	3	
		4435	0·403	153·3	301·2	−14·3	0	2	
		4435	0·384	150·9	300·9	−12·7	3	6	
		4435	0·385	149·9	300·5	−12·6	0	1	
		4435	0·393	150·5	300·5	−13·1	1	3	
		4435	0·409	152·4	300·4	−14·4	0	4	
1896.				°	°	°	•		
267d·494	AW,CL	4435	0·424	150·1	299·3	−14·7	0	2	
		4435	0·429	147·6	298·2	−14·4	0	1	
		4435	0·405	144·6	298·1	−12·5	3	21	
		4435	0·422	145·6	297·8	−13·6	0	3	
		4435	0·403	141·8	297·2	−11·7	1	7	
		4435	0·410	140·3	296·5	−11·7	0	1	
		4435	0·436	137·5	294·4	−12·1	0	1	
		4435	0·467	141·3	294·4	−14·7	0	1	
		4435	0·443	138·1	294·3	−12·6	0	3	
		4435	0·453	139·2	294·3	−13·4	0	2	
		4435	0·461	139·2	293·9	−13·8	0	2	
		4435*c*	0·465	137·3	293·1	−13·4	3	12	
		4435	0·468	136·1	292·5	−13·1	1	4	
		4435	0·426	126·7	291·8	− 8·2	1	4	
		4435	0·484	135·6	291·6	−13·7	0	2	
		4435	0·495	137·0	291·6	−14·7	0	4	
		4435	0·449	130·2	291·6	−10·3	0	1	
		4435*d*	0·472	133·2	291·4	−12·4	32	140	
		4435	0·465	130·3	290·9	−11·0	1	8	
		4435	0·501	132·8	289·8	−13·5	0	4	
		4435*e*	0·488	129·7	289·5	−11·7	12	65	
			0·844	117·2	259·7	−18·5			109
			0·948	112·7	244·5	−18·9			151
			0·958	98·3	239·8	− 5·9			370
Sept. 24		Centre			(311·9)	(+6·9)	(107)	(569)	(778)
268·232	AW,CL	4438	0·237	294·7	314·8	+12·4	0	10	
		4435	0·329	180·8	302·4	−12·2	0	8	
I.		4435*a*	0·312	179·3	301·9	−11·2	29	133	
		4435*b*	0·347	178·8	301·7	−13·3	18	73	
		4435	0·328	175·9	300·7	−12·1	0	4	
		4435	0·338	175·8	300·6	−12·7	1	2	
		4435	0·353	175·3	300·4	−13·6	0	1	
		4435	0·336	174·4	300·2	−12·6	0	1	
		4435	0·329	171·9	299·4	−12·1	0	2	
		4435	0·351	169·1	298·2	−13·2	1	5	
		4435	0·341	168·0	298·0	−12·6	2	17	
		4435	0·357	167·0	297·4	−13·4	0	2	
		4435	0·351	165·0	296·8	−12·8	0	8	
		4435	0·337	163·7	296·6	−12·0	0	8	
		4435*c*	0·381	155·8	292·9	−13·5	2	11	
		4435	0·349	150·8	292·2	−10·9	0	1	
		4435*d*	0·374	151·0	291·5	−12·2	27	111	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4439, September 24. Three very small spots.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.		°		°	°	°			
268d.232	AW, CL	4435	0·389	151·5	291·2	−13·1	0	2	
		4435	0·405	151·6	290·7	−14·0	0	9	
I.		4435	0·407	150·0	290·1	−13·8	0	4	
		4435*e*	0·376	145·8	289·7	−11·4	2	13	
		4435	0·410	148·4	289·4	−13·6	0	2	
		4435	0·392	146·0	289·2	−12·1	3	13	
			0·914	98·7	237·2	− 5·1			397
			0·952	115·7	234·7	−21·9			231
Sept. 25		Centre			(302·1)	(+6·9)	(85)	(440)	(628)
269·168	CL, FT		0·887	237·6	345·1	−24·6			59
		4435*a*	0·377	214·0	302·2	−11·5	36	132	
I.		4435*b*	0·395	209·9	301·4	−13·3	17	64	
		4435	0·374	203·6	298·6	−13·3	0	6	
		4435	0·352	205·1	298·5	−11·8	0	4	
		4435	0·363	190·0	293·5	−14·1	0	9	
		4435	0·355	189·3	293·2	−13·6	0	3	
		4435*d*	0·327	186·7	292·0	−12·1	16	75	
		4435	0·340	185·8	291·8	−12·9	0	9	
		4435	0·347	181·8	290·4	−13·4	0	17	
		4435	0·331	181·2	290·2	−12·4	0	3	
		4435*e*	0·314	180·8	290·1	−11·4	5	12	
		4435	0·352	179·1	289·5	−13·7	0	14	
		4435	0·329	178·4	289·3	−12·3	2	10	
			0·864	120·0	236·4	−21·6			326
			0·827	104·0	236·0	− 7·5			522
			0·893	96·5	227·4	− 2·7			290
Sept. 26		Centre			(289·8)	(+6·8)	(76)	(358)	(1197)
270·282	AW, FT		0·791	281·5	327·7	+13·3			295
			0·808	249·4	325·6	−12·3			288
I.		4435	0·557	233·9	302·5	−13·1	0	6	
		4435*a*	0·538	236·1	302·1	−11·4	35	138	
		4435*b*	0·539	232·6	301·1	−13·0	9	76	
		4435*d*	0·439	223·2	292·9	−12·1	3	25	
		4435	0·426	220·7	291·5	−12·3	0	7	
		4435	0·425	218·0	290·6	−13·0	3	19	
		4435	0·401	220·9	290·5	−11·0	0	7	
		4435	0·415	217·5	290·0	−12·6	3	19	
		4435	0·403	216·8	289·3	−12·1	2	14	
			0·732	130·1	237·9	−22·7			181
			0·737	100·7	228·8	− 3·2			269
1896.				°	°	°			
270d.282	AW, FT		0·896	121·6	218·4	−24·3			197
I.			0·897	111·6	215·2	−15·9			247
Sept. 27		Centre			(275·1)	(+6·8)	(55)	(311)	(1477)
271·396	AW, JW		0·941	255·3	328·3	−11·4			186
			0·910	282·1	326·5	+13·8			267
		4435*a*	0·714	247·1	302·3	−11·1	26	111	
		4435*b*	0·711	244·4	301·3	−12·8	16	86	
		4435	0·611	240·0	293·0	−12·1	2	14	
		4435	0·596	237·9	291·4	−12·7	1	5	
		4435	0·583	237·6	290·5	−12·4	0	9	
		4435	0·571	237·7	289·8	−11·9	0	5	
		4435	0·574	236·7	289·7	−12·5	0	3	
			0·852	115·1	206·7	−17·3			212
			0·939	108·1	193·5	−14·4			337
Sept. 28		Centre			(260·4)	(+6·7)	(45)	(233)	(1002)
272·509	AW, JW		0·985	281·9	326·9	+12·9			172
		4435*a*	0·858	253·0	302·2	−10·9	22	116	
		4435*b*	0·856	251·1	301·5	−12·4	16	82	
		4435	0·834	251·2	299·2	−11·6	0	2	694*c*
		4435	0·775	248·2	292·9	−12·2	3	10	
		4440	0·769	113·7	199·5	−13·4	0	9	
		4440	0·796	114·8	197·4	−15·1	0	2	
		4440	0·803	114·1	196·6	−14·8	0	3	448*c*
		4440	0·847	114·1	192·2	−16·3	0	3	
			0·749	120·9	203·4	−17·7			92
			0·859	132·7	198·3	−31·1			108
			0·918	117·8	184·6	−22·2			127
			0·965	105·9	173·4	−13·4			133
Sept. 29		Centre			(245·7)	(+6·7)	(41)	(227)	(1774)
273·419	FT, JW	4435*a*	0·942	256·2	302·0	−10·6	21	105	
		4435*b*	0·940	254·2	301·3	−12·4	10	40	694*c*
		4435	0·882	252·6	292·8	−11·9	0	7	
		4440	0·684	120·1	196·1	−14·9	0	3	
		4440	0·704	120·1	194·6	−15·6	0	4	
		4440	0·726	119·4	192·7	−15·9	0	6	165*s*
		4440	0·733	119·5	192·2	−16·2	1	3	
		4440	0·739	118·8	191·5	−16·0	0	10	
			0·931	111·9	168·9	−17·6			117
Sept. 30		Centre			(233·7)	(+6·6)	(32)	(178)	(976)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets. The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4440, September 29–October 4. A few small unstable spots in a sparse straight stream.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
274d·239	AW,CL		0·923	252·3	287·4	−13·5			693
		4440	0·619	125·4	191·5	−15·4	4	29	
I.			0·858	127·6	173·1	−27·4			154
			0·827	108·6	170·0	−11·3			141
			0·860	117·4	169·0	−19·5			177
			0·902	110·4	161·9	−15·2			215
Oct. 1		Centre			(222·9)	(+6·6)	(4)	(29)	(1380)
275·265	AW,CL		0·971	255·7	283·4	−12·1			181
		4440	0·456	146·1	194·1	−15·9	0	7	
I.		4440	0·464	143·4	192·8	−15·6	0	2	
		4440	0·477	140·7	191·2	−15·4	3	14	
		4440	0·509	141·0	189·9	−17·1	0	6	
			0·808	116·0	160·3	−16·5			233
			0·940	99·8	140·7	− 6·9			160
			0·964	106·6	137·4	−14·0			357
Oct. 2		Centre			(209·4)	(+6·5)	(3)	(29)	(931)
276·344	AW,FT		0·787	236·2	239·5	−21·4			151
			0·771	255·0	243·6	− 7·3			258
I.		4440	0·370	180·0	195·1	−15·1	0	4	
		4440	0·376	179·0	194·7	−15·5	0	2	
		4440	0·376	171·0	191·6	−15·2	2	14	
		4440	0·404	169·4	190·7	−16·8	0	3	
			0·875	109·7	137·3	−13·7			396
			0·868	101·2	136·4	− 6·3			138
			0·956	113·5	126·3	−20·1			241
Oct. 3		Centre			(195·1)	(+6·5)	(2)	(23)	(1184)
277·351	AW,FT		0·866	249·2	238·4	−14·4			241
			0·840	258·5	237·6	− 6·0			308
I.			0·855	237·4	233·5	−23·5			306
		4440	0·427	209·9	194·6	−15·4	0	9	
		4440	0·403	207·2	192·8	−14·7	0	6	
		4440	0·399	204·2	191·6	−15·0	0	3	
			0·791	114·0	133·8	−14·5			201
			0·912	116·5	121·1	−21·0			426
Oct. 4		Centre			(181·9)	(+6·4)	(0)	(18)	(1482)
278·405	AW,JW		0·971	262·3	243·0	− 5·9			157
			0·935	240·7	231·3	−24·5			170
			0·830	234·3	215·6	−24·7			163
1896.				°	°	°			
278d·405	AW,JW		0·887	262·7	229·5	− 3·5			194
			0·869	118·9	113·5	−21·1			245
			0·928	127·3	108·6	−31·1			142
			0·979	82·8	89·1	+ 8·4			245
Oct. 5		Centre			(167·9)	(+6·4)	(0)	(0)	(1316)
279·302	CL,FT		0·952	264·3	227·5	− 3·5			249
			0·870	249·6	213·2	−14·3			283
I.			0·871	236·3	209·1	−25·2			201
			0·694	240·5	194·7	−15·1			126
		4441*a*	0·992	80·3	72·6	+10·4	0	185	432*p*
			0·866	134·1	108·5	−32·9			181
			0·876	122·7	102·1	−24·6			114
Oct. 6		Centre			(156·1)	(+6·3)	(0)	(185)	(1586)
280·219	CL,FT		0·931	251·0	209·6	−15·1			358
			0·939	236·6	206·8	−28·4			150
I.			0·899	224·1	194·9	−36·4			193
			0·814	245·8	194·2	−15·6			510
			0·723	226·7	179·2	−24·6			164
		4441*a*	0·940	81·1	73·5	+10·4	26	128	422*f*
			0·847	136·7	99·9	−33·6			155
			0·849	126·4	94·5	−26·3			176
			0·825	84·9	88·2	+ 7·7			170
			0·921	69·0	76·4	+21·8			181
			0·970	105·9	72·6	−10·6			100
Oct. 7		Centre			(144·0)	(+6·2)	(26)	(128)	(2579)
281·285	AW,FT		0·914	250·3	192·8	−15·2			430
			0·840	236·6	179·7	−23·6			141
I.		4441*a*	0·836	81·5	72·9	+10·6	21	78	1045*nf*
			0·860	108·9	73·6	−12·8			161
			0·934	126·3	69·0	−30·7			137
			0·889	68·1	67·0	+22·3			214
Oct. 8		Centre			(129·9)	(+6·2)	(21)	(78)	(~~128~~ 2,128)
282·434	CL, AW		0·934	249·7	180·6	−16·5			309
			0·932	237·0	176·6	−27·7			132
			0·837	243·6	166·7	−18·1			138
			0·814	233·8	160·9	−24·5			83
		4441	0·625	79·1	76·2	+11·6	0	1	120*c*
		4441	0·633	83·4	75·5	+ 8·9	0	4	
		4441*a*	0·660	81·9	73·4	+ 9·9	19	89	
		4441	0·676	79·8	72·2	+11·4	0	1	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4441, October 6–13. A large regular spot, *a*, with occasionally one or two very small companions. *a* diminishes from day to day.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
282d.434	CL, AW		0·849	139·8	72·4	−35·9			76
			0·839	130·1	68·0	−28·6			102
			0·785	68·0	63·8	+21·0			213
			0·797	75·8	61·9	+15·0			209
			0·899	81·7	50·4	+10·2			426
			0·933	71·7	45·3	+19·3			698
			0·943	90·4	44·4	+ 1·7			114
Oct. 9		Centre			(114·8)	(+6·1)	(19)	(95)	(2620)
283·428	AW, JW		0·918	244·7	163·6	−20·3			330
		4442*a*	0·752	282·2	150·4	+13·1	2	12	109*c*
		4442*b*	0·717	283·4	147·3	+13·8	0	4	
		4441*a*	0·478	80·5	73·1	+ 9·8	21	77	
		4441	0·482	82·0	72·8	+ 9·1	0	2	
			0·682	71·4	59·2	+17·1			139
			0·769	78·3	51·3	+12·8			246
			0·799	62·2	50·2	+25·7			101
			0·861	72·1	42·1	+18·5			537
			0·902	83·6	36·9	+ 8·4			175
Oct. 10		Centre			(101·6)	(+6·0)	(23)	(95)	(1637)
284·198	AW, FT		0·764	252·8	139·0	− 9·0			227
			0·757	241·8	135·5	−16·6			224
I.		4442*b*	0·827	281·6	147·5	+13·0	3	14	172*nf*
		4441*a*	0·317	77·4	73·3	+ 9·6	15	68	
			0·750	70·4	43·5	+18·6			344
Oct. 11		Centre			(91·5)	(+6·0)	(18)	(82)	(967)
285·234	CL, AW		0·941	282·0	148·5	+13·3			398
			0·900	255·9	140·0	−10·0			267
I.			0·880	246·7	135·4	−17·2			342
			0·799	238·9	124·5	−20·3			217
		4441*a*	0·099	47·6	73·6	+ 9·7	8	41	
		4441	0·155	46·9	71·2	+12·0	0	7	
		4441	0·174	56·6	69·3	+11·3	0	3	
Oct. 12		Centre			(77·8)	(+5·9)	(8)	(51)	(1224)
286·318	AW, FT		0·964	252·2	135·5	−15·4			232
			0·888	244·0	121·4	−19·9			176
I.		4441	0·215	285·8	75·5	+ 9·1	0	1	
1896.				°	°	°			
286d.318	AW, FT	4441*a*	0·195	290·1	74·2	+ 9·5	2	14	
		4441	0·164	300·3	71·7	+10·5	2	12	
I.		4441	0·156	307·7	70·7	+11·3	0	1	
			0·838	72·5	6·7	+17·8			119
Oct. 13		Centre			(63·5)	(+5·8)	(4)	(28)	(527)
287·388	FT, JW		0·926	290·1	117·6	+20·8			140
		4443	0·500	223·1	70·1	−16·0	0	4	
		4443	0·465	222·6	68·3	−14·6	3	13	
		4443	0·450	221·8	67·3	−14·1	0	3	
		4443	0·471	216·1	66·2	−16·8	0	2	
		4443	0·460	216·2	65·8	−16·3	0	5	
		4443	0·444	214·8	64·6	−15·8	0	4	
		4443	0·422	214·1	63·5	−14·9	1	8	
		4443	0·422	215·2	63·9	−14·6	1	5	
		4444	0·413	39·5	32·8	+24·0	3	13	
		4444	0·429	42·4	31·0	+23·8	1	6	
			0·901	78·0	344·8	+13·3			302
			0·939	40·5	343·7	+48·1			168
			0·939	52·8	340·6	+36·8			249
			0·964	31·5	339·7	+57·6			244
Oct. 14		Centre			(49·4)	(+5·7)	(9)	(63)	(1103)
288·505	CL, FT		0·938	239·4	98·4	−26·1			116
			0·882	276·0	96·7	+ 8·0			107
			0·905	224·5	86·8	−36·7			166
		4443	0·646	240·2	69·8	−14·0	4	9	
		4443	0·646	238·4	69·2	−15·1	0	3	
		4443	0·626	237·3	67·5	−14·9	0	1	
		4443	0·614	238·4	67·1	−13·9	1	6	
		4443	0·627	238·5	67·0	−14·3	3	8	
		4443	0·627	235·6	67·0	−15·9	0	5	
		4443	0·618	234·2	66·0	−16·3	5	17	194*c*
		4443	0·610	234·2	65·4	−16·0	0	4	
		4443	0·587	236·1	64·6	−14·1	0	3	
		4443	0·591	232·8	63·8	−15·9	4	26	
		4443	0·589	231·4	63·2	−16·5	1	6	
		4443	0·570	233·2	62·7	−14·9	0	8	
		4443	0·582	230·9	62·6	−16·5	0	2	
		4444	0·318	7·7	31·9	+23·8	1	3	
			0·826	75·3	338·9	+15·3			161
			0·886	107·1	334·7	−12·3			174

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4442, October 10–11. Two small irregular spots, *a* and *b*. Only *b* remains on October 11.
Group 4443, October 14–17. A number of small unstable spots in a very irregular stream. The group changes rapidly from day to day.
Group 4444, October 14–15. Two small spots. Only one remains on October 15.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
228d505	CL,FT		0·876	66·9	333·8	+22·9			57
			0·928	77·1	326·0	+14·1			176
			0·950	98·0	323·8	− 5·8			112
Oct. 15		Centre			(34·6)	(+5·7)	(19)	(101)	(1263)
289·213	AW, FT		0·915	277·5	91·9	+ 9·2			340
			0·952	227·2	87·4	−37·8			194
I.			0·911	219·6	75·6	−41·0			79
			0·816	224·1	66·6	−30·7			75
		4443	0·762	245·2	70·9	−14·7	1	5	
		4443	0·742	244·1	68·9	−14·9	0	15	
		4443	0·727	240·9	66·7	−16·5	8	54	
		4443	0·701	240·3	64·5	−16·0	0	5	
		4443	0·696	239·9	64·0	−16·0	0	6	
		4443	0·689	238·5	63·1	−16·6	11	57	
			0·959	101·9	313·4	− 9·8			181
Oct. 16		Centre			(25·4)	(+5·6)	(20)	(142)	(869)
290·423	AW,JW		0·870	279·6	70·1	+11·1			677
			0·813	288·7	63·4	+18·4			404
		4443	0·891	250·4	69·4	−14·7	2	11	
		4443	0·873	248·1	66·6	−16·0	0	20	
		4443	0·845	247·7	63·4	−15·4	2	9	372c
		4443	0·836	245·8	62·0	−16·7	2	13	
		4443	0·828	246·0	61·2	−16·3	0	2	
		4445a	0·797	103·3	318·2	− 7·1	9	33	
		4445b	0·825	103·0	315·4	− 7·5	0	6	261c
		4445c	0·835	102·5	314·2	− 8·0	4	11	
		4446a	0·925	104·6	303·7	−11·3	7	18	160c
		4447a	0·937	99·1	301·0	− 6·5	31	203	
		4447	0·949	98·5	298·9	− 6·2	0	28	747c
		4448a	0·990	99·8	288·8	− 8·9	10	52	
		4448b	0·989	96·1	288·7	− 5·2	0	135	
			0·971	107·6	295·7	−15·6			289
Oct. 17		Centre			(9·4)	(+5·5)	(67)	(541)	(2910)
291·446	AW,JW		0·958	280·5	69·8	+11·6			295
			0·950	251·5	65·0	−15·7			485
			0·910	288·9	61·5	+19·4			384
			0·832	281·0	52·3	+12·2			189
			0·798	289·6	48·3	+18·9			307
1896.				°	°	°			
291d446	AW,JW	4445a	0·624	107·6	319·3	− 6·5	17	77	
		4445	0·636	107·8	318·5	− 6·9	0	3	
		4445	0·638	107·3	318·2	− 6·6	3	7	
		4445	0·647	108·8	317·9	− 7·8	0	9	
		4445	0·650	106·9	317·3	− 6·7	0	2	
		4445	0·667	107·2	316·1	− 7·3	0	1	
		4445	0·676	108·7	315·7	− 8·4	2	7	
		4445c	0·676	106·3	315·3	− 6·8	6	41	
		4445c	0·691	107·0	314·3	− 7·6	10	54	
		4445	0·687	105·2	314·2	− 6·3	0	1	
		4446a	0·816	108·2	303·8	−11·4	5	22	256sf
		4447	0·808	102·2	303·4	− 6·6	1	5	
		4447	0·811	102·8	303·3	− 7·1	0	2	
		4447	0·821	104·0	302·5	− 8·2	3	13	267c
		4447a	0·831	101·8	301·1	− 6·7	35	215	
		4447	0·837	103·9	300·9	− 8·5	2	10	
		4448	0·913	99·1	291·1	− 6·0	0	10	
		4448	0·918	99·7	290·5	− 6·7	0	4	598c
		4448a	0·931	101·6	288·8	− 8·7	10	52	
		4448b	0·936	97·8	287·5	− 5·3	4	18	
		4449a	0·947	85·1	284·5	+ 6·4	20	215	488c
		4449	0·972	83·7	279·2	+ 7·4	0	24	
Oct. 18		Centre			(355·9)	(+5·4)	(118)	(792)	(3269)
292·239	AW,FT		0·986	251·9	63·5	−16·8			366
			0·971	290·7	62·3	+21·3			314
I.			0·961	284·7	60·1	+15·6			310
			0·870	282·3	46·1	+13·3			412
			0·853	290·9	43·6	+20·6			634
		4445a	0·481	113·5	319·3	− 6·3	22	145	
		4445	0·496	114·3	318·5	− 7·0	2	9	
		4445	0·494	111·1	318·0	− 5·5	0	2	
		4445	0·505	113·6	317·8	− 6·9	0	1	
		4445	0·512	111·7	317·0	− 6·3	0	3	
		4445	0·537	115·1	316·2	− 8·5	0	5	
		4445c	0·548	111·4	314·7	− 7·0	3	28	
		4445c	0·558	112·1	314·2	− 7·5	8	19	
		4445c	0·552	109·9	314·1	− 6·3	2	18	
		4445c	0·565	111·0	313·5	− 7·2	3	16	
		4446a	0·709	111·6	303·4	−11·2	5	22	
		4447	0·688	105·6	303·8	− 6·7	3	26	393c
		4447	0·721	107·1	301·5	− 8·4	4	34	
		4447a	0·725	104·7	300·7	− 6·9	43	219	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Faculæ unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4445, October 17–26. Three small spots, *a*, *b* and *c*, on October 17. The group has greatly increased by the succeeding day, and *a* and *c* are both composite spots, *c* being measured in two parts. *a* has further increased and become more regular by October 19; whilst *c* is measured in four parts. *c* has entirely broken up by October 21, and *a* remains alone by October 22.
Group 4446, October 17–23. A small spot, *a*, *s* Group 4447 and *sf* Group 4445. *a* is accompanied by one or two very small companions after October 19. Two of these, *b* and *c*, remain on October 23, after *a* has disappeared.
Group 4447, October 17–27. A large spot, *a*, with a number of small companions. These increase in number on the *p*, *s* and *f* sides of *a*, and have converted the group by October 23 into a long irregular stream. The group diminishes rapidly after October 24, and *a* remains alone by October 27.
Group 4448, October 17–24. A regular spot, *a*, with a large spot *b* at a considerable distance *n* on October 17. A number of small unstable spots form near *a* and *b* on October 18 and 19, but diminish later. *b* has disappeared by October 21. Groups 4445, 4446, 4447 and 4448 form almost a single straight stream.
Group 4449, October 18–27. A large regular spot, *a*, usually with a number of small companions.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
292d.239	AW,FT	4448	0·830	100·1	290·6	− 5·4	0	41	
		4448	0·835	101·6	290·3	− 6·7	0	3	
I.		4448	0·847	98·5	288·6	− 4·3	0	10	
		4448	0·853	101·4	288·4	− 6·8	0	5	654
		4448*a*	0·857	103·2	288·2	− 8·4	9	55	
		4448*b*	0·853	99·6	288·1	− 5·3	4	19	
		4448	0·861	99·2	287·1	− 5·2	0	5	
		4449*a*	0·876	86·0	284·2	+ 6·1	47	225	
		4449	0·921	84·1	278·2	+ 7·5	0	12	564*c*
		4449	0·925	87·0	277·8	+ 4·8	0	6	
			0·848	113·2	291·3	−16·5			149
Oct. 19		Centre			(345·5)	(+5·3)	(155)	(928)	(3796)
293·223	CL,AW		0·930	285·2	41·2	+16·0			485
			0·915	302·5	37·5	+31·8			93
I.			0·897	295·6	35·6	+25·2			319
			0·851	281·0	31·0	+12·1			186
		4445*a*	0·283	131·9	320·3	− 5·6	25	120	
		4445	0·292	127·0	319·0	− 5·0	0	5	
		4445	0·314	130·5	318·7	− 6·6	0	17	
		4445	0·298	126·3	318·6	− 5·0	0	3	
		4445	0·379	126·4	314·6	− 7·9	0	4	
		4445*c*	0·371	123·4	314·4	− 6·7	13	94	
		4446	0·545	121·6	304·3	−11·9	0	2	78*c*
		4446*a*	0·541	119·5	304·0	−10·7	7	19	
		4447	0·508	112·6	304·4	− 6·6	5	17	
		4447	0·553	116·1	302·4	− 9·5	0	3	
		4447*a*	0·553	111·0	301·3	− 6·9	51	246	
		4447	0·567	112·9	300·8	− 8·2	0	3	210*c*
		4447	0·577	110·4	299·6	− 7·1	0	2	
		4447	0·576	109·5	299·5	− 6·6	0	9	
		4448	0·627	108·6	295·8	− 7·3	0	8	
		4448	0·681	110·0	292·2	− 9·4	0	3	
		4448	0·673	104·4	291·8	− 5·6	4	20	
		4448	0·677	105·7	291·7	− 6·6	0	6	237*c*
		4448	0·705	103·0	289·1	− 5·2	0	14	
		4448*a*	0·713	106·6	289·1	− 7·9	20	56	
		4448*b*	0·712	102·4	288·4	− 5·0	2	12	
		4449*a*	0·732	86·7	285·4	+ 6·0	48	242	
		4449	0·802	87·9	279·2	+ 4·8	0	6	608*c*
		4449	0·801	84·7	279·2	+ 7·4	3	19	
		4449	0·802	86·4	279·1	+ 6·0	0	13	
1896.				°	°	°			
293d.223	CL,AW		0·789	104·1	282·2	− 7·7			164
I.			0·840	113·9	279·4	−16·8			130
Oct. 20		Centre			(332·5)	(+5·3)	(178)	(943)	(2510)
294·451	AW,CL		0·951	293·7	28·5	+24·1			161
		4445*a*	0·209	201·7	320·6	− 6·0	16	118	
		4445	0·216	197·1	319·9	− 6·7	0	4	
		4445	0·211	192·4	318·8	− 6·6	2	6	
		4445	0·219	188·2	318·0	− 7·3	0	1	
		4445	0·202	178·7	315·9	− 6·4	0	2	
		4445	0·204	175·0	315·2	− 6·5	0	2	
		4445	0·215	174·5	315·0	− 7·1	1	6	
		4445	0·227	173·4	314·7	− 7·8	1	3	
		4445	0·218	172·1	314·5	− 7·3	1	8	
		4446*b*	0·359	150·1	305·7	−13·0	0	2	
		4446*a*	0·343	144·4	304·5	−11·1	5	11	
		4447	0·299	140·5	305·2	− 8·2	2	5	
		4447	0·291	137·9	304·9	− 7·3	2	6	
		4447	0·295	135·0	304·1	− 6·9	0	4	
		4447	0·289	133·8	304·1	− 6·4	0	3	
		4447	0·284	132·2	304·0	− 5·9	0	3	
		4447	0·331	140·6	303·9	− 9·7	0	1	
		4447	0·348	135·3	301·9	− 9·2	0	2	
		4447	0·344	132·9	301·5	− 8·5	0	2	
		4447*a*	0·337	128·8	300·9	− 7·1	36	195	
		4447	0·359	128·4	299·8	− 7·8	0	1	
		4447	0·354	125·9	299·5	− 7·0	0	4	
		4447	0·359	127·2	299·5	− 7·5	0	2	
		4447	0·368	126·3	298·9	− 7·6	2	8	
		4447	0·402	123·5	296·5	− 7·9	1	4	
		4448	0·442	115·6	292·7	− 6·2	0	1	
		4448	0·465	116·1	291·4	− 7·1	0	1	
		4448*a*	0·504	115·9	289·1	− 8·1	13	46	
		4449*a*	0·510	87·9	285·5	+ 5·6	34	196	
		4449	0·570	87·7	281·4	+ 5·6	0	2	
		4449	0·586	88·5	280·3	+ 5·1	0	2	
		4449	0·599	84·6	279·4	+ 7·4	5	12	
		4449	0·607	87·2	278·8	+ 5·8	2	6	
		4449	0·608	84·6	278·7	+ 7·4	0	2	
			0·936	98·9	247·9	− 6·5			233
			0·948	109·6	247·6	−16·7			172
Oct. 21		Centre			(316·2)	(+5·2)	(123)	(671)	(566)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
295d.571	JW, FT	4445a	0·389	240·3	321·3	− 6·3	17	106	
		4445	0·374	235·6	319·5	− 7·3	0	5	
		4445	0·348	230·1	317·1	− 8·0	0	6	
		4445	0·335	228·7	316·1	− 7·8	1	11	
		4445	0·329	226·6	315·4	− 8·1	0	4	
		4446b	0·317	193·0	305·7	−12·8	0	6	
		4446c	0·284	194·5	305·6	−10·9	0	4	
		4446a	0·286	191·8	304·9	−11·1	1	4	
		4447	0·274	206·8	308·7	− 9·1	0	5	
		4447	0·281	205·7	308·6	− 9·6	0	7	
		4447	0·259	205·2	307·9	− 8·4	0	2	
		4447	0·251	199·4	306·3	− 8·6	0	3	
		4447	0·243	189·4	303·8	− 8·8	0	2	
		4447	0·256	185·8	303·0	− 9·6	0	3	
		4447	0·243	182·3	302·1	− 8·9	2	13	
		4447a	0·216	176·9	300·8	− 7·3	38	200	
		4447	0·156	172·1	300·3	− 3·7	0	2	
		4447	0·226	169·3	299·1	− 7·7	1	3	
		4447	0·219	168·4	299·0	− 7·3	0	4	
		4447	0·224	165·2	298·2	− 7·4	0	3	
		4448a	0·306	137·2	289·4	− 8·0	10	25	
		4448	0·288	129·2	288·6	− 5·5	0	3	
		4449a	0·271	89·0	285·8	+ 5·2	31	190	
		4449	0·344	87·9	281·4	+ 5·6	0	3	
		4449	0·383	85·4	279·0	+ 6·5	3	10	
			0·805	100·9	249·1	− 5·6			76
			0·868	110·7	244·5	−15·1			80
			0·862	96·0	242·6	− 2·6			49
Oct. 22		Centre			(301·5)	(+5·1)	(104)	(624)	(205)
296·449	AW, CL	4445a	0·555	250·7	321·6	− 6·3	18	87	
		4446b	0·405	221·7	305·9	−12·7	0	4	
		4446c	0·379	224·5	305·5	−10·8	0	3	
		4447	0·435	232·0	310·2	−10·8	0	3	
		4447	0·419	232·7	309·6	−10·0	19	49	
		4447	0·397	228·4	307·4	−10·4	0	3	
		4447	0·386	229·0	307·0	− 9·9	1	5	
		4447	0·358	229·8	305·9	− 8·5	8	21	
		4447	0·330	231·0	304·8	− 7·1	0	3	
		4447	0·320	231·3	304·4	− 6·6	0	2	
		4447	0·320	228·1	303·7	− 7·4	0	2	
		4447	0·384	216·0	303·2	−13·1	0	1	
		4447	0·284	231·3	302·7	− 5·3	0	2	
1896.				°	°	°			
296d.449	AW, CL	4447a	0·288	222·0	301·1	− 7·4	44	184	
		4447	0·292	214·1	299·4	− 9·1	0	1	
		4447	0·272	216·5	299·3	− 7·7	0	1	
		4447	0·279	214·0	298·9	− 8·4	0	1	
		4447	0·264	216·4	298·9	− 7·3	0	5	
		4447	0·265	214·5	298·6	− 7·7	1	4	
		4447	0·268	207·8	297·1	− 8·7	0	6	
		4450	0·252	274·5	304·5	+ 6·0	0	1	
		4450	0·245	269·9	304·1	+ 4·9	0	2	
		4448	0·169	194·2	292·3	− 4·4	0	3	
		4448	0·184	190·7	291·9	− 5·4	0	3	
		4448a	0·224	178·8	289·6	− 7·9	4	15	
		4449a	0·065	92·3	286·2	+ 4·8	32	194	
		4449	0·180	78·1	279·7	+ 7·1	0	4	
		4449	0·183	90·4	279·4	+ 4·9	0	5	
			0·839	100·1	234·0	− 5·6			138
			0·903	119·6	230·9	−23·9			209
			0·935	103·5	218·6	−16·6			211
Oct. 23		Centre			(289·9)	(+5·0)	(127)	(614)	(558)
297·225	CL, AW		0·879	352·1	296·3	+65·1			85
		4445a	0·693	255·0	321·9	− 6·7	26	62	
I.		4445	0·673	254·6	320·3	− 6·6	0	4	
		4447	0·554	243·0	309·7	−10·3	9	39	
		4447	0·490	242·5	305·7	− 8·6	9	26	
		4447	0·488	241·2	305·3	− 9·1	0	6	
		4447	0·471	243·9	304·8	− 7·5	2	11	
		4447	0·478	239·4	304·3	− 9·6	0	4	
		4447	0·462	240·5	303·6	− 8·6	0	11	
		4447	0·448	239·3	302·5	− 8·7	0	5	
		4447a	0·419	239·7	301·0	− 7·6	46	196	
		4447	0·433	235·4	300·8	− 9·6	0	6	
		4447	0·394	235·8	298·8	− 8·1	0	5	
		4447	0·370	230·6	296·4	− 8·9	0	6	
		4448a	0·283	217·1	289·6	− 8·2	4	11	
		4448	0·314	212·2	289·5	−10·6	0	2	
		4449	0·162	272·2	289·0	+ 5·2	0	3	
		4449a	0·120	267·4	286·6	+ 4·6	34	171	
		4451	0·970	107·8	206·1	−15·9	0	15	} 379p
		4451a	0·980	105·5	203·1	−14·1	91	370	
			0·880	122·5	224·6	−25·4			217
			0·951	116·2	211·9	−23·0			262
Oct. 24		Centre			(279·7)	(+4·9)	(221)	(953)	(943)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4450, October 23. A pair of very small spots.
Group 4451, October 24–November 2. A large spot. *a*, with one or more small companions. *a* tends to lengthen out on the succeeding days, and has divided into two spots, *b* and *c*, by October 28; *b* has further divided into *d* and *e* by October 30. *c* has disappeared by November 1.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
298d·442	AW, FT	4445*a*	0·867	259·9	322·6	− 6·3	5	25	270*sf*
		4447	0·751	251·8	310·0	−10·3	3	11	
		4447	0·713	254·6	307·4	− 7·4	2	8	
		4447	0·699	252·6	305·9	− 8·5	7	24	270*c*
		4447	0·689	253·1	305·3	− 8·0	0	4	
		4447*a*	0·639	252·4	301·4	− 7·3	33	170	
		4452	0·569	240·7	294·0	−12·0	0	8	
		4449*a*	0·399	270·3	287·2	+ 4·6	23	150	
		4453	0·360	155·4	254·8	−14·3	0	3	
		4453	0·356	151·4	253·7	−13·4	0	1	
		4451*a*	0·893	108·6	203·1	−14·2	42	289	979*sf*
		4451	0·914	108·8	200·3	−15·0	0	5	
			0·834	125·6	215·0	−25·9			199
			0·917	122·9	203·6	−27·5			201
Oct. 25		Centre			(263·7)	(+4·8)	(115)	(698)	(1919)
299·416	FT, AW		0·822	244·9	301·9	−17·5			167
		4445*a*	0·959	262·2	323·4	− 6·1	0	9	216*sf*
		4447	0·837	256·3	306·0	− 8·8	2	13	
		4447*a*	0·795	257·1	302·0	− 7·3	29	155	460*c*
		4449	0·644	271·2	290·8	+ 4·4	0	2	
		4449	0·626	272·0	289·5	+ 5·0	4	11	
		4449	0·607	270·8	288·1	+ 4·2	0	2	
		4449*a*	0·592	271·6	287·1	+ 4·7	17	74	
		4451	0·768	115·4	204·8	−15·9	0	2	
		4451*a*	0·782	112·5	202·8	−14·3	48	277	185*c*
		4451	0·811	112·5	200·1	−15·1	0	9	
			0·774	129·4	209·3	−25·9			158
			0·891	112·0	191·2	−17·1			506
			0·928	128·5	191·0	−33·0			87
			0·965	116·8	180·1	−24·3			103
Oct. 26		Centre			(250·8)	(+4·7)	(100)	(554)	(1882)
300·526	CL, JW		0·853	251·3	292·1	−13·3			360
			0·837	260·8	292·0	− 5·1			238
		4447	0·918	259·8	301·6	− 7·5	19	141	476*c*
		4449*a*	0·772	272·4	286·7	+ 4·8	13	45	233*c*
		4451	0·608	122·6	204·3	−15·1	3	13	
		4451*a*	0·616	120·4	203·1	−14·3	40	214	
		4451	0·643	120·1	201·2	−15·0	0	14	
			0·780	118·8	190·1	−18·9			408
			0·972	74·7	159·4	+15·9			347
Oct. 27		Centre			(236·2)	(+4·6)	(75)	(427)	(2062)
1896.				°	°	°			
301d·627	CL, FT		0·918	261·9	287·3	− 5·6			217
			0·918	252·4	285·9	−14·2			191
			0·883	274·2	283·6	+ 5·8			263
		4451	0·442	139·8	204·5	−15·4	0	3	
		4451*b*	0·455	136·4	202·7	−14·9	21	113	
		4451*c*	0·459	133·1	201·5	−14·0	5	43	
		4451	0·479	135·1	201·1	−15·6	0	5	
			0·908	75·5	156·3	+15·0			336
Oct. 28		Centre			(221·6)	(+4·5)	(26)	(164)	(1007)
302·499	CL, JW		0·947	276·9	281·5	+ 8·0			365
		4451	0·380	164·5	204·0	−17·1	0	2	
		4451	0·354	162·4	203·8	−15·3	2	11	
		4451*b*	0·356	158·2	202·3	−14·9	18	82	
		4451*c*	0·351	154·2	201·1	−14·0	7	29	
		4451	0·367	152·8	200·2	−14·7	0	7	
			0·820	74·5	155·3	+15·2			267
			0·910	99·9	145·7	− 7·1			138
			0·938	109·4	143·0	−16·5			166
Oct. 29		Centre			(210·1)	(+4·4)	(27)	(131)	(936)
303·427	CL, FT		0·937	253·9	265·4	−13·4			136
			0·835	257·8	253·1	− 7·7			127
		4451	0·353	198·6	204·6	−15·2	0	2	
		4451*d*	0·341	193·2	202·5	−15·0	17	60	
		4451*e*	0·332	191·3	201·7	−14·6	4	17	
		4451*c*	0·325	188·5	200·7	−14·4	4	16	
		4451	0·333	186·0	200·0	−15·0	0	4	
		4454	0·746	101·9	150·9	− 5·9	5	17	
		4454	0·755	101·5	150·1	− 5·8	6	16	137*c*
		4454	0·779	102·2	148·0	− 6·7	3	15	
			0·861	107·2	140·7	−12·4			276
			0·913	115·1	135·9	−20·8			386
			0·962	122·5	129·2	−29·6			91
Oct. 30		Centre			(197·9)	(+4·3)	(39)	(147)	(1153)
304·419	FT, JW	4451*d*	0·459	223·0	203·7	−15·6	7	19	
		4451*e*	0·435	221·4	202·1	−15·0	12	43	
		4451*c*	0·416	220·1	200·8	−14·4	0	4	
		4454	0·566	105·5	151·7	− 5·1	0	3	
		4454	0·576	105·6	151·1	− 5·4	2	9	
Oct. 31		Centre			(184·8)	(+4·2)	(21)	(78)	(0)

