RESULTS

OF THE

SPECTROSCOPIC AND PHOTOGRAPHIC OBSERVATIONS

MADE AT THE

ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1894:

UNDER THE DIRECTION OF

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

(EXTRACTED FROM THE GREENWICH OBSERVATIONS, 1894.)

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GREENWICH SPECTROSCOPIC AND PHOTOGRAPHIC RESULTS, 1894.

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* 1894; *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 either with the Dallmeyer or with the Thompson Photoheliograph. The Dallmeyer is an instrument used in the Transit of Venus expedition to New Zealand, and, as now adapted, gives a solar image of 8 inches diameter on the photographic plate. The Thompson is a photographic refractor of 9 inches aperture, presented to the Royal Observatory by Sir Henry Thompson, which has been fitted with an enlarging lens by Ross, and with a camera and shutter for rapid exposure, so as to take photographs of the Sun on a scale of about 8 inches to the solar diameter.

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.

Of the photographs of the Sun taken at Greenwich, those selected for measurement were taken with the Dallmeyer photoheliograph on 111 days, and with the Thompson photoheliograph on 87 days. Indian photographs on 127 days, and Mauritius photographs on 39 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 1894.

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 1894 :—

E. W. Maunder	M	J. S. Gillingham	JG
H. Appleyard	HA	C. F. Turner	FT
Annie S. D. Russell	AR	A. J. Wilkin	AW
C. C. Lacey	CL		

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	° ′
1893 December	21. 11	+ 0. 37
1894 January	13. 11	+ 0. 54
	19. 13	+ 0. 17
February	13. 11	+ 0. 33
June	9. 12	+ 3. 17
	14. 10	+ 3. 7
	14. 11	+ 3. 16
	14. 12	+ 3. 17
	15. 11	+ 3. 12
	16. 10	+ 2. 58
	16. 13	+ 3. 24
August	18. 11	+ 2. 53
	22. 11	+ 2. 49
September	18. 16	+ 3. 3
November	10. 12	+ 2. 47
December	27. 13	+ 3. 2

The magnifier of the Dallmeyer Photoheliograph was removed on 1894 July 20 and a Ross magnifier, supplied for use with a photoheliograph lent to the Indian Government, was temporarily inserted for trial and adjustment. The original Dallmeyer magnifier was replaced on August 15.

The wires of the Photoheliograph were found to be broken on July 21, and a new pair was inserted on July 30.

The Dallmeyer Photoheliograph was mounted on the tube of the new 28-inch refractor till April 24, when it was removed and mounted on its own stand 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 1894.

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.

The Thompson Photoheliograph is not fitted with a position-circle, and the position-angle of the wires, which, as in the Dallmeyer, are approximately parallel and perpendicular to the circle of declination, cannot be altered. The zero of position-angle has been determined by stopping the driving-clock immediately after the exposure of the plate, and giving a second exposure two minutes later than the first. A second image of a small portion of the Sun is thus secured. The mean of the position-circle reading for two points on the limb of the second image equidistant from the centre of the first image, corrected for the inclination of the Sun's path, gives the position-circle reading for the West point of the image of the Sun. The Thompson Photoheliograph was dismounted on 1894 October 15, as the progress of the building operations interfered with its further use.

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

$c \tan^2 z$.

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.

$\theta - v$	$\theta - v$	$-\frac{\text{Sin } 2(\theta - v)}{2}$	$\frac{\text{Cos } 2(\theta - v)}{2}$	$\theta - v$	$\theta - v$	$-\frac{\text{Sin } 2(\theta - v)}{2}$	$\frac{\text{Cos } 2(\theta - v)}{2}$
°	°			°	°		
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—

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

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

* 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.

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.

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° 20′, 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 Positions of Groups of Sun Spots deduced from the measurement of the Solar photographs for each day in the year* 1894.

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* 1894.

This section requires no further explanation.

W. H. M. CHRISTIE.

Royal Observatory, Greenwich.
1896 *December* 18.

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.

1894.

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 1894.

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).
1894.				°	°	°			
Jan. 1		No photograph.							
1d.442	JG,FT		0·991	248·6	223·0	−21·7			142
			0·978	240·8	218·2	−29·3			266
			0·967	265·8	215·4	− 4·9			409
			0·949	293·3	208·8	+20·8			278
		3342	0·961	293·8	224·0	+21·7	0	4	
		3323*a*	0·862	259·0	199·6	−11·2	20	171	160*c*
		3323	0·776	259·4	190·9	−10·4	0	9	
		3323*b*	0·762	255·6	189·3	−13·2	44	342	
		3323	0·701	253·0	183·8	−14·3	0	9	
		3323*c*	0·688	253·0	182·7	−14·1	16	151	
		3325*a*	0·493	260·8	169·5	− 7·5	51	264	
		3325	0·453	254·9	166·4	− 9·8	0	2	
		3325	0·443	259·6	166·2	− 7·6	0	2	
		3328*b*	0·437	323·8	155·8	+17·3	0	7	
		3328	0·420	325·2	154·6	+16·8	0	2	
		3328	0·381	324·8	153·3	+14·7	0	7	
		3328*c*	0·394	328·7	152·5	+16·3	0	6	
		3329	0·328	247·7	158·1	−10·4	0	2	
		3329*a*	0·290	251·7	156·3	− 8·5	44	405	
		3329	0·267	242·1	154·0	−10·4	0	7	
		3329	0·248	249·8	153·7	− 8·2	0	6	
		3329	0·231	245·5	152·4	− 8·8	9	26	
		3329	0·223	238·5	151·3	−10·0	2	8	
		3337	0·296	211·7	149·6	−17·9	0	5	
		3340	0·564	99·7	106·2	− 8·3	2	17	
		3341	0·690	108·2	97·7	−14·9	0	11	
		3343	0·863	62·0	85·2	+21·9	0	15	113*c*
			0·851	68·1	84·9	+16·6			65
			0·916	105·4	74·1	−15·4			328
			0·923	95·8	72·8	− 6·7			368
			0·952	74·1	69·8	+14·0			63
Jan. 2		Centre			(140·2)	(− 3·4)	(188)	(1478)	(2192)

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).
1894.				°	°	°			
2d.228	CL,JG		0·791	286·9	180·0	+11·0			20[illegible]
		3323*a*	0·943	258·8	200·5	−11·8	52	221	273*c*
I.		3323	0·870	258·0	190·1	−12·1	4	27	
		3323*b*	0·866	256·1	189·5	−13·8	53	318	400*c*
		3323*c*	0·809	254·6	183·3	−14·5	34	183	
		3325	0·684	261·4	172·8	− 8·5	0	7	
		3325*a*	0·650	261·9	170·1	− 8·0	57	261	
		3329*b*	0·493	253·9	158·5	−10·9	12	104	
		3329*c*	0·464	260·3	157·1	− 7·6	44	188	
		3329*d*	0·455	256·7	156·3	− 9·1	37	167	
		3329	0·427	251·5	154·1	−11·0	0	12	
		3329	0·404	256·6	153·1	− 8·6	7	27	
		3329	0·396	249·5	151·9	−11·2	0	5	
		3329	0·381	257·7	151·8	− 7·9	0	11	
		3329	0·381	251·8	151·3	−10·1	0	9	
		3337	0·407	232·6	149·5	−17·6	0	3	
		3343*	0·308	242·0	145·8	−11·6	0	3	
		3343*	0·272	244·2	144·1	−10·2	0	3	
		3340	0·408	102·2	106·1	− 8·1	0	3	
		3343	0·760	56·9	86·6	+21·9	0	13	
		3343	0·771	58·4	85·1	+21·3	2	12	105*c*
		3343	0·803	59·2	82·0	+21·9	11	37	
		3344	0·950	98·4	57·9	− 9·1	0	25	290*c*
		3345*a*	0·985	102·9	49·4	−13·3	114	360	490*p*
			0·795	103·4	77·6	−12·7			278
			0·908	110·2	65·2	−19·8			44
			0·910	93·2	64·4	− 4·4			82
Jan. 3		Centre			(129·8)	(− 3·5)	(427)	(1999)	(2168)
3·183	CL,FT		0·875	284·7	176·5	+10·9			382
		3323*a*	0·993	258·6	200·9	−11·8	0	217	
I.		3323*b*	0·954	256·3	189·9	−14·2	30	200	
		3323	0·952	257·5	189·5	−13·0	0	14	583*c*
		3323*c*	0·913	255·9	183·0	−14·4	30	195	

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 3323, 1893 December 23–1894 January 5. A large regular spot, *a*, followed by several nebulous areas, with many small nuclei distributed through them. These areas undergo many changes. The two largest are called *b* and *c* from December 29, and have become defined into two large regular spots by January 2. *a* has a large proper motion in longitude.

Group 3325, 1893 December 25–1894 January 6. A large regular spot, *a*, with occasionally some small companions. *a* moves forward in longitude after December 29.

Group 3328, 1893 December 26–1894 January 2. A large spot, *a*, on December 26 and 27. It has broken up by December 28, the principal portions being the two spots *b* and *c*. *b* and *c*, with some small spots near them, make up an irregular stream, which diminishes from day to day.

Group 3329, 1893 December 26–1894 January 7. A large spot, *a*, with some very small companions. The nucleus of *a* is divided into two on December 29; and three separate nuclei are seen on January 2. These are seen as three distinct spots, *b*, *c* and *d*, after January 3.

Group 3337, 1893 December 30–1894 January 3. A pair of very small spots on December 30. One very small spot on January 2 and 3.

Group 3340, 1893 December 30–1894 January 4. A small spot, with a very small companion on January 4.

Group 3341, 1893 December 30–1894 January 2. A single spot, which has greatly diminished by January 2.

Group 3342, 1894 January 2. A very small faint spot.

Group 3343, January 2–11. A number of small spots in a straight stream. *a* and *b*, the first and last spots on January 4, are the largest. *b* diminishes after January 5 and has disappeared by January 10. *a* increases in size until it reaches the W. limb.

Group 3343*, January 3–4. A pair of very small spots *n* of Group 3337 and *f* Group 3329.

Group 3344, January 3. A small spot.

Group 3345, January 3–15. A large regular spot, *a*, preceded on and after January 5 by a number of small spots in a straight stream. *a* is crossed by a bright bridge on January 4, which eventually divides it into two distinct spots, which are measured separately as *b* and *c* after January 11. The preceding spots also show the same kind of gemination on January 11 and the succeeding days.

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).
1894.				°	°	°			
3d·183	CL,FT	3325	0·817	261·3	171·9	− 9·2	0	13	
		3325a	0·799	263·0	170·2	− 7·8	72	272	268c
I.		3325	0·761	260·8	166·6	− 9·4	0	8	
		3329b	0·669	258·4	158·8	−10·5	21	116	
		3329	0·649	259·6	157·4	− 9·6	0	13	
		3329c	0·646	263·0	157·3	− 7·3	38	201	
		3329d	0·627	260·0	155·7	− 9·1	14	59	119c
		3329	0·600	256·4	153·5	−11·1	5	16	
		3329	0·591	259·6	153·1	− 9·1	3	16	
		3329	0·584	261·2	152·7	− 8·1	3	16	
		3343*	0·477	254·7	145·0	−10·5	0	2	
		3343*	0·455	256·6	143·7	− 9·3	0	2	
		3346	0·225	5·0	116·1	+ 9·2	0	4	
		3346	0·205	8·3	115·5	+ 8·0	0	5	
		3347	0·097	154·7	114·8	− 8·7	2	10	
		3347	0·121	156·7	114·4	−10·0	0	3	
		3340	0·202	105·3	105·9	− 6·7	0	3	
		3340	0·219	109·4	105·2	− 7·8	0	1	
		3343a	0·618	46·9	88·3	+21·7	7	16	
		3343	0·637	49·2	86·1	+21·4	1	9	
		3343	0·657	49·9	84·5	+21·9	1	8	
		3343	0·670	51·3	83·1	+21·7	0	5	
		3343	0·685	51·4	82·0	+22·2	1	6	
		3343	0·691	50·4	82·0	+23·0	0	7	
		3343b	0·697	52·0	80·9	+22·4	10	36	
		3348	0·775	105·2	67·0	−14·1	2	10	
Jan. 4		3345a	0·925	103·0	49·5	−13·4	55	295	574p
		Centre			(117·2)	(−3·7)	(295)	(1778)	(1926)
4·466	CL,HA		0·950	281·6	171·0	+ 9·8			319
			0·874	294·8	157·5	+19·5			181
			0·833	294·7	152·9	+18·1			249
		3323c	0·995	256·9	185·2	−13·4	38	273	281c
		3325a	0·941	263·6	170·7	− 7·3	43	259	
		3329b	0·863	261·0	160·0	− 9·6	12	106	
		3329c	0·846	264·9	158·2	− 6·3	29	178	350c
		3329d	0·834	262·0	156·9	− 8·8	7	36	
		3349	0·422	288·2	124·0	+ 4·1	0	5	
		3343	0·450	20·8	90·6	+21·1	1	19	
		3343a	0·467	24·1	88·6	+21·5	3	7	
		3343	0·472	26·5	87·4	+21·3	8	44	
		3343	0·491	29·5	85·4	+21·7	2	35	
		3343	0·502	32·8	83·5	+21·4	3	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).
1894.				°	°	°			
4d·466	CL,HA	3343	0·516	32·1	83·2	+22·3	0	3	
		3343	0·515	33·7	82·5	+21·8	5	9	
		3343	0·534	33·7	81·7	+22·8	5	12	
		3343b	0·541	35·7	80·5	+22·5	12	45	
		3345	0·711	105·5	55·8	−13·6	0	6	
		3345a	0·771	105·1	50·5	−14·0	37	256	151f
		3350a	0·994	64·1	19·4	+25·2	30	168	131n
			0·827	71·1	47·1	+13·3			131
			0·899	108·1	36·7	−17·9			301
			0·951	59·9	33·1	+27·1			126
			0·942	118·1	30·9	−27·7			68
Jan. 5		Centre			(100·4)	(−3·7)	(235)	(1468)	(2288)
5·192	HA,JG		0·909	293·5	152·8	+19·5			328
			0·811	258·8	144·8	−11·3			90
I.			0·791	301·3	137·3	+21·6			95
		3325a	0·989	263·0	172·5	− 7·5	98	314	
		3329b	0·933	261·3	159·8	− 9·5	14	70	
		3329c	0·926	264·6	158·6	− 6·5	29	163	500f
		3329d	0·916	261·8	157·2	− 9·1	7	33	
		3349	0·563	282·7	124·1	+ 3·9	0	1	
		3349	0·544	282·7	122·8	+ 3·6	0	4	
		3343a	0·434	3·3	89·3	+21·8	18	61	
		3343	0·436	12·4	85·1	+21·3	2	8	
		3343	0·447	14·3	84·0	+21·8	0	5	
		3343	0·449	17·4	82·5	+21·5	5	12	
		3343	0·475	18·0	81·7	+23·0	0	6	
		3343b	0·478	20·0	80·7	+22·8	12	76	
		3345	0·588	109·0	56·0	−14·1	0	18	
		3345	0·606	110·6	54·9	−15·4	1	13	
		3345a	0·659	106·7	50·4	−13·8	61	237	
		3351a	0·736	65·0	47·2	+15·3	0	10	
		3351	0·751	64·1	46·2	+16·4	0	11	73c
		3351	0·769	63·5	44·8	+17·4	7	24	
		3350a	0·972	62·4	18·1	+25·7	29	102	115c
			0·790	109·7	39·6	−17·8			103
			0·876	119·9	31·8	−27·9			60
			0·898	108·7	27·3	−18·4			149
Jan. 6		Centre			(90·8)	(−3·8)	(283)	(1168)	(1513)
6·275	FT,HA		0·972	289·9	150·6	+18·3			244
			0·912	296·1	141·3	−25·4			538
I.			0·916	284·2	141·2	+11·3			106
			0·883	247·1	137·6	−22·0			140

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 3346, January 4. A pair of very small spots.
Group 3347, January 4. A small faint spot with a very small companion.
Group 3348, January 4. A small spot.
Group 3349, January 5–6. A very small spot on January 5. Two on January 6.
Group 3350, January 5–12. A regular spot, *a*, which diminishes from day to day. A few small unstable companions are seen from January 7 to January 10.
Group 3351, January 6–9. A few small spots in an irregular stream. *a*, the leader, is the largest spot after January 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).
1894.				°	°	°			
6d·275	FT,HA		0·874	235·4	134·1	−31·8			65
		3329	0·995	263·9	160·9	− 6·5	71	188	310*sf*
I.		3343*a*	0·473	330·7	90·8	+20·5	11	64	
		3343	0·464	333·1	89·4	+20·6	2	7	
		3343	0·464	338·7	86·9	+21·7	0	6	
		3343	0·459	345·3	83·7	+22·4	0	20	
		3343	0·446	347·9	82·3	+21·9	4	9	
		3343	0·465	349·6	81·7	+23·2	0	8	
		3343*b*	0·456	352·2	80·3	+22·8	7	23	
		3345	0·368	121·1	57·6	−14·6	1	3	
		3345	0·426	118·3	53·7	−15·3	0	6	
		3345*a*	0·474	113·7	50·0	−14·4	41	216	
		3351*a*	0·570	55·6	47·4	+15·3	7	42	
		3351	0·626	55·3	44·0	+17·5	1	6	
		3351	0·630	56·7	43·2	+16·9	4	10	
		3350*a*	0·899	59·4	17·9	+25·2	25	67	} 164*c*
		3350	0·913	57·6	16·5	+27·3	0	22	
			0·816	53·0	29·8	+26·7			41
			0·805	111·3	24·0	−19·4			62
Jan. 7		Centre			(76·5)	(−3·9)	(174)	(697)	(1670)
7·217	CL,JG		0·935	257·9	133·4	−12·7			59
			0·918	250·2	129·8	−19·1			173
I.			0·923	236·6	129·5	−32·2			48
			0·900	280·1	127·2	+ 7·3			73
			0·920	295·6	127·1	+21·6			175
			0·831	262·8	120·3	− 8·2			114
			0·785	288·2	113·5	+11·6			123
		3343*a*	0·601	312·3	92·3	+20·3	18	53	
		3343	0·584	313·5	90·8	+20·1	0	12	
		3343	0·570	317·9	88·2	+21·3	3	12	
		3343	0·549	323·0	84·9	+22·2	0	8	
		3343	0·539	327·6	82·3	+23·2	0	10	
		3343	0·520	326·2	82·2	+21·7	6	11	
		3343*b*	0·511	329·9	80·1	+22·3	3	13	
		3345	0·271	139·3	53·6	−15·7	3	9	
		3345*a*	0·299	128·1	50·1	−14·5	44	209	
		3351*a*	0·429	39·5	47·7	+15·4	5	19	
		3351	0·486	41·8	44·3	+17·4	1	7	
		3351	0·479	43·9	43·9	+16·4	0	3	
		3351	0·493	43·0	43·6	+17·3	3	7	
		3350*a*	0·802	53·9	18·4	+25·4	17	78	} 189*c*
		3350	0·801	57·6	17·1	+22·7	4	15	
		3350	0·833	52·3	16·0	+27·9	0	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).
1894.				°	°	°			
7d·217	CL, JG		0·899	64·4	4·1	+20·9			66
			0·904	74·6	1·3	+12·1			209
I.			0·901	83·2	0·6	+ 4·3			79
			0·938	113·8	354·8	−23·7			68
			0·940	97·7	353·9	− 8·6			361
			0·943	106·7	353·5	−17·1			79
Jan. 8		Centre			(64·1)	(−4·0)	(107)	(472)	(1816)
8·189	HA,FT		0·904	293·9	112·4	+19·5			62
			0·887	286·0	111·8	+12·1			97
I.			0·856	262·1	110·2	− 8·9			219
		3343*a*	0·739	303·0	92·6	+20·5	18	93	
		3343	0·728	304·2	91·3	+20·9	5	19	
		3343	0·710	304·7	89·7	+20·5	2	14	
		3343	0·713	305·6	89·6	+21·2	5	17	
		3343	0·705	306·7	88·6	+21·5	0	10	
		3343	0·671	310·9	84·5	+22·5	0	6	} 85*c*
		3343	0·652	314·8	81·5	+23·7	0	5	
		3343*b*	0·634	314·6	80·5	+22·7	2	10	
		3345	0·217	215·8	58·8	−14·3	1	14	
		3345	0·197	212·5	57·5	−13·7	0	2	
		3345	0·196	208·1	56·7	−14·1	2	17	
		3345*a*	0·176	174·7	50·3	−14·3	46	220	
		3351*a*	0·343	9·3	48·0	+15·5	1	7	
		3351	0·342	13·4	46·6	+15·1	0	6	
		3351	0·359	15·3	45·7	+16·0	0	4	
		3351	0·379	16·8	44·8	+17·0	0	5	
		3350	0·683	45·3	19·0	+25·0	0	4	} 91*c*
		3350*a*	0·696	45·5	18·0	+25·6	12	57	
		3350	0·679	49·1	17·6	+22·8	0	7	
		3350	0·719	45·2	16·5	+27·0	2	14	
		3350	0·737	44·4	15·6	+28·3	0	7	
		3352	0·975	90·4	334·3	− 1·4	0	150	121*p*
			0·813	68·4	0·0	+14·8			113
			0·857	110·3	353·0	−19·5			179
			0·853	98·2	352·7	− 9·2			101
Jan. 9		Centre			(51·3)	(−4·2)	(96)	(688)	(1068)
9·209	CL, JG		0·962	259·1	112·4	−11·6			442
			0·967	284·4	111·5	+12·8			164
I.			0·820	254·5	92·6	−15·1			106

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 3352, January 9–20. A large regular stable spot, with a forward movement in longitude.

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).
1894.				°	°	°			
9d·209	CL,JG	3343a	0·867	296·7	93·5	+20·5	32	146	
		3343	0·847	297·7	91·0	+20·6	4	16	
I.		3343	0·825	301·4	87·5	+22·7	5	23	309c
		3343	0·802	301·8	85·1	+22·0	1	5	
		3353	0·616	263·5	75·8	− 7·4	1	7	
		3345	0·427	245·2	61·4	−14·2	2	4	
		3345	0·406	243·6	59·9	−14·4	2	7	
		3345	0·365	241·7	57·2	−14·0	3	11	
		3345	0·320	234·5	53·5	−14·9	2	8	
		3345a	0·281	229·9	50·7	−14·6	39	191	
		3350	0·562	32·0	18·9	+24·3	1	5	
		3350a	0·580	31·3	18·5	+25·5	12	34	
		3350	0·604	32·4	16·8	+26·6	0	5	
		3350	0·580	36·2	16·0	+23·8	0	1	
		3352	0·895	90·0	334·5	− 2·0	21	171	73c
		3354	0·965	102·3	322·8	−13·0	18	76	150f
			0·784	93·6	346·3	− 5·5			166
			0·917	59·9	336·7	+25·4			152
			0·925	109·4	330·3	−19·6			255
			0·937	76·6	330·0	+10·9			180
			0·930	98·8	329·3	− 9·8			486
Jan. 10		Centre			(37·9)	(−4·3)	(143)	(710)	(2483)
10·532	HA,JG		0·878	255·6	81·8	−14·7			173
			0·767	254·2	70·1	−14·8			57
		3343a	0·968	293·1	92·8	+21·0	6	147	
		3343	0·938	296·5	86·1	+23·0	0	42	398c
		3345	0·664	254·7	61·5	−13·4	7	34	
		3345	0·603	251·9	56·6	−14·3	2	14	97c
		3345a	0·519	249·9	50·5	−14·1	28	175	
		3350a	0·505	4·9	17·8	+25·7	4	14	
		3352	0·717	88·3	334·9	− 1·9	21	162	49c
		3355a	0·684	104·0	337·8	−12·7	7	46	
		3355	0·688	101·6	337·3	−11·1	0	6	
		3355	0·708	102·9	335·8	−12·2	0	6	70c
		3355	0·739	102·3	333·1	−12·0	3	15	
		3354a	0·831	103·2	324·4	−13·4	39	205	
		3354	0·849	101·3	322·4	−11·9	0	46	
		3354	0·871	101·3	319·9	−12·0	2	43	239c
		3354	0·892	102·1	317·3	−12·8	0	38	
		3356a	0·958	75·8	308·9	+12·3	52	267	551c
			0·838	96·1	323·6	− 7·5			176

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).
1894.				°	°	°			
10d·532	HA,JG		0·963	91·7	306·2	− 2·8			180
			0·964	96·2	305·7	− 7·2			438
Jan. 11		Centre			(20·5)	(−4·4)	(171)	(1260)	(2428)
11·467	CL,FT		0·978	294·4	82·8	+22·7			243
			0·920	256·1	75·2	−14·5			380
		3345	0·818	257·5	62·9	−12·8	2	11	
		3345	0·803	255·3	61·3	−14·5	0	9	89c
		3345	0·801	256·9	61·2	−13·2	0	7	
		3345	0·767	253·6	57·7	−15·4	0	5	
		3345	0·751	255·6	56·4	−13·8	3	17	42c
		3345	0·750	253·9	56·2	−15·0	3	12	
		3345b	0·692	254·5	51·3	−14·0	10	59	
		3345c	0·679	253·0	50·1	−14·8	15	113	
		3350a	0·521	342·9	17·8	+25·3	2	10	
		3357	0·417	64·9	345·9	+ 6·0	2	9	
		3357	0·434	60·1	345·8	+ 8·3	3	11	
		3352	0·545	86·7	335·3	− 2·0	22	129	
		3355a	0·512	107·2	338·2	−12·5	9	58	
		3355	0·541	102·1	335·7	−10·3	1	8	
		3355	0·558	106·6	335·0	−12·9	0	4	
		3355	0·567	102·3	333·9	−10·6	0	1	
		3355	0·577	104·4	333·4	−11·9	0	1	
		3354a	0·701	104·2	324·0	−13·1	53	395	
		3354	0·739	101·6	320·6	−11·6	3	8	
		3354	0·752	102·5	319·6	−12·4	2	18	88c
		3354	0·771	102·7	317·9	−12·7	3	13	
		3356a	0·874	72·8	309·5	+12·7	39	245	
		3356	0·875	76·5	308·7	+ 9·5	0	19	366c
		3356	0·881	74·3	308·3	+11·5	11	141	
			0·879	95·0	306·5	− 6·6			333
			0·907	106·1	303·0	−16·5			215
Jan. 12		Centre			(8·1)	(−4·5)	(183)	(1303)	(1756)
12·470	CL,FT		0·967	251·3	70·7	−19·3			143
		3345	0·876	257·1	56·1	−13·5	4	20	
		3345b	0·833	256·6	51·2	−13·7	8	68	230c
		3345c	0·823	255·2	50·1	−14·8	18	102	
		3352	0·337	82·9	335·4	− 2·0	19	150	
		3355a	0·309	116·8	338·6	−12·4	5	13	
		3355	0·358	114·3	335·4	−12·8	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 3353, January 10. A very small spot.
Group 3354, January 10–22. One spot on January 10. A large spot, *a*, on January 11, followed by a straight stream of smaller spots. The group increases in size, and *a* becomes a very large composite spot, rather faint for the most part, and with many distinct nuclei distributed through it. The group increases in size, measured as a single spot, but its great size and complexity render it necessary on some occasions to measure it in several instalments. A number of small outliers accompany the principal spot.
Group 3355, January 11–15. A stream of small spots preceding Group 3354. The leader, *a*, is the largest spot. The group rapidly diminishes and dies out.
Group 3356, January 11–23. A large regular spot, *a*, accompanied by a number of small spots in an irregular stream. Some of these spots are very faint. *a* is seen as a notch on the West limb on January 23.
Group 3357, January 12. 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).
1894.				°	°	°			
12d·470	CL,FT	3354*a*	0·530	108·0	323·8	−13·4	47	355	
		3354	0·560	105·4	321·5	−12·4	0	14	
		3354	0·573	103·7	320·4	−11·6	0	9	
		3354	0·606	107·5	318·5	−14·2	4	32	
		3354	0·606	105·3	318·2	−12·9	2	11	
		3356*a*	0·745	68·7	309·8	+12·4	21	209	
		3356	0·741	72·9	309·2	+ 9·4	0	8	189*c*
		3356	0·755	71·1	308·4	+11·0	21	48	
		3356	0·765	72·9	307·1	+ 9·9	8	59	
		3358*a*	0·947	84·4	284·3	+ 3·8	14	130	207*c*
Jan. 13		Centre			(354·9)	(−4·6)	(171)	(1233)	(769)
13·214	JG,FT		0·905	290·6	47·0	+16·5			80
			0·824	250·6	40·0	−18·6			172
I.		3345	0·933	257·0	54·2	−13·8	0	13	
		3345	0·933	253·8	54·2	−16·8	4	23	
		3345	0·927	255·0	53·2	−15·6	0	31	241*c*
		3345*b*	0·917	256·8	51·0	−13·9	7	59	
		3345*c*	0·908	255·5	50·4	−15·1	21	84	
		3352	0·167	72·8	336·0	− 1·7	28	135	
		3355*a*	0·169	141·5	338·9	−12·1	1	18	
		3355	0·223	129·4	335·0	−12·7	0	4	
		3355	0·239	128·8	334·1	−13·1	0	2	
		3354*a*	0·385	113·6	324·0	−13·1	62	339	
		3354	0·424	109·8	321·1	−12·5	10	61	
		3354	0·434	112·7	320·9	−13·8	4	14	
		3354	0·448	110·7	319·7	−13·3	0	8	
		3354	0·463	112·5	319·0	−14·3	11	61	
		3354	0·459	108·4	318·7	−12·4	10	26	
		3359	0·380	96·6	322·9	− 6·8	0	7	
		3359	0·413	97·1	320·8	− 7·1	0	3	
		3356*a*	0·629	63·3	310·1	+12·6	61	249	
		3356	0·639	66·4	308·6	+11·1	17	59	116*c*
		3356	0·647	68·5	307·6	+10·1	38	149	
		3358*a*	0·882	82·6	284·0	+ 4·3	38	168	
		3358	0·887	84·0	283·2	+ 3·2	3	16	278*f*
		3358	0·920	84·9	278·8	+ 2·8	0	21	
		3360*a*	0·975	104·0	267·4	−14·7	94	451	68*c*
			0·830	112·5	290·0	−21·2			90
Jan. 14		Centre			(345·1)	(−4·6)	(409)	(2001)	(1045)
1894.				°	°	°			
14d·410	JG,HA		0·870	244·1	28·8	−24·8			109
			0·819	305·5	16·7	+25·2			103
		3345*c*	0·981	256·1	48·9	−14·6	0	60	1438*f*
		3352	0·128	292·9	336·1	− 1·9	26	146	
		3355	0·180	221·4	336·4	−12·5	0	6	
		3355	0·192	215·6	336·0	−13·1	0	5	
		3355	0·157	222·2	335·6	−11·4	0	5	
		3354	0·138	146·6	325·0	−11·4	0	5	
		3354	0·148	135·8	323·4	−10·8	2	8	
		3354*a*	0·189	145·3	323·1	−13·7	84	608	
		3354	0·168	128·6	321·8	−10·7	0	10	
		3354	0·207	129·3	320·0	−12·2	42	195	
		3354	0·197	119·6	319·4	−10·3	0	11	
		3354	0·246	136·1	319·3	−14·9	16	82	
		3354	0·242	125·3	317·8	−12·7	0	7	
		3359	0·106	112·5	324·9	− 7·1	2	6	
		3359	0·119	119·8	323·4	− 8·2	0	3	
		3359	0·116	108·8	323·1	− 6·9	0	6	
		3359	0·150	111·9	321·4	− 7·9	0	10	
		3356	0·439	40·9	312·2	+14·7	0	3	
		3356*a*	0·436	49·2	309·8	+12·0	43	250	
		3356	0·411	55·8	309·4	+ 8·8	5	23	
		3356	0·440	53·9	308·4	+10·5	9	28	
		3356	0·429	56·4	308·3	+ 9·2	0	16	
		3356	0·451	57·1	306·9	+ 9·7	14	67	
		3356	0·462	54·8	306·9	+11·0	0	4	
		3361	0·506	37·5	310·4	+19·1	0	5	
		3362	0·424	101·2	304·6	− 9·1	0	5	
		3358*a*	0·727	79·8	283·8	+ 3·4	24	165	
		3358	0·729	82·1	283·3	+ 2·4	2	20	
		3358	0·763	81·8	280·5	+ 3·1	0	7	62*c*
		3358	0·783	80·5	278·9	+ 4·4	0	9	
		3360*a*	0·877	104·7	268·1	−15·2	91	430	
		3360	0·900	104·2	265·1	−14·9	9	59	
		3360	0·912	105·1	263·5	−15·7	10	63	260*nf*
		3360	0·928	103·3	261·0	−14·1	4	26	
		3363*a*	0·938	93·7	259·6	− 5·1	45	219	158*nf*
		3364*a*	0·966	87·0	254·8	+ 1·6	45	242	144*c*
			0·931	75·2	262·7	+11·9			278
Jan. 15		Centre			(329·4)	(−4·8)	(473)	(2814)	(1257)
15·181	CL,JG		0·937	248·9	28·9	−21·5			142
			0·888	301·4	15·6	+24·8			165
I.		3352	0·303	278·3	336·6	− 2·2	25	133	

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 3358, January 13–24. A large spot, *a*, with several small companions. *a* diminishes rapidly after January 20, and has disappeared by January 24.
Group 3359, January 14–15. A few very small spots irregularly arranged, *n* of Group 3355.
Group 3360, January 14–26. A large spot, *a*, followed by a number of spots very irregularly arranged. The following spots tend to die out, and as they disappear *a* becomes more regular.
Group 3361, January 15. A very small spot.
Group 3362, January 15. A group of very small faint ill-defined spots.
Group 3363, January 15–26. A large spot, *a*, with a stream of small followers in the *nf* direction. The latter have all disappeared by January 19, but other small companions are occasionally seen.
Group 3364, January 15–26. A large regular spot, *a*, with a very small companion on January 22.
The three large spots, 3360*a*, 3363*a*, and 3364*a* are distributed at very nearly equal distances in a straight line sharply inclined to the sun's equator. The more northern spot gains on the more southern in longitude.

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).
1894.				°	°	°			
15d.181	CL, JG	3354	0·151	221·3	325·0	−11·4	0	5	
		3354	0·092	185·7	324·5	−10·1	1	5	
I.		3354	0·127	217·6	323·7	−10·7	0	4	
		3354	0·106	221·9	323·3	− 9·4	0	4	
		3354*a*	0·158	197·8	322·1	−13·5	158	886	
		3354	0·215	187·9	321·0	−17·1	0	4	
		3354	0·190	184·0	320·0	−15·8	8	22	
		3354	0·084	186·2	319·7	− 9·7	2	13	
		3354	0·150	180·9	319·3	−13·5	3	11	
		3354	0·170	178·5	318·9	−14·7	13	64	
		3354	0·186	171·5	317·6	−15·5	1	6	
		3354	0·143	169·0	317·6	−13·0	0	7	
		3354	0·167	169·5	317·4	−14·3	17	32	
		3356	0·334	22·2	313·3	+13·1	2	11	
		3356	0·358	22·6	311·1	+14·4	1	5	
		3356*a*	0·333	28·1	310·0	+12·1	49	246	
		3356	0·279	35·4	309·8	+ 8·3	4	10	
		3356	0·320	35·8	308·3	+10·1	4	11	
		3356	0·330	36·9	307·6	+10·4	0	6	
		3356	0·325	39·7	307·1	+ 9·6	19	69	
		3358	0·593	79·4	283·7	+ 2·2	2	7	
		3358*a*	0·598	76·4	283·7	+ 4·1	22	140	
		3358	0·637	74·2	281·3	+ 6·1	0	3	
		3360*a*	0·781	105·3	268·1	−15·0	66	262	
		3360	0·809	105·4	265·4	−15·3	12	123	
		3360	0·819	103·3	264·3	−13·7	17	133	
		3360	0·833	104·4	262·9	−14·7	2	5	166*c*
		3360	0·835	102·5	262·6	−13·1	4	13	
		3360	0·838	105·3	262·4	−15·5	14	81	
		3360	0·859	103·2	260·0	−13·8	8	31	
		3363*a*	0·863	93·2	259·6	− 4·7	49	237	36*c*
		3363	0·908	90·6	254·1	− 2·6	0	9	
		3365	0·899	105·6	255·1	−16·2	7	19	175*f*
		3364*a*	0·912	85·5	253·9	+ 2·1	61	236	65*c*
		3366	0·965	91·6	244·4	− 2·9	6	20	433*f*
		3366	0·976	91·1	241·9	− 2·2	12	74	
			0·885	70·0	259·9	+15·1			294
			0·895	99·6	255·5	−10·8			212
Jan. 16		Centre			(319·2)	(−4·9)	(589)	(2947)	(1688)
16·182	HA, FT		0·944	277·9	12·0	+24·2			190
			0·847	287·8	1·5	+12·1			149
I.			0·774	263·3	356·9	− 8·3			125
		3352	0·515	274·1	336·9	− 2·2	28	123	

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).
1894.				°	°	°			
16d.182	HA, FT	3354	0·306	250·9	323·1	−10·5	1	4	
		3354*a*	0·303	240·3	321·7	−13·4	253	1082	
I.		3354	0·287	227·0	318·7	−16·2	3	22	
		3354	0·236	231·3	317·0	−13·4	20	32	
		3354	0·231	227·5	316·2	−13·9	0	2	
		3356	0·332	338·5	313·2	+13·0	1	6	
		3356	0·316	337·4	313·2	+11·9	4	7	
		3356	0·336	343·7	311·6	+13·8	3	13	
		3356	0·320	343·5	311·4	+12·8	1	5	
		3356	0·241	341·7	310·5	+ 8·2	0	5	
		3356	0·327	347·0	310·4	+13·5	4	20	
		3356*a*	0·298	347·9	309·7	+11·9	46	209	
		3356	0·351	352·3	308·9	+15·2	1	3	
		3356	0·329	352·3	308·7	+14·0	0	3	
		3356	0·265	352·3	308·1	+10·1	0	3	
		3356	0·239	351·9	308·0	+ 8·6	0	6	
		3356	0·254	354·0	307·6	+ 9·6	1	6	
		3356	0·264	355·4	307·3	+10·2	4	15	
		3356	0·211	355·0	307·2	+ 7·1	0	4	
		3358	0·400	72·4	283·8	+ 2·3	4	6	
		3358*a*	0·409	68·9	283·7	+ 3·8	27	131	
		3358	0·411	74·1	282·9	+ 1·9	0	9	
		3358	0·436	74·1	281·4	+ 2·3	0	5	
		3360	0·611	110·0	269·6	−16·0	0	5	
		3360	0·620	104·6	268·3	−12·9	0	5	
		3360*a*	0·623	107·4	268·3	−14·7	68	304	
		3360	0·646	106·1	266·5	−14·2	1	9	
		3360	0·654	105·2	265·8	−13·7	5	32	
		3360	0·663	107·3	265·3	−15·1	5	64	109*c*
		3360	0·692	107·0	263·0	−15·3	3	20	
		3360	0·691	104·8	262·8	−13·8	12	51	
		3360	0·707	106·5	261·7	−15·1	8	40	
		3360	0·725	104·3	260·0	−13·8	4	27	
		3360	0·733	103·1	259·2	−13·0	0	3	
		3363*a*	0·721	93·2	260·0	− 5·8	52	217	
		3363	0·743	92·1	258·1	− 4·9	2	6	
		3363	0·757	90·3	257·0	− 3·5	0	6	167*c*
		3363	0·788	89·3	254·2	− 2·5	0	15	
		3363	0·811	88·4	252·1	− 1·7	0	6	
		3363	0·834	89·4	249·8	− 2·2	0	16	
		3365	0·764	106·7	256·7	−15·9	7	15	33*c*
		3365	0·783	106·5	255·0	−16·0	1	6	
		3364*a*	0·795	83·3	254·1	+ 2·2	49	256	43*c*
		3366	0·895	89·6	242·8	− 1·9	7	39	295*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 3365, January 16–18. Two small spots.
Group 3366, January 16–20. Two or three small spots irregularly scattered. The group is not seen on January 19.