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4452, October 25. A very small spot.
Group 4453, October 25. Two very small spots.
Group 4454, October 30–31. Three small spots on October 30. The third has disappeared by October 31.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
305d·566	CL, JW	4455	0·795	241·5	217·2	−19·5	0	4	86c
		4455	0·786	239·2	215·7	−20·9	0	7	
		4451d	0·634	239·2	203·9	−15·6	3	9	
		4451	0·630	236·6	202·8	−16·8	0	2	
		4451e	0·603	238·5	201·6	−14·9	4	14	
Nov. 1		Centre			(169·6)	(+4·1)	(7)	(36)	(86)
306·233	AW, FT		0·899	242·6	220·4	−22·4			184
			0·896	235·6	217·7	−28·2			129
M.		4051d	0·728	243·8	203·5	−15·8	1	6	80c
		4051e	0·697	243·5	201·0	−15·0	0	9	
			0·982	79·7	81·5	+10·9			176
Nov. 2		Centre			(160·9)	(+4·0)	(1)	(15)	(569)
307·498	AW, JW		0·974	248·1	218·4	−20·3			174
			0·889	249·0	204·0	−16·6			245
			0·784	246·3	192·3	−15·8			161
			0·739	238·3	186·0	−19·9			167
		4456a	0·943	107·2	75·7	−14·8	120	738	
		4456	0·968	106·7	70·6	−15·1	0	57	606c
		4457	0·981	106·5	67·2	−15·3	0	23	
		4457a	0·990	105·9	64·0	−15·1	31	193	
			0·901	79·5	79·9	+11·2			224
			0·972	73·6	67·4	+16·9			168
Nov. 3		Centre			(144·2)	(+3·9)	(151)	(1011)	(1745)
308·472	CL, JW		0·924	249·9	196·2	−16·9			529
			0·856	241·6	185·4	−21·8			146
		4456a	0·852	110·3	75·8	−15·0	123	631	
		4456	0·853	107·7	75·1	−12·9	0	12	
		4456	0·861	108·0	74·3	−13·4	0	18	
		4456	0·877	109·4	72·7	−15·0	0	12	
		4456	0·886	109·0	71·5	−14·9	0	6	
		4456	0·887	108·3	71·3	−14·3	5	27	1099c
		4456	0·899	108·6	69·7	−14·9	0	8	
		4457	0·921	108·6	66·7	−15·5	0	6	
		4457a	0·938	107·8	63·8	−15·3	22	168	
		4458a	0·971	107·1	57·1	−15·6	19	99	
		4458	0·986	107·0	52·8	−16·0	6	44	
			0·817	77·9	76·9	+12·0			170
			0·925	72·2	63·9	+17·9			151
1896.				°	°	°			
308d·472	CL, JW		0·934	80·3	62·3	+10·4			97
			0·939	64·2	62·2	+25·5			94
Nov. 4		Centre			(131·4)	(+3·8)	(175)	(1031)	(2286)
309·428	FT, JW		0·976	255·3	194·6	−13·5			258
			0·947	248·1	187·1	−19·3			444
		4456a	0·722	114·8	76·2	−14·9	113	520	
		4456	0·736	112·2	74·4	−13·5	0	5	
		4456	0·740	111·3	73·9	−12·9	0	8	
		4456	0·749	112·8	73·4	−14·3	0	16	
		4456	0·753	113·8	73·4	−15·0	2	42	
		4456	0·774	112·1	71·1	−14·4	4	21	
		4456	0·787	112·1	69·9	−14·8	0	21	
		4456	0·799	112·3	68·9	−15·3	1	4	
		4457a	0·845	110·8	63·9	−15·3	19	134	
		4458a	0·896	109·7	57·7	−15·8	14	121	1076c
		4458	0·934	108·6	52·0	−15·9	0	10	
			0·770	72·2	69·2	+16·0			97
			0·878	65·0	58·7	+23·6			149
			0·900	79·5	54·5	+11·0			170
			0·953	70·1	46·4	+20·1			454
Nov. 5		Centre			(118·7)	(+3·7)	(153)	(902)	(2648)
310·440	AW, CL		0·785	293·0	155·5	+20·1			124
		4459	0·784	284·5	156·5	+13·6	2	6	298p
		4456a	0·566	123·4	76·2	−15·0	135	601	
		4456	0·574	118·8	74·5	−12·9	0	4	
		4456	0·583	118·2	73·7	−12·9	0	2	
		4456	0·601	120·4	73·0	−14·6	0	9	
		4456	0·599	118·5	72·7	−13·6	0	2	
		4456	0·604	119·7	72·7	−14·4	0	2	
		4456	0·628	118·3	70·7	−14·3	1	12	
		4457a	0·710	115·8	64·1	−15·3	21	131	
		4457	0·743	118·0	62·0	−17·8	0	6	
		4458a	0·788	112·8	56·7	−15·4	20	128	608c
		4458	0·841	111·6	51·2	−15·9	0	4	
		4458	0·849	113·1	50·7	−17·4	0	4	
			0·901	131·7	50·6	−34·8			91
			0·843	71·5	48·7	+17·5			483
			0·912	82·9	39·6	+ 8·0			90
			0·942	63·1	35·8	+26·5			161
Nov. 6		Centre			(105·4)	(+3·6)	(179)	(911)	(1855)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4455, November 1. Two very small spots.
Group 4456, November 3–14. A very large regular spot, *a*, with a number of small companions. *a* tends to become elongated in the direction of motion about November 8 and 9 when it crosses the central meridian. A number of small spots have formed *s* of *a* by November 9 and 10.
Group 4457, November 3–12. A large regular spot, *a*, with a number of small companions *f* Group 4456. *a* diminishes rapidly in size, and its companion spots are very unstable.
Group 4458, November 4–13. A large regular spot, *a*, with a few small companions *f* Group 4457. *a* has elongated in a direction at nearly right angles to the equator by November 8, and has broken up into a pair of regular spots, *b* and *c*, by November 9. The group has become by November 11 a number of small spots, irregularly scattered over a wide area.
Group 4459, November 6. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
311d·258	AW, FT		0·888	287·7	156·8	+17·2			513
			0·856	261·4	152·7	− 5·6			78
I.			0·721	238·9	135·4	−19·3			116
		4456a	0·439	135·5	76·2	−15·0	178	628	
		4457	0·524	127·9	69·4	−15·6	0	11	
		4457	0·553	126·0	67·1	−15·9	0	9	
		4457a	0·588	122·1	63·7	−15·3	21	106	
		4457	0·629	124·2	61·7	−17·8	0	6	298c
		4458a	0·683	116·5	55·6	−15·1	29	140	
		4458	0·751	116·6	50·2	−17·2	0	1	
		4460	0·885	99·0	33·4	− 6·3	0	4	80p
		4461a	0·982	103·1	16·9	−12·2	20	131	178p
			0·731	125·5	54·8	−22·4			130
			0·693	67·7	52·6	+17·8			209
			0·891	135·4	43·1	−37·2			189
			0·885	124·9	39·3	−28·4			178
			0·840	73·4	38·2	+15·7			493
			0·869	59·5	36·9	+28·0			259
			0·908	87·3	29·6	+ 3·9			147
Nov. 7		Centre			(94·7)	(+3·4)	(248)	(1036)	(2868)
312·191	CL,FT		0·942	261·8	151·9	− 6·6			159
			0·954	287·0	150·5	+11·1			391
I.			0·933	252·4	149·2	−15·1			230
			0·829	255·3	136·6	−10·2			110
			0·832	245·4	134·9	−18·3			121
		4456	0·368	170·3	78·6	−17·9	0	4	
		4456a	0·335	163·0	76·5	−15·3	163	614	
		4456	0·334	155·5	74·1	−14·4	5	26	
		4456	0·363	151·8	72·1	−15·3	4	33	
		4456	0·350	148·9	71·6	−14·1	0	5	
		4457	0·457	145·0	66·3	−18·7	0	5	
		4457a	0·438	137·2	64·4	−15·6	13	67	
		4457	0·463	135·9	62·8	−16·3	0	3	
		4458a	0·531	124·5	55·5	−14·5	37	150	
		4461a	0·914	104·1	17·8	−11·4	34	111	
		4461b	0·942	104·4	13·5	−12·4	0	22	547c
			0·814	150·2	49·4	−42·0			79
			0·693	62·8	41·2	+20·9			112
			0·838	141·2	40·5	−38·2			127
			0·745	100·4	35·1	− 5·5			89
			0·851	131·4	33·6	−32·1			102
Nov. 8		Centre			(82·3)	(+3·3)	(256)	(1040)	(2067)
1896.				°	°	°			
313d·536	CL, JW		0·966	258·4	138·5	−10·3			113
			0·961	249·4	136·2	−18·7			283
			0·887	239·6	121·9	−24·9			278
		4456	0·426	216·5	79·9	−16·9	0	3	
		4456	0·415	217·1	79·6	−16·2	0	1	
		4456a	0·377	212·7	76·7	−15·3	127	620	
		4456	0·401	207·6	75·8	−17·6	3	11	
		4456	0·397	205·4	74·9	−17·8	1	13	
		4456	0·349	206·7	73·9	−15·0	0	20	
		4456	0·356	201·3	72·3	−16·2	0	20	
		4456	0·350	192·5	69·1	−16·8	0	2	
		4456	0·354	189·9	68·2	−17·2	0	8	
		4457a	0·318	181·3	65·0	−15·3	12	22	
		4458b	0·311	155·0	56·9	−13·1	8	34	
		4458c	0·349	154·1	55·6	−15·1	8	42	
		4460	0·455	111·4	39·5	− 6·6	2	7	
		4460	0·469	112·6	38·8	− 7·5	0	5	
		4460a	0·465	108·8	38·5	− 5·8	17	45	
		4460	0·480	111·3	37·9	− 7·1	0	7	
		4460	0·512	112·2	36·1	− 8·3	1	5	
		4460	0·510	109·6	35·8	− 7·0	0	4	
		4460	0·517	111·8	35·7	− 8·2	0	4	
		4460	0·509	108·4	35·6	− 6·5	0	3	
		4460	0·518	110·9	35·5	− 7·8	0	6	
		4460	0·514	107·7	35·2	− 6·2	3	13	
		4460	0·522	109·8	35·0	− 7·4	0	2	
		4460b	0·525	108·3	34·6	− 6·7	11	37	
		4461a	0·752	108·5	18·1	−11·6	21	132	
		4461b	0·807	107·8	12·9	−12·3	3	18	
		4461	0·815	108·1	12·2	−12·7	0	3	401c
		4461	0·830	107·6	10·6	−12·7	0	5	
		4461	0·835	106·8	10·0	−12·1	0	10	
			0·968	101·3	350·2	−10·1			185
Nov. 9		Centre			(64·6)	(+3·2)	(217)	(1102)	(1260)
314·499	AW, FT	4456	0·554	233·7	79·5	−16·3	4	50	
		4456	0·558	230·0	78·5	−18·2	0	2	
		4456	0·544	232·3	78·5	−16·6	0	5	
		4456a	0·514	232·2	76·7	−15·5	162	699	
		4456	0·533	227·4	76·2	−18·3	0	9	
		4456	0·518	226·8	75·2	−17·9	0	10	
		4456	0·521	226·0	75·0	−18·3	1	2	
		4456	0·510	227·2	74·9	−17·4	0	8	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4460, November 7–17. A very small faint spot on November 7. The photosphere appears perturbed in its neighbourhood on November 8, but nothing is seen sufficiently definite for measurement. The group has re-appeared by November 9 as a broad semicircular stream, concave to the equator. It increases rapidly on the succeeding days and is soon seen as consisting chiefly of two large composite spots, *a* and *b*, with a few very small spots near them. *b* soon breaks up and has disappeared by November 14. *a* remains alone after that date as a fine double spot.
Group 4461, November 7–15. A short stream of spots. *a*, the leader, is the largest, and is a large regular spot up to November 9, after which it diminishes in size and becomes partly divided, though still measured as one. *b* the principal spot in the middle of the stream is an irregular composite spot, and continually changes in size and shape. The smaller spots have all disappeared by November 13, and after that date *a*, with one very small companion, alone remains.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
314d·499	AW, FT	4456	0·505	226·2	74·3	−17·5	1	5	
		4456	0·465	228·3	72·9	−15·1	0	4	
		4456	0·460	222·1	70·6	−16·9	0	3	
		4456	0·441	218·3	68·5	−17·2	0	1	
		4456	0·435	217·6	68·0	−17·1	0	2	
		4457*a*	0·387	215·5	65·3	−15·3	9	26	
		4457	0·366	213·2	63·8	−14·8	0	1	
		4458*b*	0·294	198·1	57·3	−13·1	5	29	
		4458	0·246	195·6	55·7	−10·6	0	2	
		4458*c*	0·320	190·8	55·4	−15·2	8	20	
		4460	0·253	132·6	41·1	− 6·8	2	14	
		4460	0·273	131·8	40·1	− 7·4	9	43	
		4460*a*	0·261	128·1	40·0	− 6·2	23	136	
		4460	0·285	131·1	39·4	− 7·7	0	4	
		4460	0·298	130·6	38·7	− 8·1	0	2	
		4460	0·307	131·0	38·4	− 8·6	2	5	
		4460	0·316	127·1	37·2	− 8·0	0	1	
		4460	0·304	122·0	36·9	− 6·2	0	1	
		4460	0·338	129·1	36·6	− 9·3	1	8	
		4460	0·341	127·1	36·0	− 8·9	0	5	
		4460	0·343	125·6	35·6	− 8·5	0	2	
		4460	0·341	124·2	35·4	− 8·1	0	6	
		4460	0·323	117·4	35·2	− 5·6	1	11	
		4460	0·344	122·6	35·0	− 7·7	4	12	
		4460*b*	0·345	119·1	34·3	− 6·7	22	113	
		4461*a*	0·600	114·1	18·0	−11·6	18	115	
		4461	0·665	113·9	13·4	−13·1	1	6	
		4461*b*	0·663	112·9	13·3	−12·5	4	22	143*c*
		4461	0·687	110·5	11·0	−11·6	0	4	
		4461	0·697	110·1	10·2	−11·5	1	4	
		4462	0·859	102·7	354·0	− 9·2	0	4	199*c*
		4463	0·970	96·1	336·5	− 5·2	4	22	225*f*
Nov. 10		Centre			(51·9)	(+3·1)	(282)	(1418)	(567)
315·278	AW, FT	4456	0·663	242·7	79·1	−15·3	6	31	
I.		4456	0·659	236·6	77·0	−18·8	0	10	
		4456*a*	0·638	240·4	76·7	−15·9	188	664	
		4456	0·623	243·6	76·5	−13·6	0	8	
		4456	0·638	235·9	75·3	−18·4	5	53	
		4456	0·621	236·2	74·3	−17·7	0	15	
		4456	0·619	235·1	73·8	−18·1	0	14	
		4457*a*	0·501	230·8	65·3	−15·7	7	29	
		4458*b*	0·383	223·8	57·3	−13·1	1	6	

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
315d·278	AW, FT	4458*c*	0·394	216·2	55·5	−15·6	6	22	
		4460*a*	0·167	177·1	41·1	− 6·6	34	259	
I.		4460	0·220	150·3	35·3	− 8·0	0	2	
		4460	0·186	143·2	35·2	− 5·6	0	3	
		4460	0·228	149·4	34·9	− 8·3	0	5	
		4460*b*	0·213	141·8	34·0	− 6·6	18	124	
		4461*a*	0·467	121·8	17·8	−11·5	20	112	
		4461*b*	0·532	120·2	13·6	−12·8	4	41	
		4461	0·542	119·6	12·8	−12·8	5	15	
		4461	0·565	116·1	10·5	−11·8	0	13	
		4463	0·909	97·2	336·9	− 5·3	6	28	
		4463	0·917	96·3	335·7	− 4·6	0	24	
		4463	0·935	96·7	333·0	− 5·2	11	36	483*c*
		4463	0·958	99·1	329·1	− 7·8	48	211	
			0·778	106·9	352·5	−11·1			133
			0·884	105·1	341·1	−11·9			103
Nov. 11		Centre			(41·6)	(+3·0)	(359)	(1725)	(719)
316·234	AW, FT		0·789	281·1	80·7	+10·5			236
		4456	0·796	249·3	79·1	−14·4	2	12	
I.		4456*a*	0·773	246·6	76·3	−15·9	178	660	
		4456	0·771	242·5	75·1	−18·9	0	6	
		4456	0·766	243·5	74·9	−17·9	0	14	
		4457*a*	0·649	241·4	65·1	−15·7	10	22	
		4458*b*	0·535	240·9	57·5	−12·5	3	7	
		4458*c*	0·531	233·9	55·3	−15·6	4	15	
		4458	0·511	238·0	55·3	−13·0	0	14	
		4458	0·518	236·2	55·2	−14·1	0	4	
		4458	0·492	237·9	54·2	−12·5	2	7	
		4458	0·489	233·8	52·9	−14·1	1	4	
		4460*a*	0·277	232·9	41·8	− 6·7	46	219	
		4460	0·257	226·1	39·7	− 7·4	0	4	
		4460	0·240	229·2	39·5	− 6·2	0	3	
		4460	0·200	206·9	34·2	− 7·3	2	13	
		4460*b*	0·182	207·0	33·7	− 6·4	22	83	
		4460	0·229	197·7	33·0	− 9·7	0	2	
		4461*a*	0·317	142·4	17·7	−11·7	18	104	
		4461*b*	0·370	135·4	13·6	−12·4	8	30	
		4461	0·387	133·7	12·4	−12·7	0	1	
		4461	0·385	129·7	11·5	−11·4	0	4	
		4461	0·406	133·3	11·4	−13·4	0	4	
		4461	0·395	130·5	11·2	−12·0	0	2	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4462, November 10. A very small spot *f* Group 4461.
Group 4463, November 10–17. Four or five spots irregularly scattered. These break up and form a nearly continuous and semicircular stream of small unstable spots, convex to the equator. The group fades out very quickly after passing the central meridian on November 16.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
316d·234	AW, FT	4463	0·793	99·7	337·4	− 5·9	15	33	
		4463	0·799	98·2	336·7	− 4·7	0	4	
I.		4463	0·816	97·5	335·0	− 4·4	6	25	359*c*
		4463	0·852	99·6	331·5	− 6·6	2	11	
		4463	0·873	100·7	329·3	− 7·8	34	149	
			0·941	101·7	319·9	−10·0			149
Nov. 12		Centre			(29·0)	(+2·9)	(353)	(1456)	(744)
317·286	CL, FT		0·909	280·3	80·3	+10·6			347
			0·862	288·1	73·8	+17·0			258
I.			0·790	241·9	62·8	−20·0			149
			0·734	288·4	61·1	+15·3			39
		4456*a*	0·897	250·4	76·5	−16·2	182	733	646*f*
		4458*b*	0·711	249·2	57·8	−12·6	1	13	
		4458*c*	0·686	247·4	55·5	−13·1	12	48	171*c*
		4458	0·689	246·1	55·4	−14·0	0	1	
		4458	0·655	247·1	53·1	−12·6	0	4	
		4460*a*	0·484	250·2	42·3	− 6·9	41	214	
		4460	0·476	248·2	41·5	− 7·7	0	10	
		4460	0·367	248·1	35·0	− 5·2	0	5	
		4460	0·375	241·7	34·6	− 9·2	0	5	
		4460*b*	0·365	243·9	34·3	− 6·6	5	34	
		4460	0·367	233·7	32·5	− 9·9	0	2	
		4461*a*	0·258	189·6	17·6	−11·9	8	54	
		4461*b*	0·269	174·7	13·6	−12·7	0	9	
		4463	0·619	104·4	338·1	− 6·6	6	21	
		4463	0·631	102·6	337·0	− 5·7	0	3	
		4463	0·638	101·9	336·4	− 5·4	11	32	
		4463	0·644	102·7	336·1	− 6·0	0	3	285*c*
		4463	0·652	101·1	335·3	− 5·1	0	10	
		4463	0·704	102·1	331·4	− 6·5	0	13	
		4463	0·734	103·7	329·2	− 8·1	25	127	
			0·866	104·6	316·7	−11·1			214
			0·904	81·4	310·5	+ 9·0			50
			0·932	96·4	306·9	− 5·0			273
			0·955	106·7	304·0	−15·0			108
Nov. 13		Centre			(15·1)	(+2·8)	(291)	(1341)	(2540)
318·358	AW, FT		0·913	287·7	66·4	+17·2			216
			0·847	243·5	55·0	−20·7			121
I.			0·817	251·6	53·7	−13·4			131
			0·764	294·4	48·7	+20·1			228

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
318d·358	AW, FT	4464	0·989	279·7	82·6	+10·0	0	181	
		4464	0·976	278·8	78·6	+ 9·2	15	66	530*c*
I.		4456*a*	0·976	252·9	77·0	−16·0	0	717	803*f*
		4460*a*	0·681	257·2	42·9	− 6·7	50	236	
		4460	0·578	254·7	35·1	− 6·6	0	2	120*c*
		4460	0·576	253·1	34·7	− 7·5	0	5	
		4461*a*	0·375	228·5	17·7	−11·9	6	30	
		4461	0·363	229·4	17·3	−11·1	0	1	
		4465*a*	0·322	133·8	347·5	−10·3	3	10	
		4463	0·416	113·4	338·6	− 7·1	5	14	
		4463	0·427	110·2	337·4	− 6·1	6	20	
		4463	0·437	108·5	336·6	− 5·6	0	8	
		4463	0·456	107·2	335·3	− 5·4	1	22	
		4463	0·477	107·3	334·0	− 5·8	0	15	
		4463	0·504	107·2	332·3	− 6·3	17	46	
		4463	0·548	110·8	330·0	− 9·0	0	21	
		4463	0·551	108·9	329·5	− 8·1	23	84	
			0·836	100·5	305·3	− 7·3			249
			0·931	105·2	294·1	−13·1			212
			0·926	84·7	293·4	+ 5·9			241
			0·932	96·0	292·9	− 4·6			295
Nov. 14		Centre			(1·1)	(+2·6)	(126)	(1478)	(3146)
319·507	FT, JW		0·946	250·7	55·0	−17·4			606
			0·872	291·4	45·3	+19·8			273
		4460*a*	0·846	260·5	42·8	− 6·7	40	260	1538*f*
		4461*a*	0·574	245·0	17·9	−11·9	2	11	
		4465*a*	0·224	194·5	349·2	−10·0	18	45	
		4465	0·229	191·3	348·5	−10·4	0	4	
		4465	0·222	191·5	348·5	−10·0	0	3	
		4465	0·257	185·1	347·2	−12·3	0	1	
		4465	0·216	183·9	346·8	− 9·9	0	3	
		4465	0·248	181·6	346·3	−11·9	0	2	
		4465	0·250	179·2	345·7	−12·0	2	5	
		4463	0·215	145·8	338·9	− 7·7	3	8	
		4463	0·212	139·6	338·0	− 6·8	1	7	
		4463	0·227	139·1	337·3	− 7·4	0	5	
		4463	0·217	134·1	336·9	− 6·2	1	7	
		4463	0·225	135·9	336·9	− 6·8	0	5	
		4463	0·237	130·5	335·5	− 6·4	3	8	
		4463	0·271	124·1	332·9	− 6·3	7	23	
		4463	0·284	125·0	332·4	− 6·9	2	6	
		4463	0·333	128·6	330·7	− 9·6	0	5	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4464, November 14. Two spots of considerable size suddenly appearing in a faculous region close to the West limb.
Group 4465, November 14–17. A small spot, *a*, *p* Group 4463. The group has increased in size by November 15, when *a* is followed by a short straight stream of very small spots, the stream being inclined at a considerable angle to the equator. All the spots but *a* are very unstable.
Groups 4456, 4457, 4458, 4460 and 4461 form what is almost one grand slightly undulating stream; whilst Groups 4462, 4463 and 4465 follow a little more loosely almost on the same parallel of latitude.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for day).
1896.				°	°	°			
319d·507	FT,JW	4463	0·324	124·8	330·4	− 8·2	0	3	
		4463	0·337	126·6	330·1	− 9·2	3	15	
		4463	0·345	124·0	329·2	− 8·7	5	28	
			0·794	85·3	293·5	+ 5·3			163
			0·845	105·4	289·8	−11·6			444
			0·912	78·8	280·3	+11·3			192
Nov. 15		Centre			(345·9)	(+2·5)	(87)	(454)	(1831)
320·426	AW,JW		0·981	253·4	51·5	−15·8			219
			0·948	282·5	45·1	+12·6			178
			0·942	289·9	43·6	+19·4			330
			0·902	297·2	36·1	+25·3			187
			0·842	287·2	30·3	+15·7			124
		4460*a*	0·935	262·3	42·5	− 6·5	35	225	368*sf*
		4465*a*	0·339	230·9	349·2	−10·0	6	45	
		4465	0·322	228·8	348·0	− 9·9	0	1	
		4465	0·323	227·3	347·7	−10·3	0	6	
		4465	0·306	231·2	347·7	− 8·7	0	1	
		4465	0·311	225·7	346·8	−10·2	0	5	
		4465	0·303	228·7	346·8	− 8·9	0	2	
		4465	0·342	218·7	346·5	−13·1	1	5	
		4465	0·323	218·6	345·6	−12·2	1	5	
		4463	0·173	216·4	339·7	− 5·6	0	2	
		4463	0·199	208·5	339·3	− 7·7	3	7	
		4463	0·164	212·6	338·9	− 5·5	0	3	
		4463	0·180	204·3	338·1	− 7·0	0	7	
		4463	0·192	201·9	337·9	− 7·8	0	6	
		4463	0·164	203·1	337·5	− 6·3	2	16	
		4463	0·166	199·2	337·0	− 6·6	0	3	
		4463	0·154	200·6	336·9	− 5·9	0	2	
		4463	0·187	194·7	336·6	− 8·0	0	4	
		4463	0·156	197·9	336·6	− 6·2	0	5	
		4463	0·163	195·7	336·3	− 6·6	0	6	
		4463	0·153	177·3	333·4	− 6·4	0	5	
		4463	0·164	174·8	333·0	− 7·0	1	3	
		4463	0·166	172·2	332·5	− 7·1	0	4	
		4463	0·203	161·4	330·1	− 8·7	0	3	
		4463	0·206	158·1	329·4	− 8·6	5	16	
		4463	0·219	158·8	329·2	− 9·3	0	4	
		4466	0·870	105·9	275·0	−12·4	3	9	101*c*
		4466	0·891	105·9	272·4	−12·9	0	10	
Nov. 16		Centre			(333·8)	(+2·4)	(57)	(410)	(1507)
1896.				°	°	°			
321d·207	CL,FT		0·962	288·3	37·3	+18·2			164
			0·963	302·8	36·3	+32·2			49
I.			0·949	281·6	35·3	+11·7			67
			0·924	272·7	30·9	+ 3·4			97
			0·829	252·0	17·4	−13·4			166
		4460	0·985	262·7	43·0	− 6·8	24	302	380*f*
		4465	0·480	244·2	349·4	−10·0	0	15	
		4465	0·463	243·4	348·2	− 9·8	1	11	
		4465	0·436	240·2	346·0	−10·4	0	4	
		4463	0·325	238·5	339·7	− 7·5	1	6	
		4463	0·290	239·9	338·1	− 6·2	0	5	
		4463	0·307	234·2	338·0	− 8·1	0	2	
		4463	0·242	221·9	332·9	− 8·1	0	9	
		4463	0·220	208·2	329·5	− 8·9	4	12	
		4466*a*	0·764	107·6	275·6	−11·8	14	52	
		4466	0·777	108·8	274·7	−13·0	2	5	188*c*
		4466	0·789	106·8	273·2	−11·7	0	5	
		4466*b*	0·809	108·2	271·6	−13·2	0	9	
			0·935	110·5	256·5	−18·3			112
			0·929	101·9	256·3	−10·2			200
Nov. 17		Centre			(323·5)	(+2·3)	(46)	(437)	(1423)
322·207	AW, CL		0·918	254·2	15·4	−13·6			380
I.		4466*a*	0·596	113·5	276·5	−11·9	8	36	
		4466	0·647	114·0	273·0	−13·5	0	6	
Nov. 18		Centre			(310·3)	(+2·2)	(8)	(42)	(380)
323·452	AW,JW		0·986	255·9	13·2	−13·6			189
			0·839	257·8	349·7	− 9·1			187
		4467	0·415	233·9	314·3	−12·2	0	4	
		4466*a*	0·374	131·0	277·1	−12·3	4	10	
			0·877	115·6	236·0	−21·2			165
Nov. 19		Centre			(293·8)	(+2·0)	(4)	(14)	(541)
324·472	AW,JW		0·932	257·4	348·2	−11·0			210
			0·848	259·4	337·6	− 8·0			542
		4466*a*	0·245	170·7	278·2	−12·1	0	5	
		4466	0·279	163·2	275·8	−13·6	0	6	
		4466	0·263	161·2	275·5	−12·5	0	6	
		4466	0·284	161·3	275·1	−13·7	1	6	
		4466	0·292	158·6	274·2	−13·8	0	5	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4466, November 16–24. A pair of small spots, *a* and *b*, on November 16. *a* has increased in size by the succeeding day, but diminishes again later, and has disappeared by November 21. *b* has disappeared by November 18. The group consists of a number of very small unstable spots in a short stream on November 20 and the succeeding days. The group shows a temporary expansion on November 22 and 23.
Group 4467, November 19. A very small spot.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
324d·472	AW, JW		0·872	117·9	223·9	−23·0			111
			0·957	110·4	209·3	−18·9			228
Nov. 20		Centre			(280·5)	(+1·9)	(1)	(28)	(1091)
325·533	AW, JW		0·946	260·4	336·8	− 8·5			576
			0·800	254·0	318·0	−11·6			198
		4468	0·738	273·1	313·9	+ 3·5	0	5	
		4468	0·721	271·8	312·5	+ 2·6	0	1	
		4468	0·715	272·1	312·0	+ 2·8	0	3	
		4466	0·300	207·5	274·7	−13·6	1	3	
		4466	0·302	202·0	273·2	−14·4	0	2	
		4466	0·298	200·7	272·7	−14·3	0	3	
		4466	0·281	200·2	272·7	−13·3	3	7	
		4466	0·276	199·2	271·8	−13·3	0	2	
		4466	0·275	197·8	271·4	−13·4	2	9	
		4469	0·859	111·9	209·9	−17·7	0	8	1728
		4470	0·941	84·8	196·5	+ 5·5	4	20	472f
		4470a	0·943	83·8	196·1	+ 6·5	13	77	
			0·954	109·0	195·7	−17·5			262
Nov. 21		Centre			(266·5)	(+1·8)	(23)	(140)	(1680)
326·165	M, JW		0·965	261·1	332·2	− 8·1			330
			0·875	255·4	317·8	−11·9			256
M.			0·770	259·1	307·6	− 7·3			126
		4468	0·812	272·4	312·2	+ 2·9	5	19	
		4466	0·386	227·9	275·1	−13·4	3	35	
		4466	0·380	223·8	273·8	−14·3	6	16	
		4466	0·369	225·8	273·8	−13·2	0	4	
		4466	0·374	222·3	273·1	−14·3	0	7	
		4466	0·372	221·1	272·7	−14·6	0	7	
		4466	0·354	223·2	272·5	−13·3	5	28	
		4466	0·343	220·0	271·2	−13·6	14	84	
		4470a	0·873	83·9	197·5	+ 6·2	13	73	
		4470	0·881	84·0	196·5	+ 6·1	0	4	576f
			0·912	110·0	194·4	−17·4			489
Nov. 22		Centre			(258·1)	(+1·7)	(46)	(277)	(1777)
327·208	M, JW		0·957	257·4	316·5	−11·6			309
			0·886	261·9	306·1	− 6·5			272
M.			0·780	258·8	294·6	− 7·7			495
1896.				°	°	°			
327d·208	M, JW	4466	0·577	244·1	276·4	−13·2	4	11	
		4466	0·563	243·8	275·4	−13·0	0	4	
M.		4466	0·539	243·2	273·7	−12·6	0	3	
		4466	0·541	240·1	273·1	−14·2	4	12	
		4466	0·529	241·8	272·8	−13·0	0	3	
		4466	0·511	241·3	271·5	−12·7	23	95	
		4466	0·501	239·1	270·4	−13·4	8	35	
		4470a	0·717	83·0	198·8	+ 6·2	20	42	
		4470	0·726	84·2	198·0	+ 5·3	5	18	135c
			0·823	114·1	192·1	−18·6			507
			0·837	84·3	187·7	+ 5·6			263
Nov. 23		Centre			(244·4)	(+1·6)	(64)	(223)	(1981)
328·227	AW, CL		0·935	272·1	300·0	+ 2·5			209
			0·931	262·7	299·0	− 6·3			399
I.			0·897	255·4	293·5	−12·4			234
			0·892	246·9	291·5	−19·8			164
		4466	0·699	248·8	272·9	−13·6	0	14	
		4466	0·689	249·6	272·3	−12·8	1	8	
		4466	0·678	249·1	271·3	−12·9	1	11	
		4466	0·668	246·9	270·1	−14·1	0	3	
		4470a	0·528	81·2	199·5	+ 5·8	9	28	
		4470	0·546	81·7	198·3	+ 5·7	0	6	
		4470	0·552	80·9	197·9	+ 6·2	2	8	
		4470	0·608	80·7	194·0	+ 6·7	0	5	
		4470	0·651	83·0	190·7	+ 5·6	1	6	
			0·810	119·6	181·4	−22·7			195
			0·950	112·4	161·4	−20·7			118
			0·945	73·2	160·7	+16·3			266
Nov. 24		Centre			(231·0)	(+1·4)	(14)	(89)	(1585)
329·304	AW, CL		0·967	259·9	291·4	− 9·4			258
			0·964	250·8	289·9	−18·1			149
I.			0·911	281·3	282·0	+10·8			116
			0·860	254·1	274·7	−12·9			296
		4470a	0·295	75·3	200·2	+ 5·6	6	16	
		4470	0·304	78·4	199·5	+ 4·8	0	7	
		4470	0·313	77·3	199·0	+ 5·2	0	5	
		4471	0·457	142·5	199·7	−20·0	0	4	
		4471	0·465	138·0	197·7	−18·9	0	11	
			0·865	72·0	158·1	+16·2			217
			0·926	67·6	150·4	+21·2			266
Nov. 25		Centre			(216·8)	(+1·3)	(6)	(43)	(1302)