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).
1894.				°	°	°			
16d·182	HA,FT	3367*a*	0·964	91·3	231·6	− 2·6	43	227	86*c*
			0·783	65·1	258·7	+15·8			186
I.			0·826	106·7	250·7	−16·6			84
			0·912	83·4	241·1	+ 3·9			108
			0·939	69·5	239·2	+17·3			130
			0·946	109·2	234·7	−19·8			250
Jan. 17		Centre			(306·1)	(−5·0)	(668)	(3090)	(1955)
17·211	CL,FT		0·894	282·6	354·3	+ 8·9			148
			0·873	248·9	352·9	−20·9			115
M.			0·824	265·2	348·1	− 6·9			216
		3352	0·703	272·0	337·0	− 2·3	12	122	
		3354	0·527	245·9	322·6	−16·9	0	2	
		3354*a*	0·503	252·3	321·9	−13·3	122	1036	
		3354	0·506	247·3	321·4	−15·7	3	17	
		3354	0·468	246·0	318·7	−15·6	8	46	
		3354	0·438	251·4	317·6	−12·7	6	33	
		3354	0·429	246·9	316·4	−14·3	4	14	
		3356	0·461	315·3	311·9	+14·3	1	5	
		3356	0·444	317·0	310·6	+14·0	9	62	
		3356*a*	0·411	314·7	309·8	+11·9	42	246	
		3356	0·424	317·9	309·4	+13·4	2	25	
		3356	0·368	312·0	308·5	+ 9·3	1	5	
		3356	0·364	314·3	307·8	+ 9·8	0	4	
		3356	0·378	322·1	306·2	+12·4	0	1	
		3368	0·224	208·6	298·9	−16·4	2	7	
		3358*a*	0·214	44·4	283·9	+ 3·7	29	132	
		3358	0·201	50·6	283·6	+ 2·3	0	2	
		3358	0·219	55·1	282·2	+ 2·1	1	4	
		3358	0·252	49·0	281·6	+ 4·5	0	8	
		3360*a*	0·443	113·6	267·8	−14·9	63	360	
		3360	0·480	112·5	265·3	−15·1	0	2	
		3360	0·496	113·0	264·3	−15·6	4	15	
		3360	0·510	111·3	263·1	−15·1	4	21	
		3360	0·521	109·3	262·1	−14·3	7	32	
		3360	0·529	111·5	261·9	−15·6	6	24	
		3360	0·549	108·5	260·1	−14·3	0	6	
		3360	0·554	111·0	260·1	−15·7	0	6	
		3363*a*	0·534	93·6	260·2	− 6·2	44	248	
		3363	0·568	91·6	257·9	− 5·1	2	6	
		3363	0·606	93·5	255·2	− 6·2	0	3	
		3363	0·608	88·1	255·2	− 2·9	0	6	
		3365	0·592	110·5	257·4	−16·2	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).
1894.				°	°	°			
17d·211	CL,FT	3365	0·607	110·1	256·2	−16·2	1	5	
		3364*a*	0·628	80·7	254·3	+ 1·9	47	241	
M.		3366	0·715	89·4	246·9	− 3·2	1	7	
		3366	0·752	88·9	243·9	− 2·6	3	14	
		3367*a*	0·866	90·2	232·6	− 2·8	30	206	103*c*
			0·854	66·1	237·8	+17·3			225
			0·947	120·0	221·5	−30·0			119
Jan. 18		Centre			(292·5)	(−5·1)	(454)	(2976)	(926)
18·486	CL,FT		0·968	258·8	351·7	−12·1			135
			0·834	260·3	332·3	−11·0			120
		3352	0·879	270·0	337·1	− 2·5	13	119	
		3354	0·761	259·2	325·3	−11·6	3	11	
		3354	0·751	257·7	324·3	−12·7	13	80	
		3354*a*	0·742	255·1	323·3	−14·5	31	181	
		3354*a*	0·716	257·7	321·3	−12·4	36	493	
		3354*a*	0·700	254·2	319·7	−14·7	8	124	
		3354	0·684	252·3	318·1	−15·8	4	31	
		3354	0·676	256·9	318·0	−12·7	5	36	
		3354	0·679	254·9	318·0	−14·1	3	8	
		3354	0·652	253·4	315·8	−14·7	1	7	
		3356	0·636	301·1	309·9	+14·8	0	8	
		3356*a*	0·616	296·3	309·9	+11·5	26	183	
		3356	0·626	299·9	309·5	+13·8	3	13	
		3368	0·426	243·5	298·9	−15·7	6	14	
		3368	0·426	241·1	298·5	−16·6	1	7	
		3368	0·400	239·6	296·7	−16·5	0	* 2	
		3368	0·405	234·8	296·0	−18·4	0	3	
		3368	0·386	238·4	295·7	−16·6	1	8	
		3368	0·392	234·7	295·3	−17·9	0	4	
		3358	0·252	320·1	285·0	+ 6·0	1	10	
		3358*a*	0·207	316·8	283·8	+ 3·5	19	93	
		3358	0·203	322·1	282·9	+ 4·0	0	5	
		3358	0·186	321·7	282·3	+ 3·2	0	5	
		3358	0·192	329·1	281·3	+ 4·3	2	7	
		3360*a*	0·216	141·3	267·7	−14·8	45	297	
		3360	0·271	137·1	264·7	−16·5	0	4	
		3360	0·284	127·6	262·3	−15·0	5	46	
		3360	0·316	115·7	258·8	−12·8	0	10	
		3363*a*	0·265	95·2	260·4	− 6·4	41	235	
		3364*a*	0·378	72·3	254·7	+ 1·7	48	228	
		3369	0·435	117·7	252·1	−16·4	0	3	
		3369	0·452	120·0	251·5	−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 3367, January 17–28. A large regular spot, *a*. A very small companion is seen on January 20, 23 and 25.
Group 3368, January 18–21. A few small spots in an irregular stream.
Group 3369, January 19–20. Two very small spots on January 19. The following spot has disappeared by January 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).
				°	°	°			
1894. 18d·486	CL, FT	3367*a*	0·683	88·8	232·7	− 3·0	41	198	
		3370	0·955	98·8	202·6	− 9·9	7	23	249*sp*
Jan. 19		Centre			(275·7)	(−5·2)	(363)	(2499)	(504)
19·450	HA, JG		0·930	285·8	329·4	+12·6			99
			0·910	263·7	328·8	− 7·9			94
		3352	0·962	269·1	337·1	− 2·3	12	78	
		3354*a*	0·858	258·3	322·3	−12·7	61	902	
		3354	0·824	258·0	318·6	−12·8	1	21	
		3354	0·821	254·7	318·1	−15·5	2	20	349*p*
		3354	0·795	255·1	315·6	−15·0	1	9	
		3356*a*	0·762	289·9	309·9	+11·5	27	174	
		3356	0·764	292·4	309·5	+13·3	0	8	67*c*
		3356	0·736	289·8	307·7	+10·7	1	13	
		3368	0·618	252·0	300·4	−15·1	6	15	
		3368	0·597	251·0	298·8	−15·4	4	19	
		3368	0·548	246·4	294·7	−17·1	4	10	
		3358	0·424	295·6	285·6	+ 5·7	0	3	
		3358*a*	0·390	292·3	284·2	+ 3·6	24	105	
		3358	0·375	295·1	282·9	+ 4·3	3	18	
		3358	0·368	299·1	281·9	+ 5·3	0	6	
		3358	0·356	294·8	281·9	+ 3·6	0	3	
		3360*a*	0·189	205·0	267·8	−15·0	55	284	
		3360	0·165	200·2	266·5	−14·1	0	13	
		3360	0·140	203·8	266·4	−12·5	0	4	
		3360	0·192	187·4	264·6	−16·2	0	6	
		3360	0·159	177·7	263·5	−14·3	0	5	
		3360	0·214	179·4	263·0	−17·5	0	3	
		3360	0·158	157·9	259·6	−13·6	0	2	
		3363*a*	0·051	107·6	260·3	− 6·1	40	234	
		3371	0·357	7·0	260·5	+15·4	5	44	
		3371	0·335	13·3	258·6	+13·8	0	8	
		3371	0·380	16·6	256·6	+16·1	0	5	
		3364*a*	0·189	50·1	254·8	+ 1·8	29	199	
		3369	0·271	138·2	252·3	−16·7	0	7	
		3366	0·358	75·9	242·9	+ 0·1	0	4	
		3367*a*	0·502	87·3	233·1	− 3·2	26	177	
		3367	0·524	83·1	231·9	− 0·9	0	5	
		3370	0·874	98·5	202·0	− 9·9	7	19	1558*f*
			0·867	59·7	208·9	+23·0			83
			0·924	104·9	195·3	−15·7			312
			0·969	75·4	189·3	+12·7			92
Jan. 20		Centre			(263·1)	(−5·2)	(308)	(2423)	(1251)

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).
				°	°	°			
1894. 20d·183	CL, FT	3354*a*	0·931	258·4	322·3	−12·7	40	765	285*c*
		3356*a*	0·855	286·8	309·8	+11·4	39	200	299*c*
M.		3368	0·744	254·6	301·1	−15·0	4	12	
		3368	0·722	253·4	299·1	−15·6	0	15	
		3368	0·674	248·7	294·5	−18·1	3	10	
		3358*a*	0·540	285·4	284·7	+ 3·7	13	65	
		3358	0·526	287·4	283·5	+ 4·4	2	21	
		3360*a*	0·297	236·2	268·1	−14·6	58	275	
		3360	0·270	233·5	267·8	−14·4	0	27	
		3360	0·254	238·7	266·2	−12·7	0	4	
		3360	0·277	226·2	265·3	−16·2	0	3	
		3360	0·234	229·3	263·9	−14·0	0	11	
		3360	0·253	217·2	262·6	−16·8	2	6	
		3363*a*	0·125	264·8	260·6	− 5·9	45	240	
		3363	0·088	290·0	258·1	− 3·6	0	3	
		3371*a*	0·388	335·2	263·1	+15·3	11	104	
		3371	0·380	338·9	261·5	+15·4	1	5	
		3371	0·365	341·6	260·2	+14·9	3	8	
		3371	0·336	345·2	258·4	+13·6	1	4	
		3371	0·359	346·6	258·3	+15·1	0	2	
		3371	0·376	348·4	257·9	+16·2	2	9	
		3371	0·349	350·6	256·8	+14·7	0	6	
		3371	0·366	351·4	256·6	+15·9	0	23	
		3364*a*	0·128	347·0	255·0	+ 1·9	31	200	
		3367*a*	0·345	84·8	233·4	− 3·2	35	213	
		3370	0·785	98·2	201·6	− 9·7	6	29	
		3372*a*	0·984	95·6	173·4	− 6·5	17	90	
			0·792	104·9	201·2	−15·0			155
			0·927	73·0	187·8	+13·6			176
			0·916	104·2	186·8	−15·1			255
Jan. 21		Centre			(253·4)	(−5·3)	(313)	(2350)	(1170)
21·213	CL, HA		0·933	262·7	309·0	− 8·8			290
			0·833	250·9	295·9	−18·9			153
M.		3354*a*	0·997	257·4	326·1	−13·0	0	220	
		3354*a*	0·991	259·7	322·6	−10·9	37	201	436*f*
		3354*a*	0·988	257·1	321·8	−13·6	84	465	
		3356*a*	0·949	284·2	309·5	+11·6	35	196	562*c*
		3358*a*	0·722	280·4	285·0	+ 3·7	8	26	
		3358	0·717	281·6	284·4	+ 4·4	6	18	184*c*
		3358	0·709	280·8	283·9	+ 3·7	0	1	
		3360*a*	0·492	249·3	268·1	−14·8	50	258	
		3360	0·448	250·9	265·5	−13·3	0	2	

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

Group 3370, January 19–25. A small regular spot.
Group 3371, January 20–26. A few small faint spots on January 20. On January 21 and the succeeding days the group consists of a large spot, *a*, followed by a stream of spots, mostly very small. One of these following spots, *b*, increases in size and has become a large double spot by January 25. The other spots die out.
Group 3372, January 21–February 2. A large spot, *a*, followed by a smaller spot, *b*. Both diminish in size, and *b* has disappeared by January 29. A very small companion is sometimes seen.

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).
1894.				°	°	°			
21d·213	CL,HA	3363*a*	0·356	267·2	260·7	− 6·0	37	218	
		3363	0·336	264·7	259·4	− 6·9	0	5	
M.		3363	0·330	269·1	259·1	− 5·4	1	4	
		3371*a*	0·533	310·8	264·4	+15·4	42	214	
		3371	0·503	310·4	263·0	+14·0	0	2	
		3371	0·510	312·4	262·7	+15·1	4	12	
		3371	0·489	313·6	261·2	+14·6	2	5	
		3371	0·496	316·8	260·4	+16·1	1	8	
		3371*b*	0·490	318·2	259·6	+16·3	4	13	
		3371	0·473	319·6	258·3	+15·9	0	1	
		3371	0·463	320·7	257·5	+15·7	3	16	
		3364*a*	0·292	294·5	255·1	+ 1·7	28	180	
		3364	0·264	291·7	253·9	+ 0·0	0	6	
		3367*a*	0·114	71·5	233·6	− 3·3	39	195	
		3370	0·621	99·0	201·5	− 9·8	12	26	129*f*
		3372*a*	0·916	94·8	173·3	− 6·6	22	142	} 161*c*
		3372*b*	0·951	93·5	167·7	− 5·0	0	30	
			0·861	70·7	183·3	+13·6			231
			0·893	104·3	176·3	−15·2			418
			0·990	73·4	160·1	+15·5			159
Jan. 22		Centre			(239·8)	(− 5·4)	(415)	(2464)	(2723)
22·203	FT,HA		0·898	245·5	290·4	−24·4			72
		3356*a*	0·997	281·9	310·9	+11·3	0	194	
I.		3358*a*	0·863	277·2	285·7	+ 3·4	6	22	} 191*s*
		3358	0·862	278·8	285·3	+ 4·7	0	8	
		3360*a*	0·671	253·5	268·4	−15·1	52	260	
		3363*a*	0·563	266·8	261·1	− 6·3	57	234	
		3371*a*	0·686	299·1	265·0	+15·1	46	228	
		3371	0·673	301·8	263·2	+16·3	0	6	
		3371	0·659	299·5	263·0	+14·5	1	5	
		3371	0·645	299·9	261·9	+14·3	0	4	
		3371	0·655	302·5	261·7	+16·0	3	10	
		3371	0·653	304·5	260·9	+17·1	0	3	
		3371	0·637	302·6	260·5	+15·4	3	15	
		3371*b*	0·632	304·6	259·5	+16·4	16	33	
		3371	0·615	303·3	258·8	+15·0	0	8	
		3371	0·603	305·0	257·5	+15·4	2	11	
		3371	0·611	307·3	257·2	+16·9	0	1	
		3371	0·615	310·2	256·4	+18·6	0	3	
		3364*a*	0·494	282·5	255·5	+ 1·3	35	172	
		3373	0·373	277·4	248·4	− 2·4	0	7	
1894.				°	°	°			
22d·203	FT,HA	3367	0·168	283·5	236·2	− 3·2	0	6	
		3367*a*	0·132	285·4	234·1	− 3·5	31	199	
I.		3374	0·047	102·0	224·2	− 6·1	1	8	
		3375	0·183	106·7	216·6	− 8·4	0	3	
		3370	0·424	101·6	202·0	− 9·9	12	25	
		3376	0·633	110·1	188·6	−16·9	1	12	} 34*c*
		3376	0·643	107·9	187·5	−15·7	3	17	
		3372*a*	0·802	94·0	173·4	− 6·6	41	183	} 136*c*
		3372*b*	0·864	92·3	167·0	− 4·8	7	19	
			0·834	69·3	173·5	+13·9			96
			0·870	106·3	166·2	−16·9			112
			0·943	68·8	159·5	+17·9			157
			0·948	98·0	155·0	− 9·3			205
Jan. 23		Centre			(226·8)	(− 5·5)	(317)	(1696)	(1003)
23·187	CL,HA		0·946	276·1	284·2	+ 4·8			136
			0·778	283·8	263·2	+ 7·0			146
I.		3358	0·938	274·8	282·9	+ 2·5	0	6	
		3358	0·928	276·4	281·1	+ 3·8	0	17	
		3360*a*	0·819	255·3	268·8	−15·2	68	256	371*f*
		3363*a*	0·741	266·2	261·7	− 6·6	57	247	260*f*
		3371*a*	0·823	292·5	265·5	+14·9	104	347	} 298*c*
		3371	0·795	292·1	262·9	+13·8	0	7	
		3371*b*	0·772	296·5	259·6	+16·3	53	198	
		3371	0·761	294·8	259·2	+14·7	3	15	
		3364*a*	0·682	277·5	256·2	+ 0·9	28	167	102*c*
		3367*a*	0·357	274·6	234·6	− 3·6	47	190	
		3374	0·179	264·4	224·1	− 6·5	2	6	
		3375	0·081	222·3	217·0	− 9·0	0	4	
		3370	0·216	112·3	202·1	−10·2	4	13	
		3376	0·437	111·4	189·1	−14·3	2	6	
		3376	0·458	116·5	188·5	−16·9	3	10	
		3376	0·456	112·7	188·1	−15·1	5	18	
		3376	0·524	113·0	183·7	−16·7	2	5	
		3372*a*	0·645	93·9	173·6	− 6·9	37	162	} 129*c*
		3372*b*	0·716	91·5	168·0	− 5·0	10	31	
		3372	0·741	92·9	165·9	− 5·8	0	3	
		3377	0·904	68·6	152·6	+16·6	0	12	} 90*c*
		3377	0·930	69·0	148·7	+17·2	0	10	
			0·732	108·2	167·3	−17·1			132
			0·831	66·5	161·6	+15·9			119
			0·863	97·0	153·9	− 8·9			177
Jan. 24		Centre			(213·8)	(− 5·6)	(425)	(1730)	(1960)

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 3373, January 23. A very small spot.
Group 3374, January 23–24. A very small spot.
Group 3375, January 23–24. A very small spot.
Group 3376, January 23–26. A few small faint unstable spots.
Group 3377, January 24–February 3. Several small spots in a straight stream. The following part of the stream has disappeared by January 30, but the group has revived again by February 2.

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).
				°	°	°			
1894. 24d·371	CL, FT		0·758	271·9	247·4	− 2·3			278
			0·776	300·2	243·3	+18·9			96
I.		3360a	0·934	256·4	267·8	−14·6	48	252	494f
		3363a	0·891	266·0	261·4	− 6·2	60	221	201f
		3371a	0·935	289·1	264·6	+15·6	77	345	338c
		3371b	0·895	291·8	258·2	+16·6	27	83	
		3371b	0·889	291·3	257·6	+16·0	29	101	
		3364a	0·849	275·0	255·8	+ 1·2	34	140	91c
		3367a	0·595	272·4	234·7	− 3·2	38	210	
		3367	0·557	274·4	231·9	− 2·4	0	4	
		3378	0·347	323·4	210·4	+10·6	2	8	
		3378	0·361	325·7	210·2	+11·7	3	12	
		3378	0·337	329·1	208·4	+11·1	0	16	
		3379	0·416	199·9	207·5	−28·6	5	15	
		3379	0·436	198·7	207·5	−29·9	3	14	
		3379a	0·435	194·0	205·3	−30·5	2	12	
		3379	0·412	193·0	204·4	−29·3	5	15	
		3370	0·067	198·6	199·5	− 9·3	0	8	
		3376	0·229	134·6	188·6	−14·8	2	7	
		3376	0·240	134·9	188·2	−15·3	1	5	
		3372	0·395	91·4	175·0	− 5·8	0	6	
		3372a	0·421	93·3	173·4	− 6·5	28	133	
		3372b	0·502	89·8	168·2	− 4·8	7	17	
		3380	0·654	93·5	157·4	− 6·6	0	8	
		3380	0·695	95·5	154·2	− 8·0	6	13	
		3377	0·754	64·4	153·7	+14·9	4	15	202c
		3377	0·780	62·9	152·0	+16·9	17	84	
		3377	0·776	64·5	151·8	+15·6	6	31	
		3377	0·785	64·3	151·1	+16·0	0	8	
		3377	0·806	64·4	149·1	+16·7	12	27	
		3377	0·815	64·2	148·3	+17·1	0	4	
		3377	0·824	63·9	147·5	+17·6	2	8	
		3377	0·835	63·0	146·7	+18·7	12	44	
		3381a	0·811	72·0	146·7	+11·0	14	37	241c
		3381	0·824	73·3	145·2	+10·3	7	19	
		3381	0·832	74·2	144·2	+ 9·8	0	7	
			0·923	61·9	136·2	+23·2			156
Jan. 25		Centre			(198·3)	(−5·7)	(451)	(1929)	(2097)
25·542	CL, HA		0·894	269·3	246·2	− 3·3			240
		3360a	0·994	255·5	267·8	−15·1	45	235	208f
		3363a	0·978	265·1	261·1	− 6·0	42	174	157c
		3371a	0·993	286·1	264·1	+15·2	0	158	156c
		3371b	0·985	288·8	260·4	+17·3	0	51	
		3371b	0·974	287·8	257·3	+15·9	0	17	
1894. 25d·542	CL, HA	3364a	0·960	272·9	256·2	+ 1·1	12	84	
		3367a	0·789	270·4	234·9	− 3·3	22	171	
		3378	0·563	299·4	212·7	+11·0	0	4	
		3378	0·502	302·9	208·2	+10·5	1	14	
		3379	0·553	222·9	208·3	−29·1	4	25	
		3379	0·538	219·7	206·1	−29·7	1	6	
		3379a	0·525	215·2	203·4	−30·7	9	46	
		3379	0·510	216·6	203·3	−29·5	1	8	
		3376	0·200	209·4	187·6	−15·8	0	2	
		3372a	0·164	98·7	173·5	− 7·2	24	99	
		3372b	0·241	88·8	169·0	− 5·3	3	7	
		3380a	0·440	96·7	156·8	− 8·2	25	154	
		3380	0·457	101·0	155·9	−10·2	0	4	
		3380	0·495	103·1	153·6	−11·5	4	16	
		3380	0·499	97·0	153·0	− 8·5	1	5	
		3380	0·507	100·4	152·6	−10·2	0	3	
		3377	0·565	54·3	154·8	+14·1	7	32	
		3377	0·608	54·3	152·2	+15·8	5	45	
		3377	0·642	56·5	149·2	+15·9	3	17	
		3377	0·654	54·7	149·0	+17·3	1	14	
		3377	0·658	56·7	148·1	+16·4	6	39	
		3377	0·674	54·5	147·8	+18·2	0	8	
		3377	0·686	55·1	146·7	+18·4	4	16	
		3381a	0·637	65·5	146·9	+10·6	10	47	
		3381	0·680	68·7	143·0	+ 9·9	6	33	
Jan. 26		Centre			(182·9)	(−5·8)	(236)	(1534)	(761)
26·515	JG, FT	3367a	0·909	269·2	235·3	− 3·2	16	137	
		3379	0·676	232·7	207·7	−28·8	7	24	
		3379	0·661	231·5	206·1	−29·0	0	11	
		3379	0·655	228·9	204·7	−30·3	0	5	
		3379	0·633	228·7	203·0	−29·5	0	12	
		3379a	0·622	226·1	201·2	−30·5	14	80	
		3372a	0·067	255·3	173·7	− 6·8	11	81	
		3372b	0·018	32·4	169·4	− 4·9	0	12	
		3380a	0·210	110·2	158·1	− 8·0	24	112	
		3380	0·288	110·9	154·1	−11·5	3	10	
		3377	0·423	35·5	155·4	+14·4	8	25	
		3377	0·444	37·1	154·0	+15·1	0	9	
		3377	0·464	39·9	152·1	+15·3	11	46	
		3377	0·496	38·1	151·4	+17·4	3	10	
		3377	0·473	41·4	151·2	+15·3	1	8	
		3377	0·466	36·9	148·6	+16·3	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.

January 25. The photograph on this date is very difficult to measure, the limb being exceedingly faint and ill-defined.

Group 3378, January 25–26. A few small spots irregularly arranged.

Group 3379, January 25–29. A few small spots irregularly scattered on January 25. The group has become a small stream by the succeeding day. The most southerly member of the group, *a*, moves rapidly back in longitude.

Group 3380, January 25–February 3. Two small spots on January 25. The group has greatly increased by the succeeding day, when it consists of a large spot, *a*, with a few small companions. The latter have all disappeared by January 30. *a* moves forward in longitude.

Group 3381, January 25–31. A few spots, mostly small, in an irregular stream *sf* of Group 3377. *a*, the leader, is the largest, and alone remains by January 30.

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).
1894.				°	°	°			
26d·515	JG, FT	3377	0·517	43·8	148·2	+16·5	17	101	
		3377	0·560	43·0	146·3	+18·8	0	15	
		3381*a*	0·477	52·9	147·3	+11·3	14	51	
		3381	0·521	59·2	143·1	+10·3	7	41	
Jan. 27		Centre			(170·0)	(−5·8)	(136)	(798)	(0)
27·520	JG, FT		0·940	262·8	227·1	− 8·8			132
		3367*a*	0·981	268·4	235·5	− 2·7	14	69	86*c*
		3379	0·803	238·7	207·8	−28·4	8	23	
		3379	0·745	235·2	201·1	−29·4	0	14	
		3379*a*	0·738	233·1	199·8	−30·6	10	74	
		3372*a*	0·294	264·9	173·8	− 7·1	13	100	
		3372*b*	0·233	272·1	170·2	− 5·3	0	5	
		3372	0·181	272·1	167·1	− 5·4	0	2	
		3380*a*	0·060	220·2	159·0	− 8·5	16	138	
		3380	0·099	164·4	155·1	−11·3	0	2	
		3380	0·092	147·5	153·8	−10·3	0	2	
		3377	0·351	2·0	156·0	+14·5	7	16	
		3377	0·365	6·4	154·3	+15·3	0	9	
		3377	0·363	9·5	153·2	+15·0	0	5	
		3377	0·367	12·8	151·9	+15·0	10	75	
		3377	0·398	12·7	151·5	+16·9	0	1	
		3377	0·393	20·3	148·6	+15·7	0	9	
		3377	0·433	19·1	148·2	+18·2	0	3	
		3377	0·423	22·1	147·2	+17·2	13	77	
		3377	0·458	23·0	145·8	+19·1	0	6	
		3381*a*	0·331	28·7	147·4	+11·0	7	32	
		3381	0·324	30·4	147·1	+10·3	0	1	
		3381	0·367	40·5	142·7	+10·4	2	12	
			0·953	63·9	88·9	+22·6			445
			0·983	81·8	78·4	+ 6·9			272
Jan. 28		Centre			(156·7)	(−5·9)	(100)	(675)	(935)
28·518	HA, CL		0·957	248·2	217·6	−22·6			135
			0·958	264·3	216·2	− 7·2			157
			0·940	295·8	209·0	+21·7			190
			0·855	257·8	202·7	−13·6			214
		3379	0·903	241·5	207·6	−28·2	5	21	
		3379	0·876	240·5	203·6	−28·6	0	9	
		3379*a*	0·842	236·7	198·6	−31·0	0	54	285*c*
		3372*a*	0·505	265·9	174·0	− 7·2	15	102	
		3380*a*	0·272	260·1	159·2	− 8·5	15	130	
1894.				°	°	°			
28d·518	HA, CL	3380	0·201	249·5	154·6	− 9·9	0	3	
		3377	0·414	328·3	156·5	+14·7	6	32	
		3377	0·392	336·9	152·7	+15·1	5	39	
		3377	0·378	349·1	147·8	+15·7	1	12	
		3377	0·419	350·8	147·7	+18·4	0	16	
		3377	0·392	352·2	146·8	+16·8	1	8	
		3377	0·400	354·2	146·0	+17·4	0	6	
		3377	0·433	356·1	145·4	+19·5	3	11	
		3381*a*	0·302	346·9	147·6	+11·0	4	21	
		3381	0·288	3·2	142·7	+10·6	2	11	
		3382	0·216	123·7	133·0	−12·8	2	8	
		3382	0·264	118·3	129·9	−13·0	0	2	
		3383	0·943	75·4	75·2	+11·6	0	11	2[illegible]
			0·883	59·7	87·8	+23·2			325
			0·854	102·0	84·7	−13·4			114
			0·932	107·4	74·3	−18·4			288
			0·958	67·8	73·8	+19·2			69
			0·959	93·9	69·9	− 5·5			79
Jan. 29		Centre			(143·6)	(−6·0)	(59)	(496)	(2057)
29·478	HA, FT		0·937	240·2	200·5	−29·9			307
		3372*a*	0·681	265·5	174·0	− 7·5	9	78	
		3384.	0·632	302·5	164·3	+14·8	1	10	
		3380*a*	0·480	262·7	159·7	− 8·7	9	99	
		3377	0·547	308·9	157·0	+14·6	9	15	
		3377	0·511	313·0	153·6	+14·8	6	18	
		3381*a*	0·406	315·6	147·8	+11·0	0	9	
		3385	0·870	107·4	70·4	−18·1	4	15	
		3385	0·890	108·4	67·9	−19·1	0	15	95*c*
		3385	0·910	106·9	65·1	−17·9	0	12	
Jan. 30		Centre			(131·0)	(−6·0)	(38)	(271)	(402)
30·163	CL, HA		0·973	238·8	199·8	−31·8			227
			0·890	256·5	185·2	−14·8			209
I.			0·895	288·1	182·6	+13·2			184
		3372*a*	0·793	265·1	174·5	− 7·6	17	86	92*c*
		3380*a*	0·616	263·8	160·0	− 8·6	18	101	
		3377	0·658	300·6	157·6	+14·6	8	18	
		3377	0·653	302·6	156·6	+15·6	0	3	
		3377	0·646	304·2	155·6	+16·2	0	1	
		3377	0·634	303·7	155·0	+15·5	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 3382, January 29. Two very small spots.
Group 3383, January 29. A small spot.
Group 3384, January 30. A small spot preceding Group 3377.
Group 3385, January 30–February 10. Three small spots on January 30. The group has considerably increased in size by the succeeding days and has become a straggling stream. The leader, *a*, has become a large spot by February 3 connected with *b*, also a fairly large spot, by parallel streams of small spots. *a* alone remains by February 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).
1894.				°	°	°			
30d·163	CL,HA	3377	0·623	302·7	154·6	+14·5	0	5	
		3377	0·621	304·0	154·0	+15·1	3	14	
I.		3381*a*	0·519	303·3	148·0	+11·0	0	4	
		3385	0·776	109·5	71·4	−18·9	10	35	
		3385	0·778	108·6	71·2	−18·3	6	21	
		3385	0·790	109·2	70·0	−18·9	2	10	
		3385	0·815	109·6	67·6	−19·5	4	17	158*c*
		3385	0·824	108·3	66·5	−18·6	0	8	
		3385	0·835	107·1	65·1	−18·0	0	14	
			0·801	53·5	77·3	+23·8			97
			0·885	60·4	65·9	+22·7			137
			0·896	104·3	57·7	−15·8			191
Jan. 31		Centre			(121·9)	(−6·1)	(68)	(342)	(1295)
31·468	CL,JG	3372*a*	0·936	264·6	174·5	− 7·2	13	49	105*c*
		3380*a*	0·823	264·3	160·4	− 8·2	9	56	
		3377	0·833	292·4	157·4	+14·8	2	13	159*c*
		3386*a*	0·572	287·4	137·9	+ 4·6	2	25	
		3386	0·534	286·3	135·6	+ 3·3	0	8	
		3386	0·520	287·5	134·5	+ 3·6	1	9	
		3385*a*	0·535	115·7	74·3	−18·7	7	73	
		3385	0·555	113·8	72·6	−18·2	1	14	102*c*
		3385	0·594	113·2	69·8	−18·6	0	14	
			0·929	113·0	36·1	−23·6			66
Feb. 1		Centre			(104·8)	(−6·2)	(35)	(261)	(432)
32·224	FT,HA		0·843	300·4	146·0	+21·4			125
M.		3372*a*	0·981	263·7	174·1	− 7·4	16	63	93*f*
		3380*a*	0·907	263·7	160·3	− 8·4	21	73	303*c*
		3377	0·909	289·5	157·0	+14·8	2	8	
		3377	0·901	290·7	155·6	+15·6	10	37	
		3377	0·875	293·0	151·8	+16·6	17	56	
		3386*a*	0·715	282·9	139·0	+ 4·7	4	19	
		3387	0·378	41·7	80·1	+10·2	7	13	
		3387	0·444	47·6	75·3	+11·4	0	6	
		3385*a*	0·398	124·3	74·6	−18·9	29	194	
		3385	0·416	120·4	72·7	−18·0	3	18	
		3385	0·426	122·4	72·5	−19·0	3	11	
		3385	0·433	119·6	71·6	−18·1	0	3	
		3385	0·452	119·0	70·3	−18·4	5	16	
		3385	0·479	118·4	68·5	−18·8	5	14	
		3388	0·630	108·9	56·5	−16·7	2	6	
1894.				°	°	°			
32d·224	FT,HA	3388	0·633	110·7	56·5	−17·9	1	4	
		3388	0·667	111·1	53·9	−18·7	1	7	
M.		3389*a*	0·972	72·5	21·0	+15·3	35	111	130*c*
			0·877	111·2	33·5	−21·6			269
Feb. 2		Centre			(94·8)	(−6·3)	(161)	(659)	(920)
33·506	JG,FT	3380*a*	0·989	262·3	160·0	− 8·6	0	45	272*f*
		3377	0·971	289·3	151·1	+17·0	0	16	
		3377	0·945	291·7	145·2	+18·1	0	14	195*c*
		3386*a*	0·896	277·9	140·6	+ 4·2	4	17	
		3386	0·891	275·7	140·2	+ 2·2	0	12	
		3386	0·876	278·7	138·0	+ 4·5	0	12	94*c*
		3386	0·865	277·5	136·9	+ 3·3	7	36	
		3386	0·865	279·8	136·6	+ 5·2	0	9	
		3387	0·344	346·6	82·6	+13·2	4	13	
		3387	0·329	349·0	81·6	+12·5	4	20	
		3887	0·285	351·7	80·3	+10·0	3	11	
		3887	0·321	354·7	79·6	+12·3	2	8	
		3887	0·337	356·6	79·1	+13·3	4	14	
		3385*a*	0·209	170·6	75·9	−18·1	46	249	
		3385	0·214	162·1	74·0	−18·0	0	8	
		3385	0·212	154·6	72·5	−17·3	0	5	
		3385	0·232	157·4	72·5	−18·6	0	5	
		3385	0·249	157·8	72·2	−19·5	0	2	
		3385	0·234	152·8	71·5	−18·2	2	7	
		3385	0·226	150·6	71·3	−17·5	0	8	
		3385	0·262	151·8	70·4	−19·5	0	8	
		3385*b*	0·260	147·3	69·4	−18·9	22	82	
		3385	0·250	142·8	68·8	−17·6	0	8	
		3385	0·271	141·3	67·7	−18·4	1	4	
		3389*a*	0·871	68·6	21·0	+15·1	16	135	108*f*
			0·929	58·1	16·3	+26·5			69
			0·969	95·5	1·8	− 6·9			91
Feb. 3		Centre			(77·9)	(−6·3)	(115)	(748)	(829)
34·445	CL,JG		0·951	295·4	133·0	+21·7			118
		3386	0·972	274·0	141·4	+ 2·3	0	21	
		3386	0·971	275·5	140·9	+ 3·7	0	22	208*c*
		3386	0·948	275·6	136·3	+ 3·2	0	78	
		3387	0·453	317·6	83·8	+13·4	3	13	
		3387	0·435	320·2	82·2	+13·3	0	11	
		3387	0·416	320·2	81·4	+12·4	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 3386, February 1–5. A few small spots, mostly unstable, in an irregular group. *a*, the leader, has disappeared by February 4.
Group 3387, February 2–8. A few small unstable spots, irregularly scattered.
Group 3388, February 2. Three very small spots following Group 3385.
Group 3389, February 2–10. A large regular spot, *a*, with a very small companion on February 8. *a* diminishes rapidly after February 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).
1894.				°	°	°			
34d.445	CL,JG	3387	0·395	318·7	80·9	+11·0	0	17	
		3387	0·409	325·7	79·2	+13·4	0	4	
		3387	0·390	325·4	78·6	+12·4	0	18	
		3387	0·404	328·1	78·2	+13·7	0	3	
		3385*a*	0·267	220·8	76·1	−17·9	43	322	
		3385	0·228	204·0	71·2	−18·4	4	11	
		3385	0·206	205·1	70·8	−17·1	3	10	
		3385	0·226	197·6	69·7	−18·8	3	8	
		3385	0·204	198·7	69·5	−17·5	3	15	
		3385	0·246	194·3	69·3	−20·1	5	24	
		3385*b*	0·226	192·6	68·6	−19·1	23	107	
		3389*a*	0·766	63·7	20·8	+15·1	26	144	64*f*
		3390	0·991	76·4	345·2	+12·5	0	46	186*p*
			0·856	55·0	14·8	+25·4			52
			0·910	71·5	3·1	+13·8			118
			0·917	94·0	358·9	− 6·2			178
			0·951	107·0	352·8	−18·1			150
Feb. 4		Centre			(65·6)	(−6·4)	(113)	(880)	(1074)
35·298	HA,FT		0·913	259·2	120·8	−12·5			97
			0·725	315·3	88·7	+25·7			124
I.		3386	0·998	273·4	141·1	+ 2·9	63	345	
		3387	0·591	301·9	85·2	+12·7	3	14	
		3387	0·557	302·8	82·9	+11·9	0	10	
		3387	0·512	306·7	79·1	+12·0	1	12	
		3385*a*	0·415	239·6	76·4	−18·1	73	307	
		3385	0·385	237·8	74·3	−17·8	4	38	
		3385	0·354	231·1	71·3	−18·9	1	9	
		3385	0·335	236·0	71·2	−16·9	2	7	
		3385	0·341	230·1	70·4	−18·8	2	10	
		3385	0·323	231·3	69·3	−17·8	3	10	
		3385	0·346	223·8	69·2	−20·6	5	23	
		3385*b*	0·323	225·5	68·5	−19·3	34	131	
		3389*a*	0·645	56·5	20·6	+15·6	24	141	
		3391*a*	0·781	65·4	7·4	+14·6	14	43	184*s*
		3391	0·812	66·3	4·2	+15·0	6	26	
		3390	0·930	73·3	348·6	+13·0	6	27	211*s*
		3392*a*	0·987	99·8	332·9	−10·7	13	64	
			0·824	93·3	358·7	− 6·4			254
			0·888	111·4	351·6	−21·9			184
			0·969	66·5	342·6	+20·9			84
			0·969	100·0	338·0	−11·3			179
Feb. 5		Centre			(54·4)	(−6·4)	(254)	(1217)	(1317)
1894.				°	°	°			
36d.213	HA,FT		0·829	303·9	90·6	+23·2			324
			0·760	314·2	79·8	+26·8			123
M.		3387	0·729	294·2	85·1	+12·6	0	6	
		3387	0·718	295·4	83·9	+13·1	2	27	
		3387	0·688	297·4	81·0	+13·4	0	9	
		3385*a*	0·576	248·3	76·3	−17·7	55	302	
		3385	0·542	247·6	73·8	−17·4	3	9	
		3385	0·487	242·2	69·3	−18·9	5	19	
		3385	0·495	239·1	69·2	−20·5	0	6	
		3385*b*	0·469	240·1	67·7	−19·3	5	55	
		3393	0·362	250·1	62·2	−13·2	0	7	
		3389*a*	0·514	44·4	20·5	+15·4	26	123	42*c*
		3391*a*	0·646	57·8	8·0	+14·7	10	88	
		3391	0·660	60·5	6·2	+13·7	1	9	
		3391	0·684	62·2	4·0	+13·5	0	3	
		3391	0·695	61·7	3·3	+14·1	4	22	
		3390	0·842	70·1	348·2	+12·9	0	8	
		3390	0·878	72·6	343·7	+10·0	0	22	
		3390	0·886	71·4	342·9	+13·1	0	11	
		3390	0·920	72·4	338·2	+13·4	0	16	
		3392*a*	0·931	99·2	333·1	−11·0	28	117	
		3392	0·954	98·2	329·2	− 9·7	0	41	
		3392	0·958	99·7	328·3	−11·1	7	75	611*c*
		3392	0·961	98·2	327·7	− 9·7	0	142	
		3392	0·972	99·3	325·2	−10·6	0	104	
		3394*a*	0·979	104·3	323·0	−15·3	5	88	
			0·902	63·4	343·0	+20·6			173
			0·898	71·6	341·4	+13·4			316
Feb. 6		Centre			(42·3)	(−6·5)	(151)	(1309)	(1589)
37·228	CL,FT		0·915	285·1	92·6	+10·9			102
			0·923	297·2	91·0	+21·9			275
M.			0·828	255·6	85·1	−15·6			138
			0·880	307·4	81·4	+28·4			184
		3387	0·855	289·3	84·6	+12·7	7	32	157*c*
		3387	0·817	291·9	80·1	+13·6	4	8	
		3385*a*	0·746	252·2	77·0	−17·6	59	336	
		3385	0·710	251·5	73·8	−17·7	3	12	
		3385	0·686	250·4	71·7	−18·2	0	3	162*c*
		3385	0·660	248·6	69·4	−19·0	0	8	
		3385*b*	0·645	247·2	68·0	−19·6	19	75	
		3385	0·617	246·5	65·7	−19·5	0	7	
		3393	0·583	256·3	64·5	−13·4	3	11	

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 3390, February 4–8. A few very small unstable spots which undergo constant change in number, position, and distinctness.
Group 3391, February 5–13. A number of small unstable spots in a V-shaped stream. The leader, *a*, tends to diminish in size.
Group 3392. February 5–16. A number of spots, several of which are of considerable size, very irregularly scattered. Many of the spots are very unstable. The largest spot, *a*, alone remains by February 14, the other spots having spread out from each other, and diminished and disappeared as they spread.
Group 3393. February 6–8. A few small unstable spots *nf* Group 3385.
Group 3394. February 6–13. A regular spot, *a*, with a very small companion on February 10. *a* has become small and faint by February 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).
1894.				°	°	°			
37d·228	CL,FT	3393	0·578	254·0	63·9	−14·6	0	23	
		3393	0·560	253·6	62·6	−14·5	0	3	
M.		3393	0·551	252·5	61·8	−15·1	5	20	
		3389*a*	0·396	21·5	20·4	+15·0	18	129	
		3391*a*	0·486	42·9	9·1	+14·6	15	44	
		3391	0·489	46·1	7·8	+13·7	1	8	
		3391	0·532	51·8	3·7	+13·2	4	9	
		3391	0·546	51·5	3·0	+13·9	6	24	
		3390	0·691	64·5	349·5	+12·1	1	6	
		3390	0·734	67·4	345·4	+11·6	0	8	
		3390	0·759	66·2	343·7	+13·2	0	2	157*c*
		3390	0·757	67·9	343·5	+11·9	4	11	
		3390	0·790	66·9	342·2	+13·7	0	3	
		3395	0·785	59·7	343·5	+18·7	0	7	
		3395	0·811	59·1	341·3	+20·2	0	12	153*c*
		3395	0·818	62·2	339·6	+18·2	2	7	
		3392*a*	0·822	99·0	333·4	−11·1	23	132	
		3392	0·828	95·0	332·9	− 7·8	16	88	
		3392	0·843	99·1	331·2	−11·2	4	27	
		3392	0·847	97·4	330·8	− 9·7	9	76	
		3392	0·850	95·2	330·5	− 7·9	0	9	540*c*
		3392	0·851	100·6	330·3	−12·5	4	23	
		3392	0·863	99·7	328·9	−11·7	9	45	
		3392	0·865	98·1	328·7	−10·3	7	28	
		3394*a*	0·908	104·1	323·2	−15·6	16	87	158*c*
		3396*a*	0·985	77·7	310·7	+10·8	18	111	
			0·882	111·6	326·9	−22·2			159
			0·880	98·2	326·9	−10·3			81
Feb. 7		Centre			(29·0)	(−6·6)	(257)	(1434)	(2266)
38·471	HA,CL		0·976	295·1	85·7	+22·7			145
			0·942	257·2	83·8	−14·3			233
			0·955	304·7	77·8	+30·3			215
			0·869	245·2	72·6	−24·7			134
			0·874	302·5	66·3	+24·2			117
		3387	0·966	285·9	85·3	+13·5	0	23	229*f*
		3385*a*	0·895	253·8	76·6	−17·5	39	244	
		3385*b*	0·824	251·3	68·1	−19·1	10	75	241*c*
		3385	0·818	252·8	67·5	−17·8	0	8	
		3393	0·798	257·6	65·8	−13·9	0	7	
		3393	0·750	256·0	61·2	−14·8	0	12	100*c*
		3393	0·728	257·0	59·4	−14·0	0	6	
		3389	0·395	338·6	21·1	+15·0	3	16	

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).
1894.				°	°	°			
38d·471	HA,CL	3389*a*	0·400	341·2	20·3	+15·7	14	43	
		3391*a*	0·365	9·7	9·0	+14·4	6	25	
		3391	0·349	16·8	6·7	+12·9	2	19	
		3391	0·379	23·3	3·8	+13·8	5	20	
		3391	0·390	25·2	2·8	+14·1	1	16	
		3390	0·524	55·7	346·5	+11·2	0	5	
		3390	0·558	56·3	344·4	+12·1	0	7	
		3390	0·608	58·9	340·5	+12·7	0	4	
		3395	0·654	50·9	340·2	+18·7	0	3	
		3395	0·668	52·8	338·6	+18·3	0	8	
		3392	0·604	96·5	335·3	− 9·2	0	7	
		3392	0·628	93·9	333·6	− 7·6	12	83	
		3392*a*	0·630	99·2	333·5	−10·9	19	118	
		3392	0·656	99·0	331·5	−10·9	1	64	
		3392	0·663	96·7	330·9	− 9·4	9	65	
		3392	0·672	101·3	330·3	−12·4	0	16	
		3392	0·684	97·8	329·3	−10·1	0	17	
		3392	0·689	99·7	328·9	−11·5	5	34	
		3394*a*	0·763	105·1	322·8	−15·8	15	76	
		3396*a*	0·908	74·4	309·8	+11·1	14	103	255*c*
		3397*a*	0·955	83·3	300·8	+ 4·4	0	15	177*f*
		3398	0·957	93·2	299·3	− 5·0	0	15	84*c*
			0·775	95·9	321·5	− 8·7			148
			0·912	88·0	307·1	− 0·9			102
Feb. 8		Centre			(12·6)	(−6·6)	(155)	(1154)	(2180)
39·478	CL,FT		0·906	257·5	65·1	−14·1			97
		3385*a*	0·969	253·4	76·3	−17·7	39	272	
M.		3385*b*	0·924	251·8	67·7	−19·3	0	26	497*c*
		3389*a*	0·509	316·6	20·7	+15·4	4	13	
		3391*a*	0·400	332·7	10·4	+14·2	7	40	
		3391	0·368	335·7	8·4	+12·9	6	12	
		3391	0·366	344·6	5·2	+13·9	0	3	
		3391	0·353	347·8	3·9	+13·4	0	4	
		3391	0·363	348·7	3·7	+14·1	4	9	
		3392	0·408	98·6	335·5	− 9·6	0	6	
		3392	0·415	94·6	335·0	− 7·8	0	10	
		3392*a*	0·437	99·9	333·7	−10·3	8	31	
		3392	0·440	102·5	333·6	−11·5	3	33	
		3392	0·441	93·5	333·3	− 7·6	0	8	
		3392	0·458	99·0	332·3	−10·1	0	4	
		3392	0·477	103·8	331·3	−12·5	0	4	
		3392	0·477	98·8	331·0	−10·1	0	8	
		3392	0·496	98·6	329·8	−10·1	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 3395, February 7–8. A few small faint spots.
Group 3396, February 7–19. A regular spot, *a*, followed on February 9 by two smaller spots, *b* and *c*. *b* has disappeared by February 13, but is seen again on February 14. *c* is not seen after February 13. A few irregular unstable spots are sometimes seen, but *a* remains alone by February 16.
Group 3397, February 8–13. A small spot, *a*, *s* of Group 3396, with two very small companions on February 12.
Group 3398, February 8–9. 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).
1894.				°	°	°			
39d.478	CL, FT	3392	0·512	100·9	328·8	−11·3	8	21	
		3394*a*	0·610	107·6	322·4	−16·0	14	57	
M.		3399*a*	0·692	116·4	317·4	−22·9	1	6	
		3396*a*	0·797	70·4	309·7	+11·2	21	98	
		3396*b*	0·867	72·2	302·2	+11·8	8	25	54*c*
		3396*c*	0·896	73·3	298·5	+11·7	7	30	
		3397*a*	0·854	80·5	302·0	+ 4·6	4	14	441*p*
		3398	0·859	92·1	300·2	− 5·2	2	8	
			0·854	63·1	306·1	+18·8			129
Feb. 9		Centre			(359·5)	(−6·7)	(136)	(750)	(1218)
40·203	CL, HA		0·925	256·0	58·2	−15·5			139
		3385*a*	0·998	252·6	78·1	−17·7	0	291	252*f*
I.		3389*a*	0·613	306·0	20·6	+15·4	2	11	
		3391*a*	0·491	315·9	10·2	+14·3	7	31	
		3391	0·464	316·5	8·9	+13·3	4	15	
		3391	0·428	327·2	3·6	+14·5	1	5	
		3400*a*	0·434	10·6	345·0	+18·5	11	27	
		3400	0·456	12·2	344·0	+19·5	0	4	
		3400	0·465	17·9	341·1	+19·5	5	19	
		3392	0·238	100·6	336·2	− 9·0	0	13	
		3392	0·257	96·9	334·9	− 8·2	0	9	
		3392	0·275	96·3	333·8	− 8·2	0	8	
		3392*a*	0·280	103·0	333·8	−10·0	10	31	
		3392	0·284	107·4	333·8	−11·3	2	31	
		3392	0·296	94·9	332·6	− 7·9	1	12	
		3392	0·307	100·8	332·5	− 9·7	0	7	
		3392	0·331	101·2	330·6	−10·0	0	17	
		3392	0·337	94·5	330·1	− 7·5	0	19	
		3392	0·363	103·4	328·8	−11·1	4	16	
		3392	0·380	102·7	327·7	−11·0	0	7	
		3394	0·464	108·9	322·9	−14·7	0	5	
		3394*a*	0·478	111·1	322·3	−15·9	8	69	
		3399	0·536	123·3	320·8	−23·0	2	11	
		3399*a*	0·581	120·0	316·9	−22·5	7	26	
		3396*a*	0·696	66·0	309·5	+11·3	22	124	
		3396*b*	0·769	68·6	303·0	+11·7	8	34	
		3396	0·806	68·3	299·7	+13·1	0	6	44*c*
		3396*c*	0·810	70·2	298·9	+11·7	20	51	
		3397*a*	0·751	77·3	302·6	+ 5·0	4	14	53*c*
		3401*a*	0·990	103·3	266·9	−14·1	48	202	
			0·824	61·9	299·9	+18·6			47
Feb. 10		Centre			(349·8)	(−6·7)	(166)	(1115)	(535)
1894.				°	°	°			
41d.191	CL, HA		0·982	256·7	57·0	−14·3			80
			0·867	252·9	37·3	−18·2			119
M.			0·811	243·6	30·1	−25·3			202
		3391*a*	0·634	302·7	10·1	+14·3	4	21	
		3400*a*	0·449	340·1	346·0	+18·1	6	17	
		3400	0·434	348·9	341·8	+18·3	2	8	
		3400	0·446	351·4	340·8	+19·3	4	11	
		3392	0·050	164·6	336·0	− 9·4	0	2	
		3392	0·039	140·3	335·4	− 8·5	0	2	
		3392	0·093	154·3	334·4	−11·6	4	18	
		3392*a*	0·074	145·0	334·3	−10·3	12	4[illegible]	
		3392	0·122	129·3	331·3	−11·2	0	9	
		3392	0·154	120·9	329·1	−11·2	4	10	
		3392	0·174	119·2	327·9	−11·6	0	4	
		3392	0·176	113·3	327·4	−10·7	0	3	
		3392	0·191	116·3	326·8	−11·5	0	3	
		3394*a*	0·293	124·4	322·3	−16·1	10	52	
		3399	0·371	142·1	322·5	−23·6	3	9	
		3399	0·383	135·4	320·0	−22·3	0	4	
		3399	0·408	132·0	317·0	−22·2	0	5	
		3399*a*	0·427	131·5	316·6	−22·8	4	22	
		3396*a*	0·537	56·6	309·7	+11·1	13	107	
		3396*b*	0·611	60·7	304·0	+11·7	6	23	
		3396	0·632	63·2	301·9	+11·0	0	4	
		3396*c*	0·653	64·6	300·0	+10·8	5	13	
		3396	0·660	63·2	299·9	+11·8	0	4	
		3397*a*	0·577	71·9	303·6	+ 4·6	3	9	
		3401*a*	0·930	103·0	267·6	−14·6	39	178	208*s*
		3402*a*	0·964	70·4	265·4	+16·8	46	226	280*n*
			0·960	95·2	262·7	− 6·9			173
Feb. 11		Centre			(336·8)	(−6·8)	(165)	(812)	(1062)
42·526	CL, FT		0·929	245·7	28·0	−25·0			222
			0·915	275·5	24·7	+ 2·2			120
			0·876	305·3	11·9	+26·3			243
		3391*a*	0·819	292·9	10·2	+14·4	4	9	
		3391	0·786	292·6	7·2	+13·0	0	4	358*c*
		3391	0·769	295·0	5·0	+14·3	0	7	
		3400*a*	0·597	313·3	346·3	+18·1	6	13	
		3400	0·600	314·6	345·9	+18·8	0	6	
		3400	0·574	313·6	344·9	+17·2	0	6	
		3403	0·582	324·1	340·7	+21·7	3	13	
		3403*a*	0·589	326·8	339·6	+23·1	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 3399, February 9–13. A small spot, *a*, preceded on February 10–12 by a few very small spots in an irregular stream.
Group 3400, February 10–14. A few small spots in a short stream. The leader, *a*, alone remains by February 13.
Group 3401, February 10–22. A large regular spot, *a*, with a very small companion on February 17.
Group 3402, February 11–22. A large regular spot, *a*, with very small companions on February 13, 16 and 17.
Group 3403, February 12–14. A short stream of spots *nf* Group 3400, inclined at a large angle to the equator. The last spot, *a*, is the largest.