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The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4468, November 21–22. Three very small spots on November 21. Only the last, considerably increased, remains by the succeeding day.
Group 4469, November 21. A very small spot.
Group 4470, November 21–30. A regular spot, *a*, with a second spot almost in contact with it. The latter moves irregularly with regard to *a*, and has disappeared by November 25. The group has become a sparse stream of small unstable spots by November 24. *a* has disappeared by November 28.
Group 4471, November 25–30. Two or three small unstable spots which vary from day to day in number, area and place. The group is not seen on November 29.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
330d.204	CL,AW		0·971	279·9	280·8	+ 9·9			132
			0·948	255·3	275·2	−13·5			232
I.			0·840	255·1	260·7	−11·8			137
		4470*a*	0·107	43·8	200·7	+ 5·6	5	18	
		4470	0·183	59·1	195·8	+ 6·6	0	3	
		4470	0·213	58·4	194·4	+ 7·5	0	9	
		4471	0·358	161·2	197·9	−18·5	4	13	
			0·930	111·1	138·5	−19·0			166
Nov. 26		Centre			(204·9)	(+1·2)	(9)	(43)	(667)
331·409	CL,JW	4470*a*	0·226	290·8	201·2	+ 5·6	0	5	
		4470	0·189	297·0	198·7	+ 5·9	3	10	
		4470	0·175	299·7	197·7	+ 5·9	0	8	
		4470	0·154	315·0	195·3	+ 7·2	0	5	
		4470	0·136	310·9	194·9	+ 6·1	2	7	
		4470	0·146	317·8	194·6	+ 7·2	3	7	
		4471	0·379	206·0	199·1	−18·9	2	5	
		4471	0·375	204·5	198·4	−18·9	0	3	
Nov. 27		Centre			(189·0)	(+1·0)	(10)	(50)	(0)
332·148	AW,FT		0·875	252·5	238·6	−14·7			186
			0·797	262·9	231·6	− 5·1			106
I.			0·822	242·1	230·6	−22·0			168
		4470	0·360	283·1	199·7	+ 5·5	5	17	
		4470	0·348	284·2	198·9	+ 5·8	0	7	
		4470	0·304	290·7	195·8	+ 7·0	2	6	
		4470	0·292	285·8	195·5	+ 5·4	0	2	
		4470	0·286	286·8	195·1	+ 5·6	4	12	
		4470	0·288	291·8	194·8	+ 7·0	2	9	
		4471	0·514	222·1	200·8	−21·5	1	8	
			0·847	125·6	127·5	−29·0			100
			0·909	115·5	116·8	−22·5			121
Nov. 28		Centre			(179·2)	(+0·9)	(14)	(61)	(681)
333·492	CL,AW		0·913	261·1	226·8	− 7·8			145
		4470	0·645	278·3	201·3	+ 6·0	2	12	
		4470	0·613	279·1	198·8	+ 6·2	0	10	
		4470	0·584	277·3	196·9	+ 4·9	1	8	
		4472*a*	0·947	80·6	90·6	+ 9·2	40	315	1379*c*
		4472	0·959	80·4	88·3	+ 9·5	2	24	
		4472	0·972	80·0	85·4	+ 9·9	6	27	
1896.				°	°	°			
333d.492	CL,AW	4473*a*	0·997	106·7	76·7	−16·6	61	370	
			0·921	67·5	96·1	+20·9			177
			0·937	55·2	95·7	+32·6			85
Nov. 29		Centre			(161·5)	(+0·8)	(112)	(766)	(1786)
334·447	AW,CL		0·897	247·1	210·4	−20·1			256
			0·904	239·7	209·7	−26·8			69
		4470	0·785	277·4	200·4	+ 6·3	2	8	233*c*
		4470	0·773	278·4	199·2	+ 7·0	0	2	
		4471	0·813	243·3	199·8	−20·9	0	2	
		4471	0·800	247·8	199·6	−17·1	0	12	173*c*
		4471	0·793	242·0	197·6	−21·4	0	2	
		4472	0·821	79·2	94·4	+ 9·2	0	2	
		4472	0·825	80·3	93·9	+ 8·4	0	7	
		4472	0·831	80·4	93·3	+ 8·4	0	5	
		4472*a*	0·855	80·0	90·7	+ 8·9	40	244	
		4472	0·856	82·3	90·5	+ 6·9	0	3	679*c*
		4472	0·873	77·6	88·9	+11·1	0	5	
		4472	0·873	79·4	88·7	+ 9·6	5	17	
		4472	0·892	78·3	86·4	+10·8	0	9	
		4472	0·898	79·2	85·6	+10·0	10	36	
		4473*a*	0·952	107·3	78·1	−16·2	42	270	376*c*
		4473	0·976	108·0	72·7	−17·4	0	54	
			0·908	61·1	86·7	+26·3			123
			0·956	101·6	76·7	−10·9			142
Nov. 30		Centre			(149·0)	(+0·7)	(99)	(678)	(2051)
335·428	AW,FT		0·926	248·0	201·8	−20·1			405
			0·887	276·8	198·2	+ 6·3			375
			0·898	234·9	194·5	−30·7			106
			0·797	242·1	185·0	−21·5			98
		4472	0·675	76·8	94·4	+ 9·2	0	3	
		4472	0·693	78·8	92·8	+ 8·1	3	10	
		4472	0·700	79·7	92·2	+ 7·5	1	5	
		4472	0·710	80·5	91·3	+ 7·1	0	3	294*c*
		4472*a*	0·719	78·4	90·8	+ 8·6	37	191	
		4472	0·737	77·8	89·3	+ 9·3	0	6	
		4472	0·746	77·5	88·6	+ 9·6	1	10	
		4472	0·778	78·1	85·7	+ 9·5	9	28	
		4473*a*	0·865	109·3	77·9	−16·3	43	262	312
		4473	0·906	109·4	72·8	−17·2	2	14	
		4473	0·906	110·0	72·8	−17·8	0	5	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4472, November 29–December 10. A large regular spot, *a*, with a number of small companions. The companions, which are at first irregularly scattered on all sides of *a*, have formed a straight stream just *s* of *a* by December 4, and have mostly coalesced by December 6 to form a considerable irregular spot, *b*, *sp a*. *b* has disappeared by December 8.

Group 4473. November 29–December 9. A large regular spot, *a*, with two or three small companions. *a* has begun to divide by December 3, but is still measured as a single spot until December 5. The group on the succeeding days consists of a number of spots, mostly small, in a straight stream. *b* and *c* are the two most stable fragments of *a* remaining.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
335d·428	AW, FT		0·784	70·8	86·1	+15·2			124
			0·912	70·2	71·6	+18·2			156
			0·956	112·0	64·7	−20·8			418
Dec. 1		Centre			(136·0)	(+0·5)	(96)	(537)	(2288)
336·237	CL, FT		0·960	248·5	197·5	−20·4			395
			0·944	274·7	195·9	+ 4·6			368
I.			0·879	243·4	183·8	−23·0			83
		4472a	0·584	74·8	90·7	+ 9·2	37	153	
		4472	0·619	74·1	88·4	+10·0	0	10	
		4472	0·624	72·2	88·3	+11·3	0	5	
		4472	0·654	75·2	85·6	+ 9·9	4	15	
		4473	0·741	113·0	80·2	−16·5	0	6	
		4473	0·766	114·2	78·3	−18·0	4	30	328c
		4473a	0·770	111·7	77·4	−16·3	34	256	
		4474a	0·883	67·0	65·6	+20·3	15	54	
		4474	0·889	67·1	64·8	+20·4	0	4	192c
		4474	0·916	68·0	60·7	+20·3	0	6	
			0·833	70·3	70·7	+16·5			168
			0·856	116·7	69·8	−22·4			139
			0·882	105·1	64·7	−13·1			73
			0·926	110·2	59·3	−18·4			413
			0·941	101·0	55·9	−10·2			62
			0·969	69·6	50·7	+19·8			255
Dec. 2		Centre			(125·4)	(+0·4)	(94)	(539)	(2476)
337·203	AW, FT		0·956	244·8	183·5	−23·9			269
		4472	0·347	66·2	94·0	+ 8·3	2	13	
I.		4472a	0·397	67·7	90·9	+ 8·9	37	171	
		4472	0·429	63·1	89·7	+11·6	0	9	
		4472	0·434	71·2	88·2	+ 8·3	2	21	
		4472	0·472	69·6	86·0	+ 9·8	1	8	
		4473a	0·624	117·4	77·5	−16·4	55	259	212c
		4473	0·634	120·3	77·5	−18·4	0	12	
		4474a	0·750	62·7	67·5	+20·3	16	67	
		4474	0·811	64·7	61·3	+20·4	0	2	214
		4474	0·816	65·0	60·7	+20·3	0	7	
			0·800	113·6	62·2	−18·4			261
			0·898	113·3	50·9	−20·7			313
			0·922	70·2	46·8	+18·3			478
			0·945	98·6	42·2	− 8·0			331
Dec. 3		Centre			(112·6)	(+0·3)	(113)	(569)	(2078)
1896.				°	°	°			
338d·282	CL, FT		0·922	287·4	164·5	+16·0			157
			0·853	295·2	154·2	+21·3			275
I.			0·861	311·4	150·1	+34·7			99
		4472	0·149	27·8	94·5	+ 7·7	5	20	
		4472	0·165	36·5	92·8	+ 7·7	3	9	
		4472	0·171	40·0	92·2	+ 7·6	4	16	
		4472a	0·199	38·0	91·4	+ 9·1	39	172	
		4472	0·226	48·9	88·6	+ 8·6	5	34	
		4472	0·260	51·5	86·7	+ 9·4	2	7	
		4473a	0·448	130·5	77·8	−16·8	36	228	
		4473	0·465	133·6	77·8	−18·5	0	5	
		4474a	0·580	53·8	68·7	+20·0	41	146	
		4474	0·610	53·1	67·0	+21·5	0	5	
			0·791	115·5	49·3	−19·8			268
			0·859	62·6	42·6	+23·3			492
			0·872	122·7	42·5	−28·0			119
			0·866	73·1	39·8	+14·6			276
			0·913	130·5	39·4	−36·2			156
			0·864	97·8	39·2	− 6·7			322
			0·960	105·4	25·6	−14·7			498
Dec. 4		Centre			(98·5)	(+0·1)	(135)	(642)	(2662)
339·160	AW, FT		0·942	283·4	156·5	+12·6			94
			0·938	252·6	155·5	−16·3			214
I.			0·911	291·9	150·7	+19·8			103
		4472	0·201	312·4	95·5	+ 7·8	11	33	
		4472	0·202	316·5	94·9	+ 8·4	0	5	
		4472	0·171	323·2	92·8	+ 7·8	5	24	
		4472a	0·180	333·1	91·6	+ 9·2	38	153	
		4472	0·152	331·2	91·1	+ 7·7	0	6	
		4472	0·206	343·6	90·3	+11·4	0	3	
		4472	0·196	347·0	89·5	+11·0	0	2	
		4472	0·152	345·3	89·1	+ 8·4	0	3	
		4472	0·163	347·8	88·9	+ 9·2	0	11	
		4472	0·164	0·6	86·8	+ 9·4	0	2	
		4473b	0·315	156·6	79·4	−16·8	8	50	
		4473c	0·323	153·2	78·2	−16·7	11	63	
		4473	0·336	151·4	77·3	−17·1	5	24	
		4473	0·338	149·0	76·5	−16·8	3	14	
		4473	0·345	147·4	75·8	−16·8	0	14	
		4474	0·455	38·0	69·5	+20·9	0	2	
		4474a	0·453	40·3	68·8	+20·1	28	134	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4474, December 2–12. A regular spot, *a*, with one or two small companions. *a* increases in size up to December 7, when it is a large spot. It diminishes again after December 9.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
339d·160	AW, FT	4474	0·470	42·1	67·4	+20·3	0	2	
		4474	0·488	44·9	65·5	+20·1	0	7	
I.		4474	0·514	44·9	64·1	+21·3	0	8	
		4475*a*	0·951	108·3	16·0	−17·4	31	109	688*np*
			0·778	104·9	37·0	−11·6			118
			0·794	66·8	36·9	+18·2			210
			0·890	57·9	28·3	+28·2			168
			0·918	129·8	26·5	−36·0			134
Dec. 5		Centre			(86·9)	(0·0)	(140)	(669)	(1729)
340·574	AW, CL		0·937	246·2	135·9	−22·3			155
		4472	0·457	287·1	94·2	+ 7·6	0	3	
		4472*b*	0·446	287·9	93·5	+ 7·8	12	70	
		4472	0·432	287·2	92·7	+ 7·2	0	3	
		4472	0·427	289·2	92·1	+ 8·0	0	4	
		4472	0·424	288·2	92·1	+ 7·5	0	1	
		4472*a*	0·430	292·3	91·9	+ 9·3	30	162	
		4472	0·398	294·3	89·7	+ 9·3	0	4	
		4472	0·330	304·9	84·1	+10·7	0	7	
		4476	0·288	237·1	82·3	− 9·1	0	3	
		4473*b*	0·346	213·2	79·6	−16·9	6	22	
		4473	0·357	209·5	78·8	−18·1	0	5	
		4473*c*	0·331	210·6	78·3	−16·6	11	36	
		4473	0·324	208·8	77·5	−16·6	1	6	
		4473	0·327	206·3	76·9	−17·1	0	5	
		4473	0·317	204·3	76·0	−16·9	1	6	
		4473	0·312	201·1	74·9	−17·0	0	3	
		4473	0·296	202·2	74·9	−16·0	0	2	
		4474*a*	0·348	358·2	68·9	+20·1	25	135	
		4477	0·696	112·9	26·6	−15·7	0	3	241*f*
		4475*b*	0·807	111·8	16·6	−17·5	0	8	223*c*
		4475*a*	0·823	111·5	15·0	−17·6	12	58	
			0·831	103·0	12·9	−10·9			178
			0·969	98·5	352·9	− 8·2			149
Dec. 6		Centre			(68·2)	(−0·1)	(98)	(546)	(946)
341·217	AW, FT		0·946	245·9	128·9	−22·8			310
		4472*b*	0·569	284·0	93·4	+ 7·7	8	58	
I.		4472	0·566	281·8	93·4	+ 6·5	0	1	
		4472·	0·554	283·4	92·5	+ 7·2	0	6	
		4472*a*	0·549	287·2	91·7	+ 9·2	43	168	
		4472	0·515	292·0	88·7	+10·9	0	2	
1896.				°	°	°			
341d·217	AW, FT	4473*b*	0·437	228·7	79·7	−16·9	9	25	
		4473	0·455	225·1	79·5	−18·9	0	2	
I.		4473	0·441	225·4	78·9	−18·1	0	4	
		4473*c*	0·420	226·8	78·3	−16·8	8	36	
		4473	0·432	218·4	76·2	−19·9	0	4	
		4473	0·390	222·4	75·6	−16·9	0	7	
		4473	0·389	220·7	75·0	−17·3	0	1	
		4473	0·381	220·7	74·7	−16·9	0	3	
		4473	0·389	218·7	74·4	−17·8	0	1	
		4473	0·398	216·7	74·2	−18·7	1	6	
		4474	0·366	331·5	70·3	+18·5	0	4	
		4474*a*	0·377	337·0	68·7	+20·1	33	164	
		4478*a*	0·406	128·0	40·5	−14·6	0	2	
		4477	0·593	117·8	26·7	−16·2	0	4	
		4477	0·594	116·2	26·3	−15·3	0	5	
		4475*b*	0·714	114·1	16·9	−17·1	0	8	
		4475*c*	0·711	111·5	16·6	−15·2	5	30	
		4475	0·720	114·7	16·5	−17·6	0	2	
		4475	0·726	111·5	15·4	−15·5	0	3	294*c*
		4475	0·727	112·3	15·4	−16·1	0	8	
		4475*a*	0·732	113·8	15·4	−17·2	15	34	
		4475*d*	0·744	111·8	13·9	−16·1	15	32	
			0·756	104·5	11·7	−11·0			147
			0·939	98·4	350·2	− 8·0			307
Dec. 7		Centre			(59·7)	(−0·2)	(137)	(620)	(1058)
342·238	AW, CL		0·927	244·0	112·0	−24·2			155
			0·881	252·9	106·8	−15·1			157
		4472	0·744	281·4	93·6	+ 8·2	0	2	179
I.		4472*a*	0·727	283·1	91·9	+ 9·2	30	157	
		4473*b*	0·604	241·8	80·0	−16·9	2	11	
		4473*c*	0·587	241·0	78·6	−16·9	3	23	
		4473	0·581	242·5	78·6	−15·9	0	5	
		4474	0·510	308·7	71·0	+18·2	0	6	
		4474*a*	0·497	314·2	68·5	+19·8	25	147	
		4474	0·472	310·2	68·4	+17·4	0	2	
		4474	0·470	312·8	67·5	+18·2	0	2	
		4478*a*	0·256	166·9	42·9	−14·8	6	27	
		4478	0·264	158·7	40·6	−14·6	0	4	
		4478	0·265	154·6	39·6	−14·2	0	4	
		4478	0·269	154·7	39·5	−14·4	0	3	
		4478*b*	0·285	152·6	38·5	−15·0	3	18	
		4475*c*	0·528	119·5	18·0	−15·4	11	43	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4475, December 5–11. A large regular spot, *a*, on December 5. *a* has diminished by December 6, and a small companion, *b*, has appeared near it. *a* has further diminished by the succeeding day, when the group consists of three equal spots, *c*, *a* and *d*, forming a right-angled triangle and several small companions. The group diminishes after this date.
Group 4476, December 6. A very small spot.
Group 4477, December 6–7. A very small spot, *p*, Group 4475. A second very small spot is seen with the first on December 7.
Group 4478. December 7–14. A very small spot, *a*, on December 7, *p*, Group 4477. *a* moves forward rapidly in longitude, and on the succeeding days a number of other spots have appeared following it, forming a straight stream, of which *b*, the last spot, is the largest. *a* has disappeared by December 12, and *b*, now a double spot, alone remains by December 13.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
342d.238	AW, CL	4475*b*	0·548	122·8	17·5	−17·6	0	6	
		4475	0·548	119·5	16·7	−16·0	0	2	
I.		4475*a*	0·573	121·2	15·5	−17·6	4	20	
		4475*d*	0·592	121·6	14·3	−18·4	0	4	
		4475	0·585	118·2	13·9	−16·3	2	20	
		4475*d*	0·601	119·3	13·1	−17·4	5	28	
			0·883	97·7	344·7	− 7·0			283
Dec. 8		Centre			(46·3)	(−0·4)	(91)	(534)	(774)
343·248	AW, FT		0·901	303·1	93·6	+29·2			134
			0·818	268·4	87·7	− 1·6			148
I.			0·770	259·2	82·7	− 8·6			142
			0·752	294·6	78·7	+17·8			122
			0·679	242·6	72·3	−18·5			118
		4472*a*	0·866	281·2	92·2	+ 9·5	28	170	} 1077*nf*
		4472	0·843	282·9	89·5	+10·6	0	4	
		4473*c*	0·742	247·4	78·5	−16·9	3	13	238*p*
		4474*a*	0·647	302·7	68·3	+20·0	34	171	} 354*c*
		4474	0·621	305·3	65·6	+20·6	0	7	
		4478*a*	0·311	222·2	45·4	−13·7	12	63	
		4478	0·276	212·3	41·7	−13·9	0	4	
		4478	0·279	210·1	41·3	−14·4	0	6	
		4478	0·269	206·7	40·1	−14·3	1	7	
		4478	0·261	202·8	39·0	−14·4	3	13	
		4478	0·264	200·1	38·4	−14·8	4	22	
		4478	0·255	198·4	37·7	−14·4	0	2	
		4478*b*	0·266	196·5	37·5	−15·2	8	37	
		4475	0·335	136·3	19·2	−14·4	0	8	
		4475*c*	0·348	137·2	18·9	−15·2	0	7	
		4475*a*	0·408	134·9	15·5	−17·2	2	13	
		4475*d*	0·405	129·9	14·3	−15·5	0	3	
		4475*d*	0·434	131·7	13·3	−17·2	0	5	
			0·741	99·6	345·7	− 7·4			294
			0·935	99·6	324·2	− 9·2			164
Dec. 9		Centre			(33·0)	(−0·5)	(95)	(555)	(2791)
344·235	CL, FT		0·924	286·3	86·3	+14·8			359
			0·913	258·8	85·4	−10·5			228
I.			0·873	292·4	78·4	+19·1			195
			0·859	248·8	77·4	−18·4			569
			0·829	285·5	74·7	+12·4			105
			0·774	239·1	66·4	−23·8			252
1896.				°	°	°			
344d.235	CL, FT	4472*a*	0·955	279·6	92·1	+ 9·0	41	178	781*c*
		4474*a*	0·778	296·5	67·6	+19·8	48	137	202*c*
I.		4478*a*	0·496	242·7	46·9	−13·7	7	23	
		4478	0·445	238·1	42·8	−14·1	4	23	
		4478	0·422	236·7	41·2	−14·0	2	9	
		4478	0·396	233·5	39·1	−14·2	2	13	
		4478	0·399	230·4	38·5	−15·3	0	5	
		4478*b*	0·384	228·3	37·2	−15·3	24	64	
		4475	0·259	182·4	20·6	−15·6	0	5	
		4475*c*	0·254	180·3	20·1	−15·3	5	19	
		4475*a*	0·299	164·6	15·3	−17·3	2	9	
		4475	0·273	162·5	15·1	−15·6	0	2	
		4475*d*	0·331	160·4	13·3	−18·7	0	7	
			0·886	96·8	318·0	− 6·3			382
			0·907	107·5	316·1	−16·0			252
			0·941	88·0	310·1	+ 1·7			125
Dec. 10		Centre			(20·0)	(−0·6)	(135)	(494)	(3450)
345·212	AW, FT		0·977	280·6	84·2	+10·2			295
			0·942	250·9	76·4	−18·2			487
I.			0·881	284·5	67·7	+12·4			90
			0·844	246·0	62·3	−20·5			450
			0·739	294·2	51·8	+17·1			318
		4474*a*	0·889	293·2	67·4	+20·1	32	134	263*c*
		4478*a*	0·677	250·6	48·0	−13·5	4	24	
		4478	0·639	249·2	44·9	−13·6	3	13	
		4478	0·623	247·7	43·4	−14·3	0	15	
		4478	0·576	245·0	39·6	−14·7	0	9	
		4478	0·564	245·3	38·9	−14·2	0	2	
		4478*b*	0·551	242·4	37·4	−15·3	13	129	
		4475	0·298	210·6	16·1	−15·5	0	4	
		4475*a*	0·317	206·1	15·5	−17·2	0	5	
		4475*d*	0·340	197·7	13·4	−19·6	0	5	
		4475*d*	0·327	198·4	13·3	−18·7	0	6	
			0·839	99·5	310·5	− 8·4			229
			0·910	90·9	301·8	− 1·1			263
			0·936	103·4	298·3	−12·8			345
Dec. 11		Centre			(7·1)	(−0·7)	(52)	(346)	(2740)
346·229	AW, CL		0·959	248·9	66·3	−20·5			391
			0·899	287·2	56·3	+15·0			182
I.			0·859	295·8	49·8	+21·4			269

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
346d·229	AW, CL		0·847	245·4	49·2	−21·1			330
			0·793	288·7	44·5	+14·6			91
I.		4474*a*	0·970	291·1	68·3	+20·2	24	103	284*c*
		4478	0·806	251·2	46·0	−15·6	0	14	
		4478	0·776	252·4	43·3	−14·1	0	19	
		4478	0·766	252·0	42·3	−14·3	0	6	426*c*
		4478	0·732	250·0	39·1	−15·1	2	29	
		4478*b*	0·716	248·7	37·5	−15·7	17	94	
		4479	0·765	113·9	306·4	−18·6	3	10	1978*f*
			0·839	102·6	297·5	−11·1			488
Dec. 12		Centre			(353·8)	(−0·9)	(46)	(275)	(2658)
347·522	AW, CL	4478*b*	0·889	253·5	38·5	−15·1	5	49	226*np*
		4478*b*	0·881	252·8	37·3	−15·6	9	59	
		4479*a*	0·525	123·5	309·5	−17·7	5	38	
		4479	0·559	122·8	307·1	−18·5	0	4	
		4479*b*	0·603	122·9	304·3	−19·9	0	15	
Dec. 13		Centre			(336·7)	(−1·0)	(19)	(165)	(226)
348·237	AW, FT		0·935	289·3	34·8	+17·5			238
			0·896	300·2	26·7	+26·2			191
I.			0·853	251·2	24·5	−16·5			347
			0·740	246·1	12·5	−18·2			91
		4478*b*	0·952	253·6	38·8	−15·9	0	83	433*c*
		4479*a*	0·410	135·8	309·9	−18·1	7	29	
		4479	0·428	132·9	308·1	−17·9	1	5	
		4479	0·463	131·3	305·8	−18·7	0	4	
		4479*b*	0·494	131·4	304·2	−20·0	2	23	
		4480*a*	0·553	106·1	294·8	− 9·8	5	41	
		4480	0·595	105·0	291·8	− 9·7	0	4	
		4480	0·594	103·7	291·7	− 8·9	1	13	
			0·784	112·6	277·8	−18·2			90
			0·881	97·8	265·9	− 7·4			146
			0·931	104·8	259·4	−14·1			131
Dec. 14		Centre			(327·3)	(−1·1)	(16)	(202)	(1667)
349·530	AW, FT		0·906	251·0	14·1	−17·7			208
		4479*a*	0·284	183·5	311·2	−17·7	4	21	
		4479	0·309	178·3	309·6	−19·2	0	4	
		4479	0·291	177·8	309·5	−18·2	1	10	
		4479*b*	0·328	165·3	305·1	−19·7	6	50	
1896.				°	°	°			
349d·530	AW, FT	4480*a*	0·263	121·3	297·1	− 9·1	15	118	
		4480	0·286	122·4	296·1	−10·1	0	4	
		4480	0·281	119·1	295·9	− 9·1	0	2	
		4480	0·310	116·8	294·0	− 9·3	0	11	
		4480	0·319	120·5	294·0	−10·6	0	9	
		4480	0·323	115·1	293·0	− 9·1	0	3	
		4480	0·340	119·8	292·8	−10·9	1	4	
		4480	0·344	117·2	292·2	−10·3	0	2	
		4480	0·334	112·7	292·1	− 8·5	1	5	
		4480	0·356	115·4	291·2	−10·0	7	40	
Dec. 15		Centre			(310·2)	(−1·3)	(35)	(283)	(208)
350·300	AW, FT		0·952	250·9	11·5	−18·6			285
		4479*a*	0·335	214·4	311·5	−17·4	2	12	
I.		4479	0·335	209·8	310·1	−18·2	0	4	
		4479	0·335	197·2	306·1	−20·0	0	5	
		4479*b*	0·333	195·1	305·4	−20·1	2	14	
		4480	0·155	195·5	302·5	−10·0	0	3	
		4480	0·128	183·4	300·5	− 8·7	0	3	
		4480*a*	0·139	162·2	297·6	− 9·0	41	203	
		4480	0·147	150·3	295·9	− 8·7	1	5	
		4480	0·165	144·7	294·6	− 9·1	3	12	
		4480	0·142	136·9	294·5	− 7·3	0	2	
		4480	0·185	146·1	294·1	−10·2	0	2	
		4480	0·198	148·5	294·1	−11·1	0	3	
		4480	0·165	131·2	292·9	− 7·6	0	4	
		4480	0·218	143·3	292·5	−11·4	1	5	
		4480	0·216	138·9	291·8	−10·7	2	19	
		4480	0·198	132·4	291·6	− 9·1	3	12	
		4480	0·221	135·1	291·0	−10·4	4	47	
			0·890	111·2	238·7	−19·4			128
			0·934	121·9	233·9	−30·1			155
			0·934	72·7	232·6	+15·6			148
Dec. 16		Centre			(300·1)	(−1·4)	(59)	(355)	(716)
351·280	CL, AW		0·927	261·0	354·9	− 8·9			324
			0·822	257·2	341·8	−11·4			94
I.		4481	0·482	252·4	314·9	− 9·7	0	20	
		4481	0·474	254·1	314·6	− 8·8	1	7	
		4481	0·469	251·7	313·9	− 9·8	0	12	
		4479*b*	0·446	221·9	305·7	−20·8	4	18	
		4480*a*	0·230	235·9	298·3	− 8·8	25	127	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4479, December 12–17. A few small spots in a straight stream. *a* and *b*, the first and last spots, are the largest and most stable. *b* alone remains by December 17.
Group 4480, December 14–22. A number of spots in a straight stream. The group is small at its first appearance, but increases rapidly, and *a*, the leader, has become a large regular spot by December 15. The group changes rapidly in shape, and consists on December 18 of two straight streams radiating from *a*, and inclined at an angle of about 30° to each other. The group undergoes further change, and consists, on December 19 and the succeeding days, chiefly of three large spots, *a*, *b* and *c*.
Group 4481, December 17–20. A few small faint spots on December 17. Two small spots, *a* and *b*, on the succeeding days, with a very small companion between them on December 18. Only *b* remains by December 20.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
351d·280	CL, AW	4480	0·213	231·3	296·8	− 9·2	0	3	
		4480	0·206	232·8	296·7	− 8·6	1	9	
I.		4480	0·211	219·0	294·9	−10·9	0	2	
		4480	0·184	226·4	294·9	− 8·8	0	5	
		4480	0·174	217·2	293·3	− 9·5	0	3	
		4480	0·190	206·4	292·1	−11·3	0	3	
		4480	0·176	208·4	292·1	−10·4	2	9	
		4480	0·181	202·8	291·3	−11·1	3	9	
		4480	0·191	199·1	290·8	−11·9	0	2	
		4480	0·178	200·1	290·8	−11·1	0	3	
		4480	0·162	199·8	290·4	−10·3	12	39	
			0·816	72·1	234·4	+13·6			110
			0·904	117·0	224·8	−24·9			192
			0·964	109·4	214·1	−19·1			317
			0·978	79·1	210·0	+10·3			264
Dec. 17		Centre			(287·2)	(−1·5)	(48)	(271)	(1301)
352·272	CL, FT		0·952	261·0	346·1	− 9·1			129
		4481*a*	0·689	258·7	317·1	− 8·9	10	40	
I.		4481	0·669	257·1	315·4	− 9·8	0	6	
		4481*b*	0·659	256·6	314·5	−10·0	13	28	
		4480*a*	0·425	252·0	298·2	− 9·0	17	123	
		4480	0·365	252·1	294·5	− 8·0	0	2	
		4480	0·372	246·6	294·3	−10·0	0	5	
		4480	0·360	250·9	294·1	− 8·2	2	18	
		4480	0·343	251·9	293·2	− 7·6	0	5	
		4480	0·351	243·9	292·7	−10·4	2	7	
		4480	0·337	250·5	292·7	− 8·0	14	28	
		4480	0·339	241·4	291·7	−10·9	18	51	
		4480	0·342	239·2	291·5	−11·6	0	5	
		4480	0·335	238·6	291·0	−11·6	0	3	
		4480	0·320	242·2	290·7	−10·1	4	16	
		4480	0·317	239·7	290·2	−10·7	8	28	
		4480	0·306	242·5	290·0	− 9·7	3	7	
		4482	0·616	67·5	238·6	+12·3	8	25	
		4483	0·759	75·2	226·1	+10·1	1	5	46*c*
		4483	0·785	77·1	223·5	+ 9·1	0	3	
			0·899	70·5	212·1	+16·7			42
			0·915	123·0	211·3	−30·5			151
			0·926	77·2	207·3	+11·2			343
			0·930	111·7	206·9	−20·7			1426
			0·965	85·6	199·7	+ 3·9			180
Dec. 18		Centre			(274·1)	(−1·6)	(100)	(405)	(2317)
1896.				°	°	°			
353d·152	AW, CL		0·762	245·6	309·7	−19·5			206
		4481*a*	0·826	260·4	317·8	− 8·9	3	17	319*p*
I.		4481*b*	0·797	259·2	314·8	− 9·6	3	18	
		4480*a*	0·584	257·0	297·5	− 8·9	32	169	
		4480	0·565	259·2	296·4	− 7·5	3	16	
		4480	0·556	253·3	295·2	−10·6	4	14	
		4480*b*	0·519	258·2	293·2	− 7·5	22	90	
		4480	0·521	251·7	292·6	−10·9	0	3	
		4480	0·501	256·0	291·8	− 8·5	4	12	
		4480	0·497	258·5	291·8	− 7·2	5	11	
		4480	0·506	250·6	291·5	−11·1	13	61	
		4480*c*	0·478	251·0	289·7	−10·4	33	145	
		4484	0·160	199·2	265·6	−10·3	2	8	
		4482	0·449	59·1	239·4	+11·7	4	17	
		4485	0·798	75·2	211·0	+10·6	2	20	201*c*
		4485	0·821	75·1	208·7	+11·2	0	13	
		4486	0·971	100·6	186·5	−10·7	22	99	134*c*
			0·855	112·2	205·5	−19·7			1061
			0·881	82·2	201·4	+ 6·0			168
			0·915	120·9	199·1	−28·8			132
			0·943	73·0	193·5	+15·4			254
Dec. 19		Centre			(262·5)	(−1·7)	(152)	(713)	(2475)
354·173	AW, FT		0·900	253·1	312·5	−16·0			279
			0·811	247·5	301·4	−19·2			182
I.		4481*b*	0·918	260·3	315·4	− 9·6	3	10	296*np*
		4480*a*	0·760	259·6	298·1	− 9·2	63	176	
		4480	0·743	261·3	296·7	− 7·7	0	8	
		4480	0·744	257·7	296·6	−10·4	0	8	
		4480*b*	0·713	261·3	294·2	− 7·5	20	70	296*c*
		4480	0·689	260·3	292·2	− 8·1	0	4	
		4480	0·689	255·6	291·8	−11·3	1	20	
		4480*c*	0·664	256·5	289·9	−10·3	36	176	
		4482	0·271	33·9	240·3	+11·1	0	6	
		4485	0·614	69·3	213·4	+11·0	0	20	
		4487	0·672	115·8	209·6	−18·4	0	3	107*c*
		4487	0·687	115·4	208·4	−18·6	0	1	
		4486	0·877	101·1	188·2	−10·6	12	64	
		4486	0·892	100·5	186·3	−10·2	0	9	316*f*
		4486	0·899	101·2	185·4	−10·9	0	2	
		4488*a*	0·905	82·5	184·9	+ 6·0	16	54	
		4488	0·925	82·4	182·0	+ 6·3	0	17	
		4488*b*	0·939	83·4	179·8	+ 5·5	2	9	437*c*
		4488	0·940	81·4	179·8	+ 7·4	0	8	