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).
1894.				°	°	°			
42d·526	CL,FT	3392	0·349	255·6	339·3	−11·4	0	10	
		3392	0·315	263·5	337·6	− 8·5	0	15	
		3392	0·299	252·2	336·0	−11·7	0	5	
		3392*a*	0·273	256·4	334·8	−10·2	12	43	
		3392	0·209	243·3	330·2	−12·1	0	19	
		3392	0·182	251·7	329·3	−10·0	0	6	
		3392	0·172	244·1	328·2	−11·0	0	5	
		3392	0·120	261·5	326·0	− 7·8	0	4	
		3394*a*	0·167	199·8	322·6	−15·8	6	17	
		3399	0·267	185·6	320·8	−22·2	1	7	
		3399*a*	0·288	171·6	316·6	−23·3	0	4	
		3404	0·058	159·8	318·0	− 9·9	0	4	
		3404	0·039	92·5	317·0	− 6·9	2	10	
		3404	0·049	117·8	316·7	− 8·1	1	3	
		3404	0·076	140·1	316·4	−10·2	0	1	
		3404	0·067	113·7	315·7	− 8·4	0	2	
		3404	0·077	121·6	315·4	− 9·1	0	2	
		3404	0·078	90·3	314·7	− 6·8	3	10	
		3404	0·098	128·0	314·7	−10·3	0	5	
		3404	0·104	110·2	313·6	− 8·8	1	8	
		3404	0·102	99·5	313·4	− 7·8	2	10	
		3404	0·121	118·8	313·0	−10·2	0	2	
		3404	0·121	102·8	312·4	− 8·3	4	16	
		3396*a*	0·339	27·8	310·0	+10·7	16	101	
		3396	0·386	25·7	309·4	+13·6	6	17	
		3396	0·369	29·0	308·7	+12·1	6	15	
		3396*b*	0·395	38·6	304·7	+11·3	3	9	
		3396*c*	0·410	47·1	301·5	+ 9·7	4	9	
		3397*a*	0·314	52·3	304·8	+ 4·4	0	3	
		3397	0·353	56·2	302·2	+ 4·8	0	4	
		3397	0·348	63·0	301·2	+ 2·6	0	5	
		3397	0·358	65·7	300·2	+ 2·0	0	2	
		3401*a*	0·777	103·1	268·0	−14·4	29	172	76*f*
		3402*a*	0·855	65·9	264·9	+16·5	37	205	204
			0·817	91·7	264·3	− 5·4			213
			0·865	78·0	261·0	+ 6·8			86
			0·908	88·3	253·9	− 4·4			318
			0·912	107·8	252·8	−19·0			55
			0·959	103·3	244·7	−14·7			160
			0·986	90·0	239·0	− 1·2			117
Feb. 12		Centre			(319·2)	(−6·8)	(146)	(816)	(2172)
1894.				°	°	°			
43d·539	HA,JG		0·962	300·6	14·0	+26·9			83
			0·824	267·1	1·6	− 6·3			131
			0·795	257·6	358·8	−14·0			109
		3391*a*	0·922	288·6	10·0	+14·1	3	15	397*c*
		3400*a*	0·735	303·2	346·2	+18·4	5	19	64*c*
		3405	0·661	292·3	344·0	+ 9·1	3	8	47*n*
		3405	0·664	294·7	343·6	+10·6	0	4	
		3403	0·707	310·5	341·1	+21·7	7	40	104*c*
		3403*a*	0·700	314·3	338·9	+23·5	16	66	
		3392	0·529	263·8	337·9	− 9·1	0	5	
		3392	0·528	260·1	337·8	−11·1	0	7	
		3392*a*	0·485	261·4	334·9	−10·2	9	38	
		3392	0·422	256·3	330·6	−12·0	0	10	
		3394*a*	0·270	240·0	319·8	−14·4	0	14	
		3399*a*	0·330	209·3	316·0	−23·4	0	7	
		3404	0·210	271·1	318·0	− 6·5	3	12	
		3404	0·187	268·0	316·7	− 7·1	7	18	
		3404	0·158	268·4	315·0	− 7·1	4	10	
		3404	0·138	265·9	313·8	− 7·4	4	19	
		3404	0·130	250·0	313·0	− 9·4	0	8	
		3404	0·115	261·5	312·5	− 7·8	7	24	
		3404	0·110	262·4	311·6	− 7·7	0	10	
		3396	0·363	339·7	313·3	+13·0	2	3	
		3396	0·354	343·5	311·8	+12·9	2	6	
		3396	0·361	347·1	310·6	+13·7	5	23	
		3396*a*	0·308	347·9	309·7	+10·6	16	103	
		3396	0·325	353·4	308·1	+11·8	10	23	
		3396*c*	0·288	12·5	302·3	+ 9·4	0	2	
		3397*a*	0·203	13·5	303·2	+ 4·4	0	6	
		3401*a*	0·617	104·8	268·0	−14·5	18	155	
		3402	0·676	64·6	267·5	+11·4	0	5	67*c*
		3402*a*	0·729	59·6	265·1	+16·4	39	199	79*c*
		3406	0·657	91·6	264·7	− 6·3	0	13	58*c*
			0·769	84·2	256·2	0·0			148
			0·872	68·6	249·0	+14·8			152
			0·920	101·6	238·3	−13·4			152
			0·930	92·4	237·4	− 4·8			154
Feb. 13		Centre			(305·9)	(−6·9)	(160)	(872)	(1745)
44·288	CL,FT		0·946	284·1	4·9	+10·9			211
			0·898	265·3	0·2	− 7·2			235
I.			0·880	255·2	358·2	−16·3			178

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 3404, February 12–18. Several spots, mostly very small, forming a straight stream on February 14. The spots tend to coalesce on the succeeding days, and the group undergoes much change.
Group 3405, February 13. Two very small spots.
Group 3406, February 13–15. A small faint 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).
1894.				°	°	°			
44d·288	CL,FT		0·807	289·9	346·6	+11·6			284
		3400*a*	0·833	298·0	346·7	+18·7	0	4	
I.		3403	0·813	300·4	344·0	+19·7	1	3	
		3403	0·816	303·9	342·9	+22·4	2	8	284*c*
		3403	0·810	304·1	342·3	+22·3	2	9	
		3403*a*	0·785	307·7	338·5	+23·6	9	42	
		3392*a*	0·635	262·7	335·6	−10·0	9	39	
		3404	0·362	268·0	317·3	− 7·1	2	11	
		3404	0·319	267·2	314·7	− 7·4	2	8	
		3404	0·306	267·1	313·9	− 7·5	3	11	
		3404	0·306	266·3	313·9	− 7·7	0	7	
		3404	0·287	265·0	312·7	− 8·1	4	11	
		3396	0·453	317·7	314·2	+13·0	0	3	
		3396	0·435	321·9	311·9	+13·3	8	26	
		3396*a*	0·385	322·0	309·9	+10·9	24	97	
		3396	0·392	327·4	308·4	+12·4	2	11	
		3396*b*	0·355	334·0	305·1	+11·7	1	4	
		3401*a*	0·485	107·4	267·6	−14·4	32	146	
		3402*a*	0·627	51·8	265·1	+16·8	42	210	
		3406	0·519	89·3	264·7	− 5·5	0	13	
		3407	0·906	73·7	233·6	+11·6	0	10	106*c*
			0·867	92·2	235·7	− 5·3			378
Feb. 14		Centre			(296·0)	(−6·9)	(143)	(673)	(1676)
45·232	CL,HA		0·912	266·4	349·5	− 6·1			182
			0·891	293·1	342·2	+16·9			610
M.		3392*a*	0·783	262·3	335·4	−10·3	7	32	349*c*
		3404	0·555	268·1	317·3	− 6·8	3	9	
		3404	0·515	268·3	314·6	− 6·8	2	8	
		3404	0·498	266·4	313·5	− 7·8	10	38	
		3396	0·569	304·5	312·1	+12·7	3	13	
		3396*a*	0·522	304·3	309·4	+10·8	12	86	
		3396	0·456	313·3	303·7	+12·0	0	6	
		3401*a*	0·304	116·1	267·2	−14·3	21	139	
		3402*a*	0·498	37·7	265·0	+16·6	30	227	
		3406	0·314	84·7	265·3	− 4·9	0	3	
		3407*a*	0·787	68·3	235·2	+12·4	9	29	
		3407*b*	0·816	70·3	232·0	+11·7	16	49	
		3408	0·983	116·7	202·1	−27·5	52	450	107*c*
			0·853	116·1	225·4	−25·8			129
			0·899	100·7	218·9	−12·6			182
Feb. 15		Centre			(283·5)	(−6·9)	(165)	(1089)	(1559)
1894.				°	°	°			
46d·221	CL,FT		0·966	292·6	341·5	+19·6			415
		3392*a*	0·903	262·0	335·6	−10·3	0	6	531*c*
M.		3409	0·791	251·7	322·8	−18·7	3	15	215*c*
		3404	0·720	266·6	316·7	− 7·3	0	4	
		3404	0·699	264·9	315·1	− 8·5	4	10	81*c*
		3404	0·678	265·0	313·4	− 8·5	0	17	
		3396*a*	0·678	294·7	309·2	+11·0	14	68	71*c*
		3410	0·492	260·4	293·3	− 8·5	2	8	
		3401*a*	0·141	159·2	267·6	−14·5	19	129	
		3402	0·355	10·5	266·7	+13·4	0	3	
		3402*a*	0·412	11·6	265·6	+16·7	36	202	
		3407*a*	0·630	60·1	236·6	+12·5	12	70	
		407	0·666	65·2	232·5	+10·7	0	14	95*c*
		07*b*	0·675	64·3	232·3	+11·5	8	45	
		3411	0·616	106·1	232·8	−15·4	3	8	
		3408	0·928	116·8	201·8	−27·5	61	385	
		3412*a*	0·980	121·8	189·8	−32·5	179	835	925*c*
			0·914	63·4	209·7	+20·8			210
			0·914	105·7	203·7	−17·2			146
Feb. 16		Centre			(270·5)	(−7·0)	(341)	(1819)	(2689)
47·177	AW,HA		0·957	261·5	331·8	−10·1			584
			0·927	287·3	323·1	+13·1			261
I.			0·884	300·7	313·5	+23·0			204
			0·733	282·4	303·7	+ 4·2			79
			0·810	319·9	296·2	+32·8			100
		3409	0·914	252·1	324·8	−19·2	0	8	271*p*
		3404	0·886	267·0	320·6	− 5·9	0	15	
		3404	0·881	264·7	320·1	− 8·0	1	11	
		3404	0·863	264·9	318·0	− 7·9	0	3	
		3404	0·856	266·3	317·1	− 6·8	2	16	410*c*
		3404	0·845	264·2	316·0	− 8·7	10	33	
		3404	0·841	267·4	315·4	− 6·0	0	7	
		3404	0·837	264·4	315·1	− 8·5	0	2	
		3396*a*	0·814	288·7	309·5	+10·8	27	71	158*c*
		3401	0·260	235·1	270·7	−15·4	3	11	
		3401*a*	0·215	229·9	267·8	−14·8	26	134	
		3402	0·410	337·1	267·5	+15·2	0	7	
		3402*a*	0·425	342·0	265·9	+16·9	37	187	
		3407*a*	0·464	46·6	237·9	+11·9	7	24	
		3407*a*	0·483	47·1	236·8	+12·6	12	40	
		3407	0·498	52·0	234·5	+11·4	1	4	
		3407	0·520	51·7	233·4	+12·4	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 3407, February 14–22. A small spot on February 14. Two spots, *a* and *b*, are seen on February 15, and these are united by a stream of very small spots on the succeeding days. *a* is greatly elongated on February 17, and is measured in two parts. Only *a* remains on February 21.
Group 3408, February 15–26. A very large composite spot on February 15, which breaks up on the succeeding days into a great number of spots, mostly unstable and very small.
Group 3409, February 16–17. A small spot.
Group 3410, February 16. A very small spot.
Group 3411, February 16. A very small spot.
Group 3412, February 16–March 1. A very large composite spot, *a*, with a few very small companions. The components of *a* are measured separately on and after February 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).
1894.				°	°	°			
47d·177	AW,HA	3407*b*	0·520	53·5	232·8	+11·7	11	34	
		3408	0·826	116·9	203·1	−26·1	21	75	
I.		3408	0·848	118·4	200·9	−27·7	68	338	215*c*
		3408	0·864	116·8	198·6	−26·6	0	8	
		3412*a*	0·931	122·5	189·3	−32·8	407	1232	1230*c*
			0·860	58·9	205·5	+22·2			187
			0·840	108·7	200·6	−19·5			137
			0·940	72·9	190·8	+13·4			124
			0·933	100·8	188·4	−12·6			140
Feb. 17		Centre			(258·0)	(−7·0)	(633)	(2261)	(4100)
48·522	JG,FT		0·893	278·0	302·4	+ 3·9			95
		3404	0·970	264·1	316·6	− 7·4	0	70	228*c*
		3396*a*	0·940	283·8	308·1	+10·4	18	68	115*c*
		3401*a*	0·466	251·1	267·2	−14·9	27	123	
		3402*a*	0·571	314·2	265·5	+17·1	22	148	
		3407*a*	0·325	7·7	237·7	+11·7	12	73	
		3407	0·338	12·6	235·9	+12·2	1	7	
		3407	0·345	17·8	234·0	+12·1	0	10	
		3407*b*	0·348	22·6	232·4	+11·8	0	10	
		3408	0·646	122·7	203·1	−26·0	2	15	
		3408	0·654	124·5	203·0	−27·3	5	38	
		3408	0·661	122·7	202·0	−26·4	10	46	54*c*
		3408	0·684	126·8	201·3	−29·6	0	12	
		3408	0·679	124·9	201·1	−28·3	15	190	
		3412	0·770	126·9	193·6	−32·4	0	4	
		3412*a*	0·807	126·1	189·4	−32·9	259	1447	330*c*
		3413*a*	0·992	116·2	154·8	−26·8	9	162	
			0·836	67·4	187·5	+14·5			73
			0·901	98·4	175·4	−10·6			210
			0·941	78·6	171·6	+ 8·2			59
			0·984	103·3	159·3	−14·3			94
Feb. 18		Centre			(240·2)	(−7·0)	(380)	(2423)	(1258)
49·446	HA,FT		0·966	261·0	303·9	−10·5			110
			0·932	273·0	296·4	+ 0·2			183
			0·935	284·7	295·0	+11·0			249
		3396*a*	0·993	281·6	309·4	+10·5	0	24	
		3401*a*	0·639	255·0	267·6	−15·0	17	100	
		3402*a*	0·701	303·7	265·6	+17·3	29	165	
		3414	0·542	273·4	260·8	− 4·1	0	13	
		3407*a*	0·377	331·5	238·7	+12·3	10	59	
1894.				°	°	°			
49d·446	HA,FT	3407	0·363	335·0	237·1	+12·1	0	3	
		3407	0·367	341·4	235·0	+13·2	0	4	
		3407	0·349	341·6	234·5	+12·2	1	4	
		3407	0·348	344·6	233·5	+12·5	4	29	
		3407*b*	0·330	347·7	232·2	+11·7	0	4	
		3407	0·343	348·5	232·1	+12·5	1	4	
		3408	0·482	133·1	205·2	−25·7	0	2	
		3408	0·474	131·3	205·1	−24·7	1	2	
		3408	0·485	129·0	203·8	−24·2	0	6	
		3408	0·500	131·4	203·6	−25·7	3	43	
		3408	0·513	130·0	202·4	−25·6	10	37	
		3408	0·525	132·3	202·4	−27·0	4	10	
		3408	0·507	126·8	201·8	−24·0	0	4	
		3408	0·529	129·7	201·3	−26·0	1	4	
		3408	0·544	129·0	200·1	−26·3	2	8	
		3408	0·550	132·4	200·1	−28·0	32	222	
		3408	0·569	132·1	199·5	−28·6	3	8	
		3408	0·578	127·5	197·3	−26·7	2	5	
		3412*a*	0·700	129·9	188·9	−32·2	258	1550	
		3412	0·728	135·0	188·5	−36·4	0	14	340*f*
		3412	0·742	133·1	186·4	−35·8	2	10	
		3415	0·945	104·7	156·2	−16·2	0	23	310*n*
		3413*a*	0·956	114·9	153·9	−25·9	40	199	196*f*
		3416*a*	0·977	84·5	151·2	+ 3·8	18	96	246*c*
		3417*a*	0·992	105·8	143·7	−16·5	34	209	
			0·811	74·0	176·3	+ 8·5			80
			0·807	96·2	173·9	− 9·2			42
			0·861	93·0	168·5	− 6·2			166
			0·912	78·0	164·1	+ 7·9			54
			0·932	68·7	163·1	+16·9			305
Feb. 19		Centre			(228·1)	(−7·1)	(472)	(2861)	(2281)
50·454	CL,JG		0·851	288·3	270·2	+11·5			189
			0·804	268·3	268·5	− 5·6			154
			0·763	280·3	263·4	+ 3·2			81
		3401*a*	0·790	256·6	267·3	−14·9	15	87	122*c*
		3402*a*	0·828	296·7	265·4	+17·3	27	178	92*c*
		3414*a*	0·712	270·2	260·2	− 4·9	3	16	
		3414	0·697	268·9	259·1	− 5·9	0	10	100*c*
		3414	0·695	271·1	258·8	− 4·4	3	8	
		3414	0·678	270·4	257·5	− 4·9	6	22	
		3407*a*	0·513	308·1	239·1	+12·0	9	28	
		3407	0·500	309·0	238·1	+11·8	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 3413, February 18–March 3. A large regular spot, *a*, with one or two very small companions on February 21, 26, 28 and March 1.
Group 3414, February 19–22. A small spot on February 19; a few small spots in a short stream on February 20. *a*, the leader, moves forward in longitude, and increases in size on the succeeding days.
Group 3415, February 19–21. A small spot.
Group 3416, February 19–28. A regular spot, *a*, which diminishes in area from day to day. One or two very small companions are occasionally seen near it.
Group 3417, February 19–March 3. A regular spot, *a*, with occasionally one or two small companions. *a* has divided longitudinally into two spots, *b* and *c*, by February 28. *c* alone is seen on March 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).
1894.				°	°	°			
50d·454	CL, JG	3407	0·477	308·9	236·9	+10·8	0	4	
		3407	0·456	316·2	233·6	+12·4	0	9	
		3408	0·342	149·3	203·8	−24·0	0	7	
		3408	0·364	150·9	203·5	−25·4	6	40	
		3408	0·378	151·1	203·1	−26·2	0	4	
		3408	0·361	146·1	202·1	−24·3	4	11	
		3408	0·431	152·0	201·5	−29·2	3	13	
		3408	0·416	149·4	201·0	−27·8	13	72	
		3408	0·374	144·3	201·0	−24·5	4	12	
		3408	0·392	146·2	200·8	−25·9	3	16	
		3408	0·428	146·2	199·3	−27·7	6	22	
		3408	0·445	146·6	198·7	−28·6	0	3	
		3418	0·476	140·6	194·9	−28·2	0	14	
		3418	0·457	137·7	194·8	−26·4	0	4	
		3412*a*	0·578	138·8	188·2	−32·1	193	1533	162*c*
		3412	0·644	141·6	185·1	−36·5	0	4	
		3412	0·645	135·9	182·3	−33·6	0	7	
		3412	0·652	137·1	182·3	−34·5	0	3	
		3419	0·591	95·2	178·4	− 8·8	0	5	
		3420*a*	0·669	106·1	173·0	−16·0	2	6	
		3421	0·798	102·0	161·5	−13·8	0	5	74*f*
		3415	0·851	105·2	156·1	−16·6	2	13	167*f*
		3413*a*	0·881	115·5	153·0	−25·8	47	261	419*f*
		3416*a*	0·905	82·3	151·0	+ 3·8	16	85	406*f*
		3417*a*	0·945	105·0	142·9	−16·5	35	203	722*sf*
			0·788	67·2	166·8	+13·1			97
			0·875	63·7	159·0	+18·9			209
			0·957	69·2	145·3	+17·5			169
Feb. 20		Centre			(214·8)	(−7·1)	(397)	(2711)	(3163)
51·417	HA, JG		0·938	285·7	269·3	+12·1			135
			0·876	280·3	261·8	+ 5·5			82
		3401*a*	0·901	256·7	267·1	−15·0	15	82	102*c*
		3402*a*	0·922	292·5	265·2	+17·5	27	138	132*c*
		3414*a*	0·867	269·1	262·2	− 4·3	12	94	
		3414	0·840	269·2	259·3	− 4·5	6	11	238*c*
		3414	0·813	268·9	256·6	− 5·0	7	19	
		3407*a*	0·664	297·0	239·2	+11·8	11	24	
		3408	0·274	188·2	204·5	−22·8	1	3	
		3408	0·308	184·8	203·7	−24·9	5	30	
		3408	0·305	179·0	201·8	−24·8	12	32	
		3408	0·327	176·3	200·8	−26·0	5	19	
		3408	0·309	175·9	200·7	−25·0	1	7	
1894.				°	°	°			
51d·417	HA, JG	3408	0·354	175·2	200·2	−27·7	8	26	
		3408	0·323	170·0	198·5	−25·5	6	15	
		3408	0·339	170·3	198·4	−26·5	1	4	
		3408	0·353	170·5	198·4	−27·4	4	13	
		3408	0·380	170·6	198·0	−29·0	0	4	
		3418	0·373	161·7	194·5	−27·7	1	10	
		3412	0·448	161·5	192·5	−32·1	1	3	
		3412	0·494	162·6	191·8	−35·0	2	7	
		3412*a*	0·480	153·7	187·6	−32·3	205	1693	
		3412	0·542	152·9	184·5	−35·5	0	8	
		3412	0·530	149·9	183·5	−33·9	0	31	
		3420*a*	0·480	110·5	174·3	−16·0	4	18	
		3420	0·513	109·8	172·1	−16·2	0	3	
		3420*b*	0·511	108·3	172·0	−15·4	2	5	
		3415	0·723	106·2	155·9	−16·6	0	7	88*n*
		3413*a*	0·775	117·6	152·6	−25·7	31	232	
		3413	0·795	118·0	150·7	−26·4	1	4	279*f*
		3416*a*	0·793	79·8	150·8	+ 3·6	18	93	292*c*
		3417*a*	0·858	105·1	142·6	−16·6	37	197	517*sf*
		3417	0·866	108·0	141·7	−19·1	0	4	
		3417	0·880	105·3	139·9	−16·8	0	8	
			0·753	58·2	159·9	+18·1			143
			0·881	68·0	144·3	+15·6			235
			0·888	82·0	140·5	+ 3·7			134
			0·959	62·5	134·0	+23·8			121
Feb. 21		Centre			(202·1)	(−7·1)	(423)	(2844)	(2498)
52·518	CL, FT		0·792	269·6	240·0	− 4·7			159
			0·774	252·5	238·3	−18·0			191
		3401*a*	0·982	256·5	267·7	−14·6	0	15	
		3402*a*	0·989	289·1	266·1	+17·6	20	225	232*c*
		3414*a*	0·975	267·8	264·9	− 3·7	42	140	445*n*
		3414	0·943	267·7	258·3	− 4·6	0	34	
		3407*a*	0·820	289·8	239·4	+11·8	0	12	140*n*
		3408	0·401	219·0	203·7	−24·9	0	4	
		3408	0·389	216·8	202·4	−25·0	10	25	
		3408	0·395	214·7	202·0	−25·8	2	21	
		3408	0·349	210·5	198·8	−24·4	0	3	
		3408	0·353	208·6	198·3	−25·0	2	9	
		3408	0·373	206·3	198·2	−26·4	0	29	
		3408	0·393	203·4	197·7	−28·1	0	3	
		3418	0·372	194·1	193·5	−28·1	0	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 3418, February 20–24. A few small spots irregularly arranged, between Groups 3408 and 3412.
Group 3419, February 20. A very small spot.
Group 3420, February 20–March 1. A very small spot, *a*, on February 20. A number of other small spots, of which *b* is the principal, appear on the succeeding days, forming an irregular curved stream. The group undergoes considerable change from February 23 to February 25. *a* moves forward in longitude, and both *a* and *b* increase in size and become regular. *b* alone remains on March 1.
Group 3421, February 20. 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).
1894.				°	°	°			
52d·518	CL, FT	3412	0·440	187·9	191·7	−32·8	0	7	
		3412	0·473	184·3	190·1	−35·1	0	4	
		3412*a*	0·421	180·8	188·0	−31·9	209	1511	
		3412	0·484	179·0	187·0	−35·9	0	6	
		3412	0·455	171·9	183·2	−33·7	0	13	
		3420	0·240	126·9	176·2	−15·2	2	5	
		3420	0·248	129·4	176·2	−16·0	1	5	
		3420	0·258	124·3	174·9	−15·3	0	4	
		3420*a*	0·269	127·5	174·8	−16·3	14	30	
		3420	0·277	121·0	173·4	−15·1	1	4	
		3420	0·290	123·8	173·1	−16·1	0	4	
		3420	0·309	125·2	172·4	−17·1	0	6	
		3420	0·306	123·0	172·1	−16·5	0	2	
		3420*b*	0·307	119·6	171·6	−15·6	11	41	
		3420	0·326	123·3	171·1	−17·1	0	6	
		3413*a*	0·620	123·5	152·7	−25·8	36	251	89*c*
		3416	0·602	77·1	151·8	+ 2·0	0	6	
		3416*a*	0·617	74·8	151·1	+ 3·6	18	81	
		3417*a*	0·711	106·1	142·4	−16·4	33	158	} 213*c*
		3417	0·739	105·8	139·9	−16·5	0	29	
			0·814	58·8	139·9	+20·2			325
			0·780	114·7	137·1	−23·7			257
			0·938	100·4	117·2	−12·2			213
Feb. 22		Centre			(187·6)	(−7·1)	(401)	(2707)	(2264)
53·210	CL, FT		0·987	266·9	259·5	− 4·3			179
I.			0·875	255·3	240·1	−16·5			138
			0·856	269·0	237·4	− 4·6			181
			0·865	288·4	235·3	+11·9			277
		3408	0·501	230·9	203·8	−24·9	1	4	
		3408	0·493	229·6	202·9	−25·2	4	14	
		3408	0·493	227·5	202·2	−26·0	3	6	
		3408	0·478	227·5	201·4	−25·4	0	2	
		3408	0·482	222·9	200·1	−27·3	2	9	
		3408	0·459	225·4	199·6	−25·5	0	1	
		3408	0·439	224·3	198·2	−25·0	2	6	
		3408	0·461	215·0	196·0	−29·0	0	11	
		3418	0·423	213·0	193·5	−27·7	0	1	
		3412	0·452	205·7	191·7	−30·9	2	10	
		3412	0·437	205·1	190·8	−30·3	2	8	
		3412*a*	0·440	197·6	187·5	−31·8	271	1225	
		3412	0·504	193·3	186·8	−36·5	1	9	
1894.				°	°	°			
53d·210	CL, FT	3412	0·384	198·3	186·3	−28·4	1	5	
I.		3412	0·475	188·4	183·3	−35·0	0	8	
		3412	0·456	187·9	182·8	−33·9	0	10	
		3420	0·143	172·7	177·4	−15·3	0	3	
		3420*a*	0·155	166·6	176·4	−15·9	21	63	
		3420	0·151	160·1	175·5	−15·3	1	4	
		3420	0·155	151·5	174·1	−15·0	3	6	
		3420	0·196	155·4	173·6	−17·4	0	1	
		3420	0·172	149·1	173·3	−15·7	0	2	
		3420	0·163	147·5	173·3	−15·1	0	7	
		3420	0·194	145·1	171·9	−16·3	0	3	
		3420*b*	0·190	141·0	171·4	−15·6	10	30	
		3420	0·199	136·8	170·4	−15·4	0	2	
		3420	0·215	131·1	168·9	−15·3	1	2	
		3413*a*	0·514	130·1	152·7	−25·8	45	214	
		3416	0·478	72·5	151·5	+ 1·9	2	7	
		3416*a*	0·495	68·9	151·0	+ 3·9	17	83	
		3417*a*	0·597	107·6	142·3	−16·2	32	168	
		3417	0·620	104·6	140·3	−14·7	1	7	
		3417	0·626	106·4	140·0	−15·9	0	10	
			0·804	52·5	134·3	+24·2			154
			0·888	99·3	115·3	−11·5			169
Feb. 23		Centre			(178·5)	(−7·2)	(422)	(1941)	(1098)
54·504	CL, JG		0·968	283·3	234·8	+10·9			72
			0·900	264·8	225·9	− 7·8			52
			0·808	304·8	207·1	+22·5			53
		3408	0·690	241·2	203·0	−24·8	0	9	
		3408	0·677	240·6	201·8	−24·9	0	9	} 66*c*
		3408	0·658	240·2	200·2	−24·7	2	10	
		3408	0·644	237·8	198·5	−25·8	3	11	
		3418	0·601	232·4	193·7	−27·6	0	1	
		3412	0·637	221·7	192·3	−34·6	0	3	
		3412	0·602	227·7	192·2	−30·1	0	9	
		3412	0·590	225·0	190·4	−30·9	4	17	
		3412	0·595	222·9	189·9	−32·1	29	242	
		3412	0·576	224·7	189·3	−30·5	0	7	
		3412	0·618	216·6	188·4	−36·1	0	4	} 221*c*
		3412	0·560	224·5	188·2	−29·9	8	56	
		3412	0·575	220·0	187·3	−32·6	6	55	
		3412	0·613	212·3	185·8	−37·7	0	3	
		3412	0·569	216·0	185·1	−33·9	53	306	
		3412	0·540	219·8	185·1	−31·1	124	590	

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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).
1894.				°	°	°			
54d·504	CL,JG	3420	0·334	247·3	179·9	−14·2	0	4	
		3420*a*	0·312	241·2	177·8	−15·6	12	72	
		3420	0·267	236·2	174·7	−15·6	1	6	
		3420	0·246	237·4	173·7	−14·6	0	6	
		3420	0·263	227·4	173·0	−17·3	1	6	
		3420	0·244	232·6	173·0	−15·6	4	31	
		3420	0·248	224·5	171·8	−17·2	4	14	
		3420*b*	0·224	229·7	171·6	−15·4	21	104	
		3420	0·218	222·2	170·1	−16·4	2	9	
		3420	0·225	215·1	169·2	−17·7	0	11	
		3420	0·204	215·2	168·4	−16·7	4	26	
		3422	0·246	324·2	169·7	+ 4·3	0	5	
		3422	0·228	322·4	169·4	+ 3·2	0	2	
		3423	0·183	146·9	155·5	−15·9	1	5	
		3413*a*	0·351	156·3	152·4	−25·9	38	204	
		3416	0·273	27·2	154·2	+ 6·8	1	7	
		3416	0·293	31·3	152·6	+ 7·3	0	3	
		3416*a*	0·257	43·5	151·2	+ 3·6	13	79	
		3417*a*	0·347	117·2	142·8	−16·0	26	176	
		3417	0·382	123·5	141·8	−18·9	0	6	
		3417	0·390	113·7	139·7	−15·7	0	7	
		3424*a*	0·924	98·0	93·3	−10·1	4	18	} 111*c*
		3424	0·941	99·3	90·4	−11·2	0	10	
			0·943	74·1	93·4	+12·4			196
			0·960	65·9	92·1	+20·7			131
			0·960	105·2	86·6	−16·6			303
Feb. 24		Centre			(161·4)	(−7·2)	(361)	(2143)	(1205)
55·197	AW,HA		0·956	253·6	226·4	−17·8			149
M.			0·941	265·9	222·8	− 6·3			122
			0·863	297·6	206·3	+19·4			216
			0·790	257·0	204·8	−14·7			128
			0·847	309·9	199·6	+28·1			181
		3408	0·769	243·8	201·5	−24·6	2	12	}
		3408	0·757	243·5	200·3	−24·6	0	14	} 456*c*
		3408	0·738	241·2	198·1	−25·9	0	17	}
		3412	0·686	231·0	190·7	−31·2	0	17	}
		3412	0·676	228·6	189·1	−32·4	17	187	}
		3412	0·652	230·9	188·0	−30·1	0	24	} 111*c*
		3412	0·624	228·1	184·9	−30·7	129	570	}
		3412	0·644	224·0	184·7	−33·7	72	379	}
		3420*a*	0·463	250·0	179·0	−15·6	8	40	
1894.				°	°	°			
55d·197	AW,HA	3420	0·441	248·1	177·4	−16·0	0	20	
M.		3420	0·384	247·7	173·8	−15·1	0	3	
		3420	0·393	241·8	173·5	−17·4	0	8	
		3420	0·377	245·9	173·1	−15·6	4	7	
		3420	0·372	240·1	172·0	−17·4	0	11	
		3420*b*	0·356	244·8	171·7	−15·5	17	100	
		3420	0·333	235·4	169·0	−17·8	1	12	
		3420	0·315	239·3	168·6	−16·1	0	8	
		3420	0·314	236·0	168·0	−17·1	0	9	
		3422	0·371	303·9	170·2	+ 5·0	0	5	
		3413*a*	0·319	180·1	152·4	−25·7	32	206	
		3416*a*	0·191	5·7	151·2	+ 3·7	13	70	
		3417*a*	0·225	132·1	142·3	−15·7	27	147	
		3424*a*	0·849	97·3	93·8	−10·0	7	43	} 164*c*
		3424	0·883	98·0	89·8	−10·4	0	11	
			0·885	71·8	93·1	+12·4			185
			0·933	60·9	89·5	+23·8			144
			0·936	106·1	81·9	−17·6			456
Feb. 25		Centre			(152·3)	(−7·2)	(329)	(1920)	(2312)
56·224	CL,FT		0·933	289·4	204·3	+15·2			51
M.			0·901	255·1	203·7	−16·5			114
			0·941	297·4	203·4	+22·7			183
			0·837	239·8	194·3	−29·0			366
		3408	0·892	245·7	202·1	−24·8	3	15	} 350*c*
		3408	0·857	244·0	197·4	−25·9	4	16	
		3412	0·796	234·8	188·6	−32·0	16	120	}
		3412	0·794	231·4	187·4	−34·6	2	1[illegible]	}
		3412	0·766	232·1	184·7	−33·1	31	304	} 320
		3412	0·753	235·3	184·4	−30·5	96	544	}
		3412	0·738	230·2	181·4	−33·5	0	2	}
		3412	0·740	229·3	181·3	−34·2	9	32	}
		3420*a*	0·665	255·3	180·3	−15·1	6	46	
		3420	0·655	254·5	179·5	−15·6	0	1	
		3420	0·649	253·3	178·9	−16·3	0	1	
		3420	0·603	254·9	175·6	−14·8	5	9	
		3420	0·602	251·7	175·2	−16·7	4	11	
		3420	0·580	254·1	173·8	−15·0	2	6	
		3420	0·581	251·8	173·6	−16·3	4	9	
		3420*b*	0·555	253·2	172·0	−15·3	15	65	
		3420	0·546	251·9	171·2	−15·9	0	1	
		3420	0·527	248·5	169·5	−17·4	0	2	
		3420	0·522	247·3	169·0	−17·8	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 3422, February 24–25. Two very small spots on February 24. Only one is seen on February 25.
Group 3423, February 24. A very small spot.
Group 3424, February 24–March 3. A small regular spot, *a*, with, until February 27, a small companion. The group moves forward rapidly in longitude.