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Group 4482, December 18–20. A small spot.
Group 4483, December 18. Two very small spots.
Group 4484, December 19. A very small spot.
Group 4485, December 19–21. A pair of small spots on December 19. Only one remains by December 20; it has divided into two by December 21.
Group 4486, December 19–29. A number of spots, mostly small and unstable, irregularly scattered. The group is not seen on December 24.
Group 4487, December 20. Two very small spots.
Group 4488, December 20–30. A number of spots in a straight stream, *a*, *b* and *c* are the principal spots on December 22. The group increases in size up to December 24. On the succeeding days it consists chiefly of two large composite spots, *a* and *c*. These begin to break up, *c* dividing into *d* and *e*, and the group to diminish after December 25. The group undergoes continual change, and steadily increases in length throughout its whole course.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
354d·173	AW, FT		0·778	80·7	198·8	+ 6·0			186
			0·841	113·8	193·9	−20·9			709
I.			0·874	126·1	192·9	−32·0			147
			0·882	69·6	189·5	+16·9			596
Dec. 20		Centre			(249·1)	(−1·9)	(153)	(665)	(3551)
355·200	AW, CL		0·958	249·7	308·4	−20·0			281
			0·866	251·0	294·5	−17·4			142
I.		4480a	0·888	260·2	297·9	− 9·6	25	121	
		4480	0·882	261·4	297·2	− 8·6	0	16	
		4480	0·877	262·3	296·7	− 7·7	0	8	634c
		4440	0·865	263·1	295·3	− 7·0	0	3	
		4480b	0·854	262·4	294·0	− 7·5	12	72	
		4480c	0·816	258·4	289·8	−10·6	46	168	
		4485	0·413	56·2	215·2	+11·4	0	9	
		4485	0·421	57·5	214·5	+11·1	0	10	
		4486	0·742	105·0	188·6	−12·4	4	13	
		4486	0·742	103·6	188·4	−11·4	6	24	309c
		4486	0·755	102·4	187·2	−10·7	6	43	
		4486	0·807	102·9	182·4	−11·6	0	12	
		4488a	0·770	80·6	186·0	+ 5·9	56	260	
		4488	0·798	80·1	183·5	+ 6·7	0	10	
		4488	0·810	80·9	182·3	+ 6·2	6	20	
		4488	0·814	82·5	181·7	+ 5·0	0	4	
		4488	0·825	79·8	180·9	+ 7·3	0	3	
		4488c	0·834	81·1	179·8	+ 6·3	2	10	739c
		4488b	0·834	82·1	179·7	+ 5·5	18	53	
		4488	0·842	79·8	179·1	+ 7·5	0	14	
		4488	0·846	81·8	178·5	+ 5·8	0	7	
		4488	0·847	80·4	178·5	+ 7·0	0	5	
		4488	0·848	81·0	178·4	+ 6·5	1	8	
			0·705	114·6	193·2	−18·5			229
			0·799	65·8	185·9	+17·8			197
			0·876	114·9	176·4	−22·7			164
Dec. 21		Centre			(235·6)	(−2·0)	(182)	(893)	(2695)
356·193	AW, CL		0·904	281·2	286·1	+ 9·2			233
			0·882	290·3	281·9	+16·8			89
I.		4480a	0·970	260·7	298·3	− 9·6	24	92	
		4480	0·966	261·5	297·4	− 8·8	0	22	688c
		4480b	0·951	262·9	294·3	− 7·4	0	25	
		4480c	0·926	259·6	290·0	−10·4	36	199	
1896.				°	°	°			
356d·193	AW, CL	4486	0·561	109·7	189·8	−12·6	2	6	
		4486	0·559	108·8	189·8	−12·1	0	5	
I.		4486	0·572	107·5	188·7	−11·6	0	6	
		4486	0·580	106·2	188·0	−11·0	8	49	
		4486	0·649	105·6	182·9	−11·7	3	12	
		4486	0·648	104·4	182·8	−10·9	0	6	
		4488a	0·597	76·6	186·8	+ 6·3	70	326	
		4488	0·629	75·9	184·6	+ 7·1	0	2	
		4488	0·651	76·6	182·9	+ 7·0	1	6	
		4488	0·648	79·3	182·8	+ 5·3	3	9	
		4488	0·651	78·1	182·7	+ 6·1	4	23	
		4488	0·661	78·1	182·0	+ 6·2	0	6	
		4488	0·674	76·2	181·2	+ 7·7	6	28	
		4488	0·670	79·9	181·1	+ 5·2	0	3	
		4488	0·685	76·4	180·4	+ 7·7	0	7	
		4488b	0·687	79·8	179·8	+ 5·4	13	112	
		4488	0·692	76·9	179·8	+ 7·4	0	1	
		4488c	0·695	78·1	179·4	+ 6·7	10	41	
		4488	0·702	77·0	179·0	+ 7·5	0	7	
		4488	0·702	79·4	178·7	+ 5·9	1	7	
		4488	0·706	78·0	178·5	+ 6·9	0	7	
			0·914	106·4	157·0	−15·8			75
Dec. 22		Centre			(222·4)	(−2·1)	(181)	(1007)	(1085)
357·196	CL, FT	4486	0·369	120·4	190·3	−12·8	0	6	
		4486	0·393	115·5	188·2	−11·7	1	8	
I.		4486	0·453	110·1	183·7	−10·9	0	13	
		4488a	0·406	69·3	186·9	+ 6·2	82	336	
		4488	0·433	67·9	185·5	+ 7·3	0	4	
		4488	0·460	72·5	183·2	+ 6·0	18	61	
		4488	0·488	70·1	181·8	+ 7·5	0	5	
		4488	0·500	69·8	181·1	+ 8·0	8	35	
		4488	0·500	76·3	180·2	+ 4·9	4	10	
		4488	0·511	71·5	180·2	+ 7·4	0	3	
		4488b	0·514	76·3	179·3	+ 5·1	5	71	
		4488c	0·525	73·6	179·0	+ 6·6	30	139	
Dec. 23		Centre			(209·3)	(−2·2)	(148)	(691)	(0)
358·183	AW, FT	4488a	0·215	49·2	186·9	+ 5·7	81	286	
		4488	0·256	53·8	184·4	+ 6·3	14	51	
I.		4488	0·272	50·0	184·2	+ 7·7	0	5	
		4488	0·305	54·3	181·9	+ 7·9	5	22	

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.

The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*continued.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots. Area of UMBRA for each Spot (and for Day).	Spots. Area of WHOLE for each Spot (and for Day).	Faculæ. Area for each Group (and for Day).
1896.				°	°	°			
358d·183	AW, FT	4488*b*	0·309	66·1	179·9	+ 4·9	0	37	
I.		4488*c*	0·330	62·6	179·2	+ 6·4	38	255	
		4488	0·356	58·8	178·4	+ 8·4	0	6	
Dec. 24		Centre			(196·3)	(−2·4)	(138)	(662)	(0)
359·270	AW, FT		0·858	285·2	239·4	+11·6			135
I.		4486	0·180	212·8	187·6	−11·2	4	27	
		4486	0·162	196·9	184·6	−11·4	0	10	
		4488*a*	0·157	324·1	187·2	+ 4·8	57	314	
		4488	0·173	343·8	184·7	+ 7·0	0	7	
		4488	0·157	343·8	184·4	+ 6·2	6	41	
		4488	0·181	347·4	184·2	+ 7·7	2	14	
		4488	0·168	349·4	183·7	+ 7·0	0	11	
		4488	0·175	357·6	182·3	+ 7·5	2	17	
		4488	0·169	7·2	180·7	+ 7·1	0	9	
		4488*b*	0·125	10·6	180·6	+ 4·6	0	4	
		4488*c*	0·153	19·8	178·9	+ 5·8	28	231	
		4489	0·382	122·7	162·6	−14·2	0	3	
		4489	0·414	120·7	160·4	−14·5	1	6	
		4489	0·423	121·6	160·1	−15·1	0	4	
		4489	0·433	120·1	159·2	−14·8	0	4	
		4489	0·433	118·3	158·9	−14·1	0	2	
		4489	0·438	117·4	158·4	−13·9	0	2	
Dec. 25		Centre			(181·9)	(−2·5)	(100)	(706)	(135)
360·194	CL, FT		0·930	285·8	236·5	+13·7			245
I.			0·861	270·9	228·9	− 0·6			78
			0·720	286·0	214·1	+ 9·6			139
		4486	0·359	244·2	188·9	−11·4	5	15	
		4486	0·289	240·2	184·4	−10·7	0	4	
		4486	0·300	234·2	184·1	−12·6	0	2	
		4486	0·279	238·9	183·7	−10·8	2	4	
		4486	0·286	233·6	183·3	−12·3	0	2	
		4486	0·279	236·1	183·3	−11·5	1	3	
		4488*a*	0·353	289·9	189·1	+ 4·5	47	228	
		4488	0·323	294·5	186·8	+ 5·2	8	36	
		4488	0·332	298·3	186·7	+ 6·6	0	2	
		4488	0·321	298·1	186·2	+ 6·2	1	3	
		4488	0·310	299·6	185·4	+ 6·3	8	20	
		4488	0·302	302·8	184·5	+ 6·9	0	3	
		4488	0·294	300·3	184·4	+ 6·0	0	2	
		4488	0·286	307·4	182·9	+ 7·5	3	11	
1896.				°	°	°			
360d·194	CL, FT	4488	0·234	307·7	180·4	+ 5·6	1	5	
I.		4488*d*	0·235	313·2	179·6	+ 6·7	14	80	
		4488*e*	0·212	309·7	179·1	+ 5·2	17	77	
		4488	0·217	316·6	178·3	+ 6·5	2	8	
		4489	0·224	159·4	165·0	−14·7	5	11	
		4489	0·230	154·1	163·8	−14·5	0	3	
		4489	0·225	152·6	163·6	−14·1	0	1	
		4489	0·229	151·9	163·3	−14·2	1	8	
		4489	0·243	150·4	162·6	−14·7	0	2	
		4489	0·238	146·9	162·0	−14·0	0	2	
		4489	0·252	147·5	161·7	−14·8	0	4	
		4489	0·239	144·8	161·6	−13·8	0	3	
		4489	0·256	144·1	160·8	−14·5	1	2	
		4489	0·263	145·3	160·8	−15·0	0	7	
		4489	0·266	143·5	160·3	−14·9	2	11	
			0·860	76·8	111·7	+10·0			99
			0·953	77·7	98·4	+10·9			236
Dec. 26		Centre			(169·7)	(−2·6)	(118)	(559)	(797)
361·170	CL, FT		0·858	283·4	214·6	+10·0			150
I.			0·806	273·3	210·3	+ 1·1			49
			0·804	246·6	208·6	−20·3			519
			0·700	297·0	197·3	+16·4			86
		4486	0·564	250·7	189·9	−13·0	0	3	
		4486	0·544	253·5	188·9	−11·2	0	11	
		4486	0·532	253·6	188·1	−11·0	0	6	
		4486	0·508	251·8	186·3	−11·5	7	19	
		4488*a*	0·554	281·8	189·7	+ 4·3	42	178	
		4488	0·534	283·3	188·2	+ 4·7	0	18	
		4488	0·508	285·2	186·3	+ 5·3	4	11	
		4488	0·503	287·6	185·6	+ 6·3	2	14	
		4488	0·469	290·8	183·0	+ 7·1	0	5	
		4488	0·426	289·3	180·6	+ 5·6	1	5	
		4488*d*	0·426	292·8	180·1	+ 7·0	13	57	
		4488*e*	0·398	290·4	178·8	+ 5·5	12	52	
		4488	0·403	293·0	178·7	+ 6·6	3	22	
		4489*a*	0·263	217·8	166·4	−14·6	19	87	
		4489	0·250	213·0	165·0	−14·7	0	14	
		4489	0·237	212·6	164·4	−14·2	3	18	
		4489	0·262	207·8	164·2	−16·0	3	15	
		4489	0·250	209·2	164·1	−15·3	2	17	
		4489*b*	0·225	195·2	160·4	−15·2	38	142	
			0·890	76·3	95·4	+10·9			673

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n, s, p, f, c,* denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets. The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4489, 1896 December 25–1897 January 1. A few small spots in a straight stream, *f*, Group 4486, on December 25. The group increases on the succeeding days, and consists chiefly on December 27 and 28 of two large composite spots, *a* and *b*, and a few small spots between them : *a* is measured in two parts on December 29. The group undergoes continual change.

Measures of Positions and Areas of Sun Spots and Faculæ on Photographs—*concluded.*

Greenwich Civil Time.	Measurers.	No. of Group, and Letter for Spot.	Distance from Centre in terms of Sun's Radius.	Position Angle from Sun's Axis.	Heliographic Longitude.	Heliographic Latitude.	Spots: Area of UMBRA for each Spot (and for Day).	Spots: Area of WHOLE for each Spot (and for Day).	Faculæ: Area for each Group (and for Day).
1896.				°	°	°			
361d·170	CL,FT		0·901	86·1	93·0	+ 2·3			49
I.			0·940	65·5	89·9	+21·9			170
			0·955	106·0	84·3	−16·1			347
Dec. 27		Centre			(156·9)	(−2·7)	(149)	(694)	(2043)
362·208	M, JW		0·886	247·0	204·3	−21·6			799
		4486	0·721	257·9	188·8	−10·6	7	23	
M.		4486	0·714	257·5	188·2	−10·9	0	3	406c
		4486	0·689	257·0	186·2	−11·0	5	16	
		4488a	0·754	278·2	191·4	+ 4·3	24	126	
		4488	0·732	279·5	189·5	+ 5·0	5	17	
		4488	0·699	281·4	186·6	+ 5·9	0	4	
		4488d	0·631	285·3	180·9	+ 7·4	0	6	
		4488	0·614	283·0	180·0	+ 5·7	0	2	
		4488	0·610	285·8	179·3	+ 7·3	0	4	
		4488e	0·600	282·7	179·0	+ 5·3	3	9	
		4489a	0·451	243·5	167·7	−14·1	14	114	
		4489	0·439	241·5	166·6	−14·6	3	7	
		4489	0·430	237·6	165·3	−15·9	6	21	
		4489	0·425	236·4	164·7	−16·2	1	3	
		4489	0·382	235·5	162·1	−15·1	0	6	
		4489b	0·353	233·0	160·1	−14·9	19	128	
			0·811	72·9	91·0	+12·1			461
			0·888	63·3	84·6	+22·0			144
			0·871	108·6	83·5	−17·5			426
			0·952	70·2	73·2	+17·9			107
Dec. 28		Centre			(143·2)	(−2·8)	(87)	(489)	(2343)
363·538	CL,FT		0·938	248·8	194·9	−20·9			520
			0·921	286·7	190·9	+14·1			226
		4486	0·900	260·2	189·8	−10·2	0	16	392sf
		4488a	0·922	275·5	192·4	+ 3·9	21	95	
		4488	0·900	277·0	189·2	+ 5·0	2	20	795f
		4488	0·874	283·0	185·3	+ 9·8	1	12	
		4489a	0·692	252·8	168·5	−14·0	17	86	
		4489a	0·685	251·7	167·8	−14·6	11	34	
		4489	0·648	252·0	164·9	−13·8	0	6	
		4489	0·644	248·3	164·1	−16·1	0	3	
		4489	0·629	249·1	163·1	−15·3	0	2	
		4489	0·625	248·7	162·7	−15·5	0	2	
		4489	0·618	248·0	162·1	−15·7	0	3	
		4489	0·614	249·8	162·1	−14·6	5	16	
		4489b	0·593	248·7	160·4	−14·9	14	61	
		4490	0·245	271·4	139·8	− 2·6	0	3	
1896.				°	°	°			
363d·538	CL,FT	4490	0·238	269·2	139·4	− 3·1	0	4	
		4491a	0·972	102·6	49·2	−13·0	31	150	213f
			0·765	113·5	77·7	−19·8			251
			0·860	65·0	70·1	+19·6			144
			0·909	111·3	61·2	−20·6			316
Dec. 29		Centre			(125·7)	(−3·0)	(102)	(513)	(2857)
364·224	M, JW		0·939	258·8	186·5	−11·6			516
		4488a	0·973	275·0	192·7	+ 4·2	25	92	
M.		4488	0·937	281·7	185·0	+ 9·8	3	12	908c
		4488	0·935	281·1	184·7	+ 9·3	0	9	
		4489a	0·791	254·9	168·2	−13·8	18	129	
		4489	0·768	254·9	166·1	−13·6	3	7	
		4489	0·732	251·3	162·5	−15·7	0	7	
		4489	0·722	252·6	161·8	−14·7	2	11	
		4489	0·712	250·7	160·7	−15·8	0	3	
		4489	0·709	252·1	160·7	−14·8	0	9	
		4489b	0·700	252·0	159·9	−14·7	0	21	
		4492	0·448	130·1	95·4	−19·6	3	12	
		4492	0·482	127·4	92·7	−19·8	0	5	
		4491a	0·926	102·7	48·9	−13·0	30	140	725c
Dec. 30		Centre			(116·6)	(−3·1)	(84)	(457)	(2149)
365·435	AW,FT		0·979	276·9	178·2	+ 6·0			355
			0·927	237·9	166·5	−30·8			98
		4489a	0·926	256·4	168·3	−13·8	17	108	
		4489	0·917	256·3	167·0	−13·8	0	5	654c
		4489	0·912	255·3	166·3	−14·7	0	7	
		4489	0·889	254·0	163·0	−15·7	6	60	
		4492	0·291	166·3	96·5	−19·5	5	19	
		4491a	0·793	104·4	48·8	−13·3	30	135	
		4491	0·810	104·0	47·1	−13·2	0	3	
		4491	0·814	103·2	46·6	−12·6	0	13	725sf
		4491	0·838	102·6	44·1	−12·3	2	14	
		4491	0·840	101·3	43·8	−11·2	0	4	
		4491	0·844	103·0	43·5	−12·7	0	4	
		4493a	0·981	97·3	21·8	− 7·8	0	89	460p
			0·842	61·5	48·1	+21·7			123
			0·864	119·5	43·4	−26·9			175
			0·857	69·4	41·2	+21·8			67
			0·944	57·8	35·2	+28·8			52
			0·964	66·9	28·9	+21·2			46
Dec. 31		Centre			(100·7)	(−3·2)	(60)	(461)	(2755)

The Groups of Spots are numbered in the order of their appearance. When there is no number in the third column it is to be understood that there is a Facula unaccompanied by a Spot. The positions of Faculæ relative to the Spots with which they are associated are indicated by the letters *n*, *s*, *p*, *f*, *c*, denoting respectively north, south, preceding, following, concentric. The longitude and latitude of the centre of the disk are given in brackets.
The Areas of Spots and Faculæ are expressed in millionths of the Sun's visible Hemisphere.

Group 4490, December 29. A pair of very small spots.
Group 4491, 1896 December 29–1897 January 10. A large regular spot, *a*, usually followed by a few small companions in a straight stream.
Group 4492, 1896 December 30–1897 January 6. A few small unstable spots irregularly scattered. The group is not seen on January 2, 3 or 4.
Group 4493, 1896 December 31–1897 January 7. A regular spot, *a*, which is broken up into several very small fragments by January 6.

ROYAL OBSERVATORY, GREENWICH.

LEDGERS

OF

AREAS AND POSITIONS OF GROUPS OF SUN SPOTS

DEDUCED FROM THE MEASUREMENT

OF THE

SOLAR PHOTOGRAPHS,

FOR EACH DAY IN THE YEAR

1896.

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS DEDUCED FOR EACH DAY from the MEASUREMENTS of the PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DÛN IN INDIA, and at the ROYAL ALFRED OBSERVATORY, MAURITIUS, in the YEAR 1896.

NOTE.—The Greenwich Civil Time at which the photograph was taken is expressed by the month, day of the month (civil reckoning), and decimal of a day, reckoned from Greenwich Mean Midnight.

The Projected Area of the Umbræ and Whole Spots is the area as it is measured on the photograph, uncorrected for the effect of foreshortening, and expressed in millionths of the Sun's apparent disk.

The Column "Longitude from Central Meridian" gives the Mean heliographic longitude of the group, reckoned from the meridian passing through the centre of the Sun's disk at the moment of observation; longitudes west of the centre being reckoned as positive.

Dates for which no numbers are given indicate days for which no photographic record is at present available.

Group 4255.

A fine stream. On and after December 22 it consists of a large regular spot, *a*, followed by a long sparse stream of spots, mostly small, of which *b*, *c* and *d* are the principal. The stream diminishes from day to day up to December 29, when *a* remains alone. *a* increases slightly after this date.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1895. d					°	°	°
Dec. 20·273	0	143	0	352	320·2	−10·0	− 78·3
21·188	114	393	142	532	318·2	−10·0	− 68·2
22·268	119	655	97	547	319·4	− 9·8	− 52·7
23·519	134	742	84	463	320·4	−10·3	− 35·4
24·324	143	775	78	427	321·1	− 9·9	− 24·0
25·191	137	689	71	356	321·9	−10·2	− 11·8
26·152	142	595	72	302	322·1	−10·5	+ 1·1
27·266	117	568	61	297	322·0	−10·6	+ 15·6
28·293	96	442	56	255	321·9	−10·9	+ 29·1
29·157	80	354	53	236	322·4	−10·9	+ 41·0
30·263	68	305	60	269	322·1	−10·7	+ 55·3
31·293	42	198	60	287	323·2	−10·2	+ 70·0
1896.							
Jan. 1·269	0	89	0	366	323·8	−10·4	+ 83·4
Means ...	...	...	64	361	321·44	−10·34	...

Group 4256.

A very fine stream closely following Group 4255. Its principal members are:—*a*, a large regular spot; *b*, a very large composite spot; *c*, a large double spot, the latter often being measured in two parts. *c* has disappeared, and *b* has divided into two parts by December 29. The group diminishes steadily throughout its whole course.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1895.							
Dec. 21·188	0	222	0	796	304·2	−11·4	− 82·2
22·268	147	622	217	968	299·2	−12·0	− 72·9
23·519	176	1026	150	882	302·0	−12·8	− 53·8
24·324	245	1203	173	848	301·3	−12·4	− 43·8

Group 4256—*continued.*

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1895. d					°	°	°
Dec. 25·191	243	1321	144	793	301·8	−12·5	− 31·9
26·152	263	1187	141	637	302·3	−12·8	− 18·7
27·266	182	1080	94	555	302·8	−12·8	− 3·6
28·293	148	852	76	440	303·0	−13·2	+ 10·2
29·157	99	675	55	372	303·7	−13·3	+ 22·3
30·263	71	510	46	323	303·5	−13·1	+ 36·7
31·293	42	343	34	273	304·0	−12·9	+ 50·8
1896.							
Jan. 1·269	44	240	52	273	304·3	−13·2	+ 63·9
2·217	16	67	37	150	305·5	−13·6	+ 77·5
Means ...	...	...	94	562	302·89	−12·77	...

Group 4262.

A large regular spot, *a*, followed by a short stream of spots, all small except the last one, *b*. *b* has disappeared by January 1, and *a* remains alone by January 6.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1895.							
Dec. 27·266	15	91	40	241	228·1	+12·3	− 78·3
28·293	32	212	41	277	226·4	+12·1	− 66·4
29·157	53	305	48	280	226·1	+12·2	− 55·3
30·263	67	383	45	260	227·1	+11·9	− 39·7
31·293	76	438	44	253	227·7	+12·0	− 25·5
1896.							
Jan. 1·269	99	429	53	229	227·8	+12·1	− 12·6
2·217	81	415	42	214	228·1	+11·8	+ 0·1
3·270	69	363	37	194	228·3	+11·9	+ 14·2
4·313	55	269	33	159	228·8	+11·4	+ 28·4
5·182	54	199	37	136	229·0	+11·6	+ 40·0
6·214	27	120	24	106	229·0	+11·7	+ 53·6
7·196	7	32	10	44	229·4	+11·4	+ 67·0
Means ...	...	...	38	199	227·98	+11·87	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4263.

A pair of very small spots, *a* and *b*, on December 28, *sp* Group 4262. The group has developed into a short stream by December 30. The spots are small and mostly unstable.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
					°	°	°
1895. d Dec. 28·293	0	7	0	7	234·8	+ 9·8	−58·0
29·157	6	34	5	26	234·9	+ 9·5	−46·5
30·263	8	71	5	44	235·4	+ 9·6	−31·4
31·293	8	67	4	35	236·5	+ 9·3	−16·7
1896. Jan. 1·269	10	52	5	28	236·3	+ 9·1	− 4·1
2·217	9	54	4	28	238·7	+ 8·8	+10·7
Means ...	...	...	4	28	236·10	+ 9·35	...

Group 4264.

A few very small unstable spots irregularly scattered.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1895. Dec. 31·293	2	17	2	13	201·7	−13·0	−51·5
1896. Jan. 1·269	2	10	1	6	203·2	−13·0	−37·2
2·217	7	42	4	23	202·4	−13·2	−25·6
3·270	4	16	2	8	204·5	−13·2	− 9·6
4·313	0	6	0	3	202·3	−13·4	+ 1·9
5·182	0	6	0	3	202·9	−13·4	+13·9
Means ...	...	...	2	9	202·83	−13·20	...

Group 4265.

An irregular group on January 3; it increases in size up to January 5, when it consists of a large spot, *a*, followed at a little distance by a few small spots in a short straight stream. *a* has become regular and the small spots have disappeared by January 7.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Jan. 3·270	20	79	14	53	178·1	+18·8	− 36·0
4·313	58	234	34	136	178·5	+18·6	− 21·9
5·182	67	316	36	174	178·9	+18·4	− 10·1
6·214	50	288	27	155	178·5	+18·0	+ 3·1
7·196	45	197	26	112	180·0	+17·5	+ 17·6
8·190	42	187	26	118	180·5	+17·3	+ 31·2
9·451	28	152	22	122	180·3	+17·1	+ 47·6
10·214	15	89	15	93	180·7	+16·6	+ 58·1
11·193	11	36	19	62	180·4	+16·8	+ 70·7
Means ...	...	...	24	114	179·54	+17·68	...

Group 4266.

Three very small spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
					°	°	°
1896. d Jan. 4·313	2	27	2	20	155·5	−17·3	− 44·9
Means ...	...	...	2	20	155·5	−17·3	...

Group 4267.

A very small spot, *a*, with a distant companion on January 6.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Jan. 5·182	0	6	0	4	221·8	−13·5	+ 32·8
6·214	3	30	2	23	224·7	−12·6	+ 49·3
7·196	2	7	2	7	224·2	−12·3	+ 61·8
Means ...	...	...	1	11	223·57	−12·80	...

Group 4268.

Several small spots in a straight stream, appearing suddenly. *a*, the leader, is the largest, and alone remains by January 8.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Jan. 6·214	40	128	21	67	180·8	−20·3	+ 5·4
7·196	15	56	8	32	183·4	−20·5	+ 21·0
8·190	11	32	7	21	185·5	−20·9	+ 36·2
9·451	3	15	3	13	185·9	−20·2	+ 53·2
10·214	0	5	0	6	186·9	−20·7	+ 64·3
Means ...	...	...	8	28	184·50	−20·52	...

Group 4269.

A very small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Jan. 6·214	0	4	0	2	156·0	−13·3	− 19·4
Means ...	...	...	0	2	156·0	−13·3	...

Group 4270.

A small spot, with a very small companion on January 7.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Jan. 6·214	5	23	5	22	121·9	+18·3	− 53·5
7·196	3	14	2	10	123·0	+17·0	− 39·4
Means ...	...	...	4	16	122·45	+17·65	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4271.

Two spots on January 6. The preceding spot has disappeared and the following spot broken up into several very small fragments by January 7.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Jan. 6·214	2	69	2	83	110·9	+ 6·9	−64·5
7·196	0	15	0	12	111·4	+ 5·9	−51·0
Means ...	...	...	1	48	111·15	+ 6·40	...

Group 4272.

Two irregular spots, *a* and *b*. They have greatly increased in size by January 8.

Jan. 7·196	11	33	9	24	207·5	−18·6	+ 45·1
8·190	43	234	44	238	209·3	−19·3	+ 60·0
9·451	26	145	52	289	208·8	−18·5	+ 76·1
10·214	0	51	0	463	211·0	−19·2	+ 88·4
Means ...	...	...	26	254	209·15	−18·90	...

Group 4273.

A very small spot.

Jan. 8·190	0	7	0	4	123·6	−14·0	− 25·7
Means ...	...	...	0	4	123·6	−14·0	...

Group 4274.

Three small spots on January 12. Only *a*, the last, remains by the succeeding day.

Jan. 12·403	0	26	0	30	29·7	− 4·2	− 64·2
13·200	2	12	2	11	29·3	− 4·4	− 54·0
14·184	2	12	1	8	29·5	− 3·9	− 40·9
Means ...	...	...	1	16	29·50	− 4·17	...

Group 4275.

A pair of small spots.

Jan. 13·200	2	19	1	12	114·7	+16·6	+31·4
14·184	3	22	2	16	114·5	+16·1	+44·1
Means ...	...	...	2	14	114·60	+16·35	...

Group 4276.

A number of small unstable spots in an irregular stream. Only *a*, the leader, remains by January 15.

1896. d					°	°	°
Jan. 13·200	15	117	7	60	73·4	−12·0	− 10·0
14·184	9	42	4	21	77·5	−12·6	+ 7·1
15·531	5	28	3	16	78·7	−12·5	+ 26·0
16·187	4	20	3	12	78·7	−13·0	+ 34·7
Means ...	...	...	4	27	77·08	−12·53	...

Group 4277.

A large regular spot, *a*, with occasionally a very small companion.

Jan. 16·187	0	35	0	103	323·3	−10·0	−80·7
17·198	16	97	20	123	323·5	− 9·8	−67·2
18·402	32	153	25	122	323·8	−10·2	−51·1
19·252	49	204	32	133	323·6	−10·1	−40·1
20·490	41	241	23	132	323·9	−10·6	−23·4
21·203	42	259	21	134	323·5	−10·6	−14·5
22·309	49	239	25	120	323·3	−10·8	− 0·1
23·187	47	236	24	121	323·4	−10·7	+11·6
24·426	39	189	22	108	323·6	−10·7	+28·0
25·239	32	170	21	110	323·7	−10·8	+38·9
26·179	26	136	21	109	324·0	−11·1	+51·6
27·261	18	89	22	109	324·5	−11·3	+66·3
28·527	0	32	0	108	324·0	−10·9	+82·5
Means ...	...	...	20	118	323·70	−10·58	...

Group 4278.

A regular spot, *a*, with occasionally a very small companion.

Jan. 18·402	10	55	15	86	303·3	−13·5	− 71·6
19·252	18	75	18	76	302·8	−13·3	− 60·9
20·490	26	108	18	75	303·6	−13·9	− 43·7
21·203	32	123	20	76	303·4	−13·9	− 34·6
22·309	37	138	20	74	303·5	−14·0	− 19·9
23·187	26	117	13	60	303·8	−14·1	− 8·0
24·426	18	72	9	36	304·2	−14·0	+ 8·6
25·239	17	75	9	40	304·2	−14·0	+ 19·4
26·179	9	39	5	23	304·4	−14·2	+ 32·0
27·261	3	19	2	14	304·8	−14·4	+ 46·6
28·527	0	15	0	16	304·5	−14·1	+ 63·0
29·208	2	6	3	9	304·9	−14·2	+ 72·3
Means ...	...	...	11	49	303·95	−13·97	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4279.

A large spot, *a*, which eventually becomes regular. A very small companion is seen near it on February 1. *a* is measured in two parts on February 6.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Jan. 24·426	6	31	31	157	209·4	−19·0	−86·2
25·239	29	121	56	238	208·5	−18·4	−76·3
26·179	45	179	50	201	208·6	−18·6	−63·8
27·261	38	213	30	167	208·5	−18·9	−49·7
28·527	47	276	29	169	208·0	−19·5	−33·5
29·208	52	303	30	171	207·8	−19·3	−24·8
30·515	55	307	29	159	207·9	−19·3	− 7·5
31·476	52	311	27	161	207·8	−19·4	+ 5·1
Feb. 1·323	68	307	36	163	207·8	−19·5	+16·2
2·505	25	192	15	116	207·9	−19·3	+31·9
3·465	23	164	16	117	207·8	−19·2	+44·4
4·208	22	141	19	122	208·3	−19·8	+54·7
5·188	14	77	18	99	208·6	−20·0	+67·9
6·476	3	18	9	64	207·5	−19·8	+83·8
Means ...	...	...	28	150	208·17	−19·29	...

Group 4280.

Two very small spots.

Jan. 26·179	0	9	0	5	251·2	−17·4	−21·2
Means ...	...	...	0	5	251·2	−17·4	...

Group 4281.

A very small spot on January 26. Afterwards a number of small unstable spots in a short irregular stream.

Jan. 26·179	0	6	0	4	238·9	+ 8·6	− 33·5
27·261	4	33	2	17	239·4	+ 8·3	− 18·8
28·527	0	14	0	7	241·6	+ 6·7	+ 0·1
29·208	12	86	6	44	239·1	+ 7·8	+ 6·5
30·515	0	36	0	20	238·9	+ 7·5	+ 23·5
31·476	2	25	1	17	242·5	+ 7·2	+ 39·8
Feb. 1·323	22	118	17	95	241·8	+ 7·5	+ 50·2
2·505	7	98	10	131	242·9	+ 8·2	+ 66·9
Means ...	...	...	5	42	240·64	+ 7·73	...

Group 4282.

A few small spots in a compact stream, forming one straight line with Group 4278. The group has increased in size by January 28, especially *a* and *b*, the first and last spots. The group decreases after January 29, *a* and *b* alone remaining by January 30, and breaking up before February 1.

1896. d					°	°	°
Jan. 27·261	17	72	11	49	215·4	−13·6	− 42·8
28·527	39	218	22	120	216·8	−12·7	− 24·7
29·208	57	250	30	129	217·3	−12·5	− 15·3
30·515	31	149	16	76	217·9	−12·5	+ 2·5
31·476	17	104	8	55	217·5	−13·2	+ 14·8
Feb. 1·323	6	73	4	42	220·0	−13·6	+ 28·4
2·505	1	14	1	10	223·6	−11·3	+ 47·6
Means ...	...	...	13	69	218·36	−12·77	...

Group 4283.

Four small spots, *a*, *b*, *c* and *d*, on January 28. *a* has divided into two by January 29. Only *d* remains by January 30.

Jan. 28·527	7	55	7	56	180·8	−20·6	− 60·7
29·208	11	84	9	70	180·0	−19·8	− 52·6
30·515	0	17	0	11	179·3	−19·2	− 36·1
Means ...	...	...	5	46	180·03	−19·87	...

Group 4284.

A large regular spot, *a*, with some very small companions on February 5 and 8.

Jan. 31·476	11	55	20	95	132·0	+14·5	− 70·7
Feb. 1·323	22	114	25	126	131·5	+14·7	− 60·1
2·505	33	175	26	134	131·5	+14·6	− 44·5
3·465	43	228	28	144	131·7	+14·9	− 31·7
4·208	47	258	27	148	132·1	+15·0	− 21·5
5·188	45	254	24	137	131·8	+14·8	− 8·9
6·476	25	177	14	96	132·2	+15·0	+ 8·5
7·230	17	105	10	59	132·5	+14·8	+ 18·7
8·134	10	89	6	55	132·1	+14·1	+ 30·2
Means ...	...	...	20	110	131·93	+14·71	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4285.

An irregular stream appearing suddenly *p* Group 4282, and developing with great rapidity.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Feb. 2·505	69	158	53	121	225·2	−15·0	+49·2
3·465	72	569	74	587	225·0	−14·8	+61·6
4·208	112	789	182	1259	226·4	−15·3	+72·8
5·188	37	175	110	558	223·1	−15·9	+82·4
Means ...	...	...	105	631	224·93	−15·25	...

Group 4286.

A few small spots in a straight stream. The leader, *a*, is the only stable member of the group, and is seen alone on February 6 and 8.

Feb. 4·208	15	65	8	35	158·6	+13·0	+ 5·0
5·188	27	127	14	71	159·4	+13·0	+ 18·7
6·476	10	46	7	31	161·5	+13·3	+ 37·8
7·230	9	41	7	32	161·5	+13·7	+ 47·7
8·134	0	12	0	13	162·3	+13·3	+ 60·4
Means ...	...	...	7	36	160·66	+13·26	...

Group 4287.

A number of small spots in an irregular stream. The spots are mostly unstable, *a* and *b*, the first and last spots on February 5, being the most stable A wide gap has formed between the preceding and following portions of the group by February 8, and the following portion has disappeared by February 11.

Feb. 5·188	2	26	4	59	62·7	−12·0	− 78·0
6·476	12	73	11	72	64·1	−12·1	− 59·6
7·230	18	125	13	98	63·1	−12·2	− 50·7
8·134	14	149	8	96	63·0	−12·1	− 38·9
9·217	13	98	7	54	63·9	−11·5	− 23·7
10·506	13	60	7	30	65·2	−11·6	− 5·6
11·614	6	19	3	10	68·8	−10·9	+ 12·7
12·387	0	27	0	14	66·8	−12·2	+ 20·9
Means ...	...	...	7	54	64·70	−11·83	...

Group 4288.

A few very small spots irregularly arranged. Only the leader, *a*, remains by February 8.

Feb. 7·230	2	30	1	23	162·5	−21·5	+ 48·7
8·134	5	25	5	27	165·5	−21·2	+ 63·6
Means ...	...	...	3	25	164·00	−21·35	...

Group 4289.

A very small spot.

1896. d					°	°	°
Feb. 7·230	0	6	0	4	131·8	+19·8	+ 18·0
Means ...	...	...	0	4	131·8	+19·8	...

Group 4290.

A small regular spot, *a*, with two very small companions on February 12.

Feb. 9·217	2	20	4	34	18·2	+18·4	− 69·4
10·506	6	22	5	20	19·0	+17·8	− 51·8
11·614	7	25	5	17	18·9	+17·7	− 37·2
12·387	4	41	2	25	18·8	+17·7	− 27·1
Means ...	...	...	4	24	18·73	+17·90	...

Group 4291.

A number of small spots in a short irregular stream. The group increases, especially as it regards the leader, *a*, up to February 15, when it consists of five principal spots, *a*, *b*, *c*, *d* and *e*. *a*, now a regular spot, alone remains by February 19. A few very small companions are seen near it on February 18.

Feb. 10·506	1	13	1	18	3·3	+ 8·8	− 67·5
11·614	19	81	17	73	2·0	+ 9·4	− 54·1
12·387	31	205	21	146	2·7	+ 9·1	− 43·2
13·402	63	374	38	225	3·1	+ 9·2	− 29·4
14	No	photo	graph				
15·229	112	631	59	331	3·7	+ 9·4	− 4·8
16·184	99	540	53	285	4·1	+ 9·2	+ 8·2
17·486	41	309	24	183	5·8	+ 8·6	+ 27·0
18·200	37	190	25	126	7·1	+ 8·4	+ 37·7
19·620	13	111	12	106	7·0	+ 8·4	+ 56·4
20·282	16	104	21	137	8·3	+ 7·7	+ 66·3
21·218	13	76	38	221	8·6	+ 7·6	+ 79·0
Means ...	...	...	28	168	5·06	+ 8·71	...

Group 4292.

A pair of small spots.

Feb. 13·402	7	43	3	22	32·6	−14·1	+ 0·1
Means ...	...	...	3	22	32·6	−14·1	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4293.

A considerable group first seen near the West limb. It consists on February 15 of two principal spots, *a* and *b*, and a small companion. *b* and a small companion are alone seen on February 16.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Feb. 15·229	25	115	36	172	76·7	+12·2	+68·2
16·184	12	61	35	182	74·5	+11·0	+78·6
Means ...	...	...	36	177	75·60	+11·60	...

Group 4294.

A close pair of very small spots.

Feb. 15·229	4	16	2	9	36·8	+4·3	+28·3
Means ...	...	...	2	9	36·8	+4·3	...

Group 4295.

A great number of spots, several of which are large, in a magnificent stream. The individual members of the group undergo continual change, but the group itself continues throughout a fine straight stream.

Feb. 18·200	15	67	36	157	254·4	+16·7	−75·0
19·620	28	315	30	348	251·8	+16·8	−58·8
20·282	110	522	92	458	252·2	+17·3	−49·8
21·218	186	976	127	656	254·7	+16·7	−34·9
22·414	234	1396	136	807	255·3	+15·8	−18·5
23·431	248	1931	137	1058	256·3	+15·6	−4·1
24·430	256	1665	140	922	256·8	+15·4	+9·5
25·608	223	1515	134	924	257·7	+15·7	+25·9
26·250	227	1429	152	952	258·1	+15·6	+34·8
27·417	144	913	130	835	258·9	+15·7	+50·9
28·130	103	630	130	742	260·0	+15·4	+61·4
29·217	29	215	72	525	259·9	+15·0	+75·7
Means ...	...	...	110	699	256·34	+15·98	...

Group 4296.

A fine but very irregular stream. The main body of the group consists of a long straight stream, composed of large irregular spots close together in the preceding part, and of smaller scattered spots following them. A short stream of small and mostly unstable spots is seen north of the main stream, February 20–29; and a smaller and more unstable stream south of it, February 22–25. The entire group undergoes continual change.

Feb. 19·620	24	231	56	542	231·6	−14·4	−79·0
20·282	108	507	160	785	229·7	−13·8	−72·3
21·218	140	883	132	877	229·0	−14·0	−60·6

Group 4296—*continued.*

1896. d					°	°	°
Feb. 22·414	178	1195	121	827	230·0	−14·9	−43·8
23·431	142	1293	83	755	230·3	−15·3	−30·1
24·430	155	1216	81	642	230·5	−15·0	−16·8
25·608	148	1231	76	623	231·1	−14·6	−0·7
26·250	141	1247	72	636	230·6	−14·7	+7·3
27·417	118	882	65	485	230·4	−14·3	+22·4
28·130	86	866	52	515	231·0	−14·4	+32·4
29·217	78	482	59	360	232·7	−13·4	+48·5
Mar. 1·236	50	260	53	270	232·9	−13·9	+62·1
2·409	10	73	18	145	232·2	−13·3	+76·8
Means ...	...	...	79	574	230·92	−14·31	...

Group 4297.

Three very small faint spots, of which two are measured together.

Feb. 20·282	0	30	0	16	294·0	+9·4	−8·0
Means ...	...	...	0	16	294·0	+9·4	...

Group 4298.

A few small spots in a short stream, wedge-shaped at first, but which straightens out later. *a*, the last spot, is the most stable, and remains alone on February 25. A small companion is seen near it on February 26.

Feb. 22·414	26	105	14	54	286·8	−7·7	+13·0
23·431	47	196	27	111	287·1	−7·5	+26·7
24·430	26	147	17	96	286·7	−7·7	+39·4
25·608	0	19	0	15	284·4	−8·1	+52·6
26·250	0	28	0	30	285·6	−8·9	+62·3
Means ...	...	...	12	61	286·12	−7·98	...

Group 4299.

A wide pair of very small spots, *a* and *b*. A third very small spot is seen near them on February 22 and 23. Only *a* remains on February 24.

Feb. 22·414	7	26	4	15	245·0	−7·2	−28·8
23·431	4	35	2	18	245·9	−6·9	−14·5
24·430	2	10	1	5	249·1	−7·9	+1·8
Means ...	...	...	2	13	246·67	−7·33	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4300.

A large regular spot, *a*. A number of small spots have formed near it, *n*, *s* and *p*, by March 1, after which *a* diminishes in size.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Feb. 22·414	3	21	8	56	192·7	−20·7	− 81·1
23·431	14	109	18	139	192·5	−21·0	− 67·9
24·430	23	123	20	107	192·2	−20·8	− 55·1
25·608	34	179	22	118	192·3	−21·1	− 39·5
26·250	30	201	18	121	191·9	−21·1	− 31·4
27·417	47	190	25	102	191·7	−21·4	− 16·3
28·130	37	234	19	121	191·6	−21·6	− 7·0
29·217	46	229	24	118	191·5	−21·3	+ 7·3
Mar. 1·236	49	251	26	137	192·1	−21·8	+ 21·3
2·409	38	245	24	156	192·5	−21·0	+ 37·1
3·503	19	205	15	167	193·2	−21·5	+ 52·2
4·527	15	108	17	124	192·3	−21·7	+ 64·9
5·488	10	51	20	104	192·5	−21·5	+ 77·7
Means ...	...	...	20	121	192·23	−21·28	...

Group 4301.

A few small spots in an irregular straggling stream.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Feb. 26·250	2	29	2	26	170·7	+13·1	− 52·6
27·417	19	103	13	70	172·2	+13·4	− 35·8
28·130	17	145	10	86	172·9	+13·5	− 25·7
29·217	16	119	8	64	173·8	+13·5	− 10·4
Mar. 1·236	22	141	11	74	174·4	+13·1	+ 3·6
2·409	1	38	1	22	174·7	+14·0	+ 19·3
Means ...	...	...	8	57	173·12	+13·43	...

Group 4302.

A number of irregular spots in a fine, nearly straight stream. The group on February 29 consists almost entirely of three large composite spots, *a*, *b* and *c*, but these change in shape, and the principal portions of *a* and *b* have amalgamated to make a large composite spot, *d*, by March 2. The smaller spots diminish after March 5, and *d* alone remains after March 7. A fresh outbreak is seen *ef d* on March 10.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Feb. 27·417	11	104	21	224	129·8	−19·8	− 78·2
28·130	27	215	36	283	129·7	−19·5	− 68·9
29·217	51	437	44	390	127·9	−19·5	− 56·3

Group 4302—*continued.*

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Mar. 1·236	158	952	109	664	126·7	−19·5	− 44·1
2·409	126	1033	72	600	127·4	−19·5	− 28·0
3·503	131	915	69	482	128·4	−19·4	− 12·6
4·527	85	839	45	428	128·0	−19·5	+ 0·6
5·488	95	942	51	495	128·3	−19·5	+ 13·5
6·176	91	575	51	321	128·6	−20·0	+ 22·8
7·200	55	493	35	314	129·1	−19·9	+ 36·8
8·223	35	308	28	253	131·0	−19·3	+ 52·3
9·311	22	225	27	275	131·6	−19·5	+ 67·1
10·184	16	153	35	334	131·4	−20·1	+ 78·4
Means ...	...	...	48	389	129·07	−19·62	...

Group 4303.

A large nearly regular spot, *a*, followed by a number of small spots in a loose stream. *a* undergoes several striking changes. It is divided by a broad bright bridge, nearly parallel to the equator, on March 4, and has divided into two regular spots by March 9. These are measured together on that date, but separately as *b* and *c* afterwards. The smaller spots have disappeared by March 8, and *b* by March 12.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Mar. 1·236	12	84	25	192	92·3	−11·0	−78·5
2·409	32	269	33	278	93·5	−12·0	−61·9
3·503	41	230	30	167	94·3	−11·7	−46·7
4·527	71	512	43	307	93·5	−11·4	−33·9
5·488	84	588	45	312	94·5	−11·5	−20·3
6·176	95	569	49	292	94·7	−11·4	−11·1
7·200	98	526	50	267	94·8	−11·4	+ 2·5
8·223	58	435	30	229	95·4	−11·1	+16·7
9·311	50	327	29	192	95·6	−11·4	+31·1
10·184	34	234	23	157	95·4	−11·9	+42·4
11·367	22	131	20	123	95·4	−11·8	+58·0
12·208	15	70	21	95	95·6	−12·1	+69·3
13·205	5	22	18	72	95·7	−12·7	+82·6
Means ...	...	...	32	206	94·67	−11·65	...

Group 4304.

A small spot, *a*, usually with a couple of very small companions.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Mar. 2·409	0	23	0	49	81·3	+13·5	−74·1
3·503	0	32	0	36	80·3	+13·5	−60·7
4·527	6	42	5	34	80·1	+13·5	−47·3
5·488	1	27	1	17	80·5	+13·6	−34·3
6·176	0	14	0	9	80·4	+13·5	−25·4
7·200	1	23	1	13	80·0	+13·4	−12·3
Means ...	...	...	1	26	80·43	+13·50	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4305.

Several small spots in an irregular stream, appearing suddenly *np* Group 4302. The group increases in size on the succeeding days, especially the leader, *a*, which has become a large regular spot by March 5, and which alone remains by March 8.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Mar. 3·503	26	103	13	54	150·8	−16·9	+ 9·8
4·527	51	260	30	145	152·6	−17·0	+25·2
5·488	46	280	31	182	154·4	−16·4	+39·6
6·176	28	231	23	182	156·2	−16·5	+50·4
7·200	23	166	27	190	157·4	−16·1	+65·1
8·223	13	133	33	338	158·9	−16·1	+80·2
Means ...	...	...	26	182	155·05	−16·50	...

Group 4306.

A pair of very small spots.

Mar. 3·503	0	9	0	13	72·0	+ 9·4	− 69·0
4·527	0	15	0	14	72·3	+ 9·8	− 55·1
Means ...	...	...	0	14	72·15	+ 9·60	...

Group 4307.

Two small spots.

Mar. 6·176	0	28	0	14	108·0	−21·3	+ 2·2
Means ...	...	...	0	14	108·0	−21·3	...

Group 4308.

A small spot.

Mar. 8·223	0	21	0	24	15·6	+ 6·6	− 63·1
Means ...	...	...	0	24	15·6	+ 6·6	...

Group 4309.

A close pair of very small spots, perhaps a revival of Group 4304.

Mar. 9·311	1	25	1	14	81·9	+12·2	+ 17·4
Means ...	...	...	1	14	81·9	+12·2	...

Group 4310.

A few small unstable spots irregularly scattered. A short compact stream of small spots on March 13.

1896. d					°	°	°
Mar. 10·184	0	8	0	4	55·4	−12·1	+ 2·4
11·367	0	53	0	29	57·5	−11·8	+ 20·1
12·208	6	31	3	18	59·3	−11·5	+ 33·0
13·205	38	143	27	101	58·7	−11·7	+ 45·6
14·145	9	47	9	45	60·6	−11·9	+ 59·8
Means ...	...	...	8	39	58·30	−11·80	...

Group 4311.

A small spot, *a*, with a very small companion on March 14. *a* has greatly increased by March 14, and a second spot of equal size has formed *f* it.

Mar. 14·145	7	23	7	24	62·7	−19·2	+ 61·9
15·502	4	65	7	136	60·6	−19·2	+ 77·7
Means ...	...	...	7	80	61·65	−19·20	...

Group 4312.

A small faint spot with a very small faint companion.

Mar. 15·502	0	34	0	18	355·7	−16·6	+ 12·8
Means ...	...	...	0	18	355·7	−16·6	...

Group 4313.

A small faint spot on March 15 and 16. This has disappeared by March 17, but some very small spots are seen *sf* its place. The group has greatly increased by March 18, but diminishes again immediately, and shows itself very unstable.

Mar. 15·502	2	14	1	8	328·6	+20·6	− 14·3
16·610	0	17	0	10	328·9	+21·3	+ 0·6
17·474	0	17	0	9	323·7	+18·7	+ 6·9
18·245	22	117	13	69	324·6	+19·0	+ 17·9
19·481	11	58	7	40	325·4	+19·8	+ 35·1
20·273	6	40	5	34	327·1	+20·1	+ 47·1
21·387	5	16	7	22	329·0	+20·6	+ 63·8
Means ...	...	...	5	27	326·76	+20·01	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4314.

A small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Mar. 16·610	5	22	7	29	263·2	+13·7	−65·1
17·474	7	27	7	25	262·6	+13·7	−54·2
18·245	18	48	13	36	262·4	+13·8	−44·3
19·481	11	36	7	22	262·4	+13·3	−27·9
20·273	6	39	3	22	262·7	+13·4	−17·3
21·387	0	13	0	7	262·5	+12·8	−2·7
Means ...	...	...	6	24	262·63	+13·45	...

Group 4315.

A few small spots in a small cluster.

Mar. 18·245	4	44	4	36	359·8	−7·4	+53·1
19·481	0	31	0	44	0·6	−6·1	+70·3
Means ...	...	...	2	40	0·20	−6·75	...

Group 4316.

A small spot, *a*, on March 19 and 20. The group then rapidly changes; a number of spots, mostly small and unstable, appear, and the whole forms a variable cluster. *b*, the last spot, is the largest, and perhaps corresponds to *a*. *b* has divided into *c* and *d* by March 25.

Mar. 19·481	10	23	6	14	254·5	−17·1	−35·8
20·273	4	35	2	20	254·4	−16·6	−25·6
21·387	1	21	1	11	255·1	−18·1	−10·1
22·496	25	156	14	80	255·4	−17·2	+4·7
23·629	19	156	11	83	254·8	−16·9	+19·1
24·411	18	146	10	86	256·1	−17·1	+30·7
25·457	18	139	12	95	255·3	−17·5	+43·7
26·401	0	16	0	15	254·6	−17·8	+55·5
Means ...	...	...	7	51	255·03	−17·29	...

Group 4317.

A small spot.

Mar. 20·273	3	19	8	52	198·3	−19·0	−81·7
21·387	6	32	7	37	199·4	−19·8	−65·8
22·496	9	33	7	26	200·0	−19·7	−50·7
23·629	7	27	4	17	200·4	−19·7	−35·3
24·411	0	24	0	14	200·9	−19·7	−24·5
Means ...	...	...	5	29	199·80	−19·58	...

Group 4318.

Two or three very small faint spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Mar. 22·496	0	42	0	23	229·8	−14·8	−20·9
23·629	0	21	0	11	229·5	−14·9	−6·2
Means ...	...	...	0	17	229·65	−14·85	...

Group 4319.

A pair of very small spots on March 22. The group has greatly increased by the succeeding day and has become a considerable stream, *a*, the largest spot, being in the centre of the group. The other spots are small. The group has disappeared by March 27, except for a pair of very small spots at the *f* end of the stream.

Mar. 22·496	0	14	0	8	216·4	−13·2	−34·3
23·629	30	284	16	151	214·5	−12·4	−21·2
24·411	25	287	12	147	215·8	−12·6	−9·6
25·457	15	230	8	116	215·5	−12·4	+3·9
26·401	12	137	6	72	214·8	−12·7	+15·7
27·407	2	19	1	11	212·5	−12·7	+26·7
28·204	0	6	0	4	212·6	−13·0	+37·3
Means ...	...	...	6	73	214·59	−12·71	...

Group 4320.

A small regular spot, *a*, with a very small companion on March 27.

Mar. 23·629	3	20	5	36	160·6	−15·7	−75·1
24·411	5	23	6	26	160·8	−15·6	−64·6
25·457	9	26	7	21	160·2	−15·7	−51·4
26·401	9	23	6	15	159·7	−15·9	−39·4
27·407	4	25	2	14	159·5	−15·1	−26·3
28·204	5	21	3	11	159·7	−15·6	−15·6
29·173	4	18	2	9	159·7	−15·8	−2·8
Means ...	...	...	4	19	160·03	−15·63	...

Group 4321.

A fine stream of spots inclined at a considerable angle to the equator. It consists of two large composite spots, *a* and *b*, and a number of small spots between them. *b* has divided into two principal parts, *c* and *d*, by March 30; *a* into three, *e*, *f* and *g*, by March 31; and *d* into three, *h*, *j* and *k*, by April 2. The group declines rapidly after this, and *e* alone remains by April 5.

Mar. 25·457	4	43	13	136	133·3	+16·7	−78·3
26·401	59	342	121	620	128·5	+17·7	−70·6
27·407	142	840	154	885	128·7	+17·8	−57·1

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4321—*continued.*

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Mar. 28·204	189	1105	156	896	129·0	+17·7	−46·3
29·173	231	1248	158	839	128·4	+18·0	−34·1
30·502	177	1374	103	788	129·0	+17·2	−16·0
31·644	167	1199	92	659	129·2	+17·0	−0·8
Apr. 1·222	165	1060	92	587	130·6	+17·2	+8·2
2·402	75	580	45	350	131·1	+16·5	+24·3
3·187	82	416	55	281	131·8	+16·3	+35·4
4·153	26	182	24	160	135·0	+15·2	+51·3
5·149	22	97	29	128	135·8	+14·6	+65·3
6·189	0	40	0	130	136·0	+14·7	+79·2
Means ...	...	...	80	497	131·26	+16·66	...

Group 4322.

Three very small faint spots.

Mar. 28·204	4	27	2	14	160·3	−11·6	−15·0
Means ...	...	...	2	14	160·3	−11·6	...

Group 4323.

A small spot.

Mar. 28·204	2	11	2	9	121·4	+0·4	−53·9
Means ...	...	...	2	9	121·4	+0·4	...

Group 4324.

A pair of very small spots.

Mar. 30·502	0	11	0	6	138·7	−16·7	−6·3
Means ...	...	...	0	6	138·7	−16·7	...

Group 4325.

Two small spots in a mass of bright faculæ. The group is not seen on March 31 and April 1, but a fresh outburst has occurred by April 2, when a single small spot is seen. The group consists of a small close pair on April 3, and of an irregular stream of spots, mostly small and unstable, on the succeeding days.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Mar. 30·502	0	13	0	15	82·1	+8·4	−62·9
31·644	0	0	0	0	...	...	...
Apr. 1·222	0	0	0	0	...	...	...
2·402	4	22	2	13	84·3	+8·6	−22·5
3·187	8	25	4	14	85·7	+9·4	−10·7
4·153	11	94	6	49	85·3	+9·0	+1·6
5·149	0	102	0	55	86·4	+9·6	+15·9
6·189	19	120	11	72	84·6	+9·2	+27·8
7·438	24	174	17	127	84·4	+8·9	+44·1
8·617	31	147	31	153	84·4	+9·2	+59·6
9·538	9	59	14	90	82·1	+8·6	+69·5
Means ...	...	...	8	53	84·37	+8·99	...

Group 4326.

A large composite spot, *a*. *a* has divided into two portions, *b* and *c*, by April 2, of which *b* is a regular spot. A very small companion is sometimes seen *f* them. *b* alone remains by April 7.

Mar. 30·502	7	57	17	147	65·1	−12·2	−79·9
31·644	17	112	20	127	65·3	−12·4	−64·7
Apr. 1·222	24	132	22	121	65·0	−11·9	−57·4
2·402	24	110	17	74	65·1	−11·9	−41·7
3·187	28	119	16	71	64·7	−11·5	−31·7
4·153	19	134	10	71	65·0	−11·9	−18·7
5·149	22	136	11	70	65·5	−12·2	−5·0
6·189	23	106	12	55	65·8	−12·1	+9·0
7·438	7	23	4	13	66·6	−11·9	+26·3
8·617	5	16	3	11	67·2	−11·7	+42·4
9·538	6	20	5	18	67·9	−11·5	+55·3
10·637	1	10	2	15	68·8	−11·3	+70·7
Means ...	...	...	12	66	66·00	−11·88	...

Group 4327.

A large regular spot, *a*.

Mar. 30·502	9	46	25	125	63·8	−18·2	−81·2
31·644	24	112	29	131	64·0	−18·0	−66·0

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4327—*continued.*

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Apr. 1·222	37	172	36	164	63·6	−17·5	− 58·8
2·402	30	197	21	135	64·3	−17·8	− 42·5
3·187	37	240	23	145	63·7	−17·5	− 32·7
4·153	42	273	23	148	63·8	−17·7	− 19·9
5·149	43	256	22	133	63·8	−18·0	− 6·7
6·189	35	295	18	153	63·9	−18·1	+ 7·1
7·438	36	247	20	137	63·8	−18·1	+ 23·5
8·617	28	188	18	121	63·7	−18·0	+ 38·9
9·538	24	153	19	122	63·4	−18·0	+ 50·8
10·637	18	109	21	126	62·8	−17·7	+ 64·7
11·532	7	52	14	103	62·6	−17·7	+ 76·3
Means ...	...	...	22	134	63·63	−17·87	...

Group 4328.

A few spots, mostly small and unstable, in a short irregular stream.

Mar. 31·644	10	61	6	31	128·2	+ 8·1	− 1·8
Apr. 1·222	10	76	5	39	128·4	+ 8·4	+ 6·0
2·402	0	20	0	12	132·0	+ 6·7	+ 25·2
3·187	20	92	13	58	130·9	+ 7·6	+ 34·5
4·153	18	87	14	69	132·7	+ 7·6	+ 49·0
5·149	24	149	29	169	133·1	+ 7·5	+ 62·6
6·189	9	54	27	151	135·5	+ 7·7	+ 78·7
Means ...	...	...	13	76	131·54	+ 7·66	...

Group 4329.

One or two small spots, *f* Groups 4326 and 4327, but in an intermediate latitude. The group is not seen on April 2, 5 or 6.

Mar. 31·644	0	23	0	35	58·3	−14·5	− 71·7
Apr. 1·222	0	20	0	23	57·5	−13·4	− 64·9
2·402	0	0	0	0	...	...	...
3·187	11	39	7	24	58·5	−12·4	− 37·9
4·153	3	23	2	13	57·8	−12·8	− 25·9
5·149	0	0	0	0	...	...	...
6·189	0	0	0	0	...	...	...
7·438	2	26	1	14	60·1	−12·7	+ 19·8
Means ...	...	...	1	14	58·44	−13·16	...

Group 4330.

Three very small spots, *f* Group 4328, on April 1. A small regular spot, *a*, with a few very small companions on April 2. *a* remains alone by April 3.

1896. d					°	°	°
Apr. 1·222	0	28	0	15	120·2	+ 7·6	− 2·2
2·402	10	89	5	47	121·4	+ 7·1	+ 14·6
3·187	15	48	9	28	122·4	+ 6·7	+ 26·0
4·153	7	22	4	15	123·0	+ 6·9	+ 39·3
5·149	0	14	0	12	123·9	+ 6·7	+ 53·4
Means ...	...	...	4	23	122·18	+ 7·00	...

Group 4331.

A small spot, *a*, *f* Group 4330, on April 1. *a* has expanded and divided into three parts, *b*, *c* and *d*, by April 2. Only *c*, which corresponds to *a* in place, remains by April 4. Groups 4328, 4330 and 4331 form together one straggling irregular stream.

Apr. 1·222	8	32	4	17	117·4	+ 7·4	− 5·0
2·402	2	75	1	39	117·4	+ 7·0	+ 10·6
3·187	19	66	10	36	117·4	+ 6·9	+ 21·0
4·153	0	21	0	13	117·6	+ 7·0	+ 33·9
Means ...	...	...	4	26	117·45	+ 7·08	...

Group 4332.

A small regular spot.

Apr. 1·222	3	33	7	68	48·8	+14·9	− 73·6
2·402	4	20	4	20	50·7	+13·8	− 56·1
3·187	13	46	10	36	50·2	+14·5	− 46·2
4·153	11	30	7	19	50·2	+14·4	− 33·5
5·149	6	17	3	9	50·6	+14·2	− 19·9
Means ...	...	...	6	30	50·10	+14·36	...

Group 4333.

A few small spots in an irregular stream on April 2. The group increases greatly in size from day to day up to April 8, and becomes a fine broad complex stream. The individual spots are in a constant state of change. The most easily recognized are lettered *a* to *f*, but these also change greatly, and *b*, *d* and *e* are each sometimes divided into two parts. On April 8, *a*, *d* and *e* are large composite spots, *a* being specially complex in structure.