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).
1894.				°	°	°			
56d.224	CL,FT	3425	0·437	247·0	163·4	−16·4	2	4	
		3413	0·415	211·5	152·8	−27·7	0	2	
M.		3413*a*	0·385	213·6	152·3	−25·6	40	214	
		3413	0·381	209·3	150·7	−26·4	0	1	
		3416	0·378	310·6	155·4	+ 7·3	0	1	
		3416	0·371	311·3	154·9	+ 7·2	0	1	
		3416*a*	0·299	309·7	152·0	+ 4·0	14	63	
		3426	0·215	338·3	143·2	+ 4·3	0	3	
		3426	0·216	343·9	142·1	+ 4·8	0	1	
		3426	0·260	347·7	141·9	+ 7·5	0	4	
		3417*a*	0·162	204·5	142·7	−15·6	30	181	
		3424*a*	0·684	97·3	95·3	−10·3	9	17	1938*f*
		3424	0·735	96·8	91·1	− 9·9	0	3	
		3427	0·887	107·9	75·6	−19·2	0	7	589*f*
			0·852	55·2	88·6	+24·5			169
			0·835	68·5	85·8	+13·6			124
Feb. 26		Centre			(138·7)	(−7·2)	(292)	(1697)	(2459)
57·535	HA,FT		0·807	289·8	172·1	+11·4			121
			0·762	299·7	165·1	+17·0			177
		3412	0·918	237·9	188·0	−32·2	0	27	
		3412	0·896	241·5	185·0	−28·6	0	17	
		3412	0·897	236·7	184·5	−32·9	22	253	
		3412	0·891	239·1	184·0	−30·7	75	453	1218*c*
		3412	0·872	235·8	180·8	−33·2	0	4	
		3412	0·872	234·5	180·5	−34·3	6	14	
		3420*a*	0·860	256·5	181·4	−15·3	9	52	
		3420	0·855	258·8	180·8	−13·3	0	7	
		3420	0·807	253·8	175·6	−17·3	2	6	
		3420	0·798	255·7	174·7	−15·7	0	9	328*c*
		3420	0·786	255·5	173·6	−15·9	0	5	
		3420*b*	0·774	256·2	172·5	−15·3	24	80	
		3420	0·774	253·3	172·3	−17·5	0	3	
		3413*a*	0·569	233·6	152·0	−25·9	33	180	
		3416*a*	0·543	288·8	152·4	+ 3·9	8	21	
		3417*a*	0·386	246·1	142·9	−15·7	17	167	
		3428	0·335	196·2	127·4	−25·9	8	16	
		3428	0·349	186·9	124·2	−27·4	2	24	
		3428	0·328	187·1	124·1	−26·2	0	3	
		3424*a*	0·409	101·0	97·4	−11·1	4	9	
		3428*	0·571	110·3	87·5	−17·4	0	4	
		3428*	0·596	112·5	86·0	−19·0	1	6	
1894.				°	°	°			
57d.535	HA,FT		0·750	46·3	84·7	+25·5			99
			0·884	50·8	69·7	+29·6			140
			0·793	107·5	69·0	−18·3			423
Feb. 27		Centre			(121·5)	(−7·2)	(211)	(1360)	(2506)
58·217	AW,FT		0·895	267·9	176·1	− 5·1			134
			0·861	283·4	170·0	+ 7·7			133
M.			0·853	295·2	166·2	+17·1			155
			0·797	304·0	157·5	+21·4			199
		3412	0·950	241·7	185·4	−29·1	0	12	
		3412	0·946	237·4	184·3	−33·1	8	231	
		3412	0·941	239·9	183·4	−30·7	88	470	885*c*
		3412	0·923	235·8	179·7	−34·3	0	5	
		3420*a*	0·930	256·4	181·8	−15·3	7	25	
		3420	0·882	254·3	175·0	−17·2	0	6	338*c*
		3420*b*	0·862	256·4	172·6	−15·4	13	44	
		3413*a*	0·669	238·3	151·7	−26·2	44	175	
		3413	0·652	236·0	149·8	−27·3	1	3	
		3413	0·646	234·3	148·8	−28·0	1	4	
		3416*a*	0·667	284·8	152·6	+ 4·3	1	3	
		3417*b*	0·527	252·3	143·7	−15·4	12	72	
		3417*c*	0·505	251·7	142·2	−15·4	13	62	
		3428	0·417	227·9	132·1	−23·0	0	2	
		3428	0·400	218·0	128·2	−25·2	5	11	
		3428	0·383	205·3	123·1	−27·3	0	2	
		3428	0·367	205·7	122·7	−26·4	0	3	
		3429*a*	0·260	140·8	102·6	−18·7	5	9	
		3429*b*	0·290	135·8	100·2	−19·0	2	4	
		3424*a*	0·256	105·7	98·0	−10·9	5	9	
			0·939	105·3	41·7	−16·8			113
Feb. 28		Centre			(112·5)	(−7·2)	(205)	(1152)	(1957)
59·226	AW,HA		0·987	246·8	181·9	−24·0			222
			0·963	255·4	174·7	−16·0			344
M.			0·961	231·9	174·1	−38·5			213
			0·946	283·7	168·1	+10·4			159
			0·906	299·3	157·9	+22·7			245
			0·761	299·8	142·7	+17·0			120
		3412	0·987	236·6	182·8	−34·1	25	180	305*c*
		3412	0·987	240·2	182·4	−30·5	85	573	
		3420*b*	0·957	256·5	173·3	−15·0	0	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 3425, February 26. A very small spot.
Group 3426, February 26. A few very small faint spots irregularly scattered.
Group 3427, February 26. One very small spot.
Group 3428, February 27–March 4. A few small and very unstable spots irregularly scattered. The group is not seen on March 2.
Group 3428*, February 27. Two very small spots.
Group 3429, February 28–March 5. A few spots, mostly small, in an irregular stream. The first and last spots, *a* and *b*, are the largest. *a* alone remains on March 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).
1894.				°	°	°			
59d·226	AW,HA	3413*a*	0·799	242·6	151·2	−26·1	41	211	
		3413	0·780	240·2	148·7	−27·5	0	12	
M.		3417*b*	0·705	255·9	144·1	−15·0	9	46	
		3417*c*	0·614	255·4	142·3	−15·3	16	79	
		3428	0·553	227·0	126·5	−28·5	0	4	
		3429*a*	0·216	201·0	103·9	−18·7	18	45	
		3429	0·197	192·6	101·8	−18·2	0	4	
		3429	0·210	186·5	100·6	−19·2	1	5	
		3429*b*	0·204	182·4	99·7	−18·9	9	19	
		3424*a*	0·059	171·5	98·7	−10·6	5	11	
		3430	0·274	123·8	85·6	−15·8	0	6	
		3430	0·301	127·4	84·7	−17·5	0	5	
			0·722	27·1	76·1	+33·3			84
			0·896	106·5	34·9	−17·9			176
			0·925	115·4	30·9	−26·1			137
			0·945	74·6	30·8	+12·0			126
			0·971	100·1	22·1	−11·6			107
Mar. 1		Centre			(99·2)	(−7·2)	(209)	(1214)	(2238)
60·508	JG,HA		0·947	255·0	154·7	−16·5			133
			0·922	279·8	148·2	+ 6·0			294
			0·895	292·8	141·6	+16·6			205
			0·847	275·0	139·7	− 0·3			54
			0·865	305·4	133·7	+25·6			160
			0·775	247·8	132·8	−21·7			217
		3413*a*	0·920	244·8	150·0	−26·0	24	191	210*f*
		3417*b*	0·870	257·6	143·5	−14·4	0	16	} 239*c*
		3417*c*	0·855	256·9	141·7	−15·0	14	41	
		3429*a*	0·425	240·1	105·2	−18·9	13	55	
		3429	0·407	239·8	104·1	−18·6	0	3	
		3429	0·356	235·4	100·3	−18·6	0	4	
		3429*b*	0·347	233·7	99·5	−18·8	3	13	
		3424*a*	0·294	259·9	99·4	−10·0	3	8	
		3431	0·260	142·0	72·7	−19·0	2	12	
			0·873	115·5	21·7	−25·7			64
			0·911	68·7	20·6	+16·0			159
Mar. 2		Centre			(82·4)	(−7·3)	(59)	343	(1735)
61·490	CL,FT		0·943	277·3	138·9	+ 4·4			148
			0·950	294·1	136·7	+20·1			277
			0·914	253·3	136·3	−18·2			403
			0·846	306·8	118·0	+25·7			74
1894.				°	°	°			
61d·490	CL,FT	3413*a*	0·975	245·3	148·4	−25·7	15	143	173*f*
		3417*c*	0·947	256·3	141·7	−15·3	0	9	
		3428	0·849	246·1	127·4	−24·1	4	18	} 175*c*
		3428	0·814	243·7	123·1	−25·5	0	8	
		3429*a*	0·598	247·2	105·0	−19·3	7	36	} 68*c*
		3429*b*	0·525	245·1	99·5	−19·0	0	6	
		3424*a*	0·501	263·3	99·6	− 9·7	0	4	
			0·854	62·2	16·5	+19·1			157
			0·910	75·2	6·3	+10·2			190
			0·909	96·4	3·6	− 8·8			154
			0·955	108·1	355·4	−19·4			200
Mar. 3		Centre			(69·4)	(−7·3)	(26)	(224)	(2019)
62·509	CL,FT		0·858	257·6	115·7	−14·4			106
		3428	0·950	247·0	129·1	−24·1	0	7	210*c*
		3429*a*	0·765	250·9	105·8	−19·3	5	20	
		3432	0·767	73·9	8·2	+ 7·4	0	5	}
		3432*a*	0·773	74·7	7·5	+ 6·9	3	14	} 61*c*
		3432	0·807	76·1	4·1	+ 6·7	0	8	
		3432	0·828	76·6	2·0	+ 6·8	0	8	
			0·904	99·0	350·7	−11·3			200
			0·947	66·8	349·0	+19·2			159
Mar. 4		Centre			(56·0)	(−7·3)	(8)	(62)	(736)
63·491	HA,JG		0·953	259·4	116·3	−12·3			69
			0·856	289·8	98·6	+12·8			63
			0·808	261·1	97·4	−11·5			27
			0·791	309·8	85·1	+25·0			82
		3429*a*	0·885	252·2	106·0	−19·2	3	12	101*f*
		3432*a*	0·614	68·0	8·2	+ 7·3	9	38	
		3432	0·626	68·1	7·4	+ 7·6	0	6	
		3432	0·643	70·8	5·6	+ 6·4	2	14	
		3432	0·653	68·8	5·3	+ 7·9	0	6	
		3432	0·663	71·3	4·0	+ 6·6	4	12	
		3433	0·724	113·4	358·6	−21·9	1	5	}
		3433	0·741	112·6	355·9	−21·6	1	8	}
		3433	0·751	113·6	355·2	−22·4	0	8	} 107*c*
		3433	0·764	112·9	353·9	−22·1	0	8	}
		3433	0·776	114·9	353·0	−23·8	10	19	}
		3434	0·895	96·3	339·2	− 8·9	0	16	174*sf*
		3435	0·975	107·6	324·5	−18·7	0	20	256*p*
			0·812	71·1	351·9	+10·7			112

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 3430, March 1. Two very small spots.
Group 3431, March 2. A small spot.
Group 3432, March 4–12. A few very faint small spots on March 4 which expand into a well-defined stream on the succeeding days. The leader, *a*, moves forward rapidly in longitude and increases in size, becoming a large elongated spot. It has divided longitudinally by March 9 into two portions, *b* and *c*. Only *b* remains by March 11.
Group 3433, March 5–10. A few spots, mostly very small, faint and unstable, in a short straight stream. A little cluster, *sp* the main stream, and seen only on March 6, is included in the group.
Group 3434, March 5. A small spot.
Group 3435, March 5. 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).
1894.				°	°	°			
63d.491	HA,JG		0·842	114·6	346·0	−24·6			60
			0·843	98·3	345·2	−10·9			93
			0·909	62·2	343·5	+21·5			323
			0·976	94·0	325·4	− 5·5			169
Mar. 5		Centre			(43·1)	(−7·3)	(30)	(172)	(1636)
64·497	HA,FT		0·898	252·8	94·4	−18·6			295
			0·878	289·9	87·8	+13·6			114
			0·881	303·0	83·9	+24·5			121
		3436*a*	0·109	105·1	23·7	− 8·9	2	7	
		3432*a*	0·433	54·8	9·0	+ 7·6	27	125	
		3432	0·458	54·6	7·7	+ 8·6	2	9	
		3432	0·458	59·9	6·4	+ 6·6	3	13	
		3432	0·475	56·9	6·2	+ 8·3	0	3	
		3432	0·474	61·7	5·1	+ 6·3	10	18	
		3432	0·485	59·0	5·1	+ 7·8	4	8	
		3432	0·493	62·7	3·7	+ 6·5	2	9	
		3433	0·539	126·5	1·3	−25·1	0	2	
		3433	0·556	123·3	359·3	−24·1	0	7	
		3433	0·572	117·8	357·0	−21·6	1	30	
		3433	0·591	118·1	355·7	−22·2	2	12	
		3433	0·612	117·3	354·0	−22·2	3	13	
		3437*a*	0·805	106·1	335·9	−17·3	7	15	132*f*
		3437	0·838	105·6	332·4	−17·1	6	12	
		3438*a*	0·998	73·4	306·1	+15·9	0	29	203*c*
			0·810	98·8	335·3	−11·4			77
			0·900	92·6	325·4	− 5·5			344
			0·911	107·5	323·4	−18·9			327
			0·947	99·0	317·8	−10·9			179
			0·961	107·8	314·5	−19·1			89
Mar. 6		Centre			(29·8)	(−7·3)	(69)	(312)	(1881)
65·543	CL,JG		0·948	254·4	88·5	−17·1			78
			0·965	285·8	88·3	+13·1			69
			0·954	299·7	82·4	+25·5			91
			0·901	287·7	77·3	+12·5			46
			0·838	254·5	73·3	−16·9			201
			0·859	311·4	63·8	+29·8			49
		3436	0·199	264·6	27·5	− 8·1	0	2	
		3436	0·179	261·0	26·3	− 8·7	2	6	
		3436	0·170	255·6	25·6	− 9·6	0	5	
		3436*a*	0·155	260·2	24·8	− 8·6	0	3	
1894.				°	°	°			
65d.543	CL,JG	3432*a*	0·275	21·8	10·1	+ 7·5	36	172	
		3432	0·298	25·6	8·6	+ 8·4	4	26	
		3432	0·277	31·7	7·6	+ 6·5	0	2	
		3432	0·312	29·5	7·1	+ 8·6	1	4	
		3432	0·299	34·9	6·1	+ 7·0	0	6	
		3432	0·314	35·1	5·5	+ 7·8	14	50	
		3432	0·299	38·5	5·3	+ 6·4	1	5	
		3432	0·314	39·3	4·5	+ 7·0	3	18	
		3433	0·380	131·3	358·2	−21·4	1	9	
		3433	0·422	128·0	355·1	−21·8	0	9	
		3437*a*	0·638	108·9	336·9	−17·5	10	52	
		3437	0·683	106·7	333·1	−16·6	0	6	70
		3437	0·693	107·0	332·3	−16·9	6	13	
		3439	0·789	90·4	323·9	− 4·7	0	11	340
		3438*a*	0·942	71·1	308·9	+15·0	15	80	189*f*
			0·786	107·5	324·2	−18·2			154
			0·840	100·6	318·4	−12·8			83
			0·919	78·9	310·6	+ 7·2			145
Mar. 7		Centre			(16·0)	(−7·2)	(93)	(479)	(1521)
66·315	CL,FT		0·875	252·1	67·5	−19·1			411
		3432*a*	0·272	341·8	10·8	+ 7·7	49	143	
I.		3432	0·265	346·9	9·4	+ 7·7	3	11	
		3432	0·278	347·4	9·4	+ 8·5	2	7	
		3432	0·278	351·4	8·3	+ 8·7	1	14	
		3432	0·270	359·3	6·1	+ 8·4	6	20	
		3432	0·278	0·8	5·7	+ 8·9	2	8	
		3432	0·252	2·7	5·2	+ 7·4	10	31	
		3432	0·250	8·1	3·9	+ 7·1	7	18	
		3433	0·252	155·6	359·6	−20·4	0	3	
		3433	0·289	147·4	356·3	−21·2	5	18	
		3433	0·299	145·5	355·5	−21·3	1	10	
		3440	0·425	132·1	345·9	−23·3	0	6	
		3437*a*	0·509	113·4	336·6	−18·0	18	47	
		3437	0·567	109·7	332·4	−15·7	2	3	
		3441	0·516	100·0	334·8	−11·3	0	12	
		3438*a*	0·882	67·9	308·0	+15·6	15	92	
		3438	0·906	69·7	304·5	+15·0	0	5	
		3438	0·909	70·1	304·0	+14·7	0	3	170*c*
			0·770	98·9	315·2	−11·4			169
			0·834	76·6	311·3	+ 7·0			205
Mar. 8		Centre			(5·9)	(−7·2)	(121)	(451)	(955)

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

Group 3436, March 6–7. A very small faint spot. *a*, on March 6. Several similar spots have formed preceding *a* by March 7.
Group 3437, March 6–13. A somewhat small regular spot, *a*, with one or more small companions until March 11, when *a* remains alone.
Group 3438, March 6–18. A regular spot, *a*, with some faint irregular extensions. *a* increases rapidly in size, and has two distinct nuclei by March 10, which have become separate spots, *c* and *d*, by March 14. A spot, *b*, is seen preceding *a* on March 10, but has disappeared by March 16.
Group 3439, March 7–16. A very small spot on March 7, not seen on March 8. A fresh outbreak has occurred by March 9, and a number of small spots are seen in an irregular stream. *a*, the leader on March 10, is the largest.
Group 3440, March 8. A very small spot.
Group 3441, March 8. 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).
1894.				°	°	°			
67d·286	CL, FT	3432*b*	0·397	306·6	11·7	+ 7·0	32	123	
		3432*c*	0·389	310·2	10·5	+ 7·6	9	44	
I		3432	0·356	319·0	6·7	+ 8·6	2	10	
		3432	0·333	318·9	5·8	+ 7·5	4	17	
		3432	0·299	320·0	4·2	+ 5·5	3	18	
		3433	0·265	204·6	359·9	−21·0	0	6	
		3433	0·246	191·5	356·1	−21·1	0	6	
		3433	0·246	190·7	355·9	−21·2	1	7	
		3437*a*	0·320	126·9	337·6	−18·0	12	27	
		3437	0·328	124·8	336·7	−17·7	1	3	
		3439	0·425	87·6	328·0	− 5·5	0	2	
		3439*a*	0·443	84·8	327·0	− 4·2	7	25	
		3439	0·454	84·3	326·3	− 3·9	0	2	
		3439	0·470	85·0	325·2	− 4·1	1	10	
		3439	0·469	88·3	325·1	− 5·6	2	7	
		3439	0·478	85·7	324·7	− 4·3	2	8	
		3439	0·488	86·7	323·9	− 4·7	0	2	
		3438*a*	0·766	62·3	308·5	+15·7	31	138	
		3438	0·782	65·2	306·2	+14·3	5	12	209*c*
		3438	0·802	65·3	304·3	+14·9	0	4	
			0·700	72·6	311·0	+ 6·7			125
			0·848	77·0	297·0	+ 7·0			76
Mar. 9		Centre			(353·1)	(−7·2)	(112)	(471)	(410)
68·235	HA, FT	3432*b*	0·567	292·1	12·4	+ 6·2	25	91	
		3432*c*	0·549	294·6	10·7	+ 7·0	6	20	
I		3432	0·526	293·1	9·6	+ 5·6	0	1	
		3432	0·491	298·6	6·2	+ 7·1	1	3	
		3433	0·397	231·8	0·0	−21·0	1	3	
		3433	0·351	227·3	356·5	−20·6	0	4	
		3433	0·354	225·6	356·3	−21·2	0	2	
		3433	0·345	224·8	355·6	−21·1	0	2	
		3433	0·346	221·8	354·9	−21·9	0	2	
		3437*a*	0·193	167·0	338·0	−18·0	12	32	
		3437	0·194	162·1	337·0	−17·8	0	1	
		3437	0·186	158·6	336·5	−17·1	1	4	
		3437	0·201	150·6	334·7	−17·2	1	3	
		3439*a*	0·203	74·2	329·4	− 3·9	29	67	
		3439	0·197	79·9	329·4	− 5·1	0	3	
		3439	0·221	80·0	328·0	− 4·8	0	2	
		3439	0·232	74·3	327·7	− 3·4	0	3	
		3439	0·244	78·6	326·8	− 4·3	1	7	
1894.				°	°	°			
68d·235	HA, FT	3439	0·272	80·6	325·1	− 4·4	4	8	
		3439	0·269	85·2	325·0	− 5·7	2	10	
I		3439	0·284	81·5	324·3	− 4·5	3	7	
		3439	0·295	81·2	323·7	− 4·3	0	3	
		3438*b*	0·606	55·3	309·8	+14·0	5	19	
		3438*a*	0·626	53·7	309·1	+15·6	47	215	
		3438	0·634	56·1	307·8	+14·7	2	18	
		3438	0·643	57·0	306·9	+14·5	4	34	
		3442*a*	0·949	91·7	268·9	− 3·9	42	170	207*f*
		3443*a*	0·981	71·3	264·8	+16·7	11	90	140*n*
			0·895	94·6	276·8	− 7·3			72
			0·934	65·2	276·3	+20·1			89
			0·909	89·0	275·4	− 2·1			77
			0·933	74·8	274·2	+11·3			163
			0·929	106·8	271·4	−18·3			115
Mar. 10		Centre			(340·6)	(−7·2)	(197)	(824)	(863)
69·532	CL, HA		0·861	247·4	23·1	−23·1			131
			0·859	249·3	23·0	−21·5			90
		3432*b*	0·780	283·7	13·0	+ 6·0	7	55	
		3444	0·442	259·7	349·7	−11·0	3	11	
		3444	0·387	258·9	346·1	−10·8	3	9	
		3437*a*	0·303	231·6	337·9	−17·8	4	10	
		3439*a*	0·145	292·8	331·2	− 3·9	18	86	
		3439	0·124	288·1	330·3	− 5·0	0	11	
		3439	0·127	298·3	329·9	− 3·7	3	17	
		3439	0·107	291·2	329·2	− 5·0	0	12	
		3439	0·099	302·8	328·3	− 4·2	0	4	
		3439	0·089	312·1	327·3	− 3·8	0	5	
		3439	0·068	303·4	326·8	− 5·1	1	5	
		3439	0·046	327·9	324·9	− 5·0	3	35	
		3439	0·044	347·7	324·0	− 4·8	0	7	
		3439	0·018	25·9	323·0	− 6·3	0	4	
		3438*b*	0·406	26·1	312·9	+14·2	10	69	
		3438	0·424	27·3	311·9	+15·0	3	14	
		3438*a*	0·446	32·9	309·0	+15·0	67	456	
		3442*a*	0·810	90·1	269·4	− 4·3	26	162	187*c*
		3442	0·825	89·5	268·0	− 3·7	0	11	
		3443*a*	0·891	67·6	264·6	+16·2	15	71	
			0·800	73·1	272·9	+ 8·9			188
			0·843	62·4	271·7	+18·6			172
Mar. 11		Centre			(323·5)	(−7·2)	(163)	(1054)	(768)

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

Group 3442, March 10–21. A large regular spot, *a*, with a small companion on March 11, 13 and 17.
Group 3443, March 10–20. A regular spot, *a*, with a small companion on March 16.
Group 3444, March 11–12. A few very small faint 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).
1894.				°	°	°			
70d.523	JG, FT	3432*b*	0·903	280·6	13·4	+ 6·4	0	16	
		3444	0·650	261·6	351·1	−10·9	0	3	
		3444	0·617	261·6	348·7	−10·8	0	3	
		3444	0·596	261·0	347·1	−11·1	0	3	
		3437*a*	0·482	246·4	337·9	−17·5	0	9	
		3439*a*	0·361	277·5	331·3	− 4·0	10	58	
		3439	0·346	277·7	330·4	− 4·2	0	9	
		3439	0·289	280·3	326·9	− 4·0	0	8	
		3439	0·275	276·9	326·2	− 5·1	0	7	
		3439	0·275	284·0	325·8	− 3·2	0	8	
		3439	0·241	278·1	324·2	− 5·1	0	31	
		3445	0·329	244·2	328·2	−15·1	0	4	
		3438*b*	0·377	351·2	313·8	+14·6	16	51	
		3438*a*	0·384	4·4	308·7	+15·2	59	386	
		3442*a*	0·650	88·1	269·9	− 4·3	20	130	
		3443*a*	0·784	62·3	264·2	+16·5	10	46	
Mar. 12		Centre			(310·4)	(−7·2)	(115)	(772)	(0)
71·490	HA, FT		0·946	280·2	7·1	+ 7·2			186
		3446	0·755	283·9	344·8	+ 5·5	1	8	
		3437*a*	0·646	251·5	337·4	−17·4	2	6	
		3439*a*	0·555	273·4	331·2	− 4·1	8	59	
		3439	0·510	274·8	328·1	− 3·8	4	14	
		3439	0·496	274·6	327·2	− 4·0	0	2	
		3439	0·483	272·6	326·5	− 5·1	0	3	
		3439	0·471	273·5	325·6	− 4·8	0	6	
		3439	0·471	275·5	325·5	− 3·8	0	18	
		3445	0·486	249·8	325·8	−16·0	0	14	
		3447*a*	0·415	300·4	318·6	+ 5·4	0	3	
		3447	0·400	299·8	317·9	+ 4·7	1	4	
		3447	0·388	299·9	317·2	+ 4·3	1	11	
		3447*b*	0·376	301·4	316·3	+ 4·5	0	5	
		3438*b*	0·459	324·0	313·7	+14·8	9	43	
		3438*a*	0·425	335·2	308·2	+15·5	67	361	
		3442*a*	0·466	85·3	270·0	− 4·2	21	121	
		3442	0·514	83·4	267·0	− 2·9	1	4	
		3443*a*	0·663	54·2	263·6	+16·8	11	50	
Mar. 13		Centre			(297·6)	(−7·2)	(126)	(732)	(186)
72·531	CL, JG		0·943	251·0	355·6	−20·3			164
			0·949	285·1	353·2	+11·9			209
			0·913	261·5	350·5	−10·7			205

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).
1894.				°	°	°			
72d.531	CL, JG		0·924	294·9	346·7	+19·7			286
			0·897	279·9	346·4	+ 5·6			85
			0·891	302·9	339·4	+25·0			64
			0·774	257·8	323·8	−14·0			128
		3439*a*	0·737	270·6	331·5	− 4·4	13	56	
		3439	0·721	269·5	330·2	− 5·3	0	3	
		3439	0·710	271·8	329·1	− 3·7	6	21	
		3439	0·697	272·1	328·1	− 3·7	0	9	129*c*
		3439	0·679	270·5	326·8	− 4·9	4	29	
		3439	0·662	270·5	325·5	− 5·0	5	34	
		3439	0·642	274·7	323·7	− 2·5	0	7	
		3445	0·686	255·0	327·2	−15·4	8	35	
		3445	0·669	253·6	325·8	−16·2	0	9	116*s*
		3445	0·651	254·6	324·4	−15·4	5	21	
		3447*a*	0·615	288·0	319·8	+ 5·2	10	32	
		3447	0·569	289·9	316·4	+ 5·1	0	8	76*c*
		3447*b*	0·559	288·5	316·0	+ 4·2	12	49	
		3438*b*	0·604	306·4	314·1	+14·8	10	28	
		3438	0·605	307·7	313·7	+15·5	1	3	
		3438	0·587	307·0	312·8	+14·4	0	4	
		3438*c*	0·564	311·1	310·0	+15·4	31	163	
		3438*d*	0·539	314·5	307·4	+15·1	36	203	
		3438	0·556	319·2	306·4	+18·3	0	7	
		3442*a*	0·240	78·1	270·4	− 4·1	17	124	
		3443*a*	0·523	40·0	263·5	+16·9	14	73	
			0·950	107·2	211·2	−10·5			105
			0·976	115·8	205·0	−26·6			105
Mar. 14		Centre			(284·0)	(−7·1)	(172)	(918)	(1672)
73·180	CL, FT		0·945	246·9	347·4	−24·2			66
			0·962	286·8	346·8	+14·0			69
I.			0·915	260·0	342·2	−12·0			167
			0·943	297·1	340·6	+22·6			129
		3439*a*	0·840	268·6	332·6	− 5·0	11	46	
		3439	0·817	270·0	330·2	− 4·2	3	12	
		3439	0·801	270·0	328·6	− 4·3	0	7	205*c*
		3439	0·786	269·8	327·3	− 4·6	0	8	
		3445	0·800	255·2	328·8	−16·1	5	29	
		3445	0·773	253·7	326·1	−17·1	0	3	223*c*
		3445	0·762	254·8	325·1	−16·2	2	7	
		3447*a*	0·741	283·0	321·6	+ 4·7	6	25	
		3447	0·729	283·4	320·6	+ 4·7	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.

March 15. The photograph on this date is difficult to measure, the limb being faint and ill-defined.
Group 3445, March 12–16. A very small spot on March 12. It has disappeared by March 13 and another spot has appeared near its place. Other spots appear on the succeeding days and form a short stream.
Group 3446, March 13. A very small spot.
Group 3447, March 13–16. A few small spots in a straggling stream. *a* and *b*, the first and last spots, have become the largest by March 14, and alone remain by March 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).
1894.				°	°	°			
73d.180	CL, FT	3447	0·700	283·6	318·3	+ 4·3	0	3	
		3447*b*	0·674	283·2	316·3	+ 3·4	7	28	96*c*
I.		3438*b*	0·708	298·8	315·1	+14·4	4	12	
		3438	0·692	298·9	313·9	+14·0	0	5	
		3438	0·660	298·7	311·7	+12·7	1	7	
		3438*c*	0·666	302·4	310·9	+15·1	25	103	
		3438	0·650	302·9	309·6	+14·8	0	6	115*c*
		3438*d*	0·637	304·6	308·2	+15·2	42	168	
		3438	0·630	306·9	306·9	+16·2	4	13	
		3438	0·639	310·3	306·2	+18·3	0	6	
		3442*a*	0·095	58·9	270·7	− 4·3	21	109	
		3443*a*	0·455	25·6	263·6	+17·2	10	74	
			0·922	62·9	213·6	+21·6			104
			0·893	107·6	211·5	−18·9			102
Mar. 15		Centre			(275·4)	(−7·1)	(141)	(673)	(1276)
74·439	CL, FT		0·852	262·2	317·7	−10·4			224
		3439*a*	0·955	267·3	331·7	− 4·7	0	18	
		3439	0·951	268·1	330·9	− 4·0	0	13	
		3439	0·924	267·9	326·5	− 4·7	0	25	445*c*
		3439	0·922	269·7	325·9	− 3·1	0	10	
		3445	0·937	255·9	329·2	−15·7	0	11	297*c*
		3447*a*	0·901	279·0	321·9	+ 5·0	0	8	100*c*
		3447*b*	0·849	279·2	315·7	+ 3·9	0	4	
		3438	0·832	290·9	311·5	+13·0	0	13	
		3438*c*	0·829	293·7	310·4	+15·1	21	96	274*c*
		3438	0·810	294·2	308·5	+14·9	2	13	
		3438*d*	0·804	295·3	307·6	+15·4	18	123	
		3442*a*	0·213	281·8	270·8	− 4·5	14	99	
		3443	0·456	345·9	265·5	+19·1	0	3	
		3443*a*	0·419	349·1	263·5	+17·2	11	58	
			0·885	59·5	203·2	+22·8			75
			0·903	119·0	194·3	−29·2			267
			0·955	103·0	185·1	−14·5			109
Mar. 16		Centre			(258·8)	(−7·1)	(66)	(494)	(1791)
75·432	HA, JG		0·978	266·6	323·8	− 4·8			320
			0·949	250·3	318·4	−20·9			166
			0·942	259·6	316·9	−12·2			171
			0·944	275·7	315·6	+ 3·0			106
		3438*c*	0·927	289·4	310·3	+15·0	31	100	455*c*
		3438*d*	0·908	290·7	307·3	+15·4	30	96	
1894.				°	°	°			
75d.432	HA, JG	3442*a*	0·428	274·6	270·9	− 4·5	14	80	
		3442	0·410	279·6	269·5	− 2·6	0	2	
		3443*a*	0·498	323·6	263·2	+16·8	12	59	
		3448	0·949	78·7	175·8	+ 8·4	0	11	40*c*
			0·799	54·6	201·0	+22·5			67
			0·736	119·1	200·2	−26·0			133
			0·883	103·1	183·1	−14·9			149
			0·927	123·4	177·8	−33·5			386
Mar. 17		Centre			(245·7)	(−7·1)	(87)	(348)	(1993)
76·541	CL, FT	3438*c*	0·988	286·2	309·7	+14·7	0	77	256*c*
		3438*d*	0·983	287·3	307·8	+15·5	0	93	
		3442*a*	0·642	271·2	271·0	− 4·7	7	41	
		3443*a*	0·649	306·7	263·9	+16·9	5	34	
		3448	0·823	76·2	177·7	+ 7·1	2	9	71*c*
			0·759	105·7	181·7	−16·5			76
			0·855	124·8	174·3	−33·2			390
			0·920	68·9	167·9	+16·3			162
			0·909	107·5	165·0	−18·8			118
			0·942	131·6	161·4	−41·4			343
			0·957	78·2	159·8	+ 9·1			188
			0·953	101·7	157·9	−13·3			152
Mar. 18		Centre			(231·1)	(−7·0)	(14)	(256)	(1756)
77·307	CL, HA		0·835	286·3	275·1	+ 9·5			123
			0·799	258·7	274·3	−13·2			81
I.		3442*a*	0·774	269·4	271·7	− 4·9	22	71	95*c*
		3443*a*	0·758	299·3	264·4	+16·7	7	27	60*c*
		3448	0·709	72·5	178·1	+ 7·2	2	5	
		3449*a*	0·968	114·7	143·9	−25·6	0	13	
			0·798	127·8	171·6	−33·9			306
			0·838	67·7	167·9	+14·4			75
			0·893	76·6	159·7	+ 8·6			114
			0·899	103·4	156·2	−15·1			136
Mar. 19		Centre			(220·9)	(−7·0)	(31)	(116)	(990)
78·213	CL, HA		0·926	283·8	274·7	+10·0			215
		3442*a*	0·890	268·0	272·0	− 5·2	13	49	176*c*
I.		3443*a*	0·866	294·1	264·5	+16·8	4	22	85*p*
		3449*a*	0·907	114·9	143·6	−25·5	0	21	121*s*
		3450*a*	0·984	80·2	130·7	+ 8·3	0	297	

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 3448, March 17–21. A very small spot not seen after March 19. Two very small spots are seen a little *sf* of its place on March 21.
Group 3449, March 19–24. A small spot, *a*, which gradually diminishes. Two small spots precede it on March 23.
Group 3450, March 20–31. A number of spots, mostly large, in a fine straight stream. *a*, the leader, moves forward in longitude and northward in latitude. It has broken up into two parts, *c* and *d*, by March 28, of which *d* has disappeared by March 29. *b*, the last spot of the group, is measured in two divisions on March 21. It moves forward in longitude but southward in latitude, thus giving a retrograde motion of rotation to the axis of the group. Only *b* remains by March 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).
1894.				°	°	°			
78d·213	CL,HA		0·762	135·1	166·3	−37·8			269
			0·759	59·0	166·0	+17·9			54
I.			0·797	72·6	158·8	+ 9·3			189
			0·839	102·9	151·5	−14·7			174
Mar. 20		Centre			(209·0)	(−7·0)	(17)	(389)	(1283)
79·419	HA,JG		0·950	254·2	265·9	−17·1			88
			0·911	290·9	255·1	+15·8			121
		3442*a*	0·980	266·6	271·8	− 4·7	4	32	163*c*
		3451	0·947	269·4	264·3	− 2·8	0	13	
		3448	0·387	58·4	173·9	+ 5·1	0	3	
		3448	0·421	60·0	171·7	+ 5·7	1	6	
		3452	0·607	58·2	161·3	+12·7	2	6	
		3452	0·618	59·3	160·3	+12·6	0	1	
		3449*a*	0·777	117·9	143·6	−25·9	3	10	100*f*
		3450*a*	0·888	77·6	132·2	+ 7·7	37	234	
		3450	0·906	78·3	129·8	+ 7·5	6	56	
		3450	0·922	78·1	127·6	+ 8·1	1	12	550*c*
		3450*b*	0·924	79·4	127·1	+ 7·1	10	100	
		3450*b*	0·944	79·2	124·0	+ 7·8	35	183	
		3450	0·972	80·2	118·1	+ 7·8	0	15	
			0·795	143·6	151·5	−44·9			91
			0·738	103·4	145·4	−14·5			67
			0·831	62·8	142·3	+18·0			68
			0·863	110·2	133·2	−20·9			69
			0·930	59·3	131·2	+25·2			129
			0·948	120·6	121·0	−31·1			71
Mar. 21		Centre			(193·1)	(−6·9)	(99)	(671)	(1517)
80·217	CL,HA		0·872	253·8	243·7	−17·5			94
		3449*a*	0·675	121·1	142·9	−25·7	2	5	
I.		3450*a*	0·790	74·4	132·6	+ 7·8	55	205	
		3450	0·816	75·3	130·0	+ 7·8	7	64	
		3450*b*	0·851	76·6	126·2	+ 7·5	79	359	501*c*
		3450	0·913	78·1	118·4	+ 8·0	0	6	
		3450	0·914	77·0	115·6	+ 8·9	1	15	
			0·721	57·8	143·1	+17·2			47
			0·874	55·0	130·0	+26·0			106
			0·884	121·1	121·3	−30·6			70
Mar. 22		Centre			(182·6)	(−6·9)	(144)	(654)	(818)

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).
1894.				°	°	°			
81d·501	CL, JG	3453	0·199	230·7	174·8	−14·1	0	7	
		3453	0·194	224·2	173·7	−14·8	3	10	
		3454	0·323	8·0	163·1	+11·7	0	8	
		3454	0·355	21·1	158·2	+12·4	4	10	
		3449	0·479	136·6	144·2	−26·8	3	13	
		3449	0·467	134·0	144·0	−25·3	1	5	
		3449*a*	0·482	133·5	143·0	−25·7	1	7	
		3450*a*	0·589	66·2	132·9	+ 8·0	27	158	
		3450	0·598	68·9	131·7	+ 6·7	0	8	
		3450	0·617	69·3	130·3	+ 7·0	9	93	188*c*
		3450	0·672	68·9	126·5	+ 8·6	0	7	
		3450*b*	0·663	72·5	126·4	+ 6·2	50	296	
		3455	0·898	108·4	101·2	−19·5	0	13	218*c*
			0·749	73·1	119·6	+ 7·8			88
			0·921	75·7	100·8	+10·3			81
Mar. 23		Centre			(165·7)	(−6·9)	(98)	(635)	(575)
82·286	CL,HA	3449*a*	0·378	148·6	142·8	−25·4	1	5	
		3450*a*	0·456	55·8	133·0	+ 8·5	31	149	
I.		3450	0·475	58·5	131·3	+ 8·1	0	15	
		3450	0·487	56·2	131·2	+ 9·5	0	8	135*c*
		3450	0·472	61·4	130·7	+ 6·8	2	32	
		3450	0·490	59·4	130·2	+ 8·3	9	43	
		3450*b*	0·521	65·5	126·9	+ 6·5	60	265	
			0·827	105·2	99·2	−16·4			125
			0·879	75·2	96·0	+ 9·5			114
Mar. 24		Centre			(155·3)	(−6·8)	(103)	(517)	(374)
83·478	HA,FT		0·877	242·7	200·5	−27·1			114
			0·740	231·2	182·6	−32·6			284
			0·745	217·6	176·8	−41·5			131
		3450*a*	0·287	23·7	132·9	+ 8·5	27	143	
		3450	0·268	31·5	131·5	+ 6·5	0	7	
		3450	0·301	28·0	131·4	+ 8·6	2	10	
		3450	0·291	32·4	130·6	+ 7·5	2	65	
		3450	0·288	39·0	129·1	+ 6·2	0	6	
		3450	0·286	43·6	128·2	+ 5·2	0	6	
		3450	0·301	40·9	128·2	+ 6·5	10	42	
		3450*b*	0·310	47·3	126·4	+ 5·5	32	162	
		3450	0·394	44·2	123·5	+ 9·8	0	4	
		3450	0·415	52·5	120·3	+ 8·2	1	7	
		3456	0·520	15·9	130·7	+23·2	0	3	

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

Group 3451, March 21. A small spot.
Group 3452, March 21. Two very small spots.
Group 3453, March 23. A pair of small spots.
Group 3454, March 23. A pair of small spots, possibly a revival of Group 3452.
Group 3455, March 23. A small spot.
Group 3456, March 25–26. Two well-defined spots, *a* and *b*, on March 25. They have both grown faint by March 26. A very small companion is seen near *a* on March 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).
1894.				°	°	°			
83d·478	HA,FT	3456*a*	0·544	16·0	130·1	+24·7	5	13	
		3456*b*	0·566	18·5	128·2	+25·7	7	39	
			0·884	58·9	84·3	+23·3			191
			0·896	109·0	75·5	−20·0			306
			0·973	84·0	63·8	+ 4·2			124
Mar. 25		Centre			(139·6)	(−6·8)	(86)	(507)	(1150)
84·463	CL,JG		0·883	240·9	188·0	−28·8			228
			0·843	253·9	184·3	−17·2			161
			0·765	232·2	172·3	−32·6			171
		3450*a*	0·288	337·0	133·1	+ 8·6	26	134	
		3450	0·282	344·0	131·1	+ 9·0	0	5	
		3450	0·255	343·5	130·8	+ 7·4	6	28	
		3450	0·234	354·1	128·0	+ 6·7	9	48	
		3450*b*	0·208	0·3	126·5	+ 5·3	29	151	
		3456*a*	0·515	352·6	130·7	+23·9	0	8	} 55*c*
		3456*b*	0·553	357·1	128·4	+26·7	0	12	
		3457	0·876	70·3	68·7	+13·7	0	14	67*c*
			0·840	109·9	69·5	−20·3			218
			0·906	82·0	62·7	+ 4·3			163
			0·993	77·7	45·2	+11·3			190
Mar. 26		Centre			(126·6)	(−6·7)	(70)	(400)	(1253)
85·469	FT,HA		0·927	241·5	181·6	−28·9			116
			0·924	256·0	181·5	−15·5			69
			0·854	294·7	167·3	+17·1			185
			0·834	233·0	166·7	−34·2			138
			0·813	285·6	165·5	+ 8·6			136
			0·778	219·3	154·8	−42·1			79
		3450*a*	0·423	308·0	132·9	+ 8·8	27	104	
		3450	0·388	307·8	131·2	+ 7·3	1	8	
		3450	0·345	306·7	129·4	+ 5·4	0	5	
		3450	0·342	313·1	127·8	+ 7·0	8	38	
		3450*b*	0·309	310·5	126·9	+ 5·0	26	133	
		3458	0·303	327·9	122·6	+ 8·2	1	8	
		3458	0·306	332·8	121·4	+ 9·1	0	15	
		3458	0·266	331·1	120·7	+ 6·7	0	18	
		3459*a*	0·510	109·9	83·5	−15·9	5	10	
		3459	0·530	110·4	82·2	−16·4	0	6	
		3459*b*	0·553	108·7	80·5	−15·8	9	19	
		3457	0·752	64·2	69·1	+14·3	4	18	50*f*
1894.				°	°	°			
85d·469	FT,HA	3460	0·894	75·3	52·1	+ 9·9	1	21	} 130
		3460*a*	0·916	75·1	49·2	+10·8	10	56	
		3460	0·934	75·5	46·5	+11·0	3	23	
		3461*a*	0·958	110·1	38·8	−21·2	10	40	124*c*
			0·710	112·2	69·0	−20·4			92
			0·801	80·1	61·2	+ 3·8			117
Mar. 27		Centre			(113·3)	(−6·7)	(105)	(522)	(1236)
86·477	CL,JG		0·929	236·2	168·0	−33·8			465
			0·918	285·7	164·2	+11·6			73
			0·854	253·5	158·9	−17·5			315
			0·799	289·9	149·9	+11·6			88
			0·821	222·0	147·7	−42·2			133
			0·732	239·1	144·5	−26·8			77
		3462	0·948	279·5	170·1	+ 6·8	13	83	} 233*c*
		3462	0·926	279·8	166·4	+ 6·5	9	37	
		3462	0·926	281·3	166·2	+ 7·8	0	35	
		3450*c*	0·604	294·6	133·7	+ 9·1	4	34	
		3450*d*	0·590	295·2	132·6	+ 9·0	4	19	
		3450	0·513	296·0	127·6	+ 7·1	7	23	
		3450*b*	0·502	292·6	127·6	+ 5·2	23	119	
		3458	0·424	301·1	121·3	+ 6·5	0	10	
		3463	0·534	359·9	100·1	+25·5	0	6	
		3459*a*	0·283	122·8	85·9	−14·8	0	9	
		3459*b*	0·368	115·6	80·0	−15·3	4	17	
		3460	0·770	70·8	52·5	+10·2	0	12	} 199*c*
		3460*a*	0·783	71·2	51·3	+10·3	14	56	
		3460	0·830	72·1	46·7	+10·9	9	45	
		3461*a*	0·869	110·2	39·5	−20·8	13	40	} 261*c*
		3461*b*	0·889	111·6	37·0	−22·2	3	20	
		3461*c*	0·908	113·3	34·4	−23·9	0	28	
		3464*a*	0·937	64·8	35·1	+20·8	6	28	134*f*
		3465*a*	0·988	74·1	21·2	+14·6	0	191	173*c*
Mar. 28		Centre			(100·0)	(−6·6)	(109)	(812)	(2151)
87·506	HA,FT		0·962	237·2	161·6	−33·3			137
			0·880	257·0	148·6	−14·6			166
			0·895	223·7	145·4	−43·9			274
			0·857	241·7	144·6	−27·6			114
			0·770	311·6	126·0	+25·6			124
		3450*c*	0·757	287·9	133·1	+ 8·9	0	24	} 169*c*
		3450*b*	0·687	284·6	128·2	+ 5·0	21	123	
		3450	0·680	289·1	126·8	+ 7·8	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 3457, March 26–27. A small spot on March 26. A close pair measured as one spot on March 27.
Group 3458, March 27–28. A few very faint small spots *nf* Group 3450.
Group 3459, March 27–31. Two well-defined small spots, *a* and *b*, with a very small companion between them on March 27. *a* has moved forward by March 28 and disappeared by March 29. A fresh outburst of very small spots preceding *b* has taken place by March 30, and the group has become a small straggling stream.
Group 3460, March 27–April 7. A few spots in an irregular stream on March 27. The largest spot, *a*, increases in size, and moves forward rapidly in longitude on the succeeding days, and the group becomes a fine stream, with *a*, its leader, a very large regular spot. The following spots die out, and *a* remains alone by April 6, and is seen as a notch on the limb on April 7.
Group 3461, March 27–April 1. A single spot, *a*, on March 27; two other spots, *b* and *c*, are seen following *a* on March 28 and 29. *c* has disappeared by March 30, *a* by April 1.
Group 3462, March 28. An irregular group, which breaks out close to the West limb.
Group 3463, March 28–April 2. A very small spot on March 28. It is accompanied by a second on March 29–30. The group is not seen on March 31 and April 1. One small spot is seen on April 2.
Group 3464, March 28–April 8. Two very large irregular spots, *a* and *b*, with a number of small spots between them. *a* is measured in two parts on March 31, and *b* has thrown off by March 31, a small spot, *c*, which increases rapidly in size.
Group 3465, March 28–April 9. A large regular spot, *a*. Some very small companions are seen on April 1, 2 and 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).
1894.				°	°	°			
87d·506	HA,FT	3463	0·556	339·2	99·0	+24·7	0	6	
		3463	0·566	341·4	98·0	+25·8	0	6	
		3459*b*	0·204	142·1	79·1	−15·8	0	5	
		3466	0·312	136·5	73·4	−19·5	0	6	
		3460*a*	0·593	63·6	54·0	+ 9·7	25	84	
		3460	0·618	64·2	52·2	+10·1	0	8	88*c*
		3460	0·684	66·2	47·1	+10·9	10	71	
		3461*a*	0·731	112·1	40·4	−20·6	5	34	
		3461*b*	0·762	113·3	37·7	−21·9	6	27	
		3461*c*	0·806	115·6	33·8	−24·4	0	14	
		3464*a*	0·835	59·9	36·2	+20·6	23	190	
		3464	0·851	59·7	34·6	+21·4	0	12	136*c*
		3464*b*	0·875	60·9	31·5	+21·5	36	160	
		3467	0·780	107·9	35·4	−18·0	1	27	
		3467	0·806	106·6	32·8	−17·2	1	17	270*f*
		3465*a*	0·925	71·6	21·8	+14·3	34	172	295*c*
Mar. 29		Centre			(86·5)	(−6·6)	(162)	(994)	(1773)
88·438	HA,FT		0·947	281·0	143·9	+ 8·2			101
			0·949	290·5	142·4	+17·1			190
			0·936	226·5	141·7	−42·8			135
			0·920	266·0	141·3	− 6·3			110
			0·925	224·0	138·7	−44·7			106
			0·868	304·2	126·6	+25·3			245
		3468	0·963	258·3	149·4	−13·0	7	35	281*c*
		3468	0·935	258·6	144·1	−13·0	7	23	
		3450*c*	0·881	284·2	133·9	+ 9·2	0	7	
		3450*b*	0·824	280·5	128·4	+ 4·9	19	88	
		3450	0·819	282·8	127·5	+ 6·6	0	6	410*p*
		3450	0·808	284·8	126·1	+ 8·0	2	11	
		3463	0·647	322·0	100·1	+24·7	1	8	
		3463	0·646	326·9	97·4	+26·7	3	16	
		3459	0·227	226·3	84·0	−15·4	0	3	
		3459	0·238	221·7	83·7	−16·6	4	7	
		3459	0·231	220·3	83·1	−16·5	0	7	
		3459	0·214	222·5	82·8	−15·5	2	5	
		3459*b*	0·199	212·4	80·5	−16·1	0	2	
		3460*a*	0·423	48·9	55·4	+ 9·9	30	137	
		3460	0·429	52·6	54·1	+ 9·0	3	12	
		3460	0·450	52·2	53·1	+ 9·9	4	11	
		3460	0·504	54·9	49·5	+10·9	0	5	
		3460	0·531	57·1	47·3	+10·9	2	16	
		3460	0·542	58·0	46·4	+10·9	0	26	
		3461*a*	0·581	116·4	40·6	−20·4	8	17	