Apr. 3·187	4	22	5	28	32·0	+14·4	− 64·4
4·153	11	66	9	56	34·0	+15·4	− 49·7
5·149	32	204	21	140	33·5	+15·9	− 37·0

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time.	Projected Area of		Area for Group.		Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.			
Group 4333—*continued.*							
1896. d					°	°	°
Apr. 6·189	141	783	85	467	32·8	+16·3	− 24·0
7·438	187	1138	102	617	33·8	+16·2	− 6·5
8·617	257	1543	140	847	34·0	+16·0	+ 9·2
9·538	211	1370	123	795	34·2	+16·1	+ 21·6
10·637	137	1160	94	789	34·4	+16·4	+ 36·3
11·532	149	879	125	737	35·1	+16·4	+ 48·8
12·578	71	453	89	571	36·1	+16·1	+ 63·6
13·404	17	210	45	536	38·1	+16·0	+ 76·5
Means ...	...	...	76	508	34·36	+15·93	...
Group 4334. A pair of small spots.							
Apr. 5·149	2	24	2	19	20·0	− 1·2	− 50·5
Means ...	...	...	2	19	20·0	− 1·2	...
Group 4335. A single small spot on April 5. A wide pair of very small spots on April 6.							
Apr. 5·149	2	19	3	26	1·3	− 6·8	− 69·2
6·189	2	13	1	12	0·2	− 7·5	− 56·6
Means ...	...	...	2	19	0·75	− 7·15	...
Group 4336. A very small spot.							
Apr. 7·438	0	7	0	4	70·8	+14·3	+ 30·5
Means ...	...	...	0	4	70·8	+14·3	...
Group 4337. A pair of faint small spots.							
Apr. 14·197	0	19	0	19	256·8	+23·4	−54·3
Means ...	...	...	0	19	256·8	+23·4	...
Group 4338. A very small spot.							
1896. d					°	°	°
Apr. 18·387	0	8	0	4	261·5	−17·5	+ 5·8
Means ...	...	...	0	4	261·5	−17·5	...
Group 4339. A very small spot on April 18. A short irregular stream of small spots on April 19 and 20, of which *a*, the leader, is largest. *a* alone remains by April 21, but is accompanied by a distant companion on April 23.							
Apr. 18·387	0	8	0	6	209·9	−18·6	− 45·8
19·512	27	230	16	131	213·4	−18·1	− 27·4
20·187	30	164	16	87	214·1	−18·0	− 17·8
21·397	16	60	8	31	215·9	−17·5	− 0·1
22·516	13	41	7	22	215·5	−17·7	+ 14·3
23·624	9	38	5	22	214·0	−18·3	+ 27·4
Means ...	...	...	9	50	213·80	−18·03	...
Group 4340. A pair of very small spots, *p* Group 4339, on April 19. A few very small spots in an irregular stream on the succeeding days.							
Apr. 19·512	0	16	0	7	244·2	−12·9	+ 3·4
20·187	2	24	1	13	243·1	−14·4	+ 11·2
21·397	43	151	24	86	244·1	−14·3	+ 28·1
22·516	15	58	11	40	245·3	−13·7	+ 44·1
Means ...	...	...	9	37	244·18	−13·82	...
Group 4341. A pair of very small spots, *p* Group 4340, on April 20. A few very small spots in an irregular stream on the succeeding days.							
Apr. 20·187	5	16	3	9	257·4	−14·5	+ 25·5
21·397	26	80	17	56	259·6	−14·2	+ 43·6
22·516	6	25	7	26	263·9	−13·8	+ 62·7
23·624	7	37	18	93	265·9	−13·1	+ 79·3
Means ...	...	...	11	46	261·70	−13·90	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4342.

A pair of very small spots on April 21. A number of small unstable spots in an irregular stream on April 23 and the succeeding days. The group undergoes continual change as to size, appearance and composition.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Apr. 21·397	1	8	1	12	146·9	+11·4	−69·1
22·516	10	28	9	24	148·1	+12·0	−53·1
23·624	23	123	15	84	146·1	+11·3	−40·5
24·409	42	149	25	88	146·5	+11·4	−29·7
25·404	51	361	27	194	147·8	+11·5	−15·2
26·518	36	338	18	176	148·0	+12·1	−0·3
27·606	45	214	24	117	148·6	+12·3	+14·7
28·527	19	128	12	77	148·2	+12·1	+26·5
29·397	0	16	0	12	152·5	+11·6	+42·2
30·500	1	31	1	27	148·9	+11·9	+53·2
Means ...	...	...	13	81	148·16	+11·76	...

Group 4343.

A regular spot, *a*, which diminishes from day to day. One or two small companions are seen following it on April 26 and 27.

Apr. 23·624	6	24	14	57	108·0	−8·1	−78·6
24·409	9	35	12	46	108·2	−8·2	−68·0
25·404	10	36	9	31	107·7	−8·5	−55·3
26·518	12	49	8	33	105·0	−7·5	−43·3
27·606	4	23	2	13	106·1	−8·2	−27·8
28·527	4	12	2	6	108·5	−8·2	−13·2
Means ...	...	...	8	31	107·25	−8·12	...

Group 4344.

A few small unstable spots in an irregular stream.

Apr. 25·404	6	51	6	46	109·7	+16·6	−53·3
26·518	14	72	10	53	107·0	+18·0	−41·3
27·606	15	56	10	33	107·0	+18·0	−26·9
28·527	4	9	2	5	109·8	+18·0	−11·9
Means ...	...	...	7	34	108·38	+17·65	...

Group 4345.

A few small unstable spots in an irregular stream.

1896. d					°	°	°
Apr. 27·606	11	62	7	36	161·0	−16·4	+27·1
28·527	6	33	4	22	162·3	−16·2	+40·6
29·397	0	8	0	7	164·3	−16·6	+54·0
30·500	9	23	0	11	160·7	−16·6	+65·0
Means ...	...	...	3	19	162·08	−16·45	...

Group 4346.

A very small faint spot.

Apr. 28·527	0	12	0	6	124·3	+3·6	+2·6
Means ...	...	...	0	6	124·3	+3·6	...

Group 4347.

A very small spot.

Apr. 29·397	1	8	1	5	122·5	+23·0	+12·2
Means ...	...	...	1	5	122·5	+23·0	...

Group 4348.

A number of spots, mostly small and unstable, in an irregular stream. *a*, the leader, is the largest, and increases in size from day to day.

Apr. 30·500	12	53	6	27	90·9	−11·6	−4·8
May 1·604	6	57	3	29	90·9	−11·5	+9·8
2·259	33	132	17	68	94·0	−11·1	+21·6
3·300	26	201	17	126	94·7	−10·8	+36·1
4·397	22	157	19	133	98·7	−9·9	+54·6
5·413	10	176	15	239	99·4	−10·3	+68·7
6·193	0	43	0	174	103·8	−9·8	+83·5
Means ...	...	...	11	114	96·06	−10·71	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4349.

A small spot on May 4, not seen on May 5, but reappearing by May 6. A number of closely-connected small spots in the form of a horse-shoe on May 7. The group breaks up and diminishes after this date.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
May 4·397	0	11	0	14	338·5	−21·2	− 65·6
5·413	0	0	0	0	...	...	...
6·193	0	10	0	7	338·8	−20·7	− 41·5
7·503	24	190	14	113	334·9	−21·7	− 28·2
8·446	7	77	3	42	334·9	−21·8	− 15·7
9·479	0	47	0	25	337·1	−21·4	− 1·0
10·495	10	54	6	29	336·8	−20·9	+ 13·2
11·419	1	40	1	24	336·9	−21·0	+ 25·1
12·419	2	9	1	6	340·9	−20·2	+ 42·8
Means ...	...	...	3	29	337·35	−21·11	...

Group 4350.

A pair of small spots, *a* and *b*, on May 5. *b* has a very small companion on May 6. *a* remains alone on May 7, and has a very small companion on May 8.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 5·413	2	38	2	28	344·6	− 5·1	− 46·1
6·193	3	28	2	17	343·5	− 4·7	− 36·8
7·503	8	21	4	11	348·6	− 4·1	− 14·5
8·446	3	36	2	18	348·6	− 3·6	− 2·0
Means ...	...	...	3	19	346·33	− 4·38	...

Group 4351.

A small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 8·446	9	27	6	18	32·4	− 2·1	+ 41·8
Means ...	...	...	6	18	32·4	− 2·1	...

Group 4352.

A small spot, *a*, with a small companion on May 13 and 14.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 10·495	0	18	0	38	246·9	−17·5	− 76·7
11·419	4	17	5	19	247·4	−17·4	− 63·9
12·419	7	16	6	13	247·5	−17·5	− 50·6
13·421	2	17	1	10	247·2	−17·4	− 37·6
14·434	5	25	3	15	246·0	−18·3	− 25·5
15·430	0	3	0	2	247·6	−17·0	− 10·6
Means ...	...	...	3	16	247·10	−17·52	...

Group 4353.

A pair of small spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
May 11·419	0	22	0	19	258·5	+17·1	− 52·8
Means ...	...	...	0	19	258·5	+17·1	...

Group 4354.

A pair of very small spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 14·434	0	7	0	4	264·2	−14·8	− 7·3
Means ...	...	...	0	4	264·2	−14·8	...

Group 4355.

A few small unstable spots in an irregular stream.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 18·236	9	36	6	22	188·2	− 6·6	− 33·0
19·496	14	69	7	35	189·2	− 6·2	− 15·2
20·482	15	111	8	56	190·7	− 6·0	− 0·7
21·408	6	73	3	38	190·5	− 6·0	+ 11·3
22·150	9	109	5	58	190·7	− 6·2	+ 21·4
Means ...	...	...	6	42	189·86	− 6·20	...

Group 4356.

A few very small faint spots in a bright group of faculæ.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 18·236	0	15	0	19	155·7	−13·5	− 65·5
Means ...	...	...	0	19	155·7	−13·5	...

Group 4357.

A small spot *sp* Group 4355 on May 20. The group is not seen on May 21. A few small unstable spots in an irregular stream on May 22 and 23.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
May 20·482	2	18	1	10	205·3	−19·8	+ 13·9
21·408	0	0	0	0	...	...	...
22·150	8	55	5	36	206·1	−18·6	+ 36·8
23·215	18	80	15	68	206·6	−18·8	+ 51·4
Means ...	...	...	5	29	206·00	−19·07	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4358.

A small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
May 20·482	0	6	0	12	117·8	+19·9	− 73·6
Means ...	...	...	0	12	117·8	+19·9	...

Group 4359.

A regular spot, *a*, which diminishes from day to day. *a* is occasionally followed by one or two small companions.

May 21·408	4	32	6	55	106·4	− 9·5	− 72·8
22·150	9	117	10	132	105·8	− 9·1	− 63·5
23·215	26	112	20	87	106·1	− 9·1	− 49·1
24·480	15	93	9	56	106·9	− 9·5	− 31·7
25·405	14	59	7	32	106·5	−10·0	− 19·7
26·466	11	38	6	19	106·9	− 9·6	− 5·3
27·397	13	36	6	18	107·0	− 9·7	+ 7·1
28·394	8	41	5	22	107·1	− 9·9	+ 20·3
29·634	0	6	0	4	107·2	−10·2	+ 36·9
Means ...	...	...	8	47	106·66	− 9·62	...

Group 4360.

Two or three very small unstable spots.

May 25·405	4	18	3	11	96·9	+16·9	− 29·3
26·466	7	34	4	19	96·7	+17·6	− 15·5
27·397	3	15	1	9	100·0	+17·2	+ 0·1
Means ...	...	...	3	13	97·87	+17·23	...

Group 4361.

A few small spots in an irregular stream on May 26. The group undergoes frequent changes on the succeeding days, and rapidly increases in size, forming by May 28 a fine complex stream. Three large composite spots, *a*, *b* and *c*, form in the course of the development of the group, of which *a*, is much the largest. All three undergo constant change.

May 26·466	26	169	17	114	70·5	− 9·8	− 41·7
27·397	32	163	19	94	71·3	− 9·5	− 28·6
28·394	99	667	50	349	71·8	− 9·4	− 15·0
29·634	234	1469	117	746	72·3	− 9·8	+ 2·0
30·173	343	1695	175	869	71·7	− 9·7	+ 8·5
31·445	253	1608	142	905	71·3	−10·3	+ 25·0

Group 4361—*continued.*

1896. d					°	°	°
June 1·427	185	1278	121	825	71·2	−10·2	+ 37·8
2·475	140	766	117	632	71·5	−10·4	+ 52·0
3·190	96	617	103	678	72·2	−10·6	+ 62·2
4·416	6	132	18	374	73·5	−10·2	+ 79·7
Means ...	...	...	88	559	71·73	− 9·99	...

Group 4362.

A few spots, mostly very small and unstable, in an irregular stream. *a*, the leader, is the most stable, and is the largest after May 27.

May 27·397	5	20	4	17	44·8	− 2·6	− 55·1
28·394	15	92	9	61	46·5	− 3·4	− 40·3
29·634	14	94	7	53	46·9	− 3·6	− 23·4
30·173	4	42	2	22	48·2	− 3·1	− 15·0
Means ...	...	...	6	38	46·60	− 3·18	...

Group 4363.

A pair of small spots.

May 28·394	0	11	0	20	13·4	−17·1	− 73·4
29·634	5	18	6	17	13·2	−17·3	− 57·1
30·173	3	14	3	12	12·7	−16·8	− 50·5
Means ...	...	...	3	16	13·10	−17·07	...

Group 4364.

A large regular spot, *a*, followed by several small companions on June 3, 5, 7 and 8. *a* has become markedly elliptical by June 5, the major axis being inclined at a considerable angle to the sun's equator.

May 31·445	21	101	57	277	327·3	−20·6	− 79·0
June 1·427	40	213	53	287	326·8	−20·8	− 66·6
2·475	69	342	61	303	326·4	−21·0	− 53·1
3·190	121	534	90	400	325·8	−20·9	− 44·2
4·416	97	607	58	367	326·8	−21·4	− 27·0
5·468	111	642	61	354	326·6	−21·3	− 13·3

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4364—*continued.*

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
June 6·465	113	651	61	347	326·9	−21·2	+ 0·2
7·649	107	593	60	331	327·1	−21·1	+ 16·0
8·464	121	587	73	355	327·4	−20·8	+ 27·2
9·248	104	486	72	334	327·6	−21·3	+ 37·8
10·218	84	350	72	300	327·8	−21·2	+ 50·8
11·208	41	232	51	290	328·1	−20·7	+ 64·3
12·468	12	69	42	250	328·4	−20·1	+ 81·2
Means ...	...	...	62	323	327·15	−20·95	...

Group 4365.

A large spot, *a*, with occasionally a small companion.

June 2·475	5	51	14	136	300·2	−10·0	− 79·3
3·190	34	138	50	209	299·9	− 9·7	− 70·1
4·416	42	174	36	149	300·4	− 9·9	− 53·4
5·468	33	252	21	165	300·3	− 9·7	− 39·6
6·465	35	254	19	143	300·4	− 9·6	− 26·3
7·649	35	245	18	126	300·2	− 9·9	− 10·9
8·464	48	275	25	140	300·0	−10·1	− 0·2
9·248	57	266	30	138	299·9	−10·9	+ 10·1
10·218	39	233	21	129	300·2	−10·8	+ 23·2
11·208	30	154	19	99	300·4	−11·2	+ 36·6
12·468	15	100	13	85	300·4	− 9·9	+ 53·2
13·473	5	59	7	74	300·0	− 9·8	+ 66·0
Means ...	...	...	23	133	300·19	−10·13	...

Group 4366.

A small spot.

June 4·416	2	17	1	9	14·0	−17·7	+ 20·2
5·468	2	18	1	11	14·8	−17·4	+ 34·9
Means ...	...	...	1	10	14·40	−17·55	...

Group 4367.

A wide pair of very small spots on June 5. A very small spot on June 6 and 7.

June 5·468	0	11	0	6	337·4	+ 9·6	− 2·5
6·465	3	14	2	7	340·6	+ 7·5	+ 13·9
7·649	0	9	0	5	341·3	+ 7·9	+ 30·2
Means ...	...	...	1	6	339·77	+ 8·33	...

Group 4368.

A small spot on June 9. The group rapidly increases in size on the succeeding days. On June 10 it consists of a number of small spots in an irregular stream, *a*, the leader, being the largest and most distinct. *a* speedily becomes a large composite spot, and undergoes several changes of shape. Its major axis on June 13 is almost at right angles to that of the following part of the group and to the equator. The following spots diminish after June 13, and *a* remains alone by June 17.

1896. d					°	°	°
June 9·248	3	19	2	14	246·8	−16·9	− 43·0
10·218	35	164	22	100	246·7	−16·6	− 30·3
11·208	67	317	37	174	248·9	−16·6	− 14·9
12·468	126	839	66	439	250·2	−16·4	+ 3·0
13·473	155	872	86	480	251·6	−16·6	+ 17·6
14·511	80	595	49	367	252·0	−16·5	+ 31·8
15·433	55	454	41	333	252·1	−16·2	+ 44·1
16·459	50	256	50	249	251·5	−16·4	+ 57·1
17·402	19	134	29	207	251·8	−16·0	+ 69·9
18·451	6	35	28	151	250·7	−15·9	+ 82·7
Means ...	...	...	41	251	250·23	−16·41	...

Group 4369.

A fine irregular stream, of which the leader, *a*, is a large well-defined spot. On June 13 the group presents the unusual appearance of three straight streams, the centre one nearly paralled to the equator, the other two nearly at right angles to it. The group undergoes many changes, and on June 15 forms but a single stream, nearly straight and parallel to the equator, the great bulk of the group having coalesced into two large composite spots, *a* and *b*. These have broken up again by June 16 though a large part of *a* still remains intact, and by June 18 the group consists of a large regular spot, *a*, followed by a few small spots in a straight stream. By June 20 *a* remains alone.

June 9·248	0	114	0	238	214·3	−15·4	− 75·5
10·218	94	375	118	490	210·9	−16·1	− 66·1
11·208	109	513	85	413	214·8	−16·0	− 49·0
12·468	114	648	70	397	216·6	−16·6	− 30·6
13·473	219	1220	120	670	216·6	−16·0	− 17·4
14·511	261	1443	136	753	217·4	−15·6	− 2·8
15·433	212	1405	113	742	218·0	−15·1	+ 10·0
16·459	241	1280	138	729	218·0	−15·1	+ 23·6
17·402	128	813	85	534	219·4	−14·8	+ 37·5
18·451	98	529	84	447	219·9	−14·6	+ 51·9
19·395	65	286	89	387	222·6	−14·5	+ 67·0
20·480	23	100	89	384	223·1	−14·9	+ 81·9
Means ...	...	...	94	515	217·63	−15·39	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Date. Greenwich Civil Time.	Projected Area of		Area for Group.		Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
	Umbra.	Whole Spot.	Umbra.	Whole Spot.			
Group 4370. A pair of very small spots.							
1896. d					°	°	°
June 13·473	4	24	2	12	225·2	+14·2	− 8·8
Means ...	...	...	2	12	225·2	+14·2	...
Group 4371. A number of small spots in a straight stream. The group appears suddenly of its full size, and diminishes from day to day afterwards.							
June 15·433	35	123	18	64	196·1	+11·9	− 11·9
16·459	16	72	8	36	197·2	+11·2	+ 2·8
17·402	3	22	1	12	201·6	+10·2	+ 19·7
18·451	6	25	3	15	197·3	+12·3	+ 29·3
Means ...	...	...	8	32	198·05	+11·40	...
Group 4372. A very small spot.							
June 16·459	0	6	0	3	215·1	+13·7	+ 20·7
Means ...	...	...	0	3	215·1	+13·7	...
Group 4373. Three very small spots.							
June 16·459	0	28	0	15	186·2	−15·4	− 8·2
Means ...	...	...	0	15	186·2	−15·4	...
Group 4374. A very small spot.							
June 16·459	0	6	0	4	166·6	− 8·0	− 27·8
Means ...	...	...	0	4	166·6	− 8·0	...
Group 4375. A fine straight stream undergoing much change. It consists of two composite spots on June 22 and 23. The group extends in length up to June 25, after which the great spots break up and the group rapidly diminishes.							
1896. d					°	°	°
June 19·395	3	19	4	23	90·8	+19·3	− 64·8
20·480	6	68	6	61	87·4	+19·4	− 53·8
21·440	53	299	36	204	88·5	+19·6	− 40·0
22·418	122	769	72	457	88·4	+19·6	− 27·1
23·608	147	1062	80	573	87·8	+19·9	− 12·0
24·679	110	1084	59	569	87·9	+19·7	+ 2·3
25·621	212	1138	116	607	87·3	+19·8	+ 14·2
26·453	129	881	75	515	87·0	+20·1	+ 24·9
27·218	70	424	44	270	86·7	+19·8	+ 34·8
28·202	48	273	36	208	85·6	+19·8	+ 46·7
29·494	9	55	10	60	84·0	+20·1	+ 62·1
Means ...	...	...	49	322	87·40	+19·74	...
Group 4376. A stream of spots appearing suddenly close to the central meridian, and chiefly collected in two clusters. The group has greatly increased by June 23. The preceding cluster is the most definite, and tends to assume a regular outline.							
June 22·418	96	373	52	205	113·6	−20·3	− 1·9
23·608	130	936	74	532	116·2	−20·1	+ 16·4
24·679	165	1045	107	675	117·6	−19·9	+ 32·0
25·621	136	904	106	706	118·4	−19·8	+ 45·3
26·453	121	760	126	750	117·9	−20·1	+ 55·8
27·218	59	366	88	552	120·0	−20·3	+ 68·1
28·202	35	148	74	310	112·9	−22·1	+ 74·0
Means ...	...	...	90	533	116·67	−20·37	...
Group 4377. A pair of very small spots.							
June 23·608	0	9	0	7	45·3	− 3·7	− 54·5
Means ...	...	...	0	7	45·3	− 3·7	...
Group 4378. A few small faint spots irregularly scattered.							
June 25·621	2	49	1	26	74·4	−11·2	+ 1·3
Means ...	...	...	1	26	74·4	−11·2	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4379.

A few spots, mostly small and unstable, in a straight stream. *a* and *b*, the first and last spots, are the most stable.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
June 26·453	0	7	0	12	351·6	−14·1	− 70·5
27·218	4	34	5	40	349·4	−13·8	− 62·5
28·202	23	99	19	81	348·6	−14·0	− 50·3
29·494	36	147	22	91	350·0	−13·6	− 31·9
30·490	17	47	9	26	351·9	−14·1	− 16·7
July 1·191	19	63	10	33	352·2	−14·5	− 7·1
2·673	3	62	2	33	353·3	−14·4	+ 13·5
3·469	4	23	2	14	355·3	−14·9	+ 26·0
Means ...	...	...	9	41	351·54	−14·18	...

Group 4380.

A few spots, mostly small and unstable, in a straight stream, *np* Group 4379. *a* and *b*, the first and last spots, are seen throughout, but undergo much change.

June 29·494	26	133	15	75	357·8	− 9·7	− 24·1
30·490	18	97	9	51	357·4	− 9·5	− 11·2
July 1·191	33	185	16	95	356·7	− 9·8	− 2·6
2·673	47	294	26	158	357·4	− 9·5	+ 17·6
3·469	41	312	24	187	358·4	− 9·2	+ 29·1
4·435	57	240	39	166	358·0	− 9·5	+ 41·6
5·605	7	100	7	97	357·9	− 9·5	+ 56·9
6·412	7	79	9	104	356·9	− 9·3	+ 66·6
Means ...	...	...	18	117	357·56	− 9·50	...

Group 4381.

A small spot.

June 30·490	3	20	2	15	327·7	−21·1	− 40·9
July 1·191	3	22	2	14	328·1	−21·0	− 31·2
Means ...	...	...	2	15	327·90	−21·05	...

Group 4382.

A small spot on July 1 and 2. A close pair on July 3 and 4.

1896. d					°	°	°
July 1·191	0	10	0	15	289·0	+13·9	− 70·3
2·673	0	5	0	4	288·9	+13·6	− 50·9
3·469	6	22	4	14	289·5	+13·9	− 39·8
4·435	0	15	0	9	289·2	+13·7	− 27·2
Means ...	...	...	1	11	289·15	+13·78	...

Group 4383.

A small spot *f* Group 4382.

July 1·191	0	8	0	22	278·9	+14·1	− 80·4
2·673	1	10	1	10	280·1	+14·6	− 59·7
3·469	0	11	0	8	281·4	+14·6	− 47·9
Means ...	...	...	1	13	280·13	+14·43	...

Group 4384.

A small spot, *a*, with a close faint companion on July 7.

July 4·435	5	28	7	36	251·4	−14·9	− 65·0
5·605	2	23	2	19	251·2	−14·3	− 49·8
6·412	7	23	5	16	251·0	−14·9	− 39·3
7·425	4	44	3	26	250·7	−15·2	− 26·2
Means ...	...	...	4	24	251·08	−14·83	...

Group 4385.

A small spot, *a*. On July 7, a stream of small spots, the last and largest of which, *b*, is seen following *a*. Only *a* and *b* are seen on July 8, and only *a* on July 9.

July 5·605	1	13	1	7	271·6	+13·0	− 29·4
6·412	6	14	3	7	272·9	+12·8	− 17·4
7·425	17	125	9	63	272·3	+12·9	− 4·6
8·426	0	54	0	27	272·7	+12·6	+ 9·0
9·400	0	18	0	10	274·4	+12·8	+ 23·7
Means ...	...	...	3	23	272·78	+12·82	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4386.

A regular spot, *a*, usually attended by a very small companion.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
July 6·412	8	53	19	119	214·5	−15·0	−75·8
7·425	14	107	15	122	215·3	−14·6	−61·6
8·426	28	138	23	110	215·7	−14·6	−48·0
9·400	27	151	18	97	216·3	−14·7	−34·4
10·669	20	165	11	93	215·7	−14·4	−18·3
11·414	25	99	13	53	217·1	−13·9	− 7·0
12·506	18	65	10	35	217·6	−14·6	+ 8·0
13·407	6	35	4	19	217·7	−14·6	+ 20·0
14·421	4	20	3	13	218·4	−14·6	+ 34·1
Means ...	...	...	13	73	216·48	−14·56	...

Group 4387.

A regular spot, *a*, which diminishes from day to day.

July 6·412	0	37	0	98	211·6	− 6·6	−78·7
7·425	11	70	13	86	211·9	− 6·5	−65·0
8·426	18	90	15	74	212·2	− 6·8	−51·5
9·400	18	81	12	52	212·7	− 6·7	−38·0
10·669	16	79	9	43	212·8	− 6·9	−21·2
11·414	15	26	7	14	212·9	− 6·6	−11·2
12·506	8	30	4	16	213·6	− 6·8	+ 4·0
13·407	5	20	3	11	213·8	− 6·9	+16·1
Means ...	...	...	8	49	212·69	− 6·73	...

Group 4388.

Three small spots, *a*, *b*, and *c*. *c* has disappeared by July 8, *b* by July 9.

July 7·425	0	68	0	64	221·9	−16·2	−55·0
8·426	0	27	0	19	222·8	−16·5	−40·9
9·400	5	15	3	9	223·9	−16·3	−26·8
Means ...	...	...	1	31	222·87	−16·33	...

Group 4389.

A small spot, *a*, with a very small companion on July 10 and 11.

July 8·426	9	44	11	53	201·2	−16·8	−62·5
9·400	9	30	8	25	201·3	−16·7	−49·4
10·669	4	30	3	19	201·6	−16·8	−32·4
11·414	0	7	0	4	201·6	−16·3	−22·5
12·506	1	9	1	5	202·4	−16·3	− 7·2
Means ...	...	...	5	21	201·62	−16·58	...

Group 4390.

A small spot on July 10. The group changes from day to day, its usual character being that of a number of spots, mostly small and unstable, in a straight but discontinuous stream.

1896. d					°	°	°
July 10·669	0	9	0	31	154·4	−16·4	−79·6
11·414	0	5	0	8	155·0	−16·9	−69·1
12·506	0	18	0	17	156·9	−15·4	−52·7
13·407	13	67	9	47	157·3	−14·6	−40·4
14·421	0	62	0	36	159·2	−14·2	−25·1
15·513	8	46	4	26	160·1	−14·7	− 9·7
16·227	24	129	12	68	161·1	−14·7	+ 0·7
17·469	7	54	4	32	162·2	−15·5	+18·2
18·458	24	130	15	79	159·6	−15·7	+28·8
19·677	25	97	21	78	162·0	−15·7	+47·2
20·411	9	47	10	50	163·2	−15·4	+58·1
21·404	0	6	0	12	164·9	−15·3	+72·9
Means ...	...	...	6	40	159·66	−15·38	...

Group 4391.

A very small spot on July 11 *p* Group 4390. The group changes from day to day, its usual character being that of a number of spots, mostly small and unstable, in a short straight stream. The group is not seen on July 16.

July 11·414	0	4	0	4	169·1	−12·9	−55·0
12·506	0	3	0	2	167·5	−13·7	−42·1
13·407	7	55	4	34	170·4	−12·4	−27·3
14·421	14	123	7	66	171·0	−12·6	−13·3
15·513	0	12	0	6	171·6	−12·6	+ 1·8
16·227	0	0	0	0	...	...	...
17·469	0	6	0	3	168·2	−13·0	+24·2
Means ...	...	...	2	16	169·63	−12·87	...

Group 4392.

Two very small spots.

July 12·506	0	8	0	7	264·5	+ 7·3	+54·9
Means ...	...	...	0	7	264·5	+ 7·3	...

Group 4393.

A very small spot.

July 12·506	0	13	0	7	196·5	+ 2·4	−13·1
Means ...	...	...	0	7	196·5	+ 2·4	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4394.

A very small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d July 13·407	0	3	0	2	° 205·7	° − 9·9	° + 8·0
Means ...	...	...	0	2	205·7	− 9·9	...

Group 4395.

A very large nearly regular spot, *a*, with occasionally some small companions. *a* becomes strongly elliptical, especially as to its umbra, after passing the central meridian on July 19.

July 13·407	41	237	86	501	124·2	−20·8	− 73·5
14·421	82	519	93	589	124·2	−19·5	− 60·1
15·513	127	733	102	595	123·8	−20·8	− 46·0
16·227	116	723	80	503	123·8	−20·7	− 36·6
17·469	139	776	83	464	124·0	−20·9	− 20·0
18·458	167	842	94	473	124·1	−20·7	− 6·7
19·677	156	794	89	449	124·0	−20·8	+ 9·2
20·411	151	726	89	429	124·0	−20·5	+ 18·9
21·404	137	640	90	420	124·0	−20·6	+ 32·0
22·510	105	587	87	481	123·6	−20·5	+ 46·3
23·393	71	397	79	438	124·0	−20·4	+ 58·4
24·412	39	231	76	452	124·2	−20·4	+ 72·0
Means ...	...	...	87	483	123·99	−20·55	...

Group 4396.

A very small spot *f* Group 4386.

July 14·421	0	11	0	6	212·6	−16·0	+ 28·3
Means ...	...	...	0	6	212·6	−16·0	...

Group 4397.

A very small spot *f* Group 4396.

July 14·421	0	8	0	5	203·9	−16·9	+ 19·6
Means ...	...	...	0	5	203·9	−16·9	...

Group 4398.

A small spot.

1896. d July 14·421	0	18	0	16	° 128·6	° +10·1	° −55·7
Means ...	...	...	0	16	128·6	+10·1	...

Group 4399.

A large number of spots, mostly small, in a fine cluster, *sf* Group 4395. The group changes from day to day, stretching out towards Group 4395, July 19–21, with which it may have formed one magnificent group before coming into view at the east limb. The largest and most stable spots are lettered *a*, *b*, *c*, and *d*. *a* is a large regular spot; *b* has broken up by July 19; and *c* is the largest portion of it; *d* is a large spot forming in advance of the group on July 24 and 25.

July 14·421	23	112	44	216	112·6	−21·4	− 71·7
15·513	36	244	39	268	111·8	−22·6	− 58·0
16·227	58	354	51	309	111·8	−22·8	− 48·6
17·469	50	390	34	264	111·2	−22·9	− 32·8
18·458	118	602	72	363	111·4	−22·2	− 19·4
19·677	79	559	45	317	111·2	−22·2	− 3·6
20·411	72	533	41	306	111·1	−22·0	+ 6·0
21·404	55	467	33	280	111·6	−21·9	+ 19·6
22·510	53	327	35	221	111·0	−21·7	+ 33·7
23·393	41	239	34	193	111·2	−21·5	+ 45·6
24·412	35	196	39	220	111·2	−21·3	+ 59·0
25·479	13	145	25	312	111·3	−21·4	+ 73·3
Means ...	...	...	41	272	111·45	− 21·99	...

Group 4400.

A large number of spots in a fine cluster, the southern of which is the larger. The group has divided by July 20 into a parallel pair of short straight streams. The individual spots undergo great changes; the largest and most persistent are *a* and *b*. *b* is measured as two on July 19; *c* is a large fragment broken off from *a*.

July 15·513	17	134	25	205	98·6	+19·6	− 71·2
16·227	44	327	45	338	99·6	+20·0	− 60·8
17·469	85	616	61	445	99·3	+19·9	− 44·7
18·458	127	752	77	459	99·4	+20·3	− 31·4
19·677	90	642	48	347	99·1	+19·6	− 15·7
20·411	77	560	40	290	99·4	+20·0	− 5·7
21·404	71	450	37	236	99·9	+19·5	+ 7·9
22·510	43	240	24	135	100·6	+19·0	+ 23·3
23·393	13	69	8	44	99·4	+19·4	+ 33·8
Means ...	...	...	41	278	99·48	+19·70	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4401.

A very small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
July 18·458	1	5	1	3	155·4	+ 9·9	+ 24·6
Means ...	...	...	1	3	155·4	+ 9·9	...

Group 4402.

A small spot, *a*, with a very small companion on July 19.

July 19·677	6	25	4	16	77·6	+10·1	− 37·2
20·411	4	16	2	9	78·7	+10·7	− 26·4
21·404	0	6	0	3	79·6	+10·6	− 12·4
Means ...	...	...	2	9	78·63	+10·47	...

Group 4403.

A pair of very small spots on July 20. The group undergoes constant change, and has become a short stream of small spots by July 21, which has greatly increased in size by July 24, and has divided into two clusters by July 25. *a*, the leader, on July 23, becomes a very large regular spot, but soon diminishes again.

July 20·411	2	17	1	14	54·0	−10·4	− 51·1
21·404	11	43	7	28	54·3	−10·5	− 37·7
22·510	5	47	3	27	54·9	−11·1	− 22·4
23·393	11	44	6	23	57·4	−11·0	− 8·2
24·412	48	332	24	172	57·6	−11·0	+ 5·4
25·479	79	454	44	255	59·2	−10·5	+ 21·2
26·575	50	313	32	203	60·2	−10·1	+ 36·7
27·428	21	145	16	117	61·5	− 9·9	+ 49·3
28·429	7	53	9	61	61·4	− 9·9	+ 62·4
29·450	0	6	0	17	63·7	−10·1	+ 78·2
Means ...	...	...	14	92	58·42	−10·45	...

Group 4404.

A very small spot.

July 22·510	2	5	1	3	81·7	−21·4	+ 4·4
Means ...	...	...	1	3	81·7	−21·4	...

Group 4405.

A small composite spot, *a*, followed by a few small companions. *a* increases greatly in size, and has divided into two portions, *b* and *c*, by August 4.

1896. d					°	°	°
July 27·428	2	13	3	21	300·9	− 8·9	− 71·3
28·429	7	93	7	92	301·3	− 8·3	− 57·7
29·450	17	90	12	63	303·1	− 8·8	− 42·0
30·658	29	105	17	61	304·0	− 8·4	− 25·5
31·620	16	145	8	77	305·3	− 8·7	− 11·5
Aug. 1·428	32	220	16	113	306·0	− 8·2	− 0·1
2·268	26	200	14	105	306·1	− 8·2	+ 11·1
3·520	38	192	22	112	306·0	− 7·9	+ 27·6
4·404	29	90	20	60	306·4	− 7·9	+ 39·6
5·406	17	87	15	75	306·5	− 7·8	+ 53·0
6·396	0	9	0	12	307·1	− 7·9	+ 66·7
Means ...	...	...	12	72	304·79	− 8·27	...

Group 4406.

Two very small spots.

Aug. 4·404	4	17	3	14	218·9	−15·8	− 47·9
Means ...	...	...	3	14	218·9	−15·8	...

Group 4407.

A large regular spot, *a*, with a pair of very small companions, *f*, on August 15, and one very small companion *sp* on August 17.