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).
1894.				°	°	°			
88d·438	HA,FT	3461*b*	0·616	116·6	38·1	−21·2	6	17	
		3464*a*	0·725	52·9	36·1	+20·8	49	368	
		3464	0·731	55·3	34·7	+19·5	1	14	
		3464	0·749	52·5	34·4	+22·2	2	13	
		3464	0·744	55·1	33·8	+20·3	1	8	
		3464	0·750	56·3	32·8	+19·7	0	5	
		3464	0·768	55·4	31·7	+21·1	2	8	
		3464	0·765	56·6	31·5	+20·1	5	14	
		3464*b*	0·792	55·4	29·6	+22·2	81	393	
		3467	0·635	109·2	35·5	−17·2	5	10	
		3467	0·639	110·7	35·4	−18·1	2	6	
		3467	0·679	108·8	32·0	−17·5	0	5	
		3465*a*	0·831	67·9	21·8	+14·3	30	146	515*nf*
			0·831	90·9	18·0	− 4·4			182
			0·862	78·6	16·2	+ 6·4			199
			0·852	101·6	15·4	−13·3			39
			0·934	96·8	4·7	− 8·7			119
			0·941	112·6	3·2	−23·5			171
Mar. 30		Centre			(74·2)	(−6·5)	(276)	(1449)	(2803)
89·358	CL,HA		0·921	247·3	129·6	−23·5			139
			0·932	225·7	128·6	−43·5			127
I.			0·916	283·8	126·3	+ 9·9			432
			0·907	299·8	120·9	+23·5			161
		3469	0·993	264·1	145·6	− 6·6	0	58	309*c*
		3469	0·981	264·4	141·2	− 6·7	0	33	
		3468	0·989	258·0	144·4	−12·8	7	61	148*f*
		3450*b*	0·927	278·0	128·9	+ 4·9	20	79	201*c*
		3459	0·430	248·5	86·4	−15·0	0	2	
		3459	0·412	246·7	85·0	−15·3	0	4	
		3459	0·379	244·3	82·7	−15·5	0	2	
		3460*a*	0·298	21·3	55·7	+ 9·6	51	227	
		3460	0·319	25·6	54·0	+10·2	3	16	
		3460	0·331	28·5	52·8	+10·4	0	4	
		3460	0·319	30·3	52·6	+ 9·5	2	12	
		3460	0·340	32·0	51·5	+10·3	1	5	
		3460	0·336	36·2	50·5	+ 9·3	0	2	
		3460	0·355	34·0	50·4	+10·7	7	42	
		3460	0·387	40·0	47·4	+10·9	3	10	
		3460	0·399	40·0	46·9	+11·4	5	21	
		3460	0·413	39·4	46·5	+12·3	1	7	
		3460	0·406	41·0	46·3	+11·5	0	7	
		3461*a*	0·421	126·1	40·8	−20·4	2	7	
		3461*b*	0·456	124·2	38·3	−20·8	6	12	

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 3466, March 29. A very small spot.
Group 3467, March 29–April 6. A number of very small unstable spots *n* of Group 3461. The group undergoes continual change and is not seen on April 3 and 5.
Group 3468, March 30–31. A pair of small spots, first seen near the West limb. The preceding spot has disappeared by March 31.
Group 3469, March 31. A pair of faint spots, in the midst of bright faculæ, *n* of Group 3468, first seen near the West limb.

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).
1894.				°	°	°			
89d·358	CL,HA	3464*a*	0·599	41·0	37·2	+20·9	72	328	
		3464*a*	0·617	43·2	35·2	+20·9	14	155	
I.		3464	0·630	46·3	33·1	+20·1	3	8	
		3464	0·651	44·1	32·8	+22·2	1	8	
		3464*c*	0·652	47·0	31·5	+20·7	6	34	
		3464	0·672	45·2	31·0	+22·7	4	38	
		3464	0·663	47·4	30·6	+21·0	6	23	
		3464*b*	0·690	47·2	28·9	+22·5	110	482	
		3467	0·469	113·8	35·5	−16·7	2	6	
		3467	0·467	111·0	35·3	−15·4	1	12	
		3465*a*	0·714	62·2	21·4	+14·5	33	147	155*f*
		3470	0·798	64·3	13·8	+15·9	0	7	
			0·858	65·1	7·6	+17·4			206
			0·889	73·1	1·9	+11·8			106
			0·888	107·4	359·0	−18·4			182
Mar. 31		Centre			(62·0)	(−6·5)	(360)	(1859)	(2166)
90·191	CL,HA		0·970	280·1	125·5	+ 8·1			288
			0·918	237·0	117·0	−32·8			62
I.			0·793	254·4	103·5	−16·2			63
			0·841	305·8	99·8	+25·3			112
		3460*a*	0·289	339·5	56·9	+ 9·3	78	372	
		3460	0·264	344·6	55·0	+ 8·3	0	2	
		3460	0·294	349·5	54·1	+10·3	0	7	
		3460	0·266	350·7	53·5	+ 8·8	7	44	
		3460	0·282	1·1	50·7	+ 9·9	17	49	
		3460	0·307	10·9	47·6	+11·1	1	7	
		3460	0·309	15·4	46·2	+10·9	8	24	
		3461*b*	0·320	141·5	38·8	−20·7	0	4	
		3464*a*	0·502	27·6	36·7	+20·1	117	645	
		3464	0·544	29·8	34·1	+21·9	3	15	
		3464	0·533	33·2	32·9	+20·4	1	7	
		3464	0·561	30·8	32·9	+22·6	0	10	
		3464	0·577	32·5	31·4	+23·0	0	18	
		3464*c*	0·551	35·8	31·0	+20·4	30	138	
		3464*b*	0·594	36·3	28·7	+22·6	115	508	
		3467	0·294	123·7	36·4	−15·6	0	5	
		3467	0·307	125·7	36·0	−16·5	0	6	
		3467	0·303	119·3	35·2	−14·7	0	5	
		3467	0·324	122·4	34·5	−16·2	0	2	
		3467	0·320	120·2	34·4	−15·4	0	5	
		3467	0·333	117·2	33·2	−14·8	1	6	
		3467	0·359	121·1	32·4	−16·8	1	8	
		3465	0·559	52·1	24·0	+14·3	2	5	
1894.				°	°	°			
90d·191	CL,HA	3465	0·580	49·8	23·6	+16·3	1	4	
		3465*a*	0·581	54·2	22·0	+14·2	32	142	
I.		3465	0·598	57·5	19·9	+13·2	0	4	
		3471	0·960	104·4	336·4	−15·6	17	100	275*f*
			0·732	59·1	10·0	+17·2			56
			0·822	115·9	356·7	−24·8			130
			0·840	102·3	353·6	−13·8			86
			0·892	66·4	347·9	−23·9			121
April 1		Centre			(51·0)	(−6·4)	(431)	(2142)	(1193)
91·179	M, FT		0·898	284·4	99·8	+10·0			124
			0·868	252·3	98·5	−18·6			314
I.			0·797	306·7	82·1	+23·8			178
		3463	0·907	304·6	95·3	+27·7	0	12	122
		3472	0·611	302·3	70·0	+13·6	1	8	
		3472	0·598	300·4	69·7	+12·1	4	14	
		3460*a*	0·413	308·4	57·0	+ 8·8	82	362	
		3460	0·400	312·4	55·4	+ 9·5	5	13	
		3460	0·365	313·4	53·5	+ 8·3	0	26	
		3460	0·376	317·9	52·8	+10·0	0	5	
		3460	0·347	323·2	50·1	+ 9·8	22	95	
		3460	0·339	325·7	49·1	+ 9·9	0	3	
		3460	0·360	328·9	48·9	+11·6	6	35	
		3460	0·342	327·7	48·7	+10·4	1	9	
		3460	0·359	332·0	47·9	+12·1	1	8	
		3460	0·343	330·6	47·8	+11·0	0	11	
		3464*a*	0·453	359·9	38·1	+20·4	130	584	
		3464	0·405	2·4	37·0	+17·4	0	1	
		3464	0·414	4·2	36·2	+17·9	1	6	
		3464	0·421	5·1	35·8	+18·3	0	4	
		3464	0·436	5·1	35·7	+19·3	0	2	
		3464	0·465	6·9	34·6	+21·0	4	18	
		3464	0·458	7·9	34·2	+20·5	0	5	
		3464*c*	0·485	14·4	30·6	+21·5	10	166	
		3464	0·501	15·1	29·9	+22·5	0	10	
		3464*b*	0·504	18·4	28·2	+22·2	131	476	
		3467	0·168	171·0	36·4	−15·9	0	4	
		3467	0·161	163·8	35·3	−15·3	0	3	
		3467	0·174	164·1	35·2	−16·0	0	10	
		3465	0·428	32·8	24·2	+14·8	0	2	
		3465	0·440	32·3	23·9	+15·6	0	3	
		3465*a*	0·440	37·5	22·0	+14·2	30	133	
		3471	0·866	101·6	337·6	−13·3	2	12	

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 3470, March 31. A very small spot.
Group 3471, April 1–13. A regular spot on April 1. It has broken up by April 2, and is followed by several small spots in a straight stream. The group diminishes until April 5, after which it revives again as a straggling stream of spots, mostly small. *a*, the last spot on April 7, increases in size and becomes well-defined, and alone remains by April 11.
Group 3472, April 2–3. Two small spots on April 2. One on April 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).
1894.				°	°	°			
91d·179	M, FT	3471	0·872	103·8	336·9	−15·1	37	114	
		3471	0·874	102·4	336·6	−14·0	0	27	747c
I.		3471	0·901	103·6	333·2	−15·0	0	13	
		3471	0·915	104·6	331·3	−15·9	0	17	
			0·740	105·3	350·4	−15·6			172
			0·838	57·9	348·0	+22·4			141
			0·925	64·2	335·1	+20·9			54
			0·905	92·3	333·1	− 4·8			334
			0·956	103·4	324·2	−14·7			258
April 2		Centre			(38·0)	(−6·4)	(467)	(2211)	(2444)
92·475	CL, HA		0·892	253·9	84·4	−17·2			142
			0·907	300·0	79·8	+23·8			118
			0·784	246·0	71·6	−22·6			99
		3472	0·779	292·7	68·3	+13·2	0	7	93p
		3460a	0·618	293·3	55·8	+ 9·0	96	546	
		3460	0·602	296·9	53·9	+10·5	0	6	
		3460	0·578	297·1	52·3	+ 9·9	5	17	
		3460	0·576	300·0	51·4	+11·3	9	38	
		3460	0·549	298·8	50·0	+ 9·8	9	75	
		3460	0·547	301·3	49·2	+10·9	0	8	
		3460	0·530	299·3	48·7	+ 9·4	0	8	
		3460	0·545	303·2	48·5	+11·7	7	42	
		3464a	0·527	327·9	38·2	+20·4	85	591	
		3464	0·511	334·0	34·7	+21·2	6	21	
		3464	0·509	336·1	33·6	+21·5	5	17	
		3464	0·508	340·1	31·6	+22·2	0	7	
		3464c	0·501	342·7	30·1	+22·3	10	127	
		3464	0·461	341·0	30·0	+19·6	0	11	
		3464b	0·488	347·3	27·5	+22·0	82	533	
		3465a	0·354	357·8	21·7	+14·3	25	139	
		3473a	0·440	144·0	4·1	−26·8	0	8	
		3473b	0·454	140·0	2·0	−26·2	0	5	
		3471	0·622	101·5	342·5	−12·1	0	18	
		3471	0·672	103·3	338·8	−13·5	11	49	
		3471	0·688	104·7	337·6	−14·7	10	75	
		3471	0·708	105·3	336·0	−15·3	0	15	
		3471	0·726	105·8	334·5	−15·8	0	12	162c
		3471	0·752	105·9	332·2	−16·1	9	40	
			0·791	91·2	328·7	− 4·8			138
			0·878	104·9	319·1	−16·1			268
			0·932	70·5	315·3	+15·6			184
			0·924	79·3	314·8	+ 7·4			31
April 3		Centre			(20·9)	(−6·3)	(369)	(2415)	(1235)
1894.				°	°	°			
93d·490	CL, FT		0·916	252·3	74·3	−18·7			102
			0·907	289·7	69·4	+15·0			97
			0·842	281·1	63·4	+ 5·9			87
		3460a	0·774	287·7	55·7	+ 9·4	102	545	
		3460	0·730	291·4	51·1	+11·0	3	16	
		3460	0·730	293·5	50·6	+12·4	0	8	
		3460	0·712	291·1	49·8	+10·3	13	71	304c
		3460	0·712	293·0	49·3	+11·5	0	6	
		3460	0·708	294·0	48·7	+12·0	2	14	
		3460	0·697	293·7	48·0	+11·5	0	4	
		3464a	0·653	312·4	38·4	+20·7	93	645	
		3464	0·613	317·6	33·7	+21·2	7	31	
		3464	0·597	321·2	31·2	+22·0	1	6	
		3464c	0·597	323·4	30·1	+22·8	15	110	
		3464	0·598	324·9	29·4	+23·5	0	7	
		3464b	0·565	326·5	27·1	+22·2	69	506	
		3467	0·437	343·6	31·5	−16·8	0	9	
		3465a	0·426	326·2	21·6	+14·7	28	141	
		3465	0·416	332·6	18·9	+15·6	3	8	
		3473a	0·354	174·5	5·3	−26·7	4	14	
		3473b	0·355	165·1	1·7	−26·2	5	13	
		3471	0·465	107·3	340·4	−13·5	7	29	
		3471	0·491	108·1	338·8	−14·2	5	17	
		3471	0·513	108·1	337·4	−14·5	3	14	
		3471	0·528	109·9	336·6	−15·7	0	4	
		3471	0·587	108·7	332·3	−15·9	4	17	
		3474a	0·764	98·9	317·5	−10·8	2	14	
		3474b	0·784	99·2	315·6	−11·0	0	6	213c
		3475a	0·970	69·6	294·7	+18·0	24	97	236p
			0·825	67·6	315·7	+14·5			311
April 4		Centre			(7·5)	(−6·2)	(390)	(2352)	(1350)
94·496	CL, FT	3460a	0·894	284·2	55·6	+ 9·7	85	494	
		3460	0·847	286·9	49·7	+10·7	6	34	394c
		3464a	0·787	302·3	39·4	+20·5	73	610	
		3464	0·758	305·3	35·8	+21·3	0	11	
		3464	0·717	309·0	31·0	+21·8	0	17	
		3464c	0·698	310·4	29·1	+21·7	48	256	
		3464b	0·677	313·9	26·1	+22·7	49	362	
		3465a	0·566	307·6	21·8	+14·7	20	107	
		3476a	0·410	303·8	14·3	+ 7·3	0	19	
		3476b	0·388	309·2	11·9	+ 8·2	4	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 3473, April 3–11. A pair of small spots, *a* and *b*. *b* has disappeared by April 5 and *a* by April 6. A fresh spot, *c*, has broken out by April 6 *sf* of the place of *b*. Another spot, *d*, has appeared *sf* of the place of *a* by April 7, and *d* and *c*, with a very small spot between them, form a short straight stream of considerable size, which has greatly increased by the succeeding day. *c* has divided into two portions, *e* and *f*, by April 8; these are again seen as one spot, *c*, on April 11.
Group 3474, April 4–6. Two small spots, *a* and *b*, on April 4. *a* has disappeared by April 5.
Group 3475, April 4–14. A regular spot, *a*, with a very small companion on April 10. *a* is overtaken by Group 3478 on April 15, and is seen as a small bud on the leader of that group on that day.
Group 3476, April 5–7. Two small spots, *a* and *b*. A very small follower is seen on April 6. *a* moves forward in longitude very rapidly.

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).
				°	°	°			
1894. 94d·496	CL,FT	3473*a*	0·398	206·8	5·1	−26·8	0	12	
		3471	0·266	125·1	341·4	−14·8	0	4	
		3471	0·259	122·0	341·3	−13·9	4	29	
		3471	0·280	121·4	340·1	−14·4	5	15	
		3471	0·294	115·1	338·5	−13·1	0	4	
		3471	0·327	119·8	337·3	−15·3	0	4	
		3471	0·347	120·9	336·3	−16·1	0	11	
		3471	0·377	122·9	335·0	−17·6	0	4	
		3471	0·395	123·1	334·0	−18·2	0	4	
		3474*b*	0·620	100·1	316·0	−11·1	0	5	
		3475*a*	0·897	65·8	294·9	+18·5	13	77	184*f*
			0·798	64·3	306·0	+16·2			146
April 5		Centre			(354·3)	(−6·2)	(307)	(2094)	(724)
95·305	CL,FT		0·751	240·3	29·9	−26·1			232
			0·639	310·0	14·6	+19·0			157
I.		3460*a*	0·960	281·8	55·6	+ 9·5	127	612	562*nf*
		3464*a*	0·885	297·4	40·5	+20·8	95	528	
		3464	0·854	299·8	36·1	+21·4	5	42	
		3464	0·828	301·9	32·6	+22·0	0	6	
		3464	0·814	301·7	31·3	+21·2	0	23	930*c*
		3464*c*	0·797	303·3	29·1	+21·7	44	204	
		3464	0·794	304·9	28·2	+22·7	3	14	
		3464*b*	0·774	306·1	26·0	+22·7	56	270	
		3467	0·791	253·5	35·7	−16·8	0	5	
		3465*a*	0·693	298·9	22·2	+14·8	31	96	175*c*
		3476*a*	0·584	292·6	16·3	+ 7·8	5	12	
		3476*b*	0·530	297·1	11·9	+ 8·6	9	21	
		3476	0·485	297·6	9·1	+ 7·5	0	3	
		3473*c*	0·451	212·1	359·2	−28·2	6	14	
		3471	0·146	162·7	340·9	−14·1	3	15	
		3471	0·152	146·1	338·5	−13·3	13	29	
		3471	0·189	147·5	337·5	−15·2	7	25	
		3471	0·186	143·2	336·9	−14·6	0	3	
		3471	0·216	146·4	336·4	−16·4	1	5	
		3471	0·224	143·6	335·6	−16·4	0	5	
		3471*a*	0·209	138·0	335·2	−15·0	19	59	
		3471	0·268	144·8	334·1	−18·6	0	5	
		3471	0·273	136·5	332·2	−17·4	0	14	
		3477	0·370	20·9	335·7	+14·1	3	10	
		3477	0·372	30·2	332·5	+12·7	1	5	
		3477	0·360	35·7	331·2	+11·0	0	1	
		3474*b*	0·466	102·2	316·0	−11·1	0	8	
		3475*a*	0·815	61·9	294·3	+18·6	17	86	147*c*
1894. 95d·305	CL,FT	3478	0·860	66·6	288·3	+16·5	0	17	401*c*
		3478	0·869	67·9	286·9	+15·7	0	7	
I.			0·791	51·2	300·7	+25·2			2[illegible]8
			0·899	94·1	279·3	− 6·4			355
April 6		Centre			(343·5)	(−6·1)	(445)	(2144)	(3187)
96·165	AR,AW		0·880	247·9	34·7	−22·3			489
		3460*a*	0·995	279·7	55·1	+ 8·9	0	211	584*c*
I.		3464*a*	0·963	294·4	42·5	+21·5	141	553	692*c*
		3464*c*	0·898	298·6	30·5	+22·3	8	56	
		3464	0·880	297·8	28·4	+20·9	3	25	411*c*
		3464*b*	0·868	300·4	26·2	+22·5	22	256	
		3465*a*	0·815	293·2	22·8	+14·9	24	99	115*c*
		3476*a*	0·749	286·1	18·6	+ 7·8	0	3	
		3476*b*	0·680	289·8	12·3	+ 8·6	0	11	
		3473*d*	0·608	230·9	4·3	−27·7	20	59	
		3473	0·571	227·4	0·5	−28·0	0	4	
		3473*c*	0·562	224·9	359·0	−28·8	11	61	
		3471	0·205	230·0	341·5	−13·5	1	17	
		3471	0·197	225·2	340·4	−14·0	8	43	
		3471	0·198	216·3	339·2	−15·2	4	35	
		3471	0·159	225·0	338·8	−12·5	1	14	
		3471	0·157	212·7	337·2	−13·6	0	10	
		3471	0·204	203·0	337·0	−16·9	0	2	
		3471*a*	0·168	198·3	335·3	−15·2	18	115	
		3477*a*	0·346	343·4	338·0	+13·2	10	55	
		3477	0·361	351·5	335·4	+14·7	2	18	
		3477	0·356	358·2	332·9	+14·7	0	20	
		3477	0·335	359·8	332·3	+13·4	0	5	
		3477	0·353	7·8	329·4	+14·3	6	13	
		3479	0·199	163·5	328·8	−17·0	0	2	
		3475*a*	0·702	55·1	294·9	+18·8	16	89	223*c*
		3478	0·760	62·9	287·7	+15·9	8	36	
		3478	0·769	64·3	286·5	+15·3	0	15	
		3478	0·776	63·7	286·1	+15·9	0	4	306*c*
		3478	0·788	64·4	284·8	+15·8	3	11	
		3478	0·794	63·0	284·6	+17·0	0	24	
		3478	0·799	64·7	283·7	+16·0	0	6	
			0·864	93·3	272·3	− 5·9			434
			0·906	65·6	271·6	+19·0			226
			0·902	103·2	267·3	−14·5			291
			0·931	112·4	263·2	−23·0			409
April 7		Centre			(332·2)	(−6·1)	(306)	(1872)	(4180)

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 3477, April 6–11. Three very small spots on April 6. The group has become a long straggling stream of spots, of which the leader, *a*, is the largest, by April 7. Portions break off from *a* on the succeeding days, causing an apparent change of place of the principal part of the spot.
Group 3478, April 6–16. A few small spots, irregularly arranged, on April 6 and 7. The group has greatly increased in size by April 8, and has become a fine, broad stream. Two large composite spots, *a* and *b*, are formed on the succeeding days by the aggregation together of small spots. *a* moves forward in longitude and has overtaken and coalesced with 3475*a* by April 15.
Group 3479, 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).
1894.				°	°	°			
97d·273	AW,HA		0·957	246·0	31·6	−24·7			356
			0·859	296·9	11·7	+19·4			202
I.			0·862	307·3	8·2	+27·7			103
			0·709	304·5	355·6	+18·9			187
		3464c	0·972	294·7	29·9	+22·2	7	191	
		3464	0·958	295·3	26·6	+22·2	4	45	462c
		3464b	0·957	296·7	26·0	+23·3	9	133	
		3465a	0·926	289·0	22·4	+15·0	23	120	140f
		3473d	0·758	238·9	4·2	−27·1	16	94	
		3473	0·742	239·1	2·8	−26·6	11	58	
		3473	0·729	238·4	1·5	−26·8	0	7	
		3473	0·722	237·7	0·7	−27·1	0	5	184c
		3473e	0·696	234·8	357·6	−28·2	46	167	
		3473f	0·683	236·2	357·0	−27·0	5	18	
		3471	0·419	247·2	341·1	−14·8	0	5	
		3471	0·407	248·8	340·5	−14·0	14	28	
		3471	0·391	246·1	339·2	−14·7	3	25	
		3471	0·381	249·3	339·0	−13·3	0	3	
		3471	0·358	238·1	336·0	−16·6	0	2	
		3471	0·343	239·7	335·4	−15·6	6	14	
		3471	0·342	234·2	334·4	−17·2	0	3	
		3471a	0·328	237·2	334·2	−16·0	31	121	
		3471	0·324	232·4	333·1	−17·2	2	7	
		3471	0·319	231·0	332·6	−17·4	0	5	
		3471	0·311	231·0	332·5	−17·0	0	5	
		3477	0·457	320·7	338·6	+11·2	2	12	
		3477a	0·463	311·7	338·2	+12·2	16	71	
		3477	0·466	315·6	337·1	+13·7	0	2	
		3477	0·437	314·7	336·1	+12·2	0	3	
		3477	0·437	317·8	335·1	+13·1	5	9	
		3477	0·409	320·2	333·1	+12·5	3	7	
		3477	0·432	325·9	332·1	+15·1	0	3	
		3477	0·393	327·4	330·1	+13·4	8	15	
		3475a	0·563	42·8	293·9	+18·8	35	86	
		3478	0·595	50·1	289·2	+17·1	9	21	
		3478	0·603	53·0	287·7	+16·0	46	152	200c
		3478	0·652	56·0	283·5	+16·4	7	22	
		3478	0·668	56·7	282·1	+16·6	16	54	
			0·804	61·2	269·7	+18·8			231
April 8		Centre			(317·6)	(−6·0)	(324)	(1513)	(2065)
98·479	CL,FT		0·946	291·2	9·4	+17·8			233
			0·916	262·0	8·5	− 9·7			58
			0·922	282·3	7·2	− 8·9			60
1894.				°	°	°			
98d·479	CL,FT		0·831	259·3	358·1	−12·0			111
		3465a	0·990	286·2	21·7	+15·3	16	146	
		3473d	0·898	242·3	5·1	−27·4	24	163	
		3473f	0·829	241·0	356·1	−27·2	13	56	291c
		3473e	0·827	239·3	355·5	−28·5	18	111	
		3471	0·634	255·3	340·7	−13·8	0	12	49c
		3471	0·624	254·8	339·9	−14·1	3	19	
		3471a	0·544	249·5	333·6	−16·0	20	97	
		3477a	0·658	295·8	338·8	+11·9	14	58	
		3477	0·640	296·7	337·3	+11·9	3	14	
		3477	0·627	296·1	336·6	+11·1	0	5	
		3477	0·626	302·8	334·6	+14·8	0	5	
		3477	0·613	299·8	334·6	+12·8	1	4	
		3477	0·606	300·5	334·0	+12·9	5	14	
		3477	0·596	300·3	333·4	+12·4	0	2	
		3477	0·569	302·0	331·2	+12·4	3	7	
		3475a	0·430	15·5	294·8	+18·5	13	66	
		3478a	0·422	28·1	289·8	+16·0	36	359	
		3478	0·444	29·4	288·6	+16·9	1	5	
		3478	0·442	32·6	287·4	+16·1	6	14	
		3478	0·456	31·2	287·4	+17·2	3	13	
		3478	0·421	35·2	287·3	+14·4	0	5	
		3478	0·406	37·7	287·0	+13·0	0	2	
		3478	0·455	33·5	286·6	+16·5	1	7	
		3478	0·445	36·0	286·0	+15·4	0	12	
		3478	0·430	40·4	285·1	+13·4	5	15	
		3478	0·467	37·5	284·6	+16·0	0	7	
		3478	0·469	37·6	284·4	+16·1	0	8	
		3478b	0·494	40·5	282·2	+16·4	47	258	
		3480	0·937	114·0	231·9	−24·5	0	13	325f
April 9		Centre			(301·7)	(−5·9)	(232)	(1497)	(1127)
99·499	HA,FT		0·916	253·6	355·0	−17·3			146
		3473d	0·971	243·2	5·4	−27·4	19	179	
		3473	0·939	244·5	358·3	−25·9	0	10	
		3473f	0·925	243·0	355·8	−27·1	25	127	333c
		3473e	0·916	241·5	354·2	−28·4	7	57	
		3471	0·775	256·1	339·0	−14·4	0	4	
		3471a	0·716	253·7	333·6	−15·7	17	119	
		3471	0·701	252·0	332·1	−16·7	1	6	299c
		3471	0·691	253·1	331·4	−15·8	0	6	
		3477a	0·802	290·1	338·4	+12·3	5	42	118n
		3477	0·757	293·4	333·6	+13·4	0	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 3480, April 9. 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).
				°	°	°			
1894.									
99d·499	HA,FT	3477	0·757	294·2	333·4	+14·0	0	7	
		3477	0·731	293·3	331·5	+12·6	0	5	
		3481	0·625	257·9	326·7	−12·1	0	4	
		3481	0·614	257·8	325·9	−12·1	2	8	44c
		3481	0·601	258·3	325·0	−11·7	3	11	
		3482	0·667	299·3	325·0	+14·4	0	8	
		3475	0·419	340·6	296·6	+17·5	0	5	
		3475a	0·427	345·7	294·6	+18·6	10	46	
		3478a	0·384	355·6	290·0	+16·6	38	502	
		3478	0·392	359·6	288·4	+17·2	0	6	
		3478	0·368	2·6	287·2	+15·7	0	16	
		3478	0·392	4·8	286·2	+17·1	8	54	
		3478	0·355	7·8	285·4	+14·7	4	18	
		3478	0·380	8·5	284·9	+16·2	0	7	
		3478	0·337	10·7	284·5	+13·5	4	11	
		3478	0·381	10·9	283·9	+16·1	0	20	
		3478	0·365	12·7	283·5	+15·0	0	7	
		3478	0·381	12·4	283·3	+16·0	0	9	
		3478	0·387	14·3	282·5	+16·2	0	4	
		3478	0·379	15·9	282·0	+15·5	4	30	
		3478b	0·409	15·9	281·5	+17·3	31	164	
			0·875	116·1	227·9	−25·5			303
April 10		Centre			(288·2)	(−5·8	(178)	(1501)	(1243)
100·459	JG,FT		0·914	256·1	342·0	−15·1			400
			0·816	266·4	330·3	− 6·3			106
		3473c	0·978	242·9	354·7	−27·7	33	271	127c
		3471a	0·842	254·8	332·9	−15·9	18	101	196sf
		3477a	0·908	286·4	338·4	+12·3	3	19	248f
		3481	0·769	259·2	325·8	−12·0	4	17	56c
		3483	0·731	272·8	322·2	− 1·9	1	6	
		3475a	0·513	322·0	294·9	+18·4	8	58	
		3478a	0·467	326·4	291·1	+17·3	43	301	
		3478	0·433	323·7	290·8	+14·8	6	54	
		3478	0·434	327·7	289·4	+15·9	30	165	
		3478	0·415	329·6	288·0	+15·4	2	6	
		3478	0·406	331·0	287·2	+15·1	0	6	
		3478	0·431	334·6	286·6	+17·2	10	54	
		3478	0·422	337·6	285·2	+17·3	12	43	
		3478	0·399	336·7	284·9	+15·8	3	11	
		3478	0·369	335·3	284·6	+13·9	0	9	
		3478	0·377	339·0	283·5	+14·9	10	23	
1894.									
100d·459	JG,FT	3478	0·420	342·5	283·1	+17·9	0	3	
		3478	0·404	341·7	283·1	+16·8	8	29	
		3478	0·385	342·0	282·6	+15·7	5	37	
		3478	0·385	343·8	281·9	+15·9	2	9	
		3478	0·370	344·2	281·5	+15·1	0	6	
		3478b	0·406	346·4	281·2	+17·5	38	171	
			0·751	118·5	229·0	−24·9			111
April 11		Centre			(275·5)	(−5·7)	(236)	(1399)	(1244)
101·470	CL, FT		0·948	285·6	331·4	+12·8			311
			0·901	268·0	326·5	− 4·3			155
			0·821	259·7	317·6	−11·7			267
			0·812	295·0	312·1	+16·5			250
		3471a	0·939	255·4	332·6	−15·7	25	81	489c
		3481	0·900	261·3	326·7	−10·3	0	7	200c
		3481	0·898	260·4	326·4	−11·1	0	25	
		3475	0·649	307·3	295·0	+18·3	9	55	
		3478a	0·602	309·5	291·2	+17·5	22	346	
		3478	0·577	306·9	290·6	+15·2	11	92	
		3478	0·553	307·1	289·2	+14·4	4	26	
		3478	0·558	309·2	288·8	+15·5	0	16	
		3478	0·533	316·0	284·9	+17·2	13	82	
		3478	0·519	314·5	284·8	+16·0	1	10	
		3478	0·507	312·6	284·8	+14·7	0	12	
		3478	0·501	315·0	283·7	+15·4	5	88	
		3478	0·502	317·9	282·7	+16·5	8	41	
		3478	0·517	319·8	282·6	+17·8	0	6	
		3478b	0·498	321·4	281·1	+17·5	17	158	
		3484	0·242	219·4	271·4	−16·4	0	2	
		3485a	0·948	104·0	190·0	−15·1	20	95	
		3485	0·951	106·4	189·5	−17·4	0	11	619c
		3485	0·964	103·4	186·9	−14·4	0	9	
			0·903	117·5	198·2	−27·2			170
			0·947	68·4	194·4	+18·3			472
			0·931	96·4	193·3	− 8·1			64
April 12		Centre			(262·2)	(−5·7)	(135)	(1162)	(2997)
102·475	JG,HA		0·938	259·8	319·1	−11·5			101
			0·891	248·0	311·8	−22·2			77
			0·883	294·1	306·8	+18·2			149
		3471a	0·993	254·8	333·0	−15·7	0	48	81s
		3475a	0·790	298·3	295·8	+18·2	13	36	

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 3481, April 10–12. A few small spots in an irregular group *nf* Group 3471.
Group 3482, April 10. A very small spot.
Group 3483, April 11. A very small spot.
Group 3484, April 12. A very small spot.
Group 3485, April 12–24. A regular spot, *a*, followed by a stream of small spots, which vary much from day to day in number, size, and arrangement. *a* has become widely separated from the rest of the group by April 16, and diminishes in size afterwards. A second regular spot, *b*, has been formed by the coalescence of several small spots in the following part of the stream by April 21.

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).
1894.				°	°	°			
102d·475	JG,HA	3478*a*	0·754	299·2	292·4	+17·5	59	281	
		3478	0·734	296·7	291·5	+15·1	13	44	
		3478	0·741	301·3	290·6	+18·4	0	17	
		3478	0·720	296·6	290·4	+14·6	0	16	
		3478	0·720	298·1	290·0	+15·6	3	14	
		3478	0·704	301·7	287·6	+17·3	3	17	
		3478	0·695	299·6	287·6	+15·7	3	9	156*c*
		3478	0·675	298·3	286·6	+14·2	0	7	
		3478	0·681	301·7	285·9	+16·5	1	13	
		3478	0·674	303·7	284·6	+17·3	11	52	
		3478	0·655	302·1	284·0	+15·7	24	91	
		3478*b*	0·644	305·4	282·1	+17·2	26	153	
		3485*a*	0·856	104·6	189·9	−15·4	21	113	
		3485	0·857	106·5	189·9	−17·0	2	7	
		3485	0·902	107·3	184·3	−17·9	2	4	303*c*
		3485	0·923	104·8	181·1	−15·8	0	12	
			0·871	64·0	193·0	+19·4			155
			0·851	119·8	192·2	−28·2			112
			0·959	80·9	176·6	+ 7·1			92
April 13		Centre			(248·9)	(−5·6)	(181)	(934)	(1226)
103·199	AW,CL		0·952	289·6	317·7	+16·7			365
I.			0·961	255·0	314·0	−15·9			197
			0·960	281·9	311·3	+ 9·2			165
			0·948	245·6	311·3	−24·9			206
			0·890	301·3	295·9	+24·5			120
		3475*a*	0·877	294·0	296·6	+18·0	7	23	
		3478*a*	0·850	294·4	293·4	+17·4	36	378	
		3478	0·832	292·2	292·1	+15·0	0	50	
		3478	0·822	293·5	291·7	+15·7	0	11	
		3478	0·832	295·8	291·1	+17·9	10	42	288*c*
		3478	0·821	296·7	289·7	+18·1	0	18	
		3478	0·811	292·6	288·4	+14·7	0	5	
		3478	0·801	296·8	287·8	+17·5	0	5	
		3478	0·779	297·4	285·6	+17·2	7	66	
		3478	0·766	294·3	285·4	+14·5	0	5	
		3478	0·761	296·5	284·3	+16·0	8	49	199*c*
		3478	0·761	298·1	283·8	+17·1	9	29	
		3478	0·759	299·6	283·2	+18·0	3	14	
		3478*b*	0·742	298·4	282·2	+16·6	12	64	
		3485	0·759	107·3	190·4	−16·7	0	5	
		3485*a*	0·764	104·8	189·7	−14·8	25	117	
		3485	0·768	106·9	189·6	−16·5	3	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).
1894.				°	°	°			
103d·199	AW,CL	3485	0·799	103·6	186·4	−14·1	3	11	
		3485	0·810	107·4	185·6	−17·3	0	7	
I.		3485	0·817	106·5	184·8	−16·6	3	12	252*c*
		3485	0·816	104·4	184·7	−15·0	0	6	
		3485	0·824	107·6	184·1	−17·6	0	6	
		3485	0·838	106·6	182·5	−16·9	0	8	
		3485	0·861	107·8	180·1	−18·1	4	12	
		3486*a*	0·997	102·8	152·9	−13·2	0	245	
			0·817	60·1	190·5	+20·4			129
			0·776	99·7	188·4	−11·0			87
			0·822	118·0	185·8	−26·0			164
			0·904	76·5	176·5	+ 9·7			128
			0·903	103·4	174·5	−14·5			395
			0·947	70·6	171·0	+16·4			119
			0·949	120·6	167·8	−30·7			138
			0·974	82·3	163·5	+ 6·2			299
April 14		Centre			(239·4)	(−5·5)	(130)	(1201)	(3251)
104·553	HA,FT	3478*a*	0·964	289·9	293·2	+17·5	81	423	
		3478	0·942	289·0	289·1	+15·9	0	16	
		3478	0·938	291·8	287·8	+18·3	20	67	
		3478	0·917	289·7	285·0	+15·6	2	12	
		3478	0·917	292·1	284·5	+17·8	4	25	673*c*
		3478	0·905	290·7	283·1	+16·2	11	58	
		3478	0·902	293·7	281·9	+18·6	5	30	
		3478*b*	0·893	292·4	281·1	+17·2	12	45	
		3485*a*	0·544	109·3	189·5	−14·9	13	115	
		3485	0·565	111·1	188·3	−16·3	0	3	
		3485	0·588	107·8	186·3	−14·7	0	9	
		3485	0·599	110·9	185·9	−16·7	2	8	
		3485	0·624	111·0	184·1	−17·2	0	4	
		3485	0·642	111·0	182·7	−17·5	0	3	
		3485	0·671	106·4	179·9	−15·0	6	18	
		3486*a*	0·931	102·2	152·5	−13·4	42	295	
		3487*a*	0·940	94·7	151·3	− 6·3	7	15	566*c*
			0·877	78·3	161·7	+ 7·5			245
			0·901	125·7	159·4	−34·3			190
			0·901	109·5	157·2	−19·9			203
April 15		Centre			(221·5)	(−5·4)	(205)	(1146)	(1877)
105·198	FT,HA		0·949	257·4	285·1	−13·7			55
I.			0·922	266·7	280·3	− 5·1			63

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 3486, April 14–26. A large regular spot, *a*, with a small companion on April 18, 20 and 25.
Group 3487, April 15–19. A small regular spot, *a*, with a small companion on April 17 and 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).
1894.				°	°	°			
105d·198	FT,HA		0·890	293·0	272·1	+17·7			96
		3478a	0·993	287·8	294·0	+16·9	72	762	
I.		3478	0·978	289·0	288·4	+17·3	23	107	
		3478	0·967	289·5	285·5	+17·3	4	19	970c
		3478	0·961	287·7	284·5	+15·4	0	49	
		3478	0·957	290·8	283·0	+18·1	0	19	
		3478	0·951	289·8	282·1	+16·9	0	13	
		3485a	0·426	113·7	189·3	−14·7	17	127	
		3485	0·525	117·0	183·6	−18·4	0	3	
		3485	0·547	109·2	180·8	−14·8	3	11	
		3485	0·560	108·6	179·9	−14·7	3	25	
		3485	0·588	107·2	177·7	−14·4	3	14	
		3485	0·604	107·9	176·6	−15·0	9	21	
		3486a	0·873	101·8	152·0	−12·8	53	281	207f
		3487a	0·884	93·9	150·7	− 6·0	8	14	228c
			0·826	74·1	159·4	+10·0			160
			0·868	128·7	156·6	−35·8			116
			0·885	113·8	151·2	−23·5			88
			0·931	131·8	147·2	−40·6			82
			0·930	120·6	145·3	−30·3			89
			0·942	76·8	144·3	+10·6			81
April 16		Centre			(213·0)	(−5·3)	(195)	(1465)	(2235)
106·499	CL,JG	3485	0·219	151·5	189·6	−16·3	1	5	
		3485a	0·193	146·1	189·4	−14·5	16	87	
		3485	0·286	127·6	182·3	−15·2	0	5	
		3485	0·300	124·4	181·0	−14·8	8	48	
		3485	0·376	119·6	176·0	−15·7	17	83	
		3485	0·394	120·2	175·1	−16·3	0	9	
		3486a	0·688	103·3	152·6	−13·0	48	271	320c
		3487a	0·700	93·3	151·3	− 6·1	6	19	188f
		3487	0·721	95·5	149·6	− 7·7	0	10	
			0·689	138·5	161·9	−35·4			66
			0·794	127·1	156·5	−32·1			127
			0·921	135·9	133·2	−43·9			120
			0·896	76·9	131·9	−14·1			253
April 17		Centre			(195·8)	(−5·3)	(96)	(537)	(1074)
107·182	HA,AW	3485a	0·169	195·8	189·4	−14·5	21	69	
		3485	0·200	150·1	180·8	−15·1	1	6	
I.		3485	0·226	138·8	177·9	−14·9	0	4	
		3485	0·266	135·8	175·6	−16·2	16	83	

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).
1894.				°	°	°			
107d·182	HA,AW	3486a	0·576	105·2	152·1	−13·1	74	272	
		3486	0·601	106·2	150·4	−13·9	0	5	
I.		3487a	0·582	92·8	151·1	− 5·9	2	12	
		3487	0·605	96·0	149·5	− 7·9	1	4	
			0·863	75·2	129·0	+ 9·9			3
			0·911	136·5	126·2	−44·0			278
			0·917	60·5	125·7	+24·3			96
			0·934	53·4	125·4	+31·4			115
April 18		Centre			(186·7)	(−5·2)	(115)	(455)	(856)
108·374	CL,AW		0·921	251·2	238·0	−19·3			126
			0·869	239·2	229·3	−29·1			123
I.		3485a	0·348	241·9	189·2	−14·2	23	78	
		3485	0·237	224·1	180·6	−14·8	2	10	
		3485	0·204	213·1	177·4	−14·9	3	10	
		3485	0·222	206·4	176·7	−16·5	0	46	
		3485	0·193	205·7	175·7	−15·1	0	13	
		3486a	0·344	114·2	152·1	−12·9	60	287	
		3487a	0·338	91·5	151·1	− 5·3	0	8	
		3488a	0·991	106·1	87·6	−16·6	56	268	196p
			0·932	136·3	106·0	−44·7			159
			0·936	103·2	101·0	−14·2			140
April 19		Centre			(170·8)	(−5·1)	(144)	(720)	(744)
109·187	HA,FT		0·914	244·5	225·8	−25·3			292
		3485a	0·510	249·6	189·7	−14·6	10	57	
I.		3485	0·364	242·6	179·6	−14·3	0	20	
		3485	0·349	241·5	178·6	−14·3	0	5	
		3485	0·338	237·8	177·4	−15·1	5	41	
		3485	0·324	240·8	177·1	−13·9	0	5	
		3485	0·343	233·2	176·8	−16·5	5	32	
		3485	0·322	235·4	176·1	−15·3	1	6	
		3486	0·222	145·3	152·7	−15·4	0	6	
		3486a	0·195	137·6	152·5	−13·3	77	255	
		3488a	0·945	106·4	88·8	−17·2	39	180	307s
		3489a	0·954	118·8	87·7	−28·9	0	22	
		3489	0·967	119·3	84·7	−29·5	0	4	195c
		3489	0·982	119·5	80·2	−29·9	0	22	
			0·866	142·8	110·3	−46·9			220
			0·846	129·1	107·0	−35·2			62
			0·849	106·2	102·3	−16·3			120
April 20		Centre			(160·2)	(−5·0)	(137)	(655)	(1196)

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

Group 3488, April 19–May 2. A regular spot, *a*, on April 19, which is followed by several small spots on April 21 and the succeeding days. The group soon develops into a fine stream consisting of many spots. *b*, the spot next following *a* on April 22, becomes a regular spot, and is the largest spot in the group by April 23. The last spots in the stream have coalesced by April 24 to form a composite spot, *c*, which is often measured in two portions.
Group 3489, April 20–May 1. A few small irregular spots on April 20. The leader, *a*, alone remains on April 21 and 22. A great outburst has taken place by April 23, and the group consists of a long straight stream, with, on April 25, two regular spots, *a* and *b*, as the first and last. The group diminishes again after April 26, and *a* alone remains by April 30.