Aug. 9·236	10	66	43	292	122·1	−19·2	−80·8
10·	No	photo	graph				
11·468	40	286	36	262	122·0	−19·2	−51·4
12·268	80	368	60	278	121·3	−19·4	−41·4
13·533	70	397	44	247	121·6	−19·7	−24·5
14·314	92	397	53	229	120·9	−19·7	−14·8
15·488	84	447	47	252	121·0	−20·1	+ 0·7
16·487	52	395	31	231	120·8	−20·4	+13·7
17·394	73	386	46	243	120·5	−20·4	+25·5
18·224	49	312	34	217	119·7	−20·3	+35·7
19·252	33	224	29	200	120·0	−20·8	+49·5
20·408	15	144	21	202	119·5	−20·9	+64·3
21·399	7	55	23	172	119·5	−21·1	+77·4
Means ...	...	...	39	235	120·74	−20·10	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4408.

A number of scattered spots, chiefly small. The group has divided into two clusters by August 18, after which it rapidly disappears. It is not seen on August 20.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Aug. 13·533	3	20	3	19	91·6	−19·8	− 54·5
14·314	21	56	17	44	91·2	−18·9	− 44·5
15·488	47	214	30	138	91·3	−19·6	− 29·0
16·487	57	260	33	153	91·1	−20·1	− 16·0
17·394	42	230	23	130	91·6	−20·1	− 3·4
18·224	21	208	13	118	91·3	−19·6	+ 7·3
19·252	10	50	6	31	94·3	−20·7	+ 23·8
20·408	0	0	0	0	...	...	...
21·399	2	10	2	9	88·8	−20·9	+ 46·7
Means ...	...	...	14	71	91·40	−19·96	...

Group 4409.

A regular spot, *a*, with a very small companion on August 13, 15 and 16. *a* has broken up by August 19, and the group is not seen on August 20. It has revived again by August 21, and consists of a number of small spots in two irregular clusters. The last spot, *b*, alone remains by August 24.

Aug. 13·533	7	65	11	94	75·2	+20·1	− 70·9
14·314	33	108	33	110	74·7	+20·3	− 61·0
15·488	19	112	14	81	74·5	+19·8	− 45·8
16·487	27	136	17	83	74·2	+19·9	− 32·9
17·394	21	115	12	63	74·0	+19·5	− 21·0
18·224	26	98	14	51	74·0	+19·7	− 10·0
19·252	12	43	6	23	74·5	+19·2	+ 4·0
20·408	0	0	0	0	...	...	...
21·399	8	62	4	36	72·6	+18·2	+ 30·5
22·397	27	141	19	99	72·8	+17·8	+ 43·9
23·193	13	73	11	64	73·6	+17·6	+ 55·2
24·477	0	9	0	12	69·3	+18·3	+ 67·9
Means ...	...	...	12	60	73·58	+19·13	...

Group 4410.

A few small unstable spots.

Aug. 16·487	0	14	0	18	44·4	−12·8	− 62·7
17·394	7	43	6	38	42·5	−13·8	− 52·5
18·224	4	62	3	44	43·2	−13·3	− 40·8
19·252	2	34	1	21	43·2	−13·5	− 27·3
Means ...	...	...	3	30	43·33	−13·35	...

Group 4411.

Two very small spots.

1896. d					°	°	°
Aug. 17·394	0	10	0	5	103·4	−21·7	+ 8·4
Means ...	...	...	0	5	103·4	−21·7	...

Group 4412.

One small spot.

Aug. 17·394	0	4	0	6	23·4	+ 4·2	− 71·6
18·224	4	20	4	20	23·7	+ 2·7	− 60·3
19·252	3	8	2	5	24·7	+ 4·0	− 45·8
Means ...	...	...	2	10	23·93	+ 3·63	...

Group 4413.

One small spot.

Aug. 20·408	0	7	0	8	119·4	+16·0	+ 64·2
Means ...	...	...	0	8	119·4	+16·0	...

Group 4414.

A few small spots.

Aug. 21·399	0	16	0	8	60·2	− 9·2	+ 18·1
22·397	10	28	6	16	60·6	− 9·4	+ 31·7
Means ...	...	...	3	12	60·40	− 9·30	...

Group 4415.

A few small faint spots irregularly scattered on August 21. The group increases on the succeeding days, and has become a straight stream composed chiefly of three distinct clusters by August 24. The preceding cluster has become a large well-defined spot, *a*, by August 25.

Aug. 21·399	0	27	0	14	27·1	+ 1·1	− 15·0
22·397	25	124	12	62	26·8	+ 2·0	− 2·1
23·193	38	182	19	94	27·7	+ 1·9	+ 9·3
24·477	110	440	60	243	27·1	+ 3·0	+ 25·7
25·236	39	419	25	261	28·2	+ 2·8	+ 36·8
26·417	26	142	22	121	30·1	+ 2·5	+ 54·3
27·429	9	84	13	112	30·7	+ 2·5	+ 68·3
Means ...	...	...	22	130	28·24	+ 2·26	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4416.

A number of spots in a fine straight continuous stream. The leader, *a*, is a large regular spot on August 27; the stream terminates in a cluster somewhat denser and broader than the body of the group, from which *b* has formed by August 27, and *c* to the north of *b* by August 29. *a* remains throughout the largest of the three; *b* is the next largest till September 1, after which it rapidly diminishes, and has disappeared by September 3.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Aug. 26·417	5	28	4	20	292·6	−10·4	− 43·2
27·429	72	339	45	210	291·7	−10·4	− 30·7
28·537	113	580	63	318	292·0	−10·7	− 15·8
29·479	151	804	80	424	292·9	−10·7	− 2·5
30·234	203	1092	107	580	292·7	−10·7	+ 7·3
31·259	175	892	98	502	292·8	−10·3	+ 20·9
Sept. 1·204	123	775	79	496	293·6	−10·4	+ 34·2
2·488	84	421	72	377	295·5	−10·7	+ 53·1
3·501	32	267	45	375	296·0	−10·8	+ 67·0
4·178	29	195	67	472	296·2	−11·3	+ 76·2
Means ...	...	...	66	377	293·60	−10·64	...

Group 4417.

A large double spot, *a*, measured as one until September 5, when it has divided to form a pair of regular spots *b* and *c*; *b*, which lies to the north of *c*, has diminished by September 8 and is not seen on September 9.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Aug. 30·234	11	75	26	176	210·9	−18·9	−74·5
31·259	35	175	41	207	211·0	−17·5	−60·9
Sept. 1·204	30	253	26	213	211·1	−17·5	−48·3
2·488	35	220	23	143	211·5	−17·6	−30·9
3·501	45	317	26	186	211·2	−17·7	−17·8
4·178	48	278	27	155	210·8	−17·7	− 9·2
5·407	42	180	24	101	211·3	−17·7	+ 7·5
6·230	36	127	21	74	210·8	−17·9	+17·8
7·198	31	112	21	73	210·7	−17·9	+30·5
8·248	12	51	10	40	211·2	−17·3	+44·3
9·606	0	11	0	14	210·8	−17·5	+62·4
Means ...	...	...	22	126	211·03	−17·75	...

Group 4418.

A very small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Sept. 1·204	0	11	0	6	258·8	−12·3	− 0·6
Means ...	...	...	0	6	258·8	−12·3	...

Group 4419.

A few small spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Sept. 2·488	4	43	2	24	229·3	−18·8	− 13·1
Means ...	...	...	2	24	229·3	−18·8	...

Group 4420.

Three small spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Sept. 5·407	3	26	2	17	242·9	− 5·5	+ 39·1
6·230	0	19	0	15	242·4	− 5·5	+ 49·4
Means ...	...	...	1	16	242·65	− 5·50	...

Group 4421.

One small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Sept. 5·407	2	8	2	9	141·4	+ 4·1	− 62·4
Means ...	...	...	2	9	141·4	+ 4·1	...

Group 4422.

A number of spots, mostly small, closely following each other in a curved stream; two considerable spots, *a* and *b*, have formed by September 9 in the middle and at the end of the group; a third, *c*, has formed at the head by the succeeding day; *c* has disappeared by September 12, *b* by September 13. On September 13 and 14 the group consists only of *a* and another spot preceding it.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
Sept. 7·198	14	71	14	67	125·7	−14·9	− 54·5
8·248	10	55	7	38	127·7	−14·5	− 39·2
9·606	113	385	67	225	125·6	−15·3	− 22·8
10·362	115	513	64	285	126·3	−15·4	− 12·1
11·258	71	312	39	170	125·6	−15·6	− 1·0
12·212	72	292	41	164	127·9	−15·3	+ 13·9
13·677	14	44	9	29	129·3	−14·8	+ 34·6
14·215	10	39	7	28	127·2	−15·8	+ 39·7
Means ...	...	...	31	126	126·91	−15·20	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4423.

A small spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Sept. 7·198	1	7	2	10	114·7	−20·9	− 65·5
Means ...	...	...	2	10	114·7	−20·9	...

Group 4424.

A fine group, consisting of a number of spots arranged in two parallel streams, which appear suddenly near the central meridian preceding Group 4422. It comprises two large spots, *a* and *b*, and a number of smaller spots on September 8; *c* has formed by September 10; *b* has diminished by September 11, and has disappeared by the succeeding day; *c* has disappeared by September 13, leaving *a* alone.

Sept. 8·248	49	284	26	155	163·2	− 14·4	− 3·7
9·606	99	543	56	300	163·1	− 14·4	+ 14·7
10·362	187	876	113	535	164·5	− 15·0	+ 26·1
11·258	145	656	103	466	165·7	− 15·6	+ 39·1
12·212	62	346	57	323	167·2	− 15·8	+ 53·2
13·677	5	26	9	43	164·3	− 16·0	+ 69·6
14·215	7	31	18	85	164·2	− 16·6	+ 76·7
Means ...	...	...	55	272	164·60	− 15·40	...

Group 4425.

A few small spots in two clusters on September 9 *p* Group 4424. The group has increased by the succeeding day, and on September 11 the two clusters have coalesced to form *a* and *b*; *b* alone is seen on September 12.

Sept. 9·606	11	74	8	58	193·1	−15·3	+ 44·7
10·362	22	180	21	174	193·2	−15·5	+ 54·8
11·258	43	178	63	263	193·5	−16·1	+ 66·9
12·212	0	46	0	138	192·0	−16·1	+ 78·0
Means ...	...	...	23	158	192·95	−15·75	...

Group 4426.

A regular spot, *a*, occasionally accompanied by a few small companions. The group is overtaken and absorbed by Group 4428.

Sept. 9·606	5	30	11	67	70·2	+ 10·4	− 78·2
10·362	12	75	16	100	69·7	+ 10·6	− 68·7
11·258	23	84	21	76	69·6	+ 10·9	− 57·0
12·212	19	69	13	47	70·0	+ 11·1	− 44·0
13·677	16	51	9	28	70·5	+ 11·1	− 24·2
14·215	19	74	10	39	70·1	+ 11·0	− 17·4
15·433	14	37	7	19	70·4	+ 11·2	− 1·1
16·447	8	29	4	15	70·3	+ 11·1	+ 12·2
17·212	10	26	5	14	70·3	+ 10·7	+ 22·3
18·278	4	23	3	14	70·2	+ 10·9	+ 36·3
Means ...	...	...	10	42	70·13	+ 10·90	...

Group 4427.

Two very small spots *sp* Group 4426.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Sept 10·362	0	8	0	8	78·9	− 0·1	− 59·5
Means ...	...	...	0	8	78·9	− 0·1	...

Group 4428.

A very fine group, consisting of an almost continuous stream of most unusual length. The group, which presents a series of curves concave to the equator, comprises a number of large spots mostly irregular in shape, and showing fine detail, but as they lie close to each other and combine and divide frequently it is not possible to follow any particular spot for long.

Sept. 10·362	13	181	30	502	57·5	+ 12·3	− 80·9
11·258	128	1260	184	2458	50·2	+ 14·4	− 76·4
12·212	359	2180	382	2346	51·0	+ 14·3	− 63·0
13·677	377	2815	255	1929	51·7	+ 13·9	− 43·0
14·215	658	3250	409	2041	50·9	+ 14·0	− 36·6
15·433	500	3411	268	1847	52·1	+ 13·9	− 19·4
16·447	570	4060	290	2061	54·5	+ 13·3	− 3·6
17·212	607	4254	313	2186	55·8	+ 12·8	+ 7·8
18·278	734	4156	405	2282	57·0	+ 12·9	+ 23·1
19·397	467	2921	307	1913	59·1	+ 12·4	+ 39·9
20·422	233	1680	205	1471	61·5	+ 11·6	+ 55·9
21·493	95	674	145	957	61·7	+ 11·7	+ 70·2
22·603	16	132	70	504	60·5	+ 12·3	+ 83·7
Means ...	...	...	251	1731	55·65	+ 13·06	...

Group 4429.

A well-defined spot, *a*, with two or three small companions on September 12 and 13; only *a* remains by September 14.

Sept. 12·212	8	55	7	46	167·7	+ 14·2	+ 53·7
13·677	7	46	11	74	167·6	+ 14·5	+ 72·9
14·215	0	11	0	28	167·5	+ 14·6	+ 80·0
Means ...	...	...	6	49	167·60	+ 14·43	...

Group 4430.

Two small spots.

Sept. 12·212	2	19	1	12	78·8	+ 17·6	− 35·2
Means ...	...	...	1	12	78·8	+ 17·6	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4431.

A few very small unstable spots irregularly arranged. The group is not seen on September 16.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Sept. 13·677	0	8	0	8	36·0	+ 1·6	− 58·7
14·215	0	4	0	3	35·2	+ 1·6	− 52·3
15·433	3	9	2	6	35·9	+ 1·7	− 35·6
16·447	0	0	0	0	...	...	...
17·212	0	14	0	7	35·9	+ 2·9	− 12·1
18·278	3	31	2	15	35·4	+ 2·2	+ 1·5
Means ...	...	...	1	7	35·68	+ 2·00	...

Group 4432.

A few small spots.

Sept. 16·447	0	27	0	25	115·5	+16·7	+ 57·4
Means ...	...	...	0	25	115·5	+16·7	...

Group 4433.

A very small spot.

Sept. 17·212	0	4	0	3	78·4	− 0·3	+30·4
Means ...	...	...	0	3	78·4	− 0·3	...

Group 4434.

A spot, *a*, large on September 18, but diminishing after, with occasionally one or more small companions.

Sept. 17·212	0	11	0	34	326·2	+12·7	− 81·8
18·278	15	105	19	130	326·4	+13·3	− 67·5
19·397	23	153	18	120	328·3	+13·4	− 50·9
20·422	24	133	15	83	329·8	+13·4	− 35·8
21·493	28	92	15	50	331·2	+13·4	− 20·3
22·603	17	72	9	36	331·5	+13·4	− 5·3
23·472	13	62	7	32	331·4	+13·3	+ 6·0
Means ...	...	...	12	69	329·26	+13·27	...

Group 4435.

A fine broad irregular stream of spots. A pair of large spots, *a* and *b*, are the leaders. The centre of the group is made up mostly of small faint unstable spots. The following part of the group is broader, and contains a large spot, *d*, with two considerable companions, *c* and *e*, and a number of smaller spots. The central and following portions of the group diminish, and only *a* and *b*, followed by two or three small spots, remain by September 28.

1896. d					°	°	°
Sept. 19·397	8	98	22	298	300·5	−11·8	− 78·7
20·422	66	411	97	623	297·0	−12·2	− 68·6
21·493	108	847	103	807	296·0	−12·2	− 55·5
22·603	153	946	109	673	295·8	−12·3	− 41·0
23·472	212	1061	131	654	295·8	−12·9	− 29·6
24·494	182	945	101	525	296·3	−12·7	− 15·6
25·232	163	813	85	430	297·3	−12·2	− 4·8
26·168	141	666	76	358	297·3	−12·3	+ 7·5
27·282	96	532	55	311	298·6	−12·1	+ 23·5
28·396	64	338	45	233	300·3	−11·9	+ 39·9
29·509	43	221	41	210	301·5	−11·6	+ 55·8
30·419	21	106	31	152	301·4	−11·1	+ 67·7
Means ...	...	...	75	440	298·15	−12·11	...

Group 4436.

A few small unstable spots in an irregular straggling stream. The leader, *a*, and a very small companion alone remain by September 24.

Sept. 21·493	11	39	7	24	324·0	−11·3	− 27·5
22·603	17	72	10	39	326·3	−11·8	− 10·5
23·472	25	67	13	36	328·6	−12·0	+ 3·2
24·494	4	24	2	14	329·3	−12·0	+ 17·4
Means ...	...	...	8	28	327·05	−11·78	...

Group 4437.

A pair of very small faint spots *f* Group 4434.

Sept. 23·472	2	13	1	7	325·1	+14·1	− 0·3
Means ...	...	...	1	7	325·1	+14·1	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4438.

A few small unstable spots in an irregular stream *f* Group 4437.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Sept. 23·472	4	35	2	18	312·7	+12·3	−12·7
24·494	7	48	4	24	312·5	+12·0	+ 0·6
25·232	0	20	0	10	314·8	+12·4	+ 12·7
Means ...	...	...	2	17	313·33	+12·23	...

Group 4439.

Three very small spots.

Sept. 24·494	0	13	0	6	313·2	+21·3	+ 1·3
Means ...	...	...	0	6	313·2	+21·3	...

Group 4440.

A few small unstable spots in a sparse straight stream.

Sept. 29·509	0	20	0	17	197·5	−14·4	− 48·2
30·419	1	34	1	26	192·9	−15·8	− 40·8
Oct. 1·239	6	46	4	29	191·5	−15·4	− 31·4
2·265	6	53	3	29	191·7	−15·9	− 17·7
3·344	4	42	2	23	192·4	−15·4	− 2·7
4·351	0	33	0	18	193·5	−15·1	+ 11·6
Means ...	...	...	2	24	193·25	−15·33	...

Group 4441.

A large regular spot, *a*, with occasionally one or two very small companions. *a* diminishes from day to day.

Oct. 6·302	0	45	0	185	72·6	+10·4	− 83·5
7·219	18	88	26	128	73·5	+10·4	− 70·5
8·285	23	86	21	78	72·9	+10·6	− 57·0
9·434	28	144	19	95	73·5	+ 9·9	− 41·3
10·428	37	138	21	79	73·1	+ 9·8	− 28·5
11·198	28	129	15	68	73·3	+ 9·6	− 18·2
12·234	15	102	8	51	73·0	+10·1	− 4·8
13·318	8	56	4	28	73·0	+10·0	+ 9·5
Means ...	...	...	14	89	73·11	+10·10	...

Group 4442.

Two small irregular spots, *a* and *b*. Only *b* remains on October 11.

1896. d					°	°	°
Oct. 10·428	2	21	2	16	149·6	+ 13·3	+48·0
11·198	4	16	3	14	147·5	+ 13·0	+56·0
Means ...	...	..	3	15	148·55	+13·15	...

Group 4443.

A number of small unstable spots in a very irregular stream. The group changes rapidly from day to day.

Oct. 14·388	10	79	5	44	66·3	−15·2	+ 16·9
15·505	26	154	18	98	65·5	−15·4	+ 30·9
16·213	28	200	20	142	65·4	−16·3	+ 40·0
17·423	6	57	6	55	65·4	−15·8	+ 56·0
Means ...	...	...	12	85	65·65	−15·68	...

Group 4444.

Two small spots. Only one remains on October 15.

Oct. 14·388	7	34	4	19	32·2	+23·9	− 17·2
15·505	2	6	1	3	31·9	+23·8	− 2·7
Means ...	...	...	3	11	32·05	+23·85	...

Group 4445.

Three small spots, *a*, *b* and *c*, on October 17. The group has greatly increased by the succeeding day, and *a* and *c* are both composite spots, *c* being measured in two parts. *a* has further increased and become more regular by October 19, whilst *c* is measured in four parts. *c* has entirely broken up by October 21, and *a* remains alone by October 23.

Oct. 17·423	16	59	13	50	317·0	− 7·3	− 52·4
18·446	56	307	38	202	316·9	− 7·0	− 39·0
19·239	68	423	40	246	317·5	− 6·6	− 28·0
20·223	73	458	38	243	317·8	− 6·1	− 14·7
21·451	41	293	21	150	319·7	− 6·2	+ 3·5
22·571	33	246	18	132	320·4	− 6·6	+ 18·9
23·449	29	145	18	87	321·6	− 6·3	+ 31·7
24·225	37	95	26	66	321·8	− 6·7	+ 42·1
25·442	5	25	5	25	322·6	− 6·3	+ 58·9
26·416	0	5	0	9	323·4	− 6·1	+ 72·6
Means ...	...	...	22	121	319·87	− 6·52	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4446.

A small spot, *a*, *s* Group 4447 and *sf* Group 4445. *a* is accompanied by one or two very small companions after October 19. Two of these, *b* and *c*, remain on October 23, after *a* has disappeared.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Oct. 17·423	5	14	7	18	303·7	−11·3	− 65·7
18·446	6	25	5	22	303·8	−11·4	− 52·1
19·239	8	32	5	22	303·4	−11·2	− 42·1
20·223	11	35	7	21	304·0	−10·8	− 28·5
21·451	10	23	5	13	304·7	−11·4	− 11·5
22·571	2	27	1	14	305·5	−11·8	+ 4·0
23·449	0	13	0	7	305·7	−11·9	+ 15·8
Means ...	...	...	4	17	304·40	−11·40	...

Group 4447.

A large spot, *a*, with a number of small companions. These increase in number on the *p*, *s*, and *f* sides of *a*, and have converted the group by October 23 into a long irregular stream. The group diminishes rapidly after October 24, and *a* remains alone by October 27.

Oct. 17·423	22	162	31	231	300·7	− 6·5	− 68·7
18·446	47	276	41	245	301·2	− 6·9	− 54·7
19·239	70	386	50	279	301·1	− 7·1	− 44·4
20·223	94	467	56	280	301·4	− 6·9	− 31·1
21·451	82	451	43	240	301·1	− 7·2	− 15·1
22·571	78	483	41	247	301·3	− 7·6	− 0·2
23·449	137	551	73	293	303·0	− 8·0	+ 13·1
24·225	115	561	66	315	302·7	− 8·2	+ 23·0
25·442	67	329	45	217	302·6	− 7·6	+ 38·9
26·416	37	203	31	168	302·3	− 7·4	+ 51·5
27·526	15	113	19	141	301·6	− 7·5	+ 65·4
Means ...	...	...	45	241	301·73	− 7·35	...

Group 4448.

A regular spot, *a*, with a large spot, *b*, at a considerable distance *n* on October 17. A number of small unstable spots form near *a* and *b* on October 18 and 19, but diminish later. *b* has disappeared by October 21. Groups 4445, 4446, 4447 and 4448, form almost a single straight stream.

Oct. 17·423	3	57	10	187	288·7	− 6·2	− 80·7
18·446	11	63	14	84	288·9	− 7·6	− 67·0
19·239	14	146	13	138	288·9	− 6·6	− 56·6
20·223	36	170	26	119	290·1	− 6·8	− 42·4
21·451	23	84	13	48	289·2	− 8·0	− 27·0
22·571	19	53	10	28	289·3	− 7·7	− 12·2
23·449	8	41	4	21	290·3	− 7·0	+ 0·4
24·225	7	25	4	13	289·6	− 8·6	+ 9·9
Means ...	...	...	12	80	289·38	− 7·31	...

Group 4449.

A large regular spot, *a*, usually with a number of small companions.

1896. d					°	°	°
Oct. 18·446	13	151	20	239	284·0	+ 6·5	− 71·9
19·239	46	232	47	243	283·7	+ 6·1	− 61·8
20·223	69	378	51	280	284·6	+ 6·1	− 47·9
21·451	69	375	41	220	284·8	+ 5·7	− 31·4
22·571	64	393	34	203	285·4	+ 5·3	− 16·1
23·449	64	403	32	203	285·9	+ 4·8	− 4·0
24·225	66	343	34	174	286·6	+ 4·6	+ 6·9
25·442	42	273	23	150	287·2	+ 4·6	+ 23·5
26·416	34	144	21	89	287·5	+ 4·7	+ 36·7
27·526	17	57	13	45	286·7	+ 4·8	+ 50·5
Means ...	...	...	32	185	285·64	+ 5·32	...

Group 4450.

A pair of very small spots.

Oct. 23·449	0	6	0	3	304·2	+ 5·3	+ 14·3
Means ...	...	...	0	3	304·2	+ 5·3	...

Group 4451.

A large spot, *a*, with one or more small companions. *a* tends to lengthen out on the succeeding days, and has divided into two spots, *b* and *c*, by October 28; *b* has further divided into *d* and *e* by October 30. *c* has disappeared by November 1.

Oct. 24·225	37	157	91	385	203·2	−14·2	− 76·5
25·442	38	265	42	294	203·1	−14·2	− 60·6
26·416	60	359	48	288	202·7	−14·3	− 48·1
27·526	67	381	43	241	203·1	−14·4	− 33·1
28·627	47	291	26	164	202·4	−14·7	− 19·2
29·499	52	245	27	131	202·1	−14·8	− 8·0
30·427	48	187	25	99	202·0	−14·8	+ 4·1
31·419	34	119	19	66	202·5	−15·1	+ 17·7
Nov. 1·566	11	40	7	25	202·5	−15·3	+ 32·9
2·233	1	21	1	15	202·0	−15·3	+ 41·1
Means ...	...	...	33	171	202·56	−14·71	...

Group 4452.

A very small spot.

Oct. 25·442	0	13	0	8	294·0	−12·0	+ 30·3
Means ...	...	...	0	8	294·0	−12·0	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4453.

Two very small spots.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Oct. 25·442	0	9	0	4	254·5	−14·1	− 9·2
Means ...	...	...	0	4	254·5	−14·1	...

Group 4454.

Three small spots on October 30. The third has disappeared by October 31.

Oct. 30·427	18	63	14	48	149·7	− 6·1	− 48·2
31·419	3	20	2	12	151·3	− 5·3	− 33·5
Means ...	...	...	8	30	150·50	− 5·70	...

Group 4455.

Two very small spots.

Nov. 1·566	0	14	0	11	216·2	−20·4	+ 46·6
Means ...	...	...	0	11	216·2	−20·4	...

Group 4456.

A very large regular spot, *a*, with a number of small companions. *a* tends to, become elongated in the direction of motion about November 8 and 9, when it crosses the central meridian. A number of small spots have formed *s* of *a* by November 9 and 10.

Nov. 3·498	80	521	120	795	75·3	−14·8	− 68·9
4·472	134	741	128	714	75·4	−14·9	− 56·0
5·428	165	875	120	637	75·5	−14·8	− 43·2
6·440	225	1042	136	632	76·0	−15·0	− 29·4
7·258	318	1124	178	628	76·2	−15·0	− 18·5
8·191	324	1284	172	682	76·2	−15·3	− 6·1
9·536	242	1285	131	698	76·3	−15·4	+ 11·7
10·499	288	1370	168	800	76·7	−15·7	+ 24·8
11·278	304	1220	199	795	76·6	−16·1	+ 35·0
12·234	229	880	180	692	76·3	−15·9	+ 47·3
13·286	161	651	182	733	76·5	−16·2	+ 61·4
14·358	0	317	0	717	77·0	−16·0	+ 75·9
Means ...	...	...	143	710	76·17	−15·43	...

Group 4457.

A large regular spot, *a*, with a number of small companions *f* Group 4456. *a* diminishes rapidly in size, and its companion spots are very unstable.

1896. d					°	°	°
Nov. 3·498	9	65	31	216	64·3	−15·1	− 79·9
4·472	15	122	22	174	63·9	−15·3	− 67·5
5·428	21	145	19	134	63·9	−15·3	− 54·8
6·440	30	194	21	137	64·0	−15·4	− 41·4
7·258	33	213	21	132	64·3	−15·5	− 30·4
8·191	23	134	13	75	64·5	−15·8	− 17·8
9·536	23	42	12	22	65·0	−15·3	+ 0·4
10·499	17	50	9	27	65·2	−15·3	+ 13·3
11·278	12	49	7	29	65·3	−15·7	+ 23·7
12·234	15	33	10	22	65·1	−15·7	+ 36·1
Means ...	...	...	17	97	64·55	−15·44	...

Group 4458.

A large regular spot, *a*, with a few small companions *f* Group 4457. *a* has elongated in a direction at nearly right angles to the equator by November 8, and has broken up into a pair of regular spots, *b* and *c*, by November 9. The group has become, by November 11, a number of small spots, irregularly scattered over a wide area.

Nov. 4·472	11	63	25	143	55·8	−15·7	− 75·6
5·428	13	116	14	131	57·3	−15·8	− 61·4
6·440	25	168	20	136	56·4	−15·5	− 49·0
7·258	43	207	29	141	55·6	−15·1	− 39·1
8·191	63	255	37	150	55·5	−14·5	− 26·8
9·536	32	143	16	76	56·2	−14·2	− 8·4
10·499	25	98	13	51	56·5	−13·8	+ 4·6
11·278	14	52	7	28	55·9	−15·1	+ 14·3
12·234	18	87	10	51	55·3	−13·8	+ 26·3
13·286	18	96	13	66	55·8	−13·0	+ 40·7
Means ...	...	...	18	97	56·03	−14·65	...

Group 4459.

A very small spot.

Nov. 6·440	2	8	2	6	156·5	+13·6	+ 51·1
Means ...	...	...	2	6	156·5	+13·6	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4460.

A very small faint spot on November 7. The photosphere appears perturbed in its neighbourhood on November 8, but nothing is seen sufficiently definite for measurement. The group has re-appeared by November 9 as a broad semicircular stream, concave to the equator. It increases rapidly on the succeeding days, and is soon seen as consisting chiefly of two large composite spots, *a* and *b*, with a few very small spots near them. *b* soon breaks up, and has disappeared by November 14. *a* remains alone after that date as a fine double spot.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Nov. 7·258	0	4	0	4	33·4	− 6·3	− 61·3
8·191	0	0	0	0	...	...	...
9·536	58	241	34	138	36·7	− 6·5	− 27·9
10·499	119	693	64	363	37·7	− 6·7	− 14·2
11·278	101	774	52	393	38·7	− 6·6	− 2·9
12·234	135	625	70	324	39·3	− 6·7	+ 10·3
13·286	81	475	46	270	40·9	− 6·9	+ 25·8
14·358	74	359	50	243	42·7	− 6·7	+ 41·6
15·507	43	279	40	260	42·8	− 6·7	+ 56·9
16·426	25	160	35	225	42·5	− 6·5	+ 68·7
17·207	9	107	24	302	43·0	− 6·8	+ 79·5
Means ...	...	...	38	229	39·77	− 6·64	...

Group 4461.

A short stream of spots. *a*, the leader, is the largest, and is a large regular spot up to November 9, after which it diminishes in size and becomes partly divided, though still measured as one. *b*, the principal spot in the middle of the stream, is an irregular composite spot, and continually changes in size and shape. The smaller spots have all disappeared by November 13, and after that date *a*, with one very small companion, alone remains.

Nov. 7·258	8	51	20	131	16·9	−12·2	− 77·8
8·191	28	105	34	133	17·1	−11·6	− 65·2
9·536	31	216	24	168	16·7	−11·8	− 47·9
10·499	38	239	24	151	16·7	−11·8	− 35·2
11·278	51	315	29	181	15·9	−11·9	− 25·7
12·234	49	272	26	145	16·4	−11·9	− 12·6
13·286	16	120	8	63	17·0	−12·0	+ 1·9
14·358	12	59	6	31	17·7	−11·9	+ 16·6
15·507	4	19	2	11	17·9	−11·9	+ 32·0
Means ...	...	...	19	113	16·92	−11·89	...

Group 4462.

A very small spot *f* Group 4461.

Nov. 10·499	0	4	0	4	354·0	− 9·2	− 57·9
Means ...	...	...	0	4	354·0	− 9·2	...

Group 4463.

Four or five spots irregularly scattered. These break up and form a nearly continuous and semicircular stream of small unstable spots, convex to the equator. The group fades out very quickly after passing the central meridian on November 16.

1896. d					°	°	°
Nov. 10·499	2	11	4	22	336·5	− 5·2	− 75·4
11·278	41	191	65	299	330·8	− 7·0	− 70·8
12·234	60	232	57	222	331·4	− 7·0	− 57·6
13·286	61	296	42	209	331·8	− 7·2	− 43·3
14·358	89	396	52	230	332·4	− 7·1	− 28·7
15·507	47	226	25	120	333·0	− 7·6	− 12·9
16·426	20	186	11	96	335·1	− 7·2	+ 1·3
17·207	8	66	5	34	334·0	− 8·0	+ 10·5
Means ...	...	...	33	154	333·13	− 7·04	...

Group 4464.

Two spots of considerable size suddenly appearing in a faculous region close to the West limb.

Nov. 14·358	6	84	15	247	81·5	+ 9·8	+ 80·4
Means ...	...	...	15	247	81·5	+ 9·8	...

Group 4465.

A small spot, *a*, *p* Group 4463. The group has increased in size by November 15, when *a* is followed by a short straight stream of very small spots, the stream being inclined at a considerable angle to the equator. All the spots but *a* are very unstable.

Nov. 14·358	5	18	3	10	347·5	−10·3	− 13·6
15·507	38	123	20	63	348·6	−10·3	+ 2·7
16·426	15	130	8	70	348·3	−10·4	+ 14·5
17·207	1	54	1	30	348·5	−10·0	+ 25·0
Means ...	...	...	8	43	348·23	−10·25	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4466.

A pair of small spots, *a* and *b*, on November 16. *a* has increased by the succeeding day, but diminishes again later, and has disappeared by November 21. *b* has disappeared by November 18. The group consists of a number of very small unstable spots in a short stream on November 20 and the succeeding days. The group shows a temporary expansion on November 22 and 23.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Nov. 16·426	3	18	3	19	273·6	−12·7	− 60·2
17·207	20	91	16	71	274·9	−12·1	− 48·6
18·207	13	66	8	42	276·0	−12·1	− 34·3
19·452	8	19	4	10	277·1	−12·3	− 16·7
20·472	3	54	1	28	275·7	−13·2	− 4·8
21·533	12	51	6	26	272·5	−13·6	+ 6·0
22·165	52	336	28	181	272·6	−13·6	+ 14·5
23·208	66	278	39	163	271·9	−13·0	+ 27·6
24·227	4	52	2	36	272·0	−13·2	+ 41·0
Means ...	...	...	12	64	274·03	−12·87	...

Group 4467.

A very small spot.

Nov. 19·452	0	8	0	4	314·3	−12·2	+20·5
Means ...	...	...	0	4	314·3	−12·2	...

Group 4468.

Three very small spots on November 21. Only the last, considerably increased, remains by the succeeding day.

Nov. 21·533	0	13	0	9	313·1	+ 3·2	+ 46·6
22·165	6	23	5	19	312·2	+ 2·9	+ 54·1
Means ...	...	...	3	14	312·65	+ 3·05	...

Group 4469.

A very small spot.

Nov. 21·533	0	8	0	8	209·9	−17·7	−56·6
Means ...	...	...	0	8	209·9	−17·7	...

Group 4470.