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).
1894.				°	°	°			
110d.513	FT, JG		0·853	292·5	197·7	+16·2			57
		3485a	0·733	254·8	189·4	−14·4	7	37	96c
		3485	0·621	253·2	180·4	−14·2	7	39	
		3485	0·598	252·5	178·6	−14·3	3	13	
		3485	0·573	254·7	177·1	−12·7	0	13	
		3485b	0·570	252·9	176·7	−13·7	29	149	
		3485	0·580	247·6	176·6	−16·8	0	46	
		3485	0·558	249·9	175·4	−15·1	0	13	
		3486a	0·223	228·2	152·5	−13·3	59	281	
		3488a	0·809	108·1	89·2	−17·5	32	157	
		3488	0·830	110·7	87·3	−19·9	0	13	401c
		3488	0·855	109·4	84·3	−19·1	0	9	
		3489a	0·834	122·3	88·9	−29·4	2	12	304f
		3490	0·989	108·3	60·3	−18·8	0	84	
April 21		Centre			(142·7)	(−4·9)	(139)	(866)	(858)
111·495	CL, FT		0·920	288·0	194·3	+14·5			83
			0·895	296·5	188·7	+21·0			60
		3485a	0·862	256·2	189·4	−14·3	0	15	
		3485	0·784	256·2	181·2	−13·8	0	14	252c
		3485	0·737	257·5	177·1	−12·4	0	25	
		3485b	0·731	255·1	176·4	−14·1	28	169	
		3486a	0·407	247·9	152·8	−13·2	53	279	
		3491	0·456	104·0	103·2	−10·6	0	11	
		3491	0·490	102·3	100·8	−10·2	0	5	
		3488a	0·665	111·4	89·4	−17·7	17	145	
		3488b	0·704	109·7	86·1	−17·0	12	67	
		3488	0·737	111·0	83·5	−18·4	5	20	159c
		3488	0·741	107·8	82·7	−16·3	3	10	
		3488	0·768	110·5	80·6	−18·7	7	26	
		3489a	0·728	126·2	87·8	−29·0	3	14	230f
		3490	0·932	108·2	60·9	−18·7	14	53	279c
		3492a	0·976	76·7	54·0	+11·9	80	355	157n
		3493a	0·988	66·6	51·8	+22·2	26	194	
April 22		Centre			(129·8)	(−4·8)	(248)	(1402)	(1220)
112·176	CL, FT		0·984	288·4	198·1	+17·1			107
			0·957	292·9	190·5	+20·3			132
I.			0·925	243·9	187·8	−25·9			158
			0·886	279·7	182·0	+ 6·4			101
			0·885	232·8	179·6	−34·8			59
			0·831	294·9	172·8	+17·6			100

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).
1894.				°	°	°			
112d.176	CL, FT	3485a	0·937	255·6	190·5	−15·1	0	9	215c
		3485	0·835	257·4	177·3	−13·1	0	23	
I.		3485b	0·833	255·7	177·0	−14·5	29	141	533c
		3485	0·821	254·4	175·6	−15·5	1	5	
		3486a	0·543	252·1	152·7	−13·6	69	277	
		3491	0·307	109·3	103·6	−10·3	2	8	
		3488a	0·556	115·5	89·0	−17·8	34	155	
		3488	0·580	115·8	87·4	−18·6	3	10	
		3488	0·590	118·1	87·2	−20·0	3	16	
		3488	0·575	111·8	87·1	−16·2	0	4	
		3488	0·588	115·2	86·7	−18·4	0	3	
		3488b	0·595	112·4	85·8	−16·9	77	246	
		3488	0·614	110·7	84·1	−16·3	1	8	
		3488	0·621	113·4	84·0	−18·0	2	6	
		3488	0·640	113·5	82·6	−18·5	26	58	
		3488	0·642	110·4	82·0	−16·6	13	32	
		3488	0·660	110·9	80·7	−17·2	0	4	
		3488	0·666	112·8	80·5	−18·5	0	3	
		3488	0·672	113·9	80·2	−19·3	0	3	
		3488	0·674	110·6	79·5	−17·2	0	5	
		3488	0·679	113·1	79·5	−19·0	9	23	
		3488	0·684	112·0	78·9	−18·4	6	17	
		3489	0·633	133·7	89·0	−29·9	1	4	
		3489a	0·643	133·0	88·0	−29·9	20	49	
		3489	0·658	132·8	86·8	−30·4	0	1	
		3489	0·658	132·3	86·6	−30·1	0	2	
		3489	0·654	129·1	85·7	−28·2	9	26	
		3489	0·673	131·3	85·1	−30·1	4	17	
		3489	0·673	129·6	84·4	−29·2	6	17	169c
		3489	0·688	131·3	83·9	−30·7	0	5	
		3489	0·685	129·6	83·5	−29·6	4	11	
		3489	0·680	128·4	83·4	−28·7	0	4	
		3489	0·690	128·5	82·7	−29·2	0	11	
		3489	0·701	129·8	82·3	−30·3	11	33	
		3489	0·701	128·7	81·9	−29·6	0	3	
		3490	0·870	108·3	60·5	−18·3	9	25	
		3492a	0·930	74·9	54·2	+12·2	75	358	333c
		3493a	0·959	64·7	51·0	+22·6	31	193	1000c
			0·910	107·1	57·5	−13·4			499
April 23		Centre			(120·7)	(−4·7)	(445)	(1815)	(3406)
113·205	HA, AW		0·961	277·0	180·1	+ 5·4			158
			0·881	293·8	165·0	+18·4			82
I.			0·814	281·5	160·2	+ 6·6			115

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.

April 23 and 24. The photographs on these dates are difficult to measure, the limb being faint and ill-defined.
Group 3490, April 21–26. A small nebulous spot.
Group 3491, April 22–25. One or two very small unstable spots.
Group 3492, April 22–May 4. A large regular spot, *a*, with a few very small companions, April 25–28 and May 2.
Group 3493, April 22–May 2. A regular spot, *a*, with occasionally some 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).
				°	°	°			
1894.									
113d·205	HA,AW	3485*b*	0·940	255·9	177·3	−14·8	14	193	695*c*
		3486*a*	0·719	255·2	152·5	−13·8	70	250	
I.		3491	0·141	137·9	101·5	−10·6	0	6	
		3488	0·326	131·0	90·9	−16·7	0	5	
		3488	0·354	124·9	89·5	−16·0	0	10	
		3488*a*	0·379	128·3	88·9	−17·9	33	138	
		3488	0·374	120·8	87·6	−15·3	1	9	
		3488	0·401	127·7	87·5	−18·5	1	5	
		3488	0·432	131·3	86·8	−20·8	6	19	
		3488	0·418	128·1	86·7	−19·2	1	14	
		3488*b*	0·411	121·8	85·7	−16·8	70	354	
		3488	0·438	124·4	84·7	−18·6	0	3	
		3488	0·447	121·4	83·5	−17·7	1	31	
		3488	0·457	122·9	83·2	−18·5	1	13	
		3488	0·448	119·2	83·0	−16·8	3	14	
		3488*c*	0·470	119·0	81·6	−17·3	22	135	
		3488*c*	0·512	119·3	79·0	−18·6	10	55	
		3489	0·486	148·5	90·2	−28·8	0	12	
		3489*a*	0·505	149·3	89·8	−30·0	28	84	
		3489	0·487	146·4	89·3	−28·2	0	6	
		3489	0·517	146·7	88·0	−29·9	4	16	
		3489	0·515	144·6	87·1	−29·1	3	12	
		3489	0·540	144·2	85·7	−30·2	5	19	
		3489	0·540	140·4	84·0	−28·8	0	5	
		3489	0·553	138·7	82·5	−28·7	0	7	
		3489*b*	0·594	139·5	80·4	−30·9	24	138	
		3490	0·735	110·9	60·8	−18·4	3	19	90*f*
		3492*a*	0·824	71·4	54·1	+12·4	78	353	231*c*
		3493*a*	0·884	61·4	50·0	+22·5	41	122	309*f*
			0·833	108·7	51·1	−18·1			80
			0·958	115·5	33·6	−25·7			191
April 24		Centre			(107·0)	(−4·6)	(419)	(2047)	(1951)
114·484	HA,JG		0·907	280·9	154·2	+ 8·0			119
			0·893	233·1	150·4	−34·7			138
		3486*a*	0·879	257·2	151·9	−13·4	44	263	450*nf*
		3486	0·871	253·8	150·7	−16·3	0	7	
		3491	0·255	249·8	104·3	− 9·4	0	7	
		3491	0·259	245·1	104·1	−10·6	0	15	
		3488	0·208	185·5	91·5	−16·4	0	8	
		3488*a*	0·232	174·8	89·0	−17·8	26	129	
		3488	0·249	169·7	87·6	−18·6	2	7	
		3488	0·294	171·1	87·5	−21·3	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).
				°	°	°			
1894.									
114d·484	HA,JG	3488	0·263	167·7	86·9	−19·3	1	11	
		3488*b*	0·219	162·2	86·3	−16·5	65	429	
		3488	0·284	162·6	85·1	−20·1	3	5	
		3488	0·218	150·9	84·0	−15·4	0	1	
		3488	0·251	154·2	83·8	−17·5	10	38	
		3488	0·290	154·5	82·7	−19·6	3	26	
		3488*c*	0·263	146·6	81·6	−17·1	25	242	
		3488*c*	0·293	144·0	79·9	−18·1	8	77	
		3489*a*	0·419	181·5	91·0	−29·2	23	11[illegible]	
		3489	0·431	178·3	89·5	−29·9	4	[illegible]	
		3489	0·420	177·7	89·2	−29·2	0	[illegible]	
		3489	0·432	175·5	88·1	−29·9	2	1[illegible]	
		3489*b*	0·461	160·5	80·1	−30·1	18	78	
		3490	0·507	120·2	62·8	−18·7	6	10	
		3492*a*	0·634	64·1	54·7	+12·4	65	346	
		3492	0·638	69·2	53·2	+ 9·5	0	6	85*c*
		3492	0·654	66·6	52·7	+11·4	0	3	
		3492	0·650	70·1	52·2	+ 9·2	2	7	
		3493*a*	0·753	54·6	48·8	+22·5	20	95	215*f*
		3494	0·853	62·8	36·5	+20·3	0	2	35*c*
		3495	0·951	72·0	20·7	+15·6	12	70	80*c*
			0·884	118·4	29·7	−27·1			239
			0·929	64·1	26·2	+22·0			429
			0·920	102·5	23·2	−13·2			83
			0·937	79·7	18·3	+ 8·0			160
April 25		Centre			(90·3)	(−4·5)	(339)	(2026)	(2033)
115·493	HA,FT		0·921	235·8	142·0	−33·0			189
			0·842	285·6	132·4	+10·6			126
		3486*a*	0·965	257·0	152·1	−13·7	47	241	290*c*
		3488*a*	0·313	220·4	89·3	−18·1	18	124	
		3488	0·323	212·0	87·5	−20·2	0	3	
		3488	0·304	211·9	86·7	−19·2	0	8	
		3488*b*	0·266	216·7	86·5	−16·6	62	37[illegible]	
		3488	0·316	208·5	86·2	−20·4	4	9	
		3488	0·228	212·4	84·2	−15·4	0	2	
		3488	0·257	205·3	83·6	−17·8	1	8	
		3488	0·240	207·0	83·5	−16·6	0	29	
		3488	0·255	200·5	82·4	−18·1	0	13	
		3488	0·272	199·1	82·4	−19·3	1	14	
		3488*c*	0·231	195·2	80·6	−17·2	21	210	
		3489*a*	0·468	207·7	91·3	−28·6	22	148	

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 3494, April 25. A very small spot.

Group 3495, April 25–May 3. A 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).
				°	°	°			
1894. 115d·493	HA, FT	3489	0·426	203·3	87·9	−27·3	0	8	
		3489	0·427	191·2	82·4	−29·0	0	9	
		3489*b*	0·427	185·7	79·8	−29·4	15	61	
		3490	0·330	136·8	63·3	−18·1	0	11	
		3492	0·392	57·5	57·6	+ 8·0	0	3	
		3492*a*	0·461	52·4	55·1	+12·2	57	343	
		3492	0·471	60·6	52·5	+ 9·3	3	7	
		3492	0·509	58·8	50·7	+11·3	1	9	
		3493	0·633	44·3	48·4	+23·0	0	4	
		3493*a*	0·627	45·7	48·2	+22·0	10	39	
		3495	0·862	69·1	20·5	+15·5	13	65	
		3496*c*	0·980	118·7	357·9	−29·0	0	81	
		3496*a*	0·983	116·3	357·0	−26·6	85	297	248*c*
		3496*b*	0·998	117·3	349·5	−27·5	35	271	
			0·843	59·0	25·5	+23·0			220
			0·817	122·5	25·4	−28·8			206
			0·862	77·4	18·9	+ 8·5			105
April 26		Centre			(77·0)	(−4·4)	(395)	(2392)	(1384)
116·477	JG, FT		0·892	223·9	120·6	−42·4			98
			0·799	213·4	102·3	−45·1			94
		3488*a*	0·469	238·9	88·8	−17·9	19	103	
		3488	0·469	233·9	87·6	−19·9	0	11	
		3488*b*	0·434	240·2	86·9	−16·4	51	222	
		3488	0·442	235·2	86·3	−18·5	1	6	
		3488	0·426	236·6	85·7	−17·5	10	69	
		3488	0·411	235·2	84·5	−17·5	0	29	
		3488	0·421	227·9	83·3	−20·4	0	5	
		3488	0·395	233·3	83·2	−17·7	5	30	
		3488	0·374	237·6	83·0	−15·6	3	10	
		3488	0·393	230·0	82·4	−18·7	2	8	
		3488*c*	0·358	231·3	80·8	−17·0	35	150	
		3488	0·373	226·0	80·3	−19·1	2	7	
		3488*c*	0·350	227·0	79·4	−17·9	15	90	
		3488	0·323	224·7	77·6	−17·4	0	9	
		3489*a*	0·582	223·9	91·1	−28·5	30	139	
		3489	0·508	212·8	82·2	−29·3	0	13	
		3489*b*	0·489	209·4	79·8	−29·2	15	48	
		3492*a*	0·319	27·9	55·2	+12·1	54	315	
		3492	0·257	39·6	54·4	+ 7·1	0	5	
		3492	0·336	34·1	52·8	+11·8	0	4	
		3492	0·300	39·8	52·7	+ 9·1	0	4	
		3492	0·362	33·6	52·1	+13·2	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).
				°	°	°			
1894. 116d·477	JG, FT	3492	0·322	41·3	51·5	+ 9·7	2	8	
		3492	0·336	39·8	51·3	+10·7	0	8	
		3493	0·525	28·3	48·2	+23·3	0	3	
		3493*a*	0·513	30·0	47·9	+22·2	9	21	
		3493	0·509	33·6	46·4	+21·0	0	6	
		3493	0·544	32·5	45·4	+23·2	0	15	
		3495	0·744	64·3	19·9	+15·7	12	75	
		3496*c*	0·926	119·6	357·2	−29·0	16	59	
		3496*a*	0·928	116·2	356·5	−26·3	57	318	694*c*
		3496*b*	0·964	116·8	349·3	−27·0	59	431	
			0·762	51·2	23·0	+25·2			515
			0·780	76·1	15·2	+ 8·0			71
			0·905	67·1	2·5	+18·6			111
			0·933	105·2	354·9	−15·7			147
April 27		Centre			(63·9)	(−4·3)	(397)	(2225)	(1730)
117·462	CL, JG	3488*a*	0·635	246·7	88·5	−17·9	31	92	
		3488*b*	0·606	247·7	86·6	−16·7	39	294	
		3488	0·573	244·9	83·7	−17·6	0	17	
		3488*c*	0·520	243·2	79·9	−17·2	17	155	
		3489*a*	0·711	232·8	90·9	−28·6	17	73	
		3489*b*	0·602	225·6	80·1	−28·5	0	27	
		3492*a*	0·293	344·7	55·4	+12·1	66	328	
		3492	0·282	349·9	53·8	+11·8	0	7	
		3492	0·233	352·3	52·7	+ 9·1	0	12	
		3492	0·272	0·3	50·1	+11·5	0	14	
		3493*a*	0·451	6·4	47·8	+22·3	5	23	
		3497	0·611	43·9	23·7	+22·3	0	13	
		3495	0·596	56·2	20·1	+15·7	10	57	
		3496*c*	0·842	121·8	356·4	−28·8	12	50	
		3496*a*	0·844	118·7	355·5	−26·2	69	426	598*c*
		3496*b*	0·902	118·1	347·8	−27·1	40	434	
			0·910	106·5	345·5	−16·7			149
April 28		Centre			(50·9)	(−4·2)	(306)	(2022)	(747)
118·470	CL, FT		0·924	256·0	105·2	−14·6			56
			0·897	220·0	93·2	−45·8			79
M.		3488*ab*	0·779	251·7	88·0	−16·8	69	367	
		3488	0·729	249·7	83·2	−17·6	0	16	
		3488*c*	0·698	249·7	80·7	−17·1	18	80	220*c*
		3488	0·693	248·1	80·0	−18·1	5	16	
		3488	0·693	246·8	79·8	−18·9	2	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 3496, April 26–May 8. Two large irregular spots, *a* and *b*, with a third spot, *c*. *sp a*, and nearly connected with it. Other small spots are seen on April 29 and the succeeding days, the entire group then forming a fine stream. *b* is measured in two portions on April 30, and *a* on May 7.
Group 3497, April 28–May 1. A small spot; not seen on April 30.

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).
				°	°	°			
1894.									
118d.470	CL, FT	3489	0·846	236·3	92·1	−30·4	0	8	92c
		3489a	0·838	237·9	91·6	−28·9	17	72	
M.		3489	0·738	236·2	81·1	−27·3	4	10	155c
		3489b	0·736	232·8	79·8	−29·5	3	11	
		3489	0·719	230·8	77·6	−30·2	0	5	
		3492a	0·415	312·3	55·8	+12·1	74	332	
		3493a	0·485	339·3	48·3	+22·8	6	25	
		3493	0·522	342·8	47·4	+25·6	0	15	
		3497	0·506	26·4	23·5	+22·8	0	6	
		3495	0·447	40·3	20·2	+15·9	15	56	
		3496	0·706	127·3	358·0	−28·5	0	9	
		3496c	0·731	126·2	355·6	−28·6	8	57	
		3496a	0·722	123·2	355·4	−26·4	55	414	
		3496	0·739	124·8	354·3	−28·0	0	29	
		3496	0·783	120·1	349·0	−25·9	0	22	
		3496	0·788	119·0	348·2	−25·2	0	14	205c
		3496b	0·804	120·9	347·0	−27·1	50	302	
		3498	0·967	92·3	322·5	− 3·3	6	31	
		3498a	0·974	94·3	320·6	− 5·2	21	66	180c
		3498	0·988	93·9	316·4	− 4·6	0	34	
			0·811	105·6	343·8	−15·1			106
			0·900	107·6	333·6	−17·7			209
			0·907	92·0	332·6	− 3·6			152
April 29		Centre			(37·6)	(−4·2)	(353)	(2005)	(1454)
119·175	CL, FT		0·827	301·5	78·1	+23·0			69
			0·807	234·7	77·9	−30·3			189
I.		3488a	0·876	251·8	89·0	−17·8	14	92	
		3488b	0·861	252·9	87·3	−16·7	69	306	
		3488	0·841	248·9	84·6	−19·8	2	17	910c
		3488c	0·797	251·4	80·3	−17·2	13	71	
		3488	0·793	250·2	79·8	−18·1	0	7	
		3489a	0·901	239·5	90·8	−29·1	22	54	476f
		3492a	0·525	301·0	55·6	+12·1	69	330	
		3493	0·570	326·4	48·5	+24·5	0	3	
		3493a	0·551	324·7	48·4	+22·9	9	18	
		3493	0·588	328·9	48·0	+26·3	1	4	
		3495	0·366	23·1	19·8	+15·6	14	65	
		3496a	0·632	128·5	354·9	−26·4	86	408	
		3496c	0·646	131·3	354·9	−28·5	9	57	
		3496	0·684	124·9	349·8	−26·1	0	20	306c
		3496	0·701	123·4	348·0	−25·7	10	33	
		3496b	0·720	125·1	346·9	−27·5	14	102	
		3496b	0·725	123·2	345·9	−26·3	41	168	
1894.									
119d.175	CL, FT	3499	0·763	90·4	338·7	− 2·9	2	10	97c
		3499	0·789	91·1	336·4	− 3·3	0	12	
I.		3498	0·914	92·0	322·3	− 3·5	4	19	
		3498a	0·932	93·3	319·6	− 4·5	21	61	773c
		3498	0·957	93·7	315·2	− 4·8	8	36	
			0·684	107·7	346·1	−15·0			272
			0·870	68·2	331·3	+16·7			291
			0·866	110·6	329·0	−19·8			387
			0·864	90·8	328·6	− 2·7			82
			0·906	103·5	323·3	−14·0			111
April 30		Centre			(28·3)	(−4·0)	(408)	(1893)	(3963)
120·276	AW, CL		0·943	290·3	81·7	+17·7			231
			0·925	301·7	75·8	+27·3			79
I.		3488a	0·966	252·5	89·0	−18·0	17	76	
		3488b	0·960	254·0	87·7	−16·5	51	223	875c
		3488	0·953	252·6	86·2	−17·8	15	36	
		3488c	0·917	252·8	80·0	−17·3	17	51	
		3489a	0·974	240·8	90·7	−29·4	10	43	692c
		3489	0·933	242·5	81·7	−27·0	0	6	
		3500	0·789	250·3	64·8	−17·9	3	8	176c
		3492a	0·700	291·0	55·4	+11·6	86	326	
		3493a	0·690	309·7	48·8	+22·9	5	12	
		3501	0·708	323·6	43·0	+31·3	0	8	
		3497	0·478	342·5	22·7	+23·2	1	3	
		3495	0·344	344·6	19·1	+15·4	12	50	
		3496a	0·489	143·2	354·7	−26·6	104	398	
		3496c	0·517	145·9	354·4	−29·0	7	46	
		3496	0·525	144·4	353·4	−28·8	0	3	
		3496	0·519	142·6	352·9	−27·9	10	34	
		3496	0·506	138·0	351·7	−25·7	3	10	
		3496	0·523	139·2	351·3	−26·8	5	27	
		3496	0·544	134·6	348·3	−25·9	3	5	
		3496	0·552	135·5	348·2	−26·6	2	7	
		3496	0·555	134·3	347·5	−26·2	3	7	
		3496	0·564	133·6	346·7	−26·3	5	14	
		3496b	0·582	133·3	345·3	−27·5	43	228	
		3499	0·621	90·2	335·4	− 3·2	1	4	
		3502	0·756	106·9	325·3	−15·3	3	7	
		3498	0·775	91·2	323·0	− 3·4	2	6	
		3498	0·789	93·9	321·6	− 5·5	0	8	
		3498	0·798	92·3	320·8	− 4·2	0	2	
		3498a	0·808	93·4	319·9	− 5·1	16	44	561c

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 3498, April 29–May 11. A few irregular unstable spots in a straggling stream. The largest spot, *a*, is in the centre of the group on April 29, but is the last spot on May 4. The original group has entirely disappeared by May 7, but a fresh outburst has occurred by that day, a little following the place of the first stream. The group on May 7 consists only of a few small faint spots, but these have greatly increased in number by May 9. On May 10 the group consists of a well defined stream, of which the first and last spots, *b* and *c*, are the largest, and regular in shape.
Group 3499, April 30–May 1. A pair of small spots on April 30. The following member of the pair is alone faintly seen on May 1.
Group 3500, May 1–2. A small spot.
Group 3501, May 1. A very small spot.
Group 3502, May 1. 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).
1894.				°	°	°			
120d·276	AW,CL	3498	0·810	91·2	319·7	− 3·3	8	16	
		3498	0·819	93·1	318·8	− 4·8	0	9	
I.		3498	0·840	92·7	316·6	− 4·4	13	29	
		3503	0·910	77·4	309·6	+ 9·8	1	15	
		3503	0·933	78·0	306·1	+ 9·7	0	17	211c
		3503	0·942	77·2	304·7	+10·7	6	11	
		3503	0·944	76·9	304·4	+11·0	4	7	
		3504	0·989	70·7	294·2	+18·4	18	59	419p
		3504	0·995	72·0	291·2	+17·5	53	134	
			0·888	67·7	314·3	+17·7			300
			0·868	108·9	314·1	−18·3			144
			0·896	155·7	330·5	−57·5			143
May		Centre			(13·7)	(−3·9)	(527)	(1989)	(3831)
121·313	FT,HA		0·966	237·8	74·2	−32·0			127
			0·943	247·3	70·0	−22·6			99
I.			0·858	279·1	57·9	+ 5·8			118
			0·771	306·0	42·8	+24·2			305
		3488c	0·979	253·2	78·5	−17·2	0	59	294c
		3500	0·916	252·4	65·9	−17·6	4	10	83f
		3492a	0·840	287·0	54·8	+12·0	72	287	335c
		3492	0·819	286·8	52·7	+11·4	0	3	
		3493a	0·814	301·9	47·9	+22·3	0	4	
		3495	0·449	316·7	18·3	+15·4	12	34	
		3505	0·398	235·1	19·6	−16·5	1	4	
		3505	0·371	230·8	17·2	−17·2	4	11	
		3496a	0·399	167·1	354·1	−26·6	85	454	
		3496c	0·436	168·4	354·1	−29·0	5	46	
		3496	0·412	161·0	351·2	−26·6	0	12	
		3496	0·446	156·3	348·2	−27·7	0	4	
		3496b	0·452	149·7	345·1	−26·6	50	190	
		3496	0·476	148·6	343·6	−27·5	3	7	
		3498	0·596	90·0	323·3	− 3·0	0	2	
		3498	0·628	91·1	321·0	− 3·7	4	7	
		3498a	0·637	93·2	320·3	− 5·0	12	45	
		3498	0·668	92·1	317·9	− 4·2	2	9	
		3498	0·681	92·1	316·9	− 4·2	1	9	
		3503	0·775	74·5	310·8	+ 9·4	2	11	
		3503	0·787	74·9	309·6	+ 9·4	0	4	
		3503	0·801	74·4	308·4	+10·0	1	6	187c
		3503	0·806	73·6	308·1	+10·8	0	4	
		3503	0·834	74·7	305·1	+10·5	0	6	
1894.				°	°	°			
121d·313	FT,HA	3504	0·920	68·2	295·9	+18·3	6	32	
		3504	0·935	67·5	293·7	+19·4	0	19	867c
I.		3504	0·938	69·4	292·8	+17·8	41	285	
		3504a	0·974	71·5	284·9	+17·1	34	241	
			0·764	61·0	315·0	+19·0			198
			0·957	61·2	291·0	+26·1			246
May 2		Centre			(359·8)	(−3·8)	(339)	(1805)	(2859)
122·185	CL,HA		0·911	251·8	53·8	−18·1			275
			0·854	302·1	41·1	+24·7			527
I.			0·698	308·6	24·6	+22·8			194
		3492a	0·928	284·2	55·0	+11·7	63	282	396c
		3495	0·577	302·8	18·5	+15·0	9	22	
		3505	0·535	242·0	18·1	−17·8	1	5	
		3496	0·342	182·5	357·8	−23·6	0	5	
		3496	0·376	195·8	355·0	−24·8	2	35	
		3496c	0·437	190·8	354·0	−29·0	3	29	
		3496a	0·400	191·6	353·6	−26·6	91	417	
		3496	0·395	185·1	350·7	−26·7	4	25	
		3496	0·393	182·0	349·4	−26·7	1	7	
		3496	0·392	176·3	346·9	−26·6	3	16	
		3496b	0·397	171·6	344·7	−26·7	37	175	
		3498	0·412	89·6	324·2	− 3·2	4	16	
		3498	0·424	85·9	323·6	− 1·7	0	3	
		3498	0·426	89·6	323·4	− 3·2	2	16	
		3498	0·454	91·7	321·6	− 4·1	0	7	
		3498a	0·466	93·8	320·8	− 5·0	12	29	
		3498	0·521	94·9	317·2	− 5·7	0	3	
		3503	0·630	70·4	311·7	+ 9·2	2	9	
		3503	0·645	70·3	310·6	+ 9·6	1	6	
		3503	0·668	71·8	308·7	+ 9·2	0	3	
		3503	0·689	71·7	307·1	+ 9·7	0	3	
		3503	0·706	71·6	305·8	+10·1	3	7	
		3504	0·829	65·1	296·4	+18·1	14	27	
		3504	0·840	66·3	294·9	+17·5	8	51	794c
		3504	0·859	66·3	292·9	+18·1	32	196	
		3504a	0·904	69·2	286·6	+17·0	40	135	
		3504	0·922	71·2	283·7	+15·7	3	36	753c
		3504	0·926	69·2	283·4	+17·7	1	20	
		3506a	0·898	58·0	290·5	+26·4	4	33	179c
		3506b	0·906	55·8	290·1	+28·6	0	13	
		3507a	0·958	67·7	278·0	+20·1	0	19	
		3507a	0·966	67·7	276·2	+20·4	0	17	

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 3503. May 1–6. A few spots, mostly unstable and very small, in a straggling stream.
Group 3504, May 1–12. A considerable, but very irregular group. *a*, the last spot on May 2, is the only regular member of the group and has broken up by May 9. For the rest the group is a widely straggling stream of irregular nebulous spots.
Group 3505, May 2–3. Two small spots on May 2. Only one remains by May 3.
Group 3506, May 3–7. Two small spots, *a* and *b*. A small spot is seen between them on May 5. *b* has disappeared by May 7, but a very small faint spot is seen *s* of its place.
Group 3507, May 3–9. A regular spot, *a*, sometimes divided by a bright bridge. The two components are measured separately on May 3. One or two very small companions are seen after May 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).
1894.				°	°	°			
122d·185	CL,HA	3508*a*	0·997	69·2	265·1	+20·4	0	271	
I.			0·874	97·4	287·6	− 8·3			102
			0·918	72·7	284·0	+14·3			222
May 3		Centre			(348·5)	(−3·7)	(340)	(1938)	(3442)
123·488	HA,JG		0·895	294·6	31·1	+20·1			239
			0·829	304·6	20·4	+25·7			90
			0·799	234·8	19·9	−29·7			64
		3492*a*	0·994	280·9	54·5	+10·4	0	262	
		3496	0·544	224·2	356·2	−26·2	3	12	
		3496	0·516	225·4	355·0	−24·5	6	22	
		3496*c*	0·548	218·6	354·1	−28·6	0	56	
		3496*a*	0·521	220·1	353·3	−26·8	78	382	80*c*
		3496	0·489	218·2	350·9	−25·9	6	28	
		3496	0·498	214·8	349·9	−27·5	2	8	
		3496	0·471	214·2	348·4	−26·3	6	26	
		3496*b*	0·446	207·3	344·5	−26·8	27	155	
		3498	0·104	85·5	325·4	− 3·1	9	24	
		3498	0·142	87·5	323·2	− 3·2	1	12	
		3498*a*	0·179	100·3	321·2	− 5·4	6	19	
		3503	0·404	57·5	311·2	+ 9·1	0	3	
		3503	0·457	60·9	307·5	+ 9·5	3	10	
		3504	0·647	56·6	296·9	+17·8	7	18	
		3504	0·662	58·9	295·1	+17·0	3	17	
		3504	0·713	60·7	294·9	+16·0	3	17	
		3504	0·686	58·9	293·3	+17·8	40	138	168*c*
		3504*a*	0·747	63·6	287·1	+16·8	22	102	
		3504	0·775	66·8	283·9	+15·3	1	22	
		3504	0·790	64·8	283·0	+17·2	3	12	
		3506*a*	0·754	49·9	291·5	+26·2	4	13	150*c*
		3506*b*	0·788	49·3	288·8	+28·2	4	13	
		3507*a*	0·829	63·7	279·5	+19·3	14	36	589*c*
		3508*a*	0·932	67·0	265·7	+19·9	19	122	120*p*
May 4		Centre			(331·3)	(−3·6)	(267)	(1529)	(1500)
124·508	CL, FT		0·888	238·8	18·0	−29·1			192
		3496	0·689	233·6	356·1	−26·8	0	13	
		3496	0·669	236·2	355·3	−24·6	0	6	
		3496	0·664	234·9	354·6	−25·2	0	6	
		3496*a*	0·661	231·6	353·2	−27·0	64	354	
		3496*c*	0·662	229·1	352·4	−28·5	9	40	
		3496	0·620	231·6	350·2	−25·5	0	37	

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).
1894.				°	°	°			
124d·508	CL, FT	3496	0·629	228·2	349·7	−27·7	0	19	
		3496	0·609	228·5	348·4	−26·8	0	24	
		3496*b*	0·566	224·4	344·1	−26·9	11	90	
		3509	0·424	226·7	341·0	−20·1	0	7	
		3498	0·156	273·2	326·7	− 3·0	4	11	
		3498	0·138	275·2	325·7	− 2·8	0	3	
		3498	0·093	267·2	323·1	− 3·7	0	4	
		3498	0·096	239·7	322·6	− 6·3	0	2	
		3498*a*	0·077	232·1	321·3	− 6·2	4	11	
		3503	0·262	23·1	311·8	+10·4	0	9	
		3503	0·314	39·5	306·1	+10·6	1	6	
		3510	0·438	24·6	306·7	+19·9	6	15	
		3510	0·456	29·5	304·0	+19·9	3	8	
		3504	0·496	43·0	297·1	+17·9	0	7	
		3504	0·517	45·6	295·1	+17·9	1	10	
		3504	0·511	46·7	295·0	+17·2	0	5	
		3504	0·508	48·0	294·7	+16·6	0	4	
		3504	0·535	46·7	293·7	+18·3	16	57	
		3504	0·551	49·5	291·8	+17·8	14	45	
		3504	0·564	51·0	290·5	+17·7	0	3	
		3504	0·564	52·7	290·0	+16·8	1	6	
		3504*a*	0·593	55·1	287·4	+16·6	26	88	
		3504	0·622	60·6	283·8	+14·8	3	11	
		3504	0·625	60·3	283·7	+15·1	0	8	
		3506*a*	0·633	38·3	291·9	+26·6	5	18	
		3506	0·648	39·7	290·3	+26·7	0	16	
		3506*b*	0·675	39·2	288·9	+28·4	9	26	
		3507*a*	0·693	56·5	280·1	+19·7	11	54	
		3508*a*	0·829	63·7	266·0	+19·4	12	50	216*n*
May 5		Centre			(317·8)	(−3·5)	(200)	(1073)	(408)
125·495	CL, FT		0·967	241·5	19·5	−28·4			173
			0·958	292·2	15·4	+20·1			288
			0·854	242·9	1·4	−24·7			150
		3496	0·815	239·7	356·4	−26·4	10	56	
		3496	0·795	241·0	354·6	−24·8	2	16	
		3496*a*	0·787	238·3	353·2	−26·7	42	333	263*c*
		3496*c*	0·788	235·9	352·6	−28·5	0	18	
		3496	0·760	238·1	350·5	−26·0	0	27	
		3496*b*	0·696	233·5	343·6	−27·1	8	33	
		3498	0·332	269·3	324·1	− 3·4	0	3	
		3498	0·322	267·1	323·5	− 4·2	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 3508, May 3–10. A large regular spot, *a*, on May 3. It decreases in size rapidly on the succeeding days. Two small companions are seen on May 6.
Group 3509, May 5. Three very small faint spots in a close cluster *nf* Group 3496.
Group 3510, May 5–6. Two small spots *p* Group 3504. They move away from each other.

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).
				°	°	°			
1894. 125d·495	CL, FT	3498*a*	0·289	259·2	321·3	− 6·3	1	5	
		3503	0·266	333·6	311·7	+10·3	1	6	
		3503	0·237	342·4	309·0	+ 9·6	0	3	
		3503	0·240	350·2	307·2	+10·2	0	5	
		3510	0·398	354·5	307·1	+19·8	0	4	
		3510	0·395	6·2	302·3	+19·6	0	3	
		3504	0·386	19·0	297·2	+17·9	0	5	
		3504	0·390	24·0	295·3	+17·4	5	23	
		3504	0·379	26·3	294·8	+16·5	0	3	
		3504	0·405	25·4	294·3	+18·1	3	16	
		3504	0·377	30·7	293·3	+16·0	0	3	
		3504	0·398	29·8	292·9	+16·8	0	9	
		3504	0·418	31·2	291·7	+17·5	6	26	
		3504*a*	0·445	39·7	287·6	+16·7	9	77	
		3511	0·453	23·4	293·7	+21·1	0	5	
		3506*a*	0·539	21·3	292·2	+26·7	0	6	
		3506*b*	0·582	24·6	288·8	+28·6	0	9	
		3507*a*	0·550	45·3	280·4	+19·6	18	66	
		3512	0·442	97·9	278·8	− 6·5	0	4	
		3508	0·705	54·4	266·9	+21·5	0	8	
		3508*a*	0·700	58·0	266·0	+19·1	8	27	
		3508	0·736	59·9	262·6	+19·1	0	2	
May 6		Centre			(304·8)	(−3·4)	(113)	(808)	(874)
126·465	CL, FT		0·807	250·8	344·8	−17·3			152
		3496	0·916	242·2	356·9	−26·7	0	34	
		3496*a*	0·895	240·8	353·5	−27·5	32	194	
		3496*a*	0·885	242·1	352·3	−26·1	23	186	614*c*
		3496*c*	0·882	238·8	351·2	−28·8	0	15	
		3496*b*	0·815	238·5	343·2	−27·3	8	30	
		3496	0·818	231·3	341·2	−32·8	0	14	265*c*
		3498	0·394	265·1	315·1	− 5·0	0	6	
		3498	0·391	262·3	314·8	− 6·0	0	3	
		3498	0·378	262·6	314·2	− 5·8	0	5	
		3504	0·346	339·1	299·3	+15·5	0	6	
		3504	0·317	344·5	297·0	+14·4	0	5	
		3504	0·362	350·3	295·7	+17·5	12	79	
		3504	0·388	352·3	295·1	+19·2	3	12	
		3504	0·367	353·0	294·7	+18·0	5	26	
		3504	0·359	0·5	291·8	+17·7	3	10	
		3504	0·352	357·4	291·0	+17·2	0	6	
		3504	0·333	5·0	290·3	+16·0	0	4	
		3504	0·399	7·9	288·7	+19·9	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).
				°	°	°			
1894. 126d·465	CL, FT	3504*a*	0·350	12·1	287·6	+16·6	14	54	
		3504	0·395	12·5	286·8	+19·3	0	6	
		3504	0·366	18·3	285·1	+16·9	0	3	
		3504	0·353	21·1	284·4	+15·9	0	3	
		3504	0·379	25·6	282·2	+16·7	0	5	
		3506*a*	0·504	0·5	291·7	+26·8	0	6	
		3506	0·502	7·3	287·9	+26·4	0	3	
		3507*a*	0·431	25·8	280·6	+19·5	8	36	
		3507	0·444	31·3	277·9	+19·0	0	5	
		3512	0·207	102·3	280·3	− 5·7	5	12	
		3512	0·220	97·8	279·4	− 4·9	0	2	
		3512	0·238	99·4	278·4	− 5·5	0	4	
		3512	0·263	95·2	276·8	− 4·6	3	9	
		3512	0·271	99·0	276·5	− 5·6	1	13	
		3512	0·275	96·3	276·1	− 4·9	3	10	
		3508*a*	0·560	48·1	266·0	+18·9	6	16	
May 7		Centre			(292·0)	(−3·3)	(126)	(825)	(1031)
127·309	AW, FT		0·915	252·5	346·5	−17·3			378
			0·833	249·5	336·0	−18·8			270
I			0·735	246·6	326·1	−19·2			205
		3496*a*	0·958	242·3	353·3	−27·4	56	324	
		3496	0·943	242·0	350·1	−27·4	0	20	1130*c*
		3496	0·923	241·7	346·5	−27·3	0	7	
		3496*b*	0·898	241·0	342·6	−27·3	4	15	
		3498*b*	0·621	267·1	319·0	− 4·3	4	6	
		3498	0·587	265·4	316·5	− 5·3	6	12	
		3498	0·586	268·6	316·5	− 3·4	0	6	
		3498	0·573	270·9	315·5	− 2·1	3	10	
		3498	0·572	268·0	315·5	− 3·8	0	5	
		3498	0·571	269·1	315·4	− 3·2	2	8	
		3498	0·571	272·1	315·4	− 1·5	1	8	
		3498	0·564	265·7	314·9	− 5·1	0	3	
		3498	0·560	272·5	314·6	− 1·3	0	3	
		3498	0·557	271·3	314·4	− 1·9	4	12	
		3498	0·556	269·7	314·4	− 2·8	0	3	
		3498	0·550	272·0	313·9	− 1·6	1	10	
		3498*c*	0·541	270·4	313·3	− 2·5	0	4	
		3504	0·434	318·3	298·1	+15·8	0	7	
		3504	0·427	320·3	297·1	+16·0	0	12	
		3504	0·447	325·3	296·2	+18·4	1	2	
		3504	0·439	325·1	295·9	+18·0	5	12	
		3504	0·419	325·0	295·2	+16·9	18	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 3511, May 6. A very small spot.
Group 3512, May 6–12. A very small spot on May 6. A number of small spots in a straggling stream on the succeeding days. *a*, the leader, alone remains by May 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 Spots. Longitude.	Heliographic Spots. 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).
				°	°	°			
1894.									
127d·309	AW, FT	3504	0·454	328·5	295·2	+19·6	11	21	
		3504	0·431	327·1	294·9	+18·1	6	26	
I.		3504	0·446	330·5	294·1	+19·7	0	7	
		3504	0·392	330·4	292·3	+16·8	4	25	
		3504	0·401	333·2	291·6	+17·8	2	7	
		3504	0·387	340·9	288·3	+18·2	0	6	
		3504*a*	0·362	341·6	287·5	+16·8	17	52	
		3504	0·393	344·7	287·0	+19·0	1	10	
		3507	0·390	359·6	280·9	+19·7	3	8	
		3507*a*	0·394	1·8	279·9	+19·9	10	15	
		3512	0·055	198·3	281·7	− 6·2	2	5	
		3512	0·043	172·8	280·4	− 5·6	3	9	
		3512	0·038	155·5	279·8	− 5·2	2	8	
		3512	0·053	130·3	278·4	− 5·2	4	10	
		3512	0·091	122·1	276·3	− 6·0	0	10	
		3512	0·083	109·9	276·2	− 4·8	1	7	
		3512	0·099	110·9	275·4	− 5·2	3	6	
		3508*a*	0·454	33·4	265·4	+19·1	7	15	
			0·957	102·0	207·6	−12·4			246
May 8		Centre			(280·7)	(−3·2)	(181)	(779)	(2229)
128·517	CL, JG		0·976	240·9	342·0	−29·1			296
			0·917	250·8	330·8	−18·9			193
			0·900	267·1	328·9	− 4·0			116
		3498*b*	0·809	269·1	318·6	− 2·6	13	74	148*c*
		3498	0·784	266·1	316·4	− 5·0	2	11	
		3498*c*	0·744	271·2	312·7	− 1·2	15	108	
		3513	0·831	302·0	315·2	+24·2	4	13	
		3514	0·588	281·1	300·0	+ 4·0	0	7	
		3504	0·621	300·6	298·4	+15·9	8	51	
		3504	0·590	299·7	296·6	+14·3	1	6	
		3504	0·588	303·0	295·5	+16·0	0	5	
		3504	0·592	305·2	295·1	+17·2	9	45	
		3504	0·612	309·0	294·9	+19·9	21	83	
		3504	0·552	308·0	291·7	+17·0	0	15	
		3504	0·522	312·8	288·4	+17·9	3	11	
		3504*a*	0·500	312·9	287·2	+17·0	7	31	
		3504	0·518	316·0	287·1	+19·0	3	13	
		3504	0·458	314·9	284·4	+15·9	0	3	
		3507	0·462	325·8	280·7	+19·4	0	4	
		3507*a*	0·455	328·9	279·2	+19·9	3	9	
		3507	0·423	332·1	276·8	+18·8	0	4	
		3512*a*	0·316	261·0	283·0	− 5·8	0	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 Spots. Longitude.	Heliographic Spots. 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 (and for Day).
				°	°	°			
1894.									
128d·517	CL, JG	3512	0·282	260·0	280·9	− 5·8	6	25	
		3512	0·247	255·3	278·7	− 6·6	0	5	
		3512	0·241	262·1	278·6	− 4·9	2	7	
		3512	0·200	263·5	276·2	− 4·4	2	12	
		3515	0·375	320·1	279·1	+13·7	0	9	
		3508*a*	0·381	358·7	265·3	+19·2	2	7	
		3516*a*	0·930	82·2	197·1	+ 6·1	21	87	324*c*
			0·916	71·6	200·6	+15·4			74
			0·918	103·5	198·3	−13·7			435
May 9		Centre			(264·8)	(−3·1)	(122)	(659)	(1586)
129·469	HA, CL		0·931	254·1	320·5	−15·9			114
			0·880	262·5	313·7	− 8·0			132
			0·869	244·6	310·8	−23·4			175
		3498*b*	0·932	267·7	320·8	− 3·2	9	69	367*c*
		3498*c*	0·868	270·1	312·2	− 1·4	14	90	
		3513	0·928	297·3	316·4	+23·8	0	16	141*s*
		3504	0·768	293·2	299·1	+15·5	5	42	
		3504	0·753	293·8	297·7	+15·6	0	8	
		3504	0·744	292·2	297·3	+14·2	7	38	
		3504	0·750	299·4	295·9	+19·4	10	76	
		3504	0·741	297·5	295·7	+17·8	15	45	326*c*
		3504	0·726	296·5	294·7	+16·6	3	20	
		3504	0·726	297·6	294·4	+17·4	2	13	
		3504	0·733	301·0	294·0	+19·9	7	31	
		3504	0·650	306·6	285·9	+20·2	3	19	
		3512*a*	0·513	263·6	282·9	− 5·9	4	15	90*c*
		3512	0·450	264·3	278·8	− 5·2	3	14	
		3508*a*	0·459	332·1	265·4	+20·9	0	4	
		3516*a*	0·824	80·6	197·6	+ 6·0	11	71	350*c*
		3516	0·857	81·6	194·0	+ 5·6	0	12	
			0·800	70·1	201·6	+13·8			60
			0·901	116·4	189·5	−25·0			179
			0·898	106·4	188·7	−16·0			352
			0·933	66·3	186·4	+20·8			198
			0·979	77·5	175·1	+11·5			230
May 10		Centre			(252·2)	(−3·0)	(93)	(583)	(2714)
130·172	CL, HA		0·960	292·7	314·1	+20·9			128
			0·920	281·1	308·8	+ 9·1			162
I.			0·781	305·7	287·2	+25·0			147
		3498*c*	0·940	269·4	312·8	− 1·6	10	45	452*s*

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 3513, May 9–10. A small regular spot, first seen near the West limb.
Group 3514. May 9. A very small spot.
Group 3515, May 9. A small nebulous spot.
Group 3516, May 9–16. A nebulous spot, *a*, which diminishes from day to day. A very small companion is seen on May 10 and 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).
1894.				°	°	°			
130d·172	CL,HA	3504	0·858	290·1	299·5	+15·6	9	130	
		3504	0·846	288·8	298·4	+14·3	0	14	
I.		3504	0·837	287·8	297·6	+13·2	7	12	
		3504	0·839	295·6	296·1	+19·5	5	37	273c
		3504	0·827	293·6	295·4	+17·6	7	54	
		3504	0·823	292·5	295·2	+16·6	3	40	
		3504	0·825	296·8	294·4	+20·1	14	50	
		3512a	0·655	264·4	283·7	− 5·8	5	12	
		3517	0·656	107·5	203·0	−13·5	0	3	
		3516a	0·725	77·9	197·5	+ 6·7	11	46	298sf
		3518	0·874	103·1	182·3	−12·8	15	94	532c
		3518	0·892	103·0	180·1	−12·8	4	39	
			0·776	104·9	192·7	−13·3			194
			0·805	80·1	190·2	+ 6·3			122
			0·842	117·9	188·1	−24·8			158
			0·864	77·5	184·4	+ 9·3			126
			0·923	67·2	181·9	+13·8			86
			0·941	74·8	174·3	+13·3			374
May 11		Centre			(242·9)	(−2·8)	(90)	(576)	(3052)
131·211	AW,FT		0·930	248·2	296·7	−21·2			180
			0·864	298·9	284·2	+23·1			767
I.		3504	0·960	287·8	301·1	+16·3	6	22	
		3504	0·955	286·9	300·2	+15·3	24	82	
		3504	0·948	284·7	299·1	+13·0	3	16	
		3504	0·948	287·7	298·7	+15·9	12	28	1125c
		3504	0·941	289·1	297·2	+16·9	5	18	
		3504	0·934	289·9	295·9	+17·5	22	93	
		3512a	0·826	265·3	284·6	− 5·4	6	13	155c
		3517	0·473	113·0	202·7	−13·1	0	10	
		3516a	0·545	73·1	197·6	+ 6·8	11	43	
		3518	0·734	105·5	182·7	−13·1	59	143	
		3518	0·743	106·7	182·1	−14·2	0	7	
		3518	0·753	104·4	180·9	−12·6	13	44	
		3518	0·761	106·0	180·4	−13·9	0	3	282c
		3518	0·778	108·0	179·1	−15·6	4	12	
		3518	0·780	105·0	178·6	−13·4	11	31	
		3518	0·786	103·9	178·5	−10·3	2	7	
		3519	0·817	74·5	176·0	+11·0	4	10	262c
		3519	0·826	72·2	175·5	+13·0	6	16	
		3520a	0·982	102·2	149·9	−12·5	49	405	
		3520b	0·988	100·3	147·9	−10·6	32	257	402c
		3520c	0·992	101·4	145·0	−12·3	0	73	
1894.				°	°	°			
131d·211	AW,FT		0·781	53·6	185·1	+25·6			182
			0·825	123·5	177·6	−28·8			304
I.			0·899	110·7	166·0	−19·8			170
			0·926	76·8	162·6	+11·1			277
			0·934	89·5	160·3	− 0·5			317
May 12		Centre			(229·1)	(−2·7)	(269)	(1333)	(4423)
132·506	JG,FG		0·946	291·2	280·6	+19·0			220
			0·921	265·5	279·0	− 5·2			175
			0·875	296·4	269·2	+21·5			111
		3516a	0·292	58·4	197·6	+ 6·3	6	19	
		3521a	0·569	52·1	183·9	+18·1	0	6	
		3518	0·506	113·5	183·6	−13·9	46	260	
		3518	0·517	110·1	182·3	−12·5	4	15	
		3518	0·544	111·8	180·8	−13·8	0	4	
		3518	0·541	107·5	180·4	−11·5	0	9	
		3518	0·563	114·0	179·9	−15·4	9	22	
		3518	0·555	110·2	179·8	−13·2	0	6	
		3518	0·587	115·9	178·6	−17·0	0	6	
		3518	0·581	110·1	178·0	−13·7	46	125	
		3518	0·610	117·4	177·3	−18·4	4	13	
		3520a	0·880	103·7	150·8	−13·3	58	296	
		3520	0·879	99·9	150·7	−10·0	0	21	
		3520b	0·895	100·4	148·7	−10·4	43	224	
		3520c	0·910	102·9	146·8	−12·8	13	32	
		3520	0·914	101·5	146·1	−11·6	0	19	530c
		3520	0·952	103·5	140·0	−13·7	39	220	
May 13		Centre			(212·0)	(−2·6)	(268)	(1297)	(1036)
133·542	FT,JG		0·840	330·0	234·3	+44·5			105
			0·906	339·3	232·9	+55·7			169
			0·766	339·7	219·7	+43·5			167
		3522	0·308	202·4	205·4	−19·0	4	11	
		3522	0·299	194·5	202·8	−19·2	0	5	
		3516a	0·153	6·2	197·3	+ 6·2	3	13	
		3521a	0·442	33·3	183·5	+19·2	6	29	
		3521b	0·471	38·9	180·2	+19·0	3	12	
		3518	0·315	130·0	184·0	−14·0	49	347	
		3518	0·339	125·5	181·9	−13·7	4	74	
		3518	0·364	128·9	181·3	−15·6	0	5	
		3518	0·336	120·0	181·1	−12·0	0	24	
		3518	0·350	121·7	180·6	−13·0	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 3517, May 11–12. A small spot.

Group 3518, May 11–22. A very large, complex, and irregular group. Many nuclei are scattered through the group, which undergoes continual change. The group on May 17 and 18 consists chiefly of two very large composite spots almost in union with each other. Some of the spots appear as notches on the limb on May 22.

Group 3519, May 12. A pair of small spots.

Group 3520, May 12–24. A very large irregular group, following Group 3518, and somewhat resembling it, but drawn out more after the character of a stream. The four principal spots, *a, b, c, d*, can be traced fairly well for some days, but after May 19 only *b* is distinguishable. The components of the group, as a rule, undergo continual change, coalescing with each other, and separating again. *a* is measured in two parts on May 15.

Group 3521, May 13–20. A very small spot, *a*, which increases rapidly up to May 15 and decreases after May 16. It is followed by a smaller spot, *b*, from May 14 to 16.

Group 3522, May 14–20. One or two small faint spots until May 17, by which date a considerable outburst has taken place. The group then consists of two large spots, *a* and *b*, at different latitudes, with a few small spots between them, the whole forming a stream inclined at a considerable angle to the equator.

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).
1894.				°	°	°			
133d·542	JG,FT	3518	0·392	128·0	179·6	−16·3	17	156	
		3518	0·385	123·9	179·1	−14·7	1	12	
		3518	0·395	118·7	177·5	−13·2	28	126	
		3518	0·420	124·2	177·2	−16·0	1	8	
		3518	0·445	124·9	176·0	−17·0	14	48	
		3520	0·738	102·1	151·3	−10·6	6	26	
		3520*a*	0·753	105·5	150·3	−13·2	53	289	
		3520*b*	0·765	100·7	148·8	− 9·8	25	172	
		3520*c*	0·783	103·7	147·4	−12·3	36	202	
		3520	0·828	104·0	143·0	−13·0	4	14	343*c*
		3520	0·852	103·7	140·4	−13·0	19	79	
		3520	0·859	105·7	139·7	−14·7	16	100	
			0·970	104·5	122·4	−14·7			97
May 14		Centre			(198·3)	(− 2·5)	(289)	(1758)	(881)
134·315	AW,FT	3522	0·426	233·4	209·0	−16·9	0	2	
I.		3522	0·413	226·8	206·5	−18·6	3	10	
		3522	0·392	223·2	204·5	−18·8	0	9	
		3523	0·373	235·6	206·5	−14·4	1	11	
		3516	0·265	313·4	199·3	+ 8·1	0	7	
		3516*a*	0·217	312·0	197·4	+ 5·9	2	9	
		3521*a*	0·378	10·7	183·9	+19·3	16	61	
		3521*b*	0·393	18·7	180·5	+19·3	15	42	
		3518	0·221	159·5	183·5	−14·3	81	506	
		3518	0·197	154·3	183·1	−12·6	5	9	
		3518	0·204	147·5	181·7	−12·2	5	12	
		3518	0·266	154·2	181·2	−16·2	14	70	
		3518	0·217	143·1	180·5	−12·4	3	25	
		3518	0·243	148·2	180·5	−14·3	4	26	
		3518	0·263	149·3	180·1	−15·4	4	32	
		3518	0·283	148·0	179·2	−16·2	9	99	
		3518	0·237	137·8	178·8	−12·5	0	4	
		3518	0·265	142·5	178·6	−14·4	10	40	
		3518	0·251	139·6	178·5	−13·4	5	25	
		3518	0·303	147·8	178·4	−17·2	4	7	
		3518	0·296	145·1	178·0	−16·4	0	8	
		3518	0·242	132·9	177·7	−11·8	0	4	
		3518	0·266	135·0	177·0	−13·1	30	131	
		3518	0·323	140·0	175·6	−16·6	6	15	
		3518	0·341	142·6	175·6	−18·0	2	4	
		3518	0·345	140·9	175·0	−17·8	3	15	
		3518	0·332	137·7	174·7	−16·5	9	21	
		3520	0·603	104·0	151·8	−10·3	7	11	
1894.				°	°	°			
134d·315	AW,FT	3520	0·610	102·8	151·1	− 9·7	0	5	
		3520	0·615	103·7	150·9	−10·3	5	17	
I.		3520*a*	0·626	107·5	150·5	−12·7	45	154	
		3520*a*	0·652	109·0	148·8	−14·1	22	98	
		3520*b*	0·642	102·0	148·7	− 9·5	41	186	
		3520	0·660	102·7	147·3	−10·6	1	7	
		3520*c*	0·668	105·0	147·1	−11·7	42	233	
		3520	0·687	103·1	145·3	−10·7	3	10	
		3520	0·707	103·6	143·8	−11·3	3	16	
		3520	0·730	103·4	141·9	−11·4	3	9	
		3520	0·733	105·5	141·8	−13·0	5	93	
		3520	0·753	105·6	140·1	−13·3	6	24	223*c*
		3520	0·753	104·2	140·0	−12·3	7	42	
		3520	0·767	107·3	139·1	−14·7	21	115	
		3524	0·895	104·0	125·0	−13·6	5	21	176*f*
			0·912	65·3	125·5	+21·3			135
May 15		Centre			(188·1)	(− 2·4)	(447)	(2245)	(534)
135·190	CL,HA	3522	0·573	240·4	208·0	−18·4	0	5	
I.		3516*a*	0·384	290·7	197·6	+ 5·6	0	8	
		3521*a*	0·380	341·5	183·8	+18·7	19	59	
		3521*b*	0·379	351·2	180·0	+19·6	6	23	
		3518	0·257	210·7	184·3	−15·0	68	396	
		3518	0·212	213·6	183·4	−12·4	1	7	
		3518	0·275	203·9	183·2	−16·8	15	64	
		3518	0·244	185·8	182·4	−16·3	3	17	
		3518	0·262	199·1	181·6	−16·6	0	8	
		3518	0·200	202·5	181·0	−12·9	1	17	
		3518	0·175	206·3	181·0	−11·3	0	5	
		3518	0·257	193·9	180·2	−16·7	5	28	
		3518	0·237	192·4	179·5	−15·6	0	10	
		3518	0·190	192·0	178·8	−13·0	0	3	
		3518	0·213	187·5	178·1	−14·4	15	124	
		3518	0·191	182·6	177·0	−13·3	26	67	
		3518	0·261	173·0	174·6	−17·3	8	32	
		3518	0·242	172·2	173·7	−16·2	3	6	
		3520	0·428	110·1	152·5	−10·5	1	17	
		3520	0·459	118·0	151·9	−14·5	1	4	
		3520	0·452	108·9	150·8	−10·5	0	31	
		3520*a*	0·469	114·6	150·6	−13·2	45	153	
		3520	0·478	109·6	149·3	−11·3	2	6	
		3520	0·507	119·5	149·2	−16·5	0	6	
		3520*b*	0·483	106·5	148·6	− 9·9	31	152	

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 3523, May 15. A small spot *s* of Group 3522.
Group 3524, May 15–25. A few small spots, irregularly arranged until May 18, when it forms a short curved stream of spots, of which the leader, *a*, is the largest. The group increases in size and lengthens out, the axis of the group being inclined at a considerable angle to the equator.

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).
1894.				°	°	°			
135d·190	CL,HA	3520*d*	0·503	115·3	148·6	−14·4	19	109	
		3520	0·522	115·0	147·3	−14·7	0	5	
I.		3520*c*	0·513	109·6	147·0	−11·8	37	286	
		3520	0·566	107·0	143·1	−11·4	7	40	
		3520	0·575	109·8	142·9	−13·1	1	8	
		3520	0·600	111·8	141·5	−14·7	1	17	
		3520	0·594	107·3	141·2	−12·0	3	11	
		3520	0·599	109·7	141·2	−13·5	9	72	
		3520	0·610	107·8	140·1	−12·6	3	25	
		3520	0·635	110·8	138·8	−14·9	14	102	
		3524	0·781	106·6	126·1	−14·3	3	12	132*c*
		3524	0·812	106·5	123·1	−14·7	1	10	
			0·946	104·4	105·7	−14·4			136
May 16		Centre			(176·5)	(−2·3)	(348)	(1945)	(258)
136·614	CL,FT	3522*a*	0·771	248·2	206·4	−18·1	12	90	
		3522	0·757	244·7	204·4	−20·3	0	7	
		3522	0·744	245·7	203·5	−19·3	0	7	
		3522	0·731	248·1	202·8	−17·3	0	5	
		3522*b*	0·729	244·7	201·9	−19·7	28	80	
		3521*a*	0·541	311·5	183·0	+19·0	9	30	
		3518	0·489	242·5	184·3	−15·0	113	796	
		3518	0·437	241·7	181·0	−14·0	3	11	
		3518	0·444	239·0	180·8	−15·2	6	34	
		3518	0·403	238·0	178·3	−14·4	73	501	
		3518	0·405	232·4	177·1	−16·3	8	50	
		3518	0·381	227·8	174·8	−16·9	1	9	
		3520	0·259	153·7	150·9	−15·6	0	7	
		3520*a*	0·227	148·6	150·8	−13·3	27	143	
		3520	0·258	147·5	149·5	−14·7	14	60	
		3520	0·218	140·0	149·5	−11·7	1	7	
		3520*b*	0·208	133·0	148·8	−10·3	31	148	
		3520*c*	0·247	135·1	147·5	−12·2	46	278	
		3520	0·234	130·6	147·3	−10·9	0	7	
		3520	0·291	123·1	143·4	−11·3	6	23	
		3520	0·308	127·9	143·3	−13·0	7	72	
		3520	0·315	124·0	142·3	−12·2	8	41	
		3520	0·345	126·2	141·1	−13·8	4	17	
		3520	0·375	123·9	139·1	−14·1	0	46	
		3524	0·548	115·5	126·9	−15·5	0	5	
		3524	0·580	112·9	124·3	−14·8	0	6	
		3524	0·601	110·8	122·4	−14·1	5	17	
		3525*a*	0·952	107·2	85·9	−17·0	15	64	263*p*
May 17		Centre			(157·7)	(−2·2)	(417)	(2561)	(263)
1894.				°	°	°			
137d·622	CL,JG		0·815	279·9	198·2	+ 6·8			114
		3522*a*	0·903	252·0	208·1	−17·1	24	124	
		3522	0·881	248·5	204·8	−19·8	0	14	
		3522	0·857	251·1	202·3	−17·2	0	7	292*c*
		3522	0·848	249·8	201·0	−18·1	0	7	
		3522*b*	0·851	246·7	200·9	−20·8	39	171	
		3521*a*	0·685	300·9	182·6	+18·8	7	26	
		3518	0·692	252·6	187·0	−13·5	5	35	
		3518	0·670	255·2	185·6	−11·4	0	8	
		3518	0·673	249·0	184·9	−15·5	106	702	
		3518	0·641	252·2	183·0	−12·9	0	6	
		3518	0·637	250·3	182·4	−14·0	0	12	
		3518	0·622	249·1	181·1	−14·5	7	47	
		3518	0·580	247·9	177·9	−14·3	50	675	
		3518	0·575	243·4	176·7	−16·6	6	50	
		3518	0·541	249·2	175·5	−12·8	0	17	
		3520	0·272	210·1	152·5	−15·6	8	37	
		3520	0·253	206·0	151·1	−15·2	0	23	
		3520*a*	0·230	207·7	150·7	−13·8	29	154	
		3520*b*	0·169	208·7	149·1	−10·6	34	153	
		3520*c*	0·193	200·4	148·3	−12·5	48	234	
		3520	0·209	192·6	147·1	−13·8	4	14	
		3520	0·160	194·8	146·8	−11·0	0	27	
		3520	0·179	188·5	145·9	−12·3	0	47	
		3520	0·164	178·7	144·2	−11·5	0	13	
		3520	0·188	178·6	144·1	−12·9	6	74	
		3520	0·161	172·8	143·2	−11·3	0	4	
		3520	0·178	168·8	142·4	−12·1	6	37	
		3520	0·212	166·5	141·5	−14·0	7	20	
		3520	0·227	155·6	138·9	−14·0	0	13	
		3524*a*	0·396	126·3	125·1	−15·5	12	50	
		3524	0·424	121·9	122·6	−14·8	0	15	
		3524	0·433	119·2	121·6	−14·1	4	14	
		3526	0·455	57·6	121·4	+12·1	0	6	
		3526	0·457	61·5	120·4	+10·6	7	21	
		3527	0·752	56·1	103·8	+17·1	0	13	
		3525*a*	0·859	109·2	86·3	−17·5	21	96	211*c*
		3528	0·963	94·3	70·1	− 4·7	30	211	
		3528	0·978	95·4	66·5	− 5·7	23	161	252*c*
May 18		Centre			(144·4)	(−2·1)	(483)	(3338)	(869)
138·243	AW,FT		0·880	277·4	197·3	+ 5·6			382
I.			0·892	289·4	197·2	+16·3			130

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 3525, May 17–25. A regular spot, *a*, which diminishes from day to day, and has broken up by May 22.
Group 3526, May 18–19. A few very small spots irregularly scattered.
Group 3527, May 18. A small spot.
Group 3528, May 18–29. A regular spot, *a*, followed by a large and irregular but faint spot, generally in contact with it. This latter spot gradually breaks up, and *a* alone remains by May 27. A bright bridge has appeared in *a* by May 23, and has divided it completely into two by May 26.

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).
				°	°	°			
1894.									
138d·243	AW,FT	3522*a*	0·964	252·1	210·4	−17·8	27	126	580*c*
		3522*b*	0·914	247·1	200·9	−21·7	40	118	
I.		3521*a*	0·772	296·4	182·9	+18·7	4	15	162*f*
		3518	0·818	252·6	190·0	−15·3	2	7	
		3518	0·799	250·9	187·9	−16·3	7	45	
		3518	0·795	253·8	187·9	−14·0	0	19	
		3518	0·779	249·8	185·8	−16·8	64	185	
		3518	0·772	251·8	185·4	−15·1	86	224	
		3518	0·763	253·4	184·8	−13·8	18	147	
		3518	0·740	254·1	182·9	−13·0	0	8	
		3518	0·729	251·1	181·6	−15·0	19	132	228*c*
		3518	0·728	246·6	180·7	−18·1	0	3	
		3518	0·721	247·6	180·3	−17·3	19	51	
		3518	0·690	254·0	178·8	−12·3	0	20	
		3518	0·685	250·7	177·9	−14·5	105	770	
		3518	0·683	245·2	176·7	−18·0	0	8	
		3518	0·679	246·5	176·7	−17·1	13	41	
		3518	0·670	244·6	175·6	−18·1	0	7	
		3520	0·359	230·4	152·8	−15·0	25	70	
		3520	0·343	225·2	150·8	−15·8	8	14	
		3520	0·313	227·5	149·8	−11·5	42	225	
		3520*c*	0·288	229·2	149·1	−12·7	45	112	
		3520*b*	0·267	234·9	149·0	−10·7	35	138	
		3520	0·292	220·0	147·3	−14·8	0	4	
		3520	0·276	222·7	147·3	−13·6	4	48	
		3520	0·256	226·0	147·0	−12·1	11	77	
		3520	0·234	229·9	146·6	−10·5	0	12	
		3520	0·247	221·1	145·7	−12·6	3	20	
		3520	0·260	216·4	145·3	−13·9	0	5	
		3520	0·239	216·4	144·5	−12·9	8	95	
		3520	0·216	218·4	144·0	−11·6	0	9	
		3520	0·265	206·6	143·2	−15·6	0	12	
		3520	0·195	216·2	142·9	−11·0	0	12	
		3520	0·234	208·6	142·8	−13·7	19	41	
		3520	0·208	210·0	142·3	−12·2	3	16	
		3520	0·225	207·5	142·3	−13·4	5	8	
		3520	0·197	211·2	142·2	−11·6	0	3	
		3520	0·227	202·6	141·3	−14·0	3	7	
		3520	0·206	204·1	141·1	−12·7	0	5	
		3520	0·231	200·6	141·0	−14·3	0	2	
		3520	0·212	200·8	140·6	−13·3	0	3	
		3524*a*	0·298	141·8	125·2	−15·4	26	96	
		3524	0·279	135·8	124·7	−13·4	0	9	
		3524	0·332	143·0	124·2	−17·2	2	8	
1894.									
138d·243	AW,FT	3524	0·323	140·9	124·0	−16·3	0	7	
		3524	0·331	132·5	123·6	−14·7	10	18	
I.		3524	0·313	135·3	123·1	−14·7	0	3	
		3524	0·297	131·1	123·0	−13·1	0	2	
		3524	0·332	131·3	121·3	−14·4	0	9	
		3524	0·330	129·3	121·0	−13·8	7	15	
		3526	0·361	45·0	121·1	+12·9	1	4	
		3526	0·351	50·8	120·2	+11·0	4	6	
		3526	0·367	56·4	118·2	+ 9·9	0	1	
		3526	0·361	61·4	117·6	+ 8·1	0	1	
		3526	0·394	57·6	116·5	+10·3	0	1	
		3526	0·379	63·3	116·3	+ 8·0	0	1	
		3526	0·400	62·6	115·2	+ 8·8	2	7	
		3525*a*	0·793	109·9	85·2	−16·8	22	67	
		3528*a*	0·926	93·8	68·5	− 4·3	35	255	
		3528	0·941	94·7	66·2	− 5·1	0	51	592*c*
		3528	0·954	94·5	63·8	− 4·9	15	109	
		3529*a*	0·984	104·2	56·6	−14·3	37	166	127*c*
		3530*a*	0·989	108·6	54·8	−18·7	140	368	
			0·876	142·8	87·5	−45·4			128
			0·789	111·8	85·9	−18·2			142
			0·902	123·8	75·4	−31·0			337
			0·906	109·8	72·3	−18·7			172
May 19			0·983	77·4	57·7	+12·0			178
		Centre			(136·2)	(−1·9)	(916)	(4068)	(3158)
139·234	CL,HA		0·997	296·1	206·7	+25·8			546
			0·986	252·4	203·2	−17·6			229
I.			0·952	276·5	194·7	+ 5·6			227
			0·822	285·2	176·8	+11·4			138
			0·819	284·9	176·6	+11·1			142
		3522*b*	0·976	247·7	199·9	−22·2	8	48	76*c*
		3521*a*	0·881	292·2	182·1	+18·5	0	16	
		3518	0·902	252·6	186·6	−16·5	46	244	
		3518	0·897	254·3	186·1	−14·8	22	142	
		3518	0·894	256·1	185·8	−13·2	2	24	
		3518	0·881	254·8	184·1	−14·2	12	120	661*c*
		3518	0·844	253·4	179·6	−14·9	229	1265	
		3518	0·840	248·9	178·6	−18·6	16	79	
		3518	0·817	250·2	176·3	−17·1	11	41	
		3520	0·531	245·1	152·7	−14·5	15	86	
		3520	0·516	250·6	152·6	−11·4	2	7	
		3520	0·521	242·3	151·5	−15·6	6	54	

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 3529, May 19–28. A large irregular spot, *a*, which has begun to break up by May 21. The group on May 22 forms a straight stream strongly inclined to the equator. It has completely broken up into a few scattered small spots by May 25. There has been a small fresh outburst in a higher latitude by May 27. The group lies *np* Group 3530, which it almost touches.
Group 3530, May 19–31. A large regular spot, *a*, followed by one or two smaller spots. *a* is crossed by a bright bridge, and has divided into two spots, *b* and *c*, by May 22. *b* and *c* alone remain by May 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).
1894.				°	°	°			
139d·234	CL, HA	3520	0·524	239·3	151·0	−17·1	2	9	
		3520	0·488	249·2	150·6	−11·6	1	5	
I.		3520	0·478	243·5	149·0	−13·9	97	544	
		3520*b*	0·460	249·9	149·0	−10·7	29	135	
		3520	0·439	245·6	147·0	−12·1	10	103	
		3520	0·430	239·8	145·4	−14·1	2	31	
		3520	0·414	241·6	144·9	−13·0	9	131	
		3520	0·414	236·3	143·8	−15·0	7	33	
		3520	0·386	237·0	142·4	−13·8	11	35	
		3520	0·368	239·9	141·9	−12·3	2	19	
		3524*a*	0·257	195·5	127·1	−16·0	20	102	
		3524	0·205	194·3	126·0	−13·3	3	8	
		3524	0·227	179·3	122·8	−14·9	2	6	
		3524	0·224	173·7	121·5	−14·6	1	17	
		3524	0·213	170·2	120·9	−13·9	3	10	
		3525*a*	0·647	114·4	85·1	−16·9	10	50	
		3528*a*	0·815	93·3	68·6	− 3·7	37	234	
		3528	0·830	95·6	67·1	− 5·7	0	10	554*f*
		3528	0·837	94·2	66·4	− 4·5	9	53	
		3528	0·852	94·4	64·7	− 4·7	20	134	
		3529*a*	0·917	105·1	57·1	−14·6	28	130	
		3530*a*	0·934	109·6	54·8	−18·9	93	374	
		3530	0·966	107·6	48·3	−17·5	9	30	512*c*
		3530	0·976	109·6	45·9	−19·5	15	76	
			0·788	128·0	77·2	−30·2			209
			0·941	77·2	53·8	+11·4			262
May 20		Centre			(123·0)	(−1·8)	(789)	(4405)	(3556)
140·186	AW, FT		0·902	284·0	173·6	+11·9			206
			0·904	235·2	171·2	−31·9			124
I.		3518	0·979	254·0	188·4	−19·4	16	105	
		3518	0·970	253·4	186·0	−16·5	29	136	
		3518	0·966	255·3	185·2	−14·7	30	207	
		3518	0·935	253·4	179·0	−16·2	197	1104	628*c*
		3518	0·925	250·2	177·1	−18·9	10	77	
		3518	0·918	256·0	176·5	−13·6	76	291	
		3520	0·690	250·8	152·5	−14·4	31	151	
		3520	0·691	245·9	151·7	−17·7	0	7	
		3520	0·676	247·1	150·8	−16·5	0	8	
		3520	0·652	250·2	149·5	−14·1	124	568	
		3520*b*	0·635	254·9	148·9	−10·9	29	134	

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).
1894.				°	°	°			
140d·186	AW, FT	3520	0·648	245·8	148·4	−16·8	3	15	
		3520	0·619	250·2	147·0	−13·4	0	18	
I.		3520	0·615	251·9	147·0	−12·3	14	85	
		3520	0·616	248·2	146·5	−14·6	26	67	
		3520	0·591	250·7	145·1	−12·7	0	15	
		3520	0·591	246·2	144·3	−15·2	0	15	
		3520	0·582	248·7	144·2	−13·6	0	55	
		3520	0·569	247·3	143·0	−14·1	9	52	
		3520	0·574	244·5	142·8	−15·7	0	3	
		3520	0·556	249·3	142·5	−12·8	0	16	
		3524*a*	0·386	229·0	128·0	−16·2	24	99	
		3524	0·374	226·3	126·7	−16·6	5	16	
		3524	0·337	231·1	126·0	−13·8	0	6	
		3524	0·362	225·5	125·9	−16·3	0	4	
		3524	0·345	224·2	124·8	−15·9	0	2	
		3524	0·347	221·8	124·3	−16·6	0	8	
		3524	0·308	220·1	122·2	−15·2	0	4	
		3524	0·289	220·1	121·4	−14·4	0	2	
		3524	0·274	219·5	120·7	−13·8	0	8	
		3525*a*	0·494	123·0	84·8	−17·1	9	44	
		3528*a*	0·670	93·8	68·5	− 3·8	49	230	
		3528	0·692	94·1	66·8	− 4·1	0	34	
		3528	0·702	92·1	66·0	− 0·3	0	5	
		3528	0·714	94·5	65·0	− 4·4	15	174	186*c*
		3529*a*	0·810	107·5	57·5	−15·1	13	57	
		3529	0·821	106·8	56·2	−14·7	11	60	667*c*
		3530*a*	0·848	112·0	54·1	−19·5	90	320	
		3530	0·909	110·8	46·3	−19·5	15	31	
			0·806	130·5	63·8	−32·7			80
			0·879	144·3	62·3	−46·6			176
			0·777	97·7	59·7	− 7·1			303
			0·864	55·3	56·7	+28·4			83
			0·869	76·7	51·3	+10·6			333
			0·957	62·6	40·4	+25·5			468
May 21		Centre			(110·4)	(−1·7)	(825)	(4233)	(3254)
141·203	CL, FT		0·916	282·5	162·4	+10·8			222
			0·877	270·5	158·1	− 0·3			140
I.			0·853	261·2	155·2	− 8·4			305
		3518	0·989	253·6	178·4	−16·5	239	823	
		3518	0·988	251·0	177·7	−19·0	28	159	569*f*
		3518	0·987	257·0	177·7	−13·1	68	288	

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).
				°	°	°			
1894.									
141d·203	CL, FT	3520	0·860	249·9	154·9	−18·0	8	18	
		3520	0·839	254·0	153·1	−14·3	35	137	
I.		3520	0·832	256·7	152·6	−12·0	4	24	
		3520	0·810	253·4	149·8	−13·7	89	471	
		3520*b*	0·798	257·7	149·3	−10·7	31	82	
		3520	0·788	255·4	148·1	−12·4	2	17	288*c*
		3520	0·777	254·7	147·0	−12·8	20	67	
		3520	0·772	252·4	146·1	−13·9	12	41	
		3520	0·759	253·4	145·1	−12·9	0	27	
		3520	0·734	252·0	142·7	−13·6	9	27	
		3524*a*	0·572	243·3	129·0	−16·2	26	129	
		3524	0·546	241·0	126·8	−16·7	1	6	
		3524	0·552	236·8	126·1	−18·9	0	2	
		3524	0·504	241·0	124·1	−15·5	0	3	
		3524	0·450	241·3	120·9	−13·9	0	1	
		3531	0·510	252·5	126·5	−10·2	6	20	
		3531	0·491	251·2	125·1	−10·5	6	16	
		3531	0·488	250·5	124·8	−10·7	1	6	
		3531	0·472	251·8	124·0	− 9·9	0	4	
		3531	0·462	251·8	123·3	− 9·8	3	8	
		3531	0·443	248·7	121·7	−10·7	6	16	
		3525	0·362	147·6	85·2	−19·3	0	2	
		3525	0·355	145·7	84·9	−18·6	0	2	
		3525	0·341	143·6	84·8	−17·4	4	19	
		3525	0·374	145·5	84·1	−19·5	2	7	
		3528	0·458	95·5	69·9	− 4·0	3	15	
		3528	0·463	97·7	69·7	− 5·0	15	50	
		3528*a*	0·477	94·3	68·7	− 3·5	28	131	
		3528	0·488	99·8	68·2	− 6·2	0	4	
		3528	0·514	95·9	66·3	− 4·4	26	231	
		3529	0·654	114·7	58·7	−17·1	3	8	
		3529*a*	0·662	111·7	57·5	−15·4	17	43	
		3529	0·667	109·4	56·7	−14·0	5	19	
		3530	0·675	114·4	57·1	−17·4	0	3	
		3530	0·698	113·3	55·0	−17·2	1	8	
		3530*b*	0·711	117·7	55·0	−20·4	26	130	
		3530	0·721	116·7	53·9	−20·0	0	36	
		3530*c*	0·725	115·1	53·2	−19·0	27	121	452*c*
		3530	0·723	110·8	52·5	−16·0	3	9	
		3530	0·746	112·2	50·8	−17·5	4	16	
		3530	0·798	113·8	46·3	−19·8	7	43	
		3532	0·990	92·8	15·3	− 3·0	15	39	
			0·834	152·2	61·0	−48·7			198
			0·868	54·6	43·1	+29·2			219

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).
				°	°	°			
1894.									
141d·203	CL, FT		0·859	63·6	41·4	+21·5			322
I.			0·925	69·2	31·5	+18·5			161
May 22		Centre			(97·0)	(−1·6)	(780)	(3328)	(2876)
142·335	AW, FT		0·958	269·4	155·2	− 1·0			135
			0·938	280·7	150·9	+ 9·5			112
I.		3520	0·945	255·6	152·4	−14·1	17	88	
		3520	0·929	256·7	149·8	−12·9	50	155	
		3520	0·929	254·9	149·7	−14·6	47	222	
		3520*b*	0·922	259·3	148·8	−10·4	24	106	1295*c*
		3520	0·914	257·6	147·6	−12·0	3	17	
		3520	0·908	256·6	146·7	−12·8	8	57	
		3520	0·899	255·4	145·4	−13·7	8	91	
		3524*a*	0·758	249·4	129·5	−16·5	30	120	
		3524	0·740	248·7	127·8	−16·6	0	7	
		3524	0·701	250·5	124·9	−14·6	0	4	
		3524	0·673	251·9	122·9	−13·1	5	29	
		3531	0·721	257·5	127·4	−10·0	20	97	
		3531	0·698	257·5	125·6	− 9·8	0	3	
		3531	0·660	256·1	122·5	−10·3	0	5	
		3531	0·657	257·6	122·4	− 9·3	4	14	
		3531	0·647	254·9	121·3	−10·9	5	15	
		3531	0·644	256·7	121·3	− 9·7	0	2	
		3525	0·275	190·9	85·1	−17·1	1	2	
		3525	0·286	190·5	85·1	−17·8	0	5	
		3525	0·320	187·4	84·5	−19·9	0	4	
		3528	0·204	105·1	70·7	− 4·5	2	6	
		3528	0·221	101·9	69·5	− 4·1	2	4	
		3528	0·228	105·2	69·3	− 4·9	0	3	
		3528*a*	0·232	98·4	68·8	− 3·4	30	117	
		3528	0·254	104·4	67·8	− 5·1	3	17	
		3528	0·264	101·5	67·0	− 4·5	9	72	
		3528	0·262	93·3	66·9	− 2·3	2	11	
		3528	0·263	97·8	66·9	− 3·5	2	3	
		3528	0·272	99·6	66·5	− 4·0	1	4	
		3528	0·273	95·7	66·3	− 3·0	1	10	
		3528	0·282	99·6	65·9	− 4·2	3	4	
		3528	0·298	101·9	65·1	− 5·0	5	23	
		3529	0·451	126·5	59·8	−16·9	3	5	
		3529	0·443	123·8	59·6	−15·6	0	5	
		3529	0·459	117·5	57·3	−13·6	4	15	
		3529*a*	0·475	121·3	57·2	−15·6	9	27	
		3530	0·482	126·8	58·1	−18·1	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 3531, May 22–25. A number of spots, mostly small, in a straight stream *n* Group 3524.
Group 3532, May 22–June 1. A 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).
1894.				°	°	°			
142d.335	AW,FT	3530	0·501	124·4	56·4	−17·8	0	1	
		3530*b*	0·544	128·4	54·9	−21·0	23	98	
I.		3530	0·561	126·0	53·1	−20·5	3	32	
		3530*c*	0·558	123·8	52·7	−19·3	23	109	
		3530	0·573	119·9	50·7	−17·8	0	3	
		3530	0·582	121·7	50·5	−19·0	0	13	
		3530	0·638	119·7	46·1	−19·6	6	13	
		3532	0·916	92·6	15·8	− 3·0	19	76	91*c*
			0·763	51·4	40·1	+27·2			121
			0·817	119·6	30·8	−24·7			60
			0·894	63·4	22·1	+22·8			386
			0·951	114·1	11·3	−23·3			162
			0·953	80·7	10·3	+ 8·4			382
May 23		Centre			(82·0)	(−1·5)	(372)	(1715)	(2744)
143·413	FT,AR		0·869	227·8	120·7	−36·5			126
		3520	0·996	255·0	152·5	−15·1	0	56	
		3520	0·995	257·7	151·8	−12·4	65	291	
		3520	0·994	260·4	151·6	− 9·8	32	138	1294*f*
		3520	0·994	256·3	151·3	−13·8	23	184	
		3520	0·987	258·4	148·3	−11·7	0	67	
		3520	0·985	256·9	147·6	−13·1	0	50	
		3524*a*	0·897	253·4	130·8	−15·9	19	126	
		3524	0·854	254·1	125·4	−14·3	7	66	
		3524	0·833	256·1	123·3	−12·3	10	50	600*c*
		3524	0·829	253·3	122·6	−14·6	2	15	
		3524	0·824	254·4	122·2	−13·6	0	15	
		3531	0·882	259·9	129·2	− 9·6	22	73	
		3531	0·870	259·9	127·7	− 9·5	3	15	
		3531	0·846	258·5	124·9	−10·4	0	7	
		3531	0·840	260·5	124·4	− 8·7	0	4	260*c*
		3531	0·837	257·9	123·9	−10·9	2	4	
		3531	0·829	260·0	123·3	− 9·1	0	11	
		3525	0·420	228·7	86·9	−17·4	0	20	
		3525	0·439	222·2	85·9	−20·3	0	8	
		3525	0·409	226·5	85·8	−17·6	0	11	
		3528	0·090	227·4	71·5	− 4·9	0	9	
		3528*a*	0·042	220·2	69·3	− 3·2	25	147	
		3528	0·067	199·7	69·0	− 5·0	0	16	
		3528	0·021	202·9	68·2	− 2·5	0	8	
		3528	0·062	188·7	68·2	− 4·9	6	19	
		3528	0·045	186·2	68·0	− 4·0	8	29	
1894.				°	°	°			
143d.413	FT,AR	3528	0·030	185·8	67·9	− 3·1	0	8	
		3528	0·004	57·8	67·5	− 1·3	0	3	
		3528	0·015	128·5	67·0	− 1·9	0	7	
		3528	0·080	170·5	66·9	− 5·9	0	2	
		3528	0·034	145·1	66·6	− 3·0	0	4	
		3528	0·040	118·5	65·7	− 2·5	0	6	
		3528	0·074	143·7	65·2	− 4·8	2	10	
		3534	0·142	146·4	63·2	− 8·2	0	2	
		3534	0·165	149·6	62·9	− 9·6	0	2	
		3529	0·293	156·4	58·9	−16·9	0	3	
		3529	0·260	143·9	58·7	−13·5	4	18	
		3529	0·320	150·5	58·2	−17·5	0	4	
		3529	0·271	142·1	57·9	−13·7	0	1	
		3529*a*	0·299	145·6	57·6	−15·8	7	16	
		3529	0·258	136·6	57·3	−12·2	0	4	
		3529	0·286	141·3	57·1	−14·2	0	3	
		3530*b*	0·394	148·5	55·0	−20·9	17	94	
		3530	0·403	145·2	53·5	−20·6	4	14	
		3530*c*	0·393	142·3	53·0	−19·4	18	115	
		3530	0·359	135·3	52·5	−16·1	1	4	
		3530	0·396	135·3	50·8	−17·6	0	3	
		3530	0·411	136·8	50·5	−18·7	0	9	
		3530	0·424	136·0	49·6	−19·0	0	13	
		3530	0·444	138·8	49·5	−20·8	0	1	
		3530	0·491	140·7	48·0	−23·5	0	2	
		3530	0·463	132·4	46·5	−19·5	2	15	
		3530	0·455	128·3	46·2	−17·6	0	4	
		3530	0·502	130·1	43·7	−20·1	1	3	
		3532	0·790	93·3	15·6	− 3·4	19	88	135*c*
		3533*a*	0·957	76·5	355·5	+12·4	78	570	645*c*
		3535*a*	0·989	78·3	346·9	+11·3	14	127	
			0·820	169·8	53·1	−54·9			109
			0·842	54·9	16·6	+28·1			261
			0·892	79·1	5·4	+ 9·1			564
			0·952	107·1	356·1	−16·8			76
			0·962	118·1	355·2	−27·3			471
May 24		Centre			(67·7)	(−1·4)	(391)	(2594)	(4541)
144·387	CL,AW		0·882	280·5	116·0	+ 8·6			111
			0·898	298·3	115·0	+25·0			136
			0·813	249·2	107·5	−17·5			90