A regular spot, *a*, with a second spot almost in contact with it. The latter moves irregularly with regard to *a*, and has disappeared by November 25. The group has become a sparse stream of small unstable spots by November 24. *a* has disappeared by November 28.

1896. d					°	°	°
Nov. 21·533	12	66	17	97	196·2	+ 6·3	− 70·3
22·165	12	75	13	77	197·4	+ 6·2	− 60·7
23·208	35	82	25	60	198·6	+ 5·9	− 45·7
24·227	20	87	12	53	197·6	+ 5·9	− 33·4
25·304	11	54	6	28	199·8	+ 5·3	− 17·0
26·204	11	61	5	30	198·3	+ 6·3	− 6·6
27·409	15	81	8	42	197·1	+ 6·3	+ 8·1
28·148	24	102	13	53	197·1	+ 6·0	+ 17·9
29·492	5	48	3	30	199·3	+ 5·8	+ 37·8
30·447	2	12	2	10	200·2	+ 6·4	+ 51·2
Means ...	...	...	10	48	198·16	+ 6·04	...

Group 4471.

Two or three small unstaole spots which vary from day to day in number, area, and place. The group is not seen on November 29.

Nov. 25·304	0	27	0	15	198·2	−19·2	− 18·6
26·204	7	25	4	13	197·9	−18·5	− 7·0
27·409	3	15	2	8	198·8	−18·9	+ 9·8
28·148	2	14	1	8	200·8	−21·5	+ 21·6
29·492	0	0	0	0	...	...	...
30·447	0	20	0	16	199·4	−18·1	+ 50·4
Means ...	...	...	1	10	199·02	−19·24	...

Group 4472.

A large regular spot. *a*, with a number of small companions. The companions, which are at first irregularly scattered on all sides of *a* have formed a straight stream just *s* of *a* by December 4, and have most coalesced by December 6 to form a considerable irregular spot, *b*, *sp a*. *b* has disappeared by December 8.

Nov. 29·492	30	232	48	366	90·1	+ 9·3	− 71·4
30·447	56	335	55	328	90·0	+ 9·1	− 59·0
Dec. 1·428	70	351	51	256	90·3	+ 8·7	− 45·7
2·237	66	296	41	183	90·1	+ 9·4	− 35·3
3·203	79	410	42	222	90·6	+ 9·0	− 22·0
4·282	117	505	58	258	91·2	+ 8·8	− 7·3
5·160	105	477	54	242	92·1	+ 8·9	+ 5·2
6·574	75	453	42	254	92·1	+ 8·9	+ 23·9
7·217	86	392	51	235	92·1	+ 8·8	+ 32·4
8·238	42	220	30	159	91·9	+ 9·2	+ 45·6
9·248	28	175	28	174	92·1	+ 9·5	+ 59·1
10·235	25	107	41	178	92·1	+ 9·0	+ 72·1
Means ...	...	...	45	238	91·23	+ 9·05	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4473.

A large regular spot, *a*, with two or three small companions. *a* has begun to divide by December 3, but is still measured as a single spot until December 5. The group on the succeeding days consists of a number of spots, mostly small, in a straight stream. *b* and *c* are the two most stable fragments of *a* remaining.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Nov. 29·492	10	61	61	370	76·7	−16·6	− 84·8
30·447	26	191	42	324	77·2	−16·4	− 71·8
Dec. 1·428	46	279	45	281	77·6	−16·4	− 58·4
2·237	49	375	38	292	77·6	−16·5	− 47·8
3·203	87	427	55	271	77·5	−16·5	− 35·1
4·282	65	418	36	233	77·8	−16·8	− 20·7
5·160	52	315	27	165	78·1	−16·8	− 8·8
6·574	36	158	19	85	78·2	−16·8	+ 10·0
7·217	31	162	18	89	78·0	−17·2	+ 18·3
8·238	7	63	5	39	79·0	−16·8	+ 32·7
9·248	4	17	3	13	78·5	−16·9	+ 45·5
Means ...	...	...	32	197	77·84	−16·70	...

Group 4474.

A regular spot, *a*, with one or two small companions. *a* increases in size up to December 7, when it is a large spot. It diminishes again after December 9.

Dec. 2·237	14	60	15	64	65·1	+20·3	− 60·3
3·203	21	100	16	76	66·7	+20·3	− 45·9
4·282	67	247	41	151	68·6	+20·0	− 29·9
5·160	50	274	28	153	68·4	+20·2	− 18·5
6·574	47	251	25	135	68·9	+20·1	+ 0·7
7·217	61	312	33	168	68·7	+20·1	+ 9·0
8·238	43	273	25	157	68·6	+19·7	+ 22·3
9·248	51	272	34	178	68·2	+20·0	+ 35·2
10·235	61	173	48	137	67·6	+19·8	+ 47·6
11·212	30	124	32	134	67·4	+20·1	+ 60·3
12·229	12	51	24	103	68·3	+20·2	+ 74·5
Means ...	...	...	29	132	67·86	+20·07	...

Group 4475.

A large regular spot, *a*, on December 5. *a* has diminished by December 6, and a small companion, *b*, has appeared near it. *a* has further diminished by the succeeding day, when the group consists of three equal spots, *c*, *a*, and *d*, forming a right-angled triangle and several small companions. The group diminishes after this date.

Dec. 5·160	19	68	31	109	16·0	−17·4	− 70·9
6·574	14	75	12	66	15·2	−17·6	− 53·0
7·217	48	161	35	117	15·4	−16·3	− 44·3
8·238	36	202	22	123	15·6	−16·6	− 30·7
9·248	4	65	2	36	16·6	−16·1	− 16·4
10·235	13	80	7	42	17·8	−16·4	− 2·2
11·212	0	37	0	20	14·4	−17·9	+ 7·3
Means ...	...	...	16	73	15·86	−16·90	...

Group 4476.

A very small spot.

1896. d					°	°	°
Dec. 6·574	0	6	0	3	82·3	− 9·1	+ 14·1
Means ...	...	...	0	3	82·3	− 9·1	...

Group 4477.

A very small spot *p* Group 4475. A second very small spot is seen with the first on December 7.

Dec. 6·574	0	4	0	3	26·6	−15·7	− 41·6
7·217	0	15	0	9	26·5	−15·7	− 33·2
Means ...	...	...	0	6	26·55	−15·70	...

Group 4478.

A very small spot, *a*, on December 7, *p* Group 4477. *a* moves forward rapidly in longitude, and on the succeeding days a number of other spots have appeared following it, forming a straight stream, of which *b*, the last spot, is the largest. *a* has disappeared by December 12, and *b*, now a double spot, alone remains by December 13.

Dec. 7·217	0	3	0	2	40·5	−14·6	− 19·2
8·238	16	109	9	56	40·9	−14·8	− 5·4
9·248	55	299	28	154	41·4	−14·3	+ 8·4
10·235	71	251	39	137	40·3	−14·6	+ 20·3
11·212	32	312	20	192	39·8	−14·8	+ 32·7
12·229	27	220	19	162	39·4	−15·3	+ 45·6
13·522	13	102	14	108	37·8	−15·4	+ 61·1
14·237	0	51	0	83	38·8	−15·9	+ 71·5
Means ...	...	...	16	112	39·86	−14·96	...

Group 4479.

A few small spots in a straight stream. *a* and *b*, the first and last spots, are the largest and most stable. *b* alone remains by December 17.

Dec. 12·229	4	13	3	10	306·4	− 18·6	− 47·4
13·522	8	96	5	57	308·0	− 18·3	− 28·7
14·237	18	108	10	61	307·3	− 18·8	− 20·0
15·530	20	163	11	85	307·3	− 19·0	− 2·9
16·300	9	66	4	35	308·1	− 18·9	+ 8·0
17·280	7	33	4	18	305·7	− 20·8	+ 18·5
Means ...	...	...	6	44	307·13	−19·07	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*continued.*

Group 4480.

A number of spots in a straight stream. The group is small at its first appearance, but increases rapidly, and *a*, the leader, has become a large regular spot by December 15. The group changes rapidly in shape, and consists on December 18 of two straight streams radiating from *a* and inclined at an angle of about 30° to each other. The group undergoes further change, and consists, on December 19, and the succeeding days, chiefly of three large spots, *a*, *b* and *c*.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Dec. 14·237	11	95	6	58	293·9	− 9·6	− 33·4
15·530	45	381	24	198	295·2	− 9·4	− 15·0
16·300	108	633	55	320	295·8	− 9·4	− 4·3
17·280	86	418	43	214	295·8	− 9·4	+ 8·6
18·272	123	552	68	298	294·5	− 9·5	+ 20·4
19·152	194	880	116	521	293·5	− 9·3	+ 31·0
20·173	165	646	120	462	294·0	− 9·4	+ 44·9
21·200	89	409	83	388	293·6	− 9·5	+ 58·0
22·193	39	226	60	338	293·1	− 9·9	+ 70·7
Means ...	...	...	64	311	294·38	− 9·49	...

Group 4481.

A few small faint spots on December 17. Two small spots, *a* and *b*, on the succeeding days, with a very small companion between them on December 18. Only *b* remains by December 20.

Dec. 17·280	2	68	1	39	314·5	− 9·6	+ 27·3
18·272	35	109	23	74	316·0	− 9·4	+ 41·9
19·152	7	40	6	35	316·3	− 9·3	+ 53·8
20·173	2	8	3	10	315·4	− 9·6	+ 66·3
Means ...	...	...	8	40	315·55	− 9·48	...

Group 4482.

A small spot.

Dec. 18·272	13	39	8	25	238·6	+ 12·3	− 35·5
19·152	6	30	4	17	239·4	+ 11·7	− 23·1
20·173	0	11	0	6	240·3	+ 11·1	− 8·8
Means ...	...	...	4	16	239·43	+ 11·70	...

Group 4483.

Two very small spots.

Dec. 18·272	1	11	1	8	225·1	+ 9·7	− 49·0
Means ...	...	...	1	8	225·1	+ 9·7	...

Group 4484.

A very small spot.

1896. d					°	°	°
Dec. 19·152	3	15	2	8	265·6	− 10·3	+ 3·1
Means ...	...	...	2	8	265·6	− 10·3	...

Group 4485.

A pair of small spots on December 19. Only one remains by December 20; it has divided into two by December 21.

Dec. 19·152	2	39	2	33	210·1	+ 10·8	− 52·4
20·173	0	32	0	20	213·4	+ 11·0	− 35·7
21·200	0	35	0	19	214·8	+ 11·2	− 20·8
Means ...	...	...	1	24	212·77	+ 11·00	...

Group 4486.

A number of spots, mostly small and unstable, irregularly scattered. The group is not seen on December 24.

Dec. 19·152	11	48	22	99	186·5	− 10·7	− 76·0
20·173	12	72	12	75	187·9	− 10·6	− 61·2
21·200	23	122	16	92	187·2	− 11·2	− 48·4
22·193	21	136	13	84	187·2	− 11·3	− 35·2
23·196	2	49	1	27	186·5	− 11·6	− 22·8
24·183	0	0	0	0	...	...	...
25·270	9	73	4	37	186·8	− 11·3	+ 4·9
26·194	14	59	8	30	186·4	− 11·4	+ 16·7
27·170	13	67	7	39	187·6	− 11·5	+ 30·7
28·208	17	59	12	42	187·8	− 10·8	+ 44·6
29·538	0	14	0	16	189·8	− 10·2	+ 64·1
Means ...	...	...	9	49	187·37	− 11·06	...

Group 4487.

Two very small spots.

Dec. 20·173	0	6	0	4	209·3	− 18·5	− 39·8
Means ...	...	...	0	4	209·3	− 18·5	...

AREAS and HELIOGRAPHIC POSITIONS of GROUPS of SUN SPOTS—*concluded.*

Group 4488.

A number of spots in a straight stream. *a*, *b* and *c* are the principal spots on December 22. The group increases in size up to December 24. On the succeeding days it consists chiefly of two large composite spots, *a* and *c*. These begin to break up, *c* dividing into *d* and *e*, and the group to diminish after December 25. The group undergoes continual change, and steadily increases in length throughout its whole course.

Date. Greenwich Civil Time.	Projected Area of Umbra.	Projected Area of Whole Spot.	Area for Group. Umbra.	Area for Group. Whole Spot.	Mean Longitude of Group.	Mean Latitude of Group.	Longitude from Central Meridian.
1896. d					°	°	°
Dec. 20·173	16	70	18	88	183·4	+ 6·1	− 65·7
21·200	102	484	83	394	184·0	+ 6·0	− 51·6
22·193	169	907	108	585	183·9	+ 6·2	− 38·5
23·196	263	1188	147	664	183·6	+ 6·2	− 25·7
24·183	267	1273	138	662	183·1	+ 6·1	− 13·2
25·270	189	1278	95	648	183·7	+ 5·5	+ 1·8
26·194	193	905	101	475	185·1	+ 5·3	+ 15·4
27·170	133	627	77	362	185·4	+ 5·2	+ 28·5
28·208	44	230	32	168	189·6	+ 4·7	+ 46·4
29·538	20	103	24	127	191·2	+ 4·6	+ 65·5
30·224	14	57	28	113	191·3	+ 5·2	+ 74·7
Means ...	...	...	77	390	185·85	+ 5·55	...

Group 4489.

A few small spots in a straight stream *f* Group 4486 on December 25. The group increases on the succeeding days, and consists chiefly on December 27 and 28 of two large composite spots, *a* and *b*, and a few small spots between them; *a* is measured in two parts on December 29. The group undergoes continual change.

Dec. 25·270	2	34	1	21	160·1	−14·5	− 21·8
26·194	17	106	9	54	162·4	−14·6	− 7·3
27·170	127	573	65	293	163·1	−15·0	+ 6·2
28·208	77	509	43	279	163·8	−14·7	+ 20·6
29·538	71	321	47	213	165·2	−14·5	+ 39·5
30·224	29	236	23	187	166·1	−14·1	+ 49·5
31·435	19	148	23	180	166·4	−14·5	+ 65·7
Jan. 1·502	0	38	0	121	167·9	−13·7	+ 81·2
Means ...	...	...	26	169	164·38	−14·45	...

Group 4490.

A pair of very small spots.

Dec. 29·538	0	14	0	7	139·6	− 2·9	+13·9
Means ...	...	...	0	7	139·6	− 2·9	...

Group 4491.

A large regular spot, *a*, usually followed by a few small companions in a straight stream.

1896. d					°	°	°
Dec. 29·538	15	72	31	150	49·2	−13·0	− 76·5
30·224	23	107	30	140	48·9	−13·0	− 67·7
31·435	38	208	32	173	48·0	−13·1	− 52·7
1897.							
Jan. 1·502	49	269	32	175	47·9	−12·9	− 38·8
2·239	46	299	27	174	47·9	−13·2	− 29·0
3·134	58	297	30	157	48·2	−12·8	− 17·0
4·204	48	312	25	159	48·5	−13·1	− 2·6
5·326	44	268	23	139	49·1	−12·8	+ 12·8
6·466	36	199	21	115	49·8	−12·6	+ 28·5
7·479	19	120	13	82	49·9	−13·0	+ 41·9
8·277	27	124	22	102	50·1	−13·1	+ 52·7
9·228	13	82	15	96	50·0	−13·2	+ 65·0
10·204	0	32	0	70	49·7	−12·6	+ 77·6
Means ...	...	...	23	133	49·02	−12·95	...

Group 4492.

A few small unstable spots irregularly scattered. The group is not seen on January 2, 3, or 4.

1896.							
Dec. 30·224	6	31	3	17	94·6	−19·7	− 22·0
31·435	9	35	5	19	96·5	−19·5	− 4·2
1897.							
Jan. 1·502	7	37	4	20	96·0	−18·8	+ 9·3
2·239	0	0	0	0	...	...	...
3·134	0	0	0	0	...	...	...
4·204	0	0	0	0	...	...	...
5·326	6	98	6	98	95·6	−19·3	+ 59·3
6·466	2	29	4	52	95·6	−18·9	+ 74·3
Means ...	...	...	3	26	95·66	−19·24	...

Group 4493.

A regular spot, *a*, which is broken up into several very small fragments by January 6.

1896.							
Dec. 31·435	0	35	0	89	21·8	− 7·8	− 78·9
1897.							
Jan. 1·502	14	83	17	100	21·1	− 7·4	− 65·6
2·239	27	109	24	96	21·2	− 7·1	− 55·7
3·134	31	128	21	89	21·3	− 6·6	− 43·9
4·204	17	99	10	57	21·8	− 6·6	− 29·3
5·326	17	81	9	42	22·9	− 6·7	− 13·4
6·466	6	29	3	14	23·5	− 6·5	+ 2·2
7·479	4	59	2	30	24·8	− 6·3	+ 16·8
Means ...	...	...	11	65	22·30	− 6·88	...

ROYAL OBSERVATORY, GREENWICH

TOTAL PROJECTED AREAS OF SUN SPOTS AND FACULÆ

FOR EACH DAY,

AND

MEAN AREAS AND MEAN HELIOGRAPHIC LATITUDE

OF

SUN SPOTS AND FACULÆ

FOR EACH ROTATION OF THE SUN,

AND FOR THE YEAR

1896.

TOTAL PROJECTED AREAS of SUN SPOTS and FACULÆ for EACH DAY in the Year 1896.

The Projected Area is the area as it is measured on the photograph, uncorrected for the effect of foreshortening, and expressed in millionths of the Sun's apparent disk.

The Greenwich Civil Time is expressed by the month, day of the month (civil reckoning) and decimal of a day, reckoned from Greenwich Mean Midnight.

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896 Jan.	d 1·3	155	820	2631
	2·2	112	579	1108
	3·3	94	458	1235
	4·3	115	537	1523
	5·2	121	528	1720
	6·2	127	662	3360
	7·2	84	354	2802
	8·2	95	461	847
	9·5	57	311	1019
	10·2	15	146	453
	11·2	11	36	676
	12·4	0	26	1054
	13·2	19	148	2106
	14·2	14	75	2354
	15·5	5	28	409
	16·2	4	55	1017
	17·2	16	97	990
	18·4	42	209	1049
	19·3	67	279	1486
	20·5	67	350	586
	21·2	73	382	919
	22·3	86	377	1933
	23·2	72	354	607
	24·4	63	291	630
	25·2	78	367	1337
	26·2	79	370	1086
	27·3	80	427	1411
	28·5	93	609	246
	29·2	134	729	1098
	30·5	86	509	0
	31·5	82	494	398
Feb.	1·3	119	612	1391
	2·5	135	637	916
	3·5	138	961	424
	4·2	196	1253	1348
	5·2	125	660	1129
	6·5	51	314	770
	7·2	46	306	1156
	8·1	28	274	760
	9·2	15	119	872
	10·5	20	95	753
	11·6	31	125	577
	12·4	35	272	554
	13·4	70	417	109
	14	No photograph.		
	15·2	140	762	855
	16·2	111	601	667
	17·5	41	309	243
	18·2	52	257	887
	19·6	65	658	791
	20·3	234	1163	1490

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896 Feb.	d 21·2	339	1935	3143
	22·4	448	2743	1403
	23·4	455	3563	418
	24·4	462	3161	289
	25·6	405	2944	338
	26·3	400	2934	1204
	27·4	339	2194	1134
	28·1	270	2091	1693
	29·2	219	1482	1888
March	1·2	291	1687	2713
	2·4	207	1681	1687
	3·5	217	1494	1642
	4·5	229	1776	1280
	5·5	235	1888	575
	6·2	214	1417	776
	7·2	178	1208	705
	8·2	105	897	1362
	9·3	74	577	1733
	10·2	50	395	687
	11·4	22	184	899
	12·2	21	100	937
	13·2	43	165	1433
	14·1	16	70	1226
	15·5	6	114	231
	16·6	5	39	70
	17·5	7	44	372
	18·2	44	209	2414
	19·5	32	148	1362
	20·3	19	133	1889
	21·4	12	83	1303
	22·5	34	246	641
	23·6	59	509	606
	24·4	48	481	535
	25·5	46	439	1374
	26·4	80	519	2166
	27·4	148	885	2419
	28·2	200	1170	1867
	29·2	236	1266	1419
	30·5	193	1501	1051
	31·6	218	1507	969
April	1·2	247	1553	1012
	2·4	150	1114	650
	3·2	237	1113	1436
	4·2	147	931	2178
	5·1	153	1018	3909
	6·2	229	1410	1777
	7·4	256	1616	326
	8·6	320	1894	607
	9·5	251	1602	1387
	10·6	157	1279	831

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896 April	d 11·5	156	931	1321
	12·6	71	453	515
	13·4	17	210	699
	14·2	0	19	1575
	15·4	0	0	1497
	16·7	0	0	1061
	17·5	0	0	723
	18·4	0	16	507
	19·5	27	246	159
	20·2	36	204	355
	21·4	86	300	958
	22·5	45	151	610
	23·6	44	221	2506
	24·4	51	183	871
	25·4	67	449	333
	26·5	62	460	762
	27·6	75	354	989
	28·5	33	195	632
	29·4	1	33	633
	30·5	22	107	973
May	1·6	6	57	895
	2·3	33	132	2386
	3·3	26	201	526
	4·4	22	169	1320
	5·4	12	214	1289
	6·2	3	81	1053
	7·5	49	210	191
	8·4	19	139	0
	9·5	0	47	796
	10·5	10	71	822
	11·4	5	79	395
	12·4	9	24	1919
	13·4	2	17	442
	14·4	5	32	775
	15·4	0	3	400
	16·4	0	0	0
	17·4	0	0	531
	18·2	9	51	1042
	19·5	14	69	1040
	20·5	17	135	481
	21·4	10	105	549
	22·2	26	281	1901
	23·2	44	192	1498
	24·5	15	93	564
	25·4	18	77	549
	26·5	45	241	491
	27·4	52	233	815
	28·4	122	811	455
	29·6	253	1586	674
	30·2	350	1751	902
	31·4	274	1710	632

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896 June	d 1·4	225	1492	658
	2·5	214	1159	1607
	3·2	251	1290	2395
	4·4	147	930	630
	5·5	146	922	992
	6·5	151	919	557
	7·6	142	847	0
	8·5	169	862	263
	9·2	164	884	658
	10·2	252	1121	1300
	11·2	246	1216	1782
	12·5	265	1656	1229
	13·5	384	2175	614
	14·5	342	2038	593
	15·4	303	1982	777
	16·5	308	1649	1134
	17·4	150	969	710
	18·5	110	589	1218
	19·4	68	305	1906
	20·5	29	168	1764
	21·4	53	299	940
	22·4	217	1142	536
	23·6	277	2007	1391
	24·7	275	2129	74
	25·6	349	2091	2252
	26·5	251	1648	751
	27·2	134	823	1045
	28·2	106	520	1830
	29·5	71	335	1213
	30·5	38	164	1229
July	1·2	55	287	1904
	2·7	51	371	599
	3·5	51	368	1197
	4·4	62	284	798
	5·6	11	135	389
	6·4	29	205	3261
	7·4	46	414	2321
	8·4	56	353	1796
	9·4	59	295	1653
	10·7	40	284	641
	11·4	40	141	898
	12·5	27	147	688
	13·4	73	417	1124
	14·4	123	873	1176
	15·5	188	1168	2420
	16·2	242	1532	3157
	17·5	281	1842	2578
	18·5	437	2332	929
	19·7	357	2117	719
	20·4	316	1899	903
	21·4	273	1612	633

TOTAL PROJECTED AREAS of SUN SPOTS and FACULÆ—*concluded.*

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896	d			
July	22·5	207	1206	1365
	23·4	135	749	1523
	24·4	122	759	1843
	25·5	91	600	1607
	26·6	50	313	1150
	27·4	23	158	704
	28·4	14	147	588
	29·5	17	97	488
	30·7	29	105	378
	31·6	16	145	142
Aug.	1·4	32	220	192
	2·3	26	200	523
	3·5	38	192	851
	4·4	34	107	903
	5·4	17	87	1103
	6·4	0	9	528
	7·4	0	0	627
	8·2	0	0	956
	9·2	10	66	419
	10	No	photo	graph.
	11·5	40	286	1573
	12·3	80	368	3544
	13·5	80	482	2518
	14·3	146	561	3403
	15·5	149	774	1196
	16·5	136	805	172
	17·4	143	787	486
	18·2	105	699	1668
	19·3	59	359	1383
	20·4	15	151	1617
	21·4	17	170	1503
	22·4	62	292	1274
	23·2	51	255	1534
	24·5	110	449	785
	25·2	39	419	429
	26·4	31	170	1165
	27·4	82	422	849
	28·5	113	580	476
	29·5	151	804	564
	30·2	214	1166	881
	31·3	210	1067	1327

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896	d			
Sept.	1·2	153	1039	1483
	2·5	123	685	937
	3·5	76	585	1004
	4·2	77	480	953
	5·4	47	214	520
	6·2	36	146	1282
	7·2	46	189	2359
	8·2	71	390	3685
	9·6	228	1043	3157
	10·4	349	1835	3117
	11·3	411	2490	3435
	12·2	522	3007	4285
	13·7	419	2991	784
	14·2	693	3409	2980
	15·4	518	3457	1097
	16·4	578	4116	984
	17·2	617	4309	1393
	18·3	757	4315	2232
	19·4	498	3172	2655
	20·4	322	2224	1937
	21·5	242	1652	3398
	22·6	204	1222	2830
	23·5	256	1238	597
	24·5	193	1031	576
	25·2	163	833	470
	26·2	141	666	1238
	27·3	96	532	1711
	28·4	64	338	811
	29·5	43	241	1775
	30·4	22	140	862
Oct.	1·2	6	46	1227
	2·3	6	53	666
	3·3	4	42	1183
	4·4	0	33	1496
	5·4	0	0	1015
	6·3	0	45	1314
	7·2	18	88	2354
	8·3	23	86	1914
	9·4	28	144	2421
	10·4	39	159	1751

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896	d			
Oct.	11·2	32	146	1237
	12·2	15	102	1100
	13·3	8	56	422
	14·4	17	113	788
	15·5	28	160	1227
	16·2	28	200	657
	17·4	52	348	2586
	18·4	133	822	2636
	19·2	205	1219	3406
	20·2	282	1508	2872
	21·5	223	1227	377
	22·6	197	1202	221
	23·4	238	1160	482
	24·2	262	1181	667
	25·4	152	914	1809
	26·4	131	711	1874
	27·5	99	551	1965
	28·6	47	291	849
	29·5	52	245	774
	30·4	66	250	1060
	31·4	37	138	0
Nov.	1·6	11	53	105
	2·2	1	21	458
	3·5	89	586	1335
	4·5	160	925	1935
	5·4	199	1136	2335
	6·4	282	1411	2065
	7·3	402	1599	3053
	8·2	438	1778	1768
	9·5	386	1927	1065
	10·5	489	2463	507
	11·3	523	2602	618
	12·2	507	2130	790
	13·3	338	1639	2639
	14·4	187	1233	2585
	15·5	132	646	1682
	16·4	62	493	1134
	17·2	38	317	1091
	18·2	13	66	305
	19·5	8	27	448
	20·5	3	54	975

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1896	d			
Nov.	21·5	23	137	1204
	22·2	70	434	1478
	23·2	101	361	2101
	24·2	24	139	1284
	25·3	11	81	1038
	26·2	18	86	487
	27·4	18	95	0
	28·1	26	116	712
	29·5	45	340	1075
	30·4	84	558	1846
Dec.	1·4	116	631	2099
	2·2	129	731	2017
	3·2	187	936	1958
	4·3	249	1171	2488
	5·2	226	1134	1498
	6·6	172	948	955
	7·2	226	1045	1006
	8·2	144	867	781
	9·2	142	827	3360
	10·2	170	612	3050
	11·2	62	474	2424
	12·2	42	285	2605
	13·5	21	198	188
	14·2	28	253	1411
	15·5	65	544	178
	16·3	116	699	511
	17·3	195	519	927
	18·3	172	710	1709
	19·2	224	1052	2428
	20·2	194	846	3568
	21·2	214	1050	2973
	22·2	229	1269	803
	23·2	265	1237	0
	24·2	267	1273	0
	25·3	199	1385	138
	26·2	224	1069	698
	27·2	273	1267	1938
	28·2	138	798	2486
	29·5	105	524	2581
	30·2	72	434	1558
	31·4	66	427	2345

MEAN AREAS of SUN SPOTS and FACULÆ, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DŪN, INDIA, and in MAURITIUS, for each ROTATION of the SUN, from 1895 December 23 to 1897 January 7.

The Mean Areas have been formed by taking the Means of the Areas for each day of observation throughout each Rotation of the Sun, the Projected Areas being the areas as measured on the photographs and expressed in millionths of the Sun's apparent disk, and the Areas corrected for foreshortening being expressed in millionths of the Sun's visible hemisphere.

The rotations adopted in the following table (which is in continuation of those for the years 1873–1895 printed in the Greenwich Observations for 1884 and succeeding years) correspond to the synodic rotation of the Sun, and the commencement of each is defined by the coincidence of the assumed prime meridian with the central meridian, the assumed prime meridian being that meridian which passed through the ascending node at mean noon on January 1, 1854, and the assumed period of the Sun's sidereal rotation being 25·38 days. The rotations adopted in the volumes of Greenwich Observations, 1877 to 1883, correspond on the other hand to the sidereal rotation of the Sun, the commencement of each being defined by the coincidence of the assumed prime meridian with the ascending node. The numeration of the rotations is in continuation of Carrington's series (*Observations of Solar Spots made at Redhill* by R. C. Carrington, F.R.S.), No. 1 being the rotation commencing 1853, November 9. The dates of commencement of the rotations are given in GREENWICH CIVIL TIME, reckoning from midnight.

No. of Rotation.	Date of Commencement of each Rotation.			No. of Days on which Photographs were taken.	Mean of Daily Areas.					
					Projected.			Corrected for Foreshortening.		
					Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
			d							
565	1895	December	23·19	28	166	861	1606	114	631	1812
566	1896	January	19·53	26	82	464	841	66	378	966
567		February	15·87	28	205	1413	1187	149	1022	1426
568		March	14·20	26	130	829	1307	93	584	1556
569		April	10·49	28	39	246	935	30	205	1175
570		May	7·73	27	74	433	827	51	301	938
571		June	3·95	27	191	1126	1014	133	783	1167
572		July	1·14	27	128	773	1407	93	576	1553
573		July	28·36	27	53	289	1124	37	209	1228
574		August	24·58	27	273	1656	1703	187	1195	1879
575		September	20·85	27	64	360	1394	48	290	1508
576		October	18·14	28	219	1104	1438	151	794	1568
577		November	14·44	27	93	494	1426	66	363	1603
578		December	11·75	27	198	1130	1348	132	795	1551

MEAN AREAS of SUN SPOTS, and FACULÆ, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DŪN, INDIA, and in MAURITIUS, for the YEAR 1896.

The Mean Projected Areas are expressed in millionths of the Sun's apparent disk.

The Mean Areas corrected for foreshortening are expressed in millionths of the Sun's visible hemisphere.

Year.	No. of Days on which Photographs were taken.	Mean of Daily Areas.					
		Projected.			Corrected for Foreshortening.		
		Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
1896	364	127	745	1243	90	543	1410

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DÛN, INDIA, and in MAURITIUS, for each ROTATION of the SUN, from 1895 December 23 to 1897 January 7.

The numbers given in the accompanying table have been formed as follows :—

The Heliographic Latitude of each Spot for each day has been multiplied by its Area (corrected for foreshortening), and the sum of the products for Spots North of the Sun's Equator has been divided by the sum of the corresponding Areas to form Mean Heliographic Latitude of Spotted Area North of Equator; similarly for Spots South of the Equator. In forming the Mean Heliographic Latitude of entire Spotted Area the algebraic sum of the products for Spots North and South of the Equator has been divided by the sum of the Areas; and for the Mean Distance from the Equator for all Spots, the numerical sum of the products, without regard to the sign of the latitude, has been similarly divided.

The Mean Areas have been formed by dividing the sum of the Daily Areas (corrected for foreshortening) by the number of days of observation for each Rotation of the Sun, and are expressed in millionths of the Sun's visible hemisphere.

No. of Rotation.	Date of Commencement of each Rotation.	No. of Days on which Photographs were taken.	Spots NORTH of the Equator.		Spots SOUTH of the Equator.		Mean Heliographic Latitude of entire Spotted Area.	Mean Distance from Equator of all Spots.
			Mean of Daily Areas.	Mean Heliographic Latitude.	Mean of Daily Areas.	Mean Heliographic Latitude.		
	d			°		°	°	°
565	1895 Dec. 23·19	28	171	13·54	460	12·93	− 5·74	13·09
566	1896 Jan. 19·53	26	99	11·93	278	15·44	− 8·24	14·52
567	Feb. 15·87	28	363	14·85	659	16·00	− 5·04	15·59
568	Mar. 14·20	26	433	15·79	151	15·40	+ 7·71	15·69
569	Apr. 10·49	28	129	15·09	76	13·36	+ 4·55	14·45
570	May 7·73	27	3	17·69	298	11·89	− 11·63	11·94
571	June 3·95	27	137	19·56	646	16·94	− 10·54	17·40
572	July 1·14	27	102	19·18	474	18·48	− 11·80	18·60
573	July 28·36	27	43	12·93	166	17·44	− 11·16	16·51
574	Aug. 24·58	27	835	12·99	359	13·53	+ 5·01	13·15
575	Sept. 20·85	27	89	11·59	201	11·98	− 4·74	11·86
576	Oct. 18·14	28	75	6·14	719	12·25	− 10·51	11·67
577	Nov. 14·44	27	175	11·80	189	13·90	− 1·55	12·89
578	Dec. 11·75	27	167	6·14	628	9·28	− 6·03	8·62

MEAN HELIOGRAPHIC LATITUDE of SUN SPOTS, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DÛN, INDIA, and in MAURITIUS, for the YEAR 1896.

YEAR.	No. of Days on which Photographs were taken.	Spots NORTH of the Equator.		Spots SOUTH of the Equator.		Mean Heliographic Latitude of entire Spotted Area.	Mean Distance from Equator of all Spots.
		Mean of Daily Areas.	Mean Heliographic Latitude.	Mean of Daily Areas.	Mean Heliographic Latitude.		
			°		°	°	°
1896	364	203	13·60	340	14·77	− 4·15	14·33

NOTE.—In the computations for forming the corresponding Tables given in the Volumes for 1884 and 1885 the latitudes of the Spots were only taken to the nearest whole degree, the next higher whole degree being adopted whenever the fractional part of the latitude amounted to or exceeded ·5. Thus, under 8°, for example, would be included all Spots from 7°·5 to 8°·4, both inclusive; and the corresponding mean latitude should have been taken as 7°·95 instead of 8°. The Mean Heliographic Latitudes, therefore, both for Spots North and Spots South of the Equator, and the Mean Distances from the Equator of all Spots, both for the rotations and for entire years, require a correction of − 0°·05. The Mean Latitude of the entire Spotted Area requires the following correction :—

$$-0^\circ{\cdot}05 \times \frac{\text{Mean Area N.} - \text{Mean Area S.}}{\text{Mean Area N.} + \text{Mean Area S.}}$$

These corrections have been applied in computing the Mean Heliographic Latitudes and Mean distance from the Equator given in the above Tables for 1896, and in corresponding Tables for the years 1886 to 1895.