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 3533. May 23–June 4. A very large regular spot, *a*, seen as a shallow notch on the limb on May 23, though it cannot be measured until May 24. Some small companions are seen near *a* on most days, and a small spot has separated off from *a* by May 31. *a* alone remains by June 2.
Group 3534. May 24. A pair of very small spots.
Group 3535, May 24–June 1. A large irregular spot, *a*, *f* Group 3533. It diminishes from day to day and has broken up into a cluster of small spots by May 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).
				°	°	°			
1894.									
144d·387	CL, AW	3524*a*	0·967	254·8	129·7	−15·0	8	36	
		3524	0·941	255·5	124·5	−14·0	0	6	
		3524	0·939	254·3	124·1	−15·1	0	7	768*c*
		3524	0·934	258·6	123·6	−11·1	0	6	
		3524	0·929	257·2	122·7	−12·3	3	13	
		3531	0·961	260·7	128·6	− 9·3	3	13	142*n*
		3536	0·926	248·8	121·4	−20·0	3	11	
		3536	0·913	247·6	119·3	−20·9	0	3	87*c*
		3525	0·556	240·5	85·2	−16·9	0	2	
		3525	0·543	238·2	83·8	−17·7	1	5	
		3528*a*	0·252	262·1	69·3	− 3·1	24	130	
		3528	0·237	256·8	68·2	− 4·3	3	22	
		3528	0·225	260·7	67·7	− 3·1	0	4	
		3528	0·222	265·6	67·6	− 2·1	0	3	
		3528	0·220	256·2	67·2	− 4·2	0	4	
		3528	0·219	252·7	67·0	− 4·7	0	2	
		3528	0·206	254·0	66·3	− 4·4	0	6	
		3528	0·159	246·6	63·3	− 4·8	0	1	
		3528	0·137	250·2	62·3	− 3·8	0	2	
		3529	0·224	203·7	60·2	−12·9	0	2	
		3529	0·227	199·3	59·3	−13·5	1	4	
		3529	0·294	192·0	58·6	−17·8	1	4	
		3529	0·227	190·3	57·3	−14·0	0	4	
		3529	0·254	189·3	57·3	−15·7	1	4	
		3529	0·263	183·6	55·9	−16·3	0	3	
		3530*b*	0·335	179·9	54·8	−20·7	12	76	
		3530	0·334	174·2	52·8	−20·6	1	4	
		3530*c*	0·317	173·2	52·6	−19·5	13	56	
		3530	0·319	170·6	51·7	−19·5	1	5	
		3530	0·321	163·9	49·5	−19·1	0	3	
		3530	0·311	156·2	47·4	−17·7	1	2	
		3532	0·631	94·2	16·0	− 3·5	17	78	86*c*
		3533*a*	0·873	75·3	355·4	+12·2	76	481	
		3533	0·898	75·3	352·2	+12·6	5	24	912*c*
		3535*a*	0·932	77·2	347·1	+11·4	14	83	
			0·865	157·7	21·0	−54·0			177
			0·753	50·0	14·2	+28·0			191
			0·702	76·0	11·5	+ 8·9			307
			0·822	131·5	7·3	−33·7			82
			0·881	107·8	354·3	−16·2			132
			0·897	118·9	354·0	−26·2			423
May 25		Centre			(54·9)	(−1·2)	(188)	(1109)	(3644)
1894.									
145d·639	HA, JG		0·837	251·0	93·7	−16·5			147
			0·763	240·8	84·3	−22·5			60
		3536	0·983	249·7	117·4	−20·2	6	67	119*c*
		3528	0·524	261·3	69·5	− 5·5	1	17	
		3528*a*	0·518	265·5	69·3	− 3·2	17	99	
		3528	0·518	261·7	69·1	− 5·2	4	26	
		3528	0·502	265·5	68·3	− 3·2	1	13	
		3528	0·501	268·0	68·2	− 2·0	1	13	
		3529	0·421	240·8	60·3	−12·8	0	5	
		3529	0·405	231·7	57·5	−15·6	7	12	
		3529	0·380	236·0	57·1	−13·3	0	5	
		3529	0·402	225·2	55·6	−17·5	0	4	
		3530*b*	0·428	219·2	55·0	−20·3	17	82	
		3530*c*	0·391	215·4	52·2	−19·6	15	62	
		3530	0·328	195·8	43·7	−19·4	0	5	
		3532	0·370	96·9	16·8	− 3·6	9	59	
		3533	0·627	74·1	0·8	+ 9·0	0	5	
		3533*a*	0·690	71·5	356·5	+11·8	108	498	82*c*
		3533	0·691	76·0	355·8	+ 8·8	5	9	
		3535	0·788	72·5	348·0	+13·0	0	7	195*c*
		3535*a*	0·792	74·5	347·3	+11·5	16	68	
		3537*a*	0·992	75·5	316·3	+14·2	58	354	101*p*
			0·771	126·6	353·9	−28·0			169
			0·913	123·0	336·1	−30·3			139
			0·935	95·7	329·3	− 5·7			159
May 26		Centre			(38·3)	(−1·1)	(265)	(1410)	(1171)
146·553	FT, JG		0·901	252·7	89·4	−16·0			151
			0·856	242·9	82·2	−23·5			87
		3538	0·896	282·0	88·9	+10·3	0	17	140*f*
		3528*a*	0·687	266·1	69·4	− 3·5	18	68	78*c*
		3529	0·596	241·5	59·3	−17·3	5	21	
		3529	0·584	238·9	57·9	−18·3	0	10	
		3529	0·561	242·9	57·3	−15·6	4	12	
		3529	0·559	238·9	56·2	−17·6	0	23	
		3530	0·604	230·3	56·5	−23·5	0	6	
		3530*b*	0·561	233·0	54·7	−20·5	20	95	
		3530*c*	0·520	230·9	51·5	−20·0	9	63	
		3539	0·372	197·0	32·9	−21·7	0	6	
		3539	0·371	191·2	30·6	−22·2	0	5	
		3532	0·167	104·4	16·9	− 3·3	8	56	
		3533	0·489	63·3	359·8	+11·8	1	17	
		3533	0·486	66·7	359·3	+10·2	0	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 3536, May 25–26. Two small spots, *s f* Group 3524. The group has considerably increased by May 26.
Group 3537, May 26–June 7. A very large regular spot, *a*, with a few small irregular companions. *a* occasionally throws off a small spot.
Group 3538, May 27–28. A small regular spot, first seen near the West limb.
Group 3539, May 27–31. A few small faint 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).
				°	°	°			
1894. 146d·553	FT,JG	3533a	0·532	64·8	356·8	+12·2	114	477	
		3533	0·531	71·5	355·7	+ 8·8	4	11	
		3533	0·578	66·8	353·4	+12·3	0	6	
		3533	0·602	65·1	352·1	+13·8	0	7	
		3535a	0·656	70·6	347·2	+11·8	12	76	
		3537a	0·955	74·3	314·5	+14·7	84	527	659f
		3537	0·986	75·3	306·7	+14·3	0	7	
			0·828	128·7	336·9	−31·7			144
			0·888	107·3	324·7	−15·7			104
			0·912	85·6	320·8	+ 3·6			82
			0·923	97·6	319·1	− 7·4			225
May 27		Centre			(26·2)	(−1·0)	(279)	(1519)	(1670)
147·290	CL,HA		0·956	253·0	88·7	−16·4			152
			0·933	244·7	83·5	−23·8			139
I.			0·889	234·0	74·1	−31·8			134
			0·843	248·7	72·1	−18·3			83
			0·882	210·1	60·1	−50·2			119
		3538	0·953	282·3	88·1	+11·4	9	35	2848
		3528a	0·807	265·9	70·1	− 3·8	17	69	376f
		3529	0·719	246·6	60·0	−17·2	3	13	
		3529	0·686	247·1	57·5	−16·0	3	16	
		3529	0·675	244·7	56·1	−17·3	0	15	
		3530b	0·677	238·9	54·7	−21·0	17	81	
		3530c	0·637	238·0	51·5	−20·3	13	54	
		3539	0·427	210·6	30·0	−22·3	5	14	
		3532	0·048	194·9	17·2	− 3·5	8	37	
		3533	0·309	53·4	2·0	+ 9·8	0	22	
		3533a	0·399	54·5	357·1	+12·6	134	512	
		3533	0·431	48·5	357·0	+15·7	0	8	
		3533	0·400	60·2	355·9	+10·7	0	6	
		3535a	0·530	65·4	347·0	+12·0	18	65	
		3540	0·822	97·5	321·6	− 6·6	4	25	162nf
		3540	0·837	95·9	320·0	− 5·4	5	29	
		3540	0·862	98·1	317·4	− 7·4	7	29	
		3537a	0·895	72·6	314·5	+15·1	131	468	877c
			0·831	137·4	341·9	−38·2			167
			0·833	84·7	320·5	+ 3·8			61
May 28		Centre			(16·5)	(−0·8)	(374)	(1498)	(2554)
148·510	CL,HA		0·960	239·6	71·8	−29·3			138
			0·838	254·2	56·2	−13·7			235
1894. 148d·510	CL,HA		0·840	284·8	56·2	+11·9			121
		3528a	0·938	266·6	69·8	− 3·5	0	26	343c
		3530b	0·837	245·6	54·7	−20·7	17	76	202c
		3530c	0·802	245·5	51·0	−19·9	11	36	
		3539	0·640	233·0	34·0	−23·3	7	19	
		3539	0·627	233·8	33·3	−22·3	0	4	
		3539	0·604	232·8	31·4	−22·0	0	4	
		3532	0·304	261·0	17·7	− 3·4	8	31	
		3533a	0·237	12·0	357·4	+12·5	115	573	
		3533	0·209	22·2	355·7	+10·3	0	4	
		3535	0·303	44·8	347·8	+11·6	7	40	
		3540	0·604	98·5	323·6	− 5·7	3	16	
		3540	0·631	101·3	321·8	− 7·7	5	17	66c
		3540	0·645	98·9	320·6	− 6·3	5	13	
		3540	0·659	100·0	319·6	− 7·2	4	17	
		3537a	0·738	69·2	315·0	+14·6	93	466	253n
		3537	0·763	67·1	313·3	+16·7	0	7	
		3541a	0·882	94·0	298·7	− 3·9	11	47	159f
		3542	0·931	80·2	292·4	+ 8·8	7	25	185nf
		3543	0·947	92·3	289·3	− 2·5	0	9	88c
			0·912	72·3	296·0	+15·7			291
May 29		Centre			(0·3)	(−0·8)	(293)	(1430)	(2081)
149·472	FT,JG		0·979	265·4	65·6	− 4·6			261
			0·941	211·4	43·3	−53·7			71
		3530b	0·932	247·7	54·8	−20·9	15	87	420f
		3530c	0·905	248·3	50·7	−19·8	7	32	
		3539	0·780	239·5	34·6	−23·7	0	8	
		3539	0·751	240·4	32·3	−22·1	0	6	
		3539	0·733	238·2	30·1	−23·1	0	5	
		3532	0·511	264·1	18·1	− 3·5	6	30	
		3533a	0·295	324·7	357·6	+13·3	113	537	
		3533	0·303	341·4	353·3	+16·0	0	4	
		3535	0·238	346·1	350·9	+12·7	0	5	
		3535	0·213	352·9	349·1	+11·5	0	4	
		3535	0·214	358·5	347·9	+11·7	4	11	
		3540	0·412	101·7	323·8	− 5·3	0	13	
		3540	0·438	104·0	322·4	− 6·6	0	3	
		3540	0·462	102·2	320·7	− 6·1	1	20	
		3540	0·488	103·9	319·2	− 7·2	0	3	
		3537	0·603	59·3	314·8	+17·4	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 3540, May 28–June 2. A few unstable spots, mostly small, irregularly scattered. Only one remains by May 31.
Group 3541, May 29–June 5. A small regular spot, *a*, with very small companions on May 30, June 1, and June 4. *a* moves forward in longitude after June 2.
Group 3542, May 29–30. A small regular spot.
Group 3543, May 29–June 3. A small regular spot *f* Group 3541.

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).
1894.				°	°	°			
149d·472	FT,JG	3537*a*	0·591	63·2	314·6	+15·0	71	450	
		3544	0·763	67·9	300·4	+16·2	0	3	
		3541*a*	0·758	94·7	298·6	− 4·0	10	35	} 58*f*
		3541	0·767	94·8	297·8	− 4·1	2	8	
		3542	0·825	78·6	292·8	+ 9·0	2	14	174*f*
		3543	0·850	93·9	289·6	− 3·7	7	15	76*f*
		3545	0·953	74·4	276·2	+14·7	12	33	91*f*
			0·791	68·8	297·6	+16·2			107
			0·928	59·6	283·1	+27·7			136
			0·922	68·5	282·3	+19·5			348
May 30		Centre			(347·6)	(−0·6)	(253)	(1340)	(1742)
150·481	CL,HA		0·916	298·7	37·2	+25·8			283
		3530*b*	0·987	249·1	54·2	−20·7	26	110	} 550*f*
		3530*c*	0·972	249·9	49·7	−19·6	0	20	
		3539	0·857	243·1	30·2	−23·1	0	11	116*p*
		3532	0·699	265·2	18·3	− 3·7	9	23	
		3533*a*	0·454	301·7	357·8	+13·4	104	487	
		3533	0·417	304·3	354·8	+13·1	7	37	
		3535	0·337	310·5	349·3	+12·1	0	6	
		3546*a*	0·106	262·3	340·2	− 1·3	5	30	
		3546	0·088	273·9	339·2	− 0·2	0	5	
		3546	0·033	249·9	336·0	− 1·2	3	25	
		3540	0·280	110·3	319·0	− 6·0	0	14	
		3537	0·425	43·2	316·5	+17·5	1	9	
		3537*a*	0·419	51·5	314·5	+14·6	80	473	
		3537	0·463	56·1	310·9	+14·4	0	9	
		3544	0·604	61·2	300·8	+16·4	0	8	
		3541*a*	0·586	96·3	298·6	− 4·1	10	30	
		3543	0·698	94·6	290·2	− 3·6	5	17	67*c*
		3545	0·864	73·0	275·9	+14·4	9	38	100*c*
			0·755	65·2	288·3	+18·1			119
			0·870	55·0	279·3	+29·6			188
			0·910	66·6	271·0	+20·9			130
May 31		Centre			(334·2)	(−0·5)	(259)	(1352)	(1553)
151·593	HA,JG		0·976	298·4	34·7	+27·5			244
			0·846	281·7	16·4	+ 9·6			135
			0·847	304·2	11·9	+28·1			158
		3532	0·859	265·7	18·4	− 3·9	3	13	67*f*
		3533*a*	0·648	291·7	357·6	+13·5	89	453	
		3533	0·632	288·9	356·9	+11·4	0	5	
1894.				°	°	°			
151d·593	HA,JG	3533	0·607	293·0	354·4	+13·3	1	6	
		3535	0·531	296·4	348·6	+13·3	0	14	
		3535	0·507	296·4	347·1	+12·6	0	13	
		3547	0·476	302·1	344·0	+14·2	0	4	
		3546*a*	0·388	269·8	342·2	− 0·4	10	67	
		3546	0·373	267·6	341·3	− 1·3	4	14	
		3546	0·339	265·8	339·2	− 1·8	4	22	
		3546	0·328	269·5	338·6	− 0·6	3	7	
		3546	0·293	265·9	336·4	− 1·6	4	13	
		3540	0·100	179·9	319·4	− 6·1	2	12	
		3537*a*	0·280	17·8	314·4	+15·0	82	419	
		3537	0·295	25·7	311·9	+15·0	0	15	
		3537	0·315	25·5	311·4	+16·0	0	4	
		3548	0·350	35·6	307·3	+16·1	0	9	
		3544	0·422	47·0	300·8	+16·3	0	4	
		3541*a*	0·361	100·0	298·7	− 4·0	6	12	
		3541	0·385	100·5	297·3	− 4·4	0	4	
		3543	0·477	97·6	291·3	− 4·0	2	11	
		3545	0·717	69·0	275·9	+14·5	4	21	70*f*
		3549*a*	0·811	71·4	267·1	+14·7	23	49	} 149*n*
		3549*b*	0·849	72·8	262·9	+14·3	21	41	
June 1		Centre			(319·5)	(−0·4)	(258)	(1232)	(823)
152·164	AW,FT		0·890	265·3	14·5	− 4·3			141
			0·906	301·1	12·9	+27·7			211
I.			0·845	280·1	8·9	+ 8·3			178
			0·820	239·9	2·9	−24·4			265
			0·732	229·4	351·0	−28·6			227
		3533*a*	0·737	288·0	357·7	+12·9	137	508	
		3546*a*	0·524	269·7	343·4	− 0·4	13	51	
		3546	0·511	269·8	342·5	− 0·4	0	8	
		3546	0·508	267·4	342·3	− 1·6	0	9	
		3546	0·462	267·4	339·3	− 1·5	0	11	
		3546	0·453	269·3	338·7	− 0·7	0	5	
		3546	0·423	265·8	336·8	− 2·1	3	9	
		3540	0·176	232·4	319·9	− 6·4	0	7	
		3550	0·200	344·2	315·1	+10·8	0	10	
		3537*a*	0·266	351·4	314·3	+14·9	94	480	
		3537	0·278	0·1	311·8	+15·8	0	10	
		3537	0·282	2·5	311·2	+16·0	6	22	
		3537	0·266	2·9	311·1	+15·0	1	11	
		3548	0·293	15·0	307·4	+16·1	0	18	
		3541*a*	0·237	104·3	298·7	− 3·6	7	19	

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 3544, May 30–June 1. A very small spot.
Group 3545, May 30–June 5. A small regular spot.
Group 3546, May 31–June 5. A few spots, mostly small, in a straight stream. The leader, *a*, is the largest, and moves forward rapidly in longitude.
Group 3547, June 1. A very small spot *n* of Group 3535.
Group 3548, June 1–3. A small faint nebulous spot between Groups 3537 and 3544. It has divided into two very small spots by June 3.
Group 3549, June 1–10. Two spots, *a* and *b*, with one or two small companions. *a* has moved forward by June 5, and has become a large regular spot. *b* has disappeared by the same date. *a* remains alone by June 7.
Group 3550, June 2. 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).
1894.				°	°	°			
152d·164	AW,FT	3551	0·504	153·6	297·4	−27·0	3	10	
		3543	0·357	100·0	291·4	− 3·9	4	12	
I.		3545	0·634	65·3	275·4	+15·1	3	18	
		3549*a*	0·723	67·7	268·1	+15·7	28	75	149*c*
		3549*b*	0·786	70·7	262·0	+14·8	16	54	
			0·776	118·9	264·9	−22·2			89
			0·820	89·3	257·0	+ 0·4			93
June 2		Centre			(311·9)	(−0·3)	(315)	(1347)	(1353)
153·204	CL,HA		0·966	277·3	12·9	+ 7·0			86
			0·913	298·9	0·8	+26·1			69
I.			0·885	244·3	357·7	−22·6			150
			0·892	225·4	356·3	−30·4			167
			0·847	253·3	354·8	−14·1			100
			0·780	233·4	343·0	−27·7			148
			0·741	225·2	335·8	−30·7			58
		3533*a*	0·872	284·5	357·8	+12·5	124	496	642*c*
		3546*a*	0·728	269·2	344·7	− 0·6	14	40	
		3546	0·627	266·9	336·8	− 2·0	0	4	
		3537	0·410	317·6	315·0	+17·4	1	8	
		3537*a*	0·376	313·4	314·5	+14·8	71	431	
		3537	0·405	319·0	314·3	+17·6	0	8	
		3537	0·338	313·3	312·8	+13·3	0	12	
		3537	0·360	320·1	312·0	+15·9	5	38	
		3548	0·325	327·9	308·5	+16·2	0	2	
		3548	0·317	332·0	307·1	+16·1	0	2	
		3541*a*	0·069	199·5	299·5	− 3·9	7	13	
		3543	0·131	123·8	292·0	− 4·3	2	4	
		3552	0·290	51·9	284·9	+10·2	0	12	
		3545	0·451	54·8	275·9	+14·9	5	11	
		3553*a*	0·426	103·1	273·7	− 5·6	13	33	
		3553	0·462	101·2	271·3	− 5·2	6	23	
		3553	0·499	100·0	268·8	− 5·1	3	15	
		3553*b*	0·513	99·5	267·8	− 5·0	9	48	
		3549*a*	0·535	59·2	269·8	+15·8	23	115	
		3549	0·607	64·7	263·7	+14·9	0	4	
		3549*b*	0·627	65·6	262·1	+14·9	10	33	
June 3		Centre			(298·2)	(−0·1)	(293)	(1352)	(1420)
154·182	AW,HA		0·938	240·3	351·9	−27·6			209
			0·918	250·6	350·3	−17·7			190
I.			0·896	284·8	347·8	+13·2			290
1894.				°	°	°			
154d·182	AW,HA		0·897	293·4	346·7	+20·8			70
			0·850	235·4	338·0	−28·8			223
I.		3533*a*	0·955	283·2	357·3	+12·6	98	544	294*c*
		3546*a*	0·865	269·6	344·9	− 0·4	9	30	113*f*
		3546	0·788	267·8	337·0	− 1·7	0	4	
		3537*a*	0·538	299·0	314·2	+15·1	107	494	
		3537	0·524	302·3	312·6	+16·2	2	12	
		3537	0·531	304·6	312·4	+17·5	0	6	
		3537	0·510	302·9	311·5	+16·0	0	16	
		3541*a*	0·264	256·3	300·0	− 3·6	4	9	
		3541	0·252	260·9	299·6	− 2·3	0	5	
		3541	0·246	256·0	299·0	− 3·4	0	8	
		3541	0·240	251·5	298·3	− 4·4	0	3	
		3551	0·525	207·6	301·1	−27·6	1	4	
		3551	0·513	208·5	301·0	−26·7	1	5	
		3551	0·515	205·6	299·7	−27·6	0	5	
		3551	0·502	206·4	299·6	−26·6	0	4	
		3551	0·507	203·3	298·2	−27·7	1	5	
		3545	0·309	31·4	275·6	+15·3	4	8	
		3553*a*	0·208	118·3	274·6	− 5·6	22	90	
		3553	0·259	111·4	271·2	− 5·4	0	2	
		3553	0·259	107·9	270·9	− 4·6	2	5	
		3553	0·286	106·8	269·3	− 4·7	0	1	
		3553	0·301	106·3	268·4	− 4·8	2	18	
		3553*b*	0·317	103·3	267·3	− 4·2	12	35	
		3549*a*	0·376	41·5	270·2	+16·3	22	92	
		3549	0·395	49·5	267·2	+14·8	1	3	
		3549*b*	0·463	55·1	262·1	+15·3	5	11	
		3554	0·913	100·7	219·9	− 9·8	4	12	14
		3554	0·928	100·8	217·7	−10·0	13	42	
		3555	0·972	109·4	209·8	−18·8	9	38	13
June 4		Centre			(285·2)	(−0·0)	(319)	(1511)	(167
155·411	CL,FT		0·978	286·6	346·2	+16·2			186
			0·897	241·1	329·3	−25·6			194
			0·831	258·8	324·5	− 9·2			216
		3546*a*	0·976	270·5	346·2	+ 0·5	5	19	153*f*
		3537*a*	0·741	291·3	314·6	+15·6	56	445	
		3537	0·743	295·3	313·9	+18·6	5	16	
		3537	0·717	288·6	313·1	+13·2	3	7	194*c*
		3537	0·714	290·5	312·5	+14·5	3	13	
		3537	0·718	294·4	312·1	+17·3	5	30	

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 3551, June 2–5. A few very small unstable spots. The group is not seen on June 3.
Group 3552, June 3. A small nebulous spot.
Group 3553, June 3–10. A number of spots, of which *a* and *b*, the first and last, are the largest, in a straight stream. *a* increases in size, and becomes a large regular spot, whilst the following spots diminish, and *a* alone remains by June 10.
Group 3554, June 4–15. A number of small faint spots irregularly distributed. The group tends to increase in size, and the following spots have coalesced to form a large irregular composite spot, *a*, by June 7. The preceding spots tend to die out after that date, whilst *a* becomes more regular.
Group 3555, June 4–11. A nebulous spot which 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).
				°	°	°			
1894. 155d·411	CL,FT	3541*a*	0·541	263·2	301·4	− 3·6	1	3	
		3551	0·646	223·9	299·3	−27·6	4	10	
		3556	0·439	311·6	289·0	+17·0	1	9	
		3545	0·285	336·3	275·8	+15·2	0	4	
		3553*a*	0·163	230·8	276·3	− 5·8	23	93	
		3553	0·089	187·1	269·6	− 4·9	0	2	
		3553*b*	0·076	160·5	267·5	− 4·0	11	26	
		3553	0·087	161·3	267·4	− 4·6	0	2	
		3557	0·365	352·9	271·8	+21·3	0	4	
		3557	0·358	356·9	270·2	+21·0	1	6	
		3549*a*	0·283	355·9	270·2	+16·5	33	131	
		3549	0·281	8·8	266·4	+16·2	7	20	
		3554	0·749	104·2	221·6	−10·5	2	3	
		3554	0·766	104·3	220·1	−10·9	5	14	
		3554	0·779	104·9	219·0	−11·5	2	7	130*c*
		3554	0·781	104·1	218·7	−10·9	6	22	
		3554	0·803	104·9	216·7	−11·9	4	11	
		3554	0·819	103·7	215·0	−11·1	0	7	
		3555	0·881	112·4	209·4	−19·5	8	23	44*c*
		3558	0·910	85·8	203·8	+ 3·9	3	6	
		3558*a*	0·932	83·6	200·6	+ 6·0	6	60	511*c*
		3558	0·964	84·6	194·7	+ 5·2	0	8	
		3559*a*	0·985	107·7	189·7	−17·4	21	104	
		3559	0·989	108·2	188·1	−18·0	0	14	410*p*
		3559*b*	0·991	104·7	187·1	−14·5	23	146	
			0·869	107·2	210·0	−14·8			110
			0·963	112·8	196·2	−21·9			164
June 5		Centre			(269·0)	(+0·1)	(238)	(1265)	(2312)
156·178 I.	CL,FT		0·924	240·9	323·1	−26·6			189
			0·894	258·1	321·4	−10·5			386
			0·917	228·7	318·4	−37·1			343
		3537*a*	0·840	287·6	314·5	+14·8	80	441	
		3537	0·841	291·3	314·0	+17·9	3	16	307*c*
		3537	0·819	290·3	311·9	+16·6	8	69	
		3553*a*	0·326	249·3	276·6	− 6·4	21	118	
		3553*b*	0·175	242·4	267·7	− 4·5	6	29	
		3557	0·388	330·9	270·3	+19·9	7	22	
		3557	0·403	332·7	270·2	+21·1	0	8	
		3549*a*	0·338	325·1	270·4	+16·2	18	120	
		3549	0·301	335·4	266·3	+16·0	2	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).
				°	°	°			
1894. 156d·178 I.	CL,FT	3554	0·630	107·4	221·2	−10·7	0	1	
		3554	0·651	107·8	219·8	−11·3	4	22	
		3554	0·656	106·6	219·2	−10·6	3	29	130*c*
		3554	0·672	105·8	217·9	−10·3	0	3	
		3554	0·698	106·5	215·9	−11·3	4	20	
		3554	0·703	105·6	215·4	−10·7	4	21	
		3555	0·793	114·7	209·3	−19·2	11	31	134*c*
		3558	0·815	84·9	204·5	+ 4·3	4	10	427*c*
		3558*a*	0·852	82·5	200·8	+ 6·5	6	40	
		3559*a*	0·939	108·5	190·2	−17·3	13	68	
		3559*b*	0·950	105·1	187·9	−14·3	29	145	
		3559	0·957	108·5	186·8	−17·6	10	27	835*c*
		3559	0·962	105·8	185·5	−15·1	0	104	
		3559	0·970	107·4	183·8	−16·8	0	50	
		3560*a*	0·989	102·8	177·8	−12·6	0	44	
			0·922	84·3	191·9	+ 5·3			344
June 6		Centre			(258·8)	(+0·2)	(233)	(1446)	(3095)
157·598	HA,JG		0·905	293·0	302·8	+20·8			116
			0·894	239·0	299·3	−27·2			58
			0·807	262·7	293·4	− 5·7			106
			0·753	290·5	286·8	+15·4			72
		3537*a*	0·968	285·2	314·9	+14·8	62	396	
		3537	0·960	287·5	312·8	+16·8	19	89	299*f*
		3537	0·954	285·0	311·8	+14·4	7	55	
		3537	0·923	287·7	306·2	+16·4	1	5	131*f*
		3553*a*	0·617	258·4	277·3	− 6·9	24	138	
		3553	0·487	261·0	268·7	− 4·1	1	7	
		3553*b*	0·469	260·4	267·5	− 4·2	0	·4	
		3557	0·604	305·6	271·6	+20·7	7	26	
		3557	0·587	304·8	270·7	+19·8	1	5	
		3557	0·571	305·1	269·5	+19·3	7	11	
		3557	0·576	307·3	269·2	+20·6	0	5	
		3549*a*	0·554	299·4	270·0	+16·0	15	110	
		3554	0·359	122·2	222·1	−10·7	4	21	
		3554	0·375	123·0	221·4	−11·4	2	6	
		3554	0·381	120·9	220·6	−11·0	2	12	
		3554	0·394	121·7	220·1	−11·6	3	10	
		3554	0·410	123·3	219·5	−12·7	1	12	
		3554	0·400	119·7	219·4	−11·1	1	4	
		3554	0·424	122·4	218·6	−12·8	1	4	
		3554	0·441	121·9	217·5	−13·1	1	3	
		3554*a*	0·443	120·0	217·0	−12·5	18	83	

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 3556, June 5. A small spot.
Group 3557, June 5–9. A few small unstable spots, *n* of Group 3549, irregularly arranged.
Group 3558, June 5–16. A faint, ill-defined double spot, *a*, with two very small companions on June 5. The companions have all disappeared by June 8. A temporary outburst has occurred by June 9, and a more lasting one by June 11, and the group increases in size up to June 13, when *a* is a large irregular composite spot.
Group 3559, June 5–17. A large but unstable group. The two leading spots, *a* and *b*, are regular. *a* diminishes from day to day, and has disappeared by June 15. *b* remains a large regular spot throughout. The following spots are very unstable; sometimes, as on June 15, being united to form one compact nebulous spot; at others, as on June 16, having broken up to form an irregular and widely divided group of nucleated spots.
Group 3560, June 6–12. A nebulous spot, *a*, *n* of Group 3559. A number of very small companions are seen near it on June 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).
				°	°	°			
1894.									
157d·598	HA, JG	3554	0·440	116·5	216·5	−11·0	0	3	
		3555	0·589	125·2	209·4	−19·5	8	23	
		3558	0·619	81·2	202·2	+ 5·6	0	7	
		3558a	0·632	80·2	201·4	+ 6·4	10	18	162f
		3558	0·702	84·2	195·7	+ 4·3	2	6	
		3558	0·727	84·6	193·7	+ 4·1	0	14	
		3561	0·748	105·5	192·9	−11·3	0	3	
		3559a	0·794	112·9	190·0	−17·8	11	78	
		3559b	0·810	109·4	187·8	−15·4	26	175	
		3559	0·828	112·8	186·6	−18·5	18	41	
		3559	0·849	111·2	184·0	−17·7	13	153	
		3559	0·879	111·5	180·6	−18·6	10	41	
		3560a	0·881	105·5	179·4	−13·5	12	33	742c
			0·713	116·6	198·0	−18·3			86
			0·989	103·0	159·1	−12·8			155
June 7		Centre			(240·0)	(+0·3)	(287)	(1601)	(1927)
158·347	CL, FT		0·918	239·6	293·1	−27·5			183
			0·886	263·0	292·1	− 6·0			241
I.			0·889	285·0	291·9	+13·5			690
			0·819	302·0	280·5	+25·9			108
		3553a	0·743	259·9	277·4	− 7·2	29	142	99c
		3553	0·652	260·0	270·2	− 6·2	0	3	
		3557	0·720	298·7	272·3	+20·5	3	19	
		3557	0·687	298·0	269·9	+19·1	9	35	
		3549a	0·672	293·1	269·9	+15·6	30	98	132c
		3554	0·228	146·4	222·8	−10·5	8	24	
		3554	0·247	145·5	221·9	−11·3	2	14	
		3554	0·273	142·1	220·3	−12·0	4	42	
		3554a	0·316	135·4	217·0	−12·5	29	143	
		3555	0·478	135·5	209·4	−19·5	5	12	
		3558a	0·486	77·2	201·7	+ 6·5	7	16	
		3559a	0·688	116·7	190·1	−17·6	16	63	
		3559b	0·700	112·7	188·2	−15·3	28	183	
		3559	0·720	115·3	187·2	−17·6	0	10	
		3559	0·735	116·3	186·2	−18·7	17	45	
		3559	0·748	114·2	184·6	−17·5	22	118	587c
		3559	0·780	115·2	182·0	−19·1	3	13	
		3559	0·778	113·1	181·7	−17·5	0	3	
		3559	0·789	114·9	181·1	−19·1	0	3	
		3559	0·792	113·9	180·5	−18·4	8	50	
1894.									
158d·347	CL, JG	3560a	0·788	107·6	179·7	−13·5	7	29	247c
I.		3562a	0·931	105·2	162·6	−14·0	0	26	351c
		3562b	0·940	104·6	161·0	−13·6	2	23	
June 8		Centre			(230·1)	(+0·4)	(229)	(1114)	(2638)
159·491	CL, JG		0·961	265·2	288·6	− 4·4			188
			0·960	285·0	288·1	+14·5			231
			0·928	299·7	280·2	+27·6			112
		3553a	0·889	261·8	277·2	− 7·0	17	135	104c
		3553	0·820	264·3	269·7	− 4·3	0	5	67c
		3553b	0·801	264·6	267·9	− 4·0	0	4	
		3557	0·841	293·2	270·0	+19·7	2	7	162n
		3549a	0·832	289·1	269·7	+16·2	13	76	88c
		3554	0·232	215·3	222·8	−10·3	17	76	
		3554	0·236	208·5	221·6	−11·4	3	10	
		3554	0·212	208·1	220·8	−10·2	0	9	
		3554	0·243	203·1	220·6	−12·3	4	11	
		3554	0·229	203·5	220·3	−11·5	0	6	
		3554	0·200	194·7	217·9	−10·6	0	9	
		3554a	0·238	191·7	217·8	−12·8	32	173	
		3554	0·212	190·4	217·2	−11·4	4	18	
		3555	0·348	166·1	209·9	−19·0	4	9	
		3558a	0·254	66·1	201·5	+ 6·4	8	16	
		3558	0·312	68·2	198·1	+ 7·2	1	6	
		3558	0·389	71·7	193·2	+ 7·6	0	6	
		3558	0·384	77·4	193·0	+ 5·3	0	5	
		3559a	0·506	127·5	190·2	−17·3	13	59	
		3559b	0·501	122·5	189·2	−15·0	24	143	
		3559	0·524	123·7	188·1	−16·3	5	22	
		3559	0·524	122·1	187·7	−15·6	2	12	
		3559	0·552	125·4	186·9	−18·1	14	50	
		3559	0·567	123·2	185·3	−17·5	22	84	522c
		3559	0·588	124·1	184·2	−18·7	5	34	
		3559	0·599	123·6	183·3	−18·8	1	4	
		3559	0·616	122·8	181·9	−19·0	1	6	
		3559	0·605	121·4	180·5	−17·8	1	4	
		3559	0·631	121·3	180·5	−18·6	16	165	
		3563	0·611	117·3	180·8	−15·7	0	4	
		3563	0·636	116·2	178·8	−15·8	0	3	
		3563	0·651	116·2	177·7	−16·1	0	6	
		3560a	0·606	113·2	180·2	−13·3	7	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.

Group 3561, June 7. A very small spot.
Group 3562, June 8–16. A wide pair of small irregular spots, *a* and *b*, on June 8. A few small spots connect them on the succeeding days. *b* diminishes and has broken up by June 12, but some of its components have re-united again as *c* by June 14. *a* alone remains by June 16.
Group 3563, June 9–13. A small group of nebulous spots between Groups 3559 and 3560.

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).
1894.				°	°	°			
159d.491	CL, JG	3562*a*	0·799	108·7	163·8	−14·5	10	57	
		3562	0·814	109·1	162·4	−15·1	3	14	
		3562	0·830	107·6	160·5	−14·1	0	9	322*nf*
		3562*b*	0·843	109·3	159·4	−15·8	12	35	
		3562	0·850	106·6	158·2	−13·7	2	4	
		3562	0·852	107·7	158·2	−14·6	0	2	
		3564	0·923	84·0	147·9	+ 5·7	5	22	64*c*
		3564	0·938	83·5	145·6	+ 6·3	0	12	
			0·898	126·4	156·9	−31·8			94
			0·946	107·0	145·1	−15·9			254
			0·951	100·1	143·6	− 9·5			142
June 9		Centre			(215·0)	(+0·6)	(248)	(1358)	(2350)
160·506	CL,HA	3553*a*	0·964	261·7	275·6	− 7·8	24	132	137*f*
M.		3549*a*	0·931	286·8	269·3	+15·9	13	47	497*c*
		3554	0·412	243·6	223·5	− 9·9	9	61	
		3554	0·404	238·9	222·2	−11·4	1	4	
		3554	0·396	240·1	222·0	−10·7	0	7	
		3554	0·403	237·6	221·9	−11·8	2	5	
		3554	0·418	235·2	221·8	−12·9	0	4	
		3554	0·381	240·8	221·3	−10·0	0	7	
		3554	0·393	236·9	221·2	−11·7	7	12	
		3554	0·388	235·1	220·5	−12·1	0	6	
		3554	0·374	236·5	220·1	−11·3	1	8	
		3554	0·386	228·0	218·7	−14·3	3	12	
		3554	0·345	233·4	217·9	−11·2	5	15	
		3554*a*	0·360	228·8	217·7	−13·0	26	163	
		3555	0·370	201·7	209·9	−19·3	4	9	
		3558	0·109	352·6	202·4	+ 6·9	0	7	
		3558*a*	0·095	0·6	201·5	+ 6·2	2	8	
		3559*a*	0·366	148·7	190·2	−17·5	12	40	
		3559*b*	0·345	143·4	189·3	−15·4	13	137	
		3559	0·369	143·1	188·3	−16·5	1	4	
		3559	0·367	141·7	188·0	−16·0	0	2	
		3559	0·390	140·3	186·6	−16·7	2	24	
		3559	0·410	143·0	186·6	−18·4	8	32	
		3559	0·416	139·8	185·3	−17·8	16	60	
		3559	0·443	137·5	183·3	−18·3	3	6	
		3559	0·454	138·5	183·1	−19·2	4	26	
		3559	0·456	134·6	181·7	−18·0	0	4	
		3559	0·495	139·6	181·5	−21·4	2	9	
		3559	0·480	134·6	180·5	−19·0	15	123	
		3559	0·500	136·1	180·0	−20·4	1	9	
1894.				°	°	°			
160d.506	CL,HA	3559	0·485	131·7	179·3	−18·1	0	11	
M.		3559	0·503	133·8	179·0	−19·7	4	30	
		3559	0·518	133·2	178·0	−20·0	4	8	
		3563	0·405	130·2	183·1	−14·4	0	4	
		3563	0·475	127·2	178·5	−16·0	2	14	
		3560*a*	0·429	124·7	180·4	−13·4	5	11	
		3562*a*	0·647	114·2	164·1	−14·8	19	69	
		3562	0·650	110·5	163·2	−12·6	1	12	
		3562	0·658	112·5	163·0	−14·0	1	8	
		3562	0·674	109·3	161·1	−12·3	0	6	
		3562*b*	0·715	113·5	158·8	−16·0	5	19	112*c*
		3564	0·785	82·2	150·3	+ 6·6	0	5	
		3564	0·792	82·6	149·6	+ 6·3	0	4	90*c*
		3564	0·796	83·4	149·2	+ 5·6	4	17	
		3564	0·828	82·7	146·0	+ 6·5	14	27	
		3565*a*	0·970	80·5	125·9	+ 9·4	38	155	276*f*
			0·830	133·4	154·9	−34·2			82
			0·834	112·9	147·7	−18·5			93
			0·874	105·6	142·0	−13·3			190
			0·907	83·1	136·8	+ 6·6			51
			0·954	103·7	130·0	−12·8			216
June 10		Centre			(201·6)	(+0·7)	(271)	(1383)	(1744)
161·470	HA,FT	3554	0·589	252·6	223·4	− 9·5	8	22	
		3554	0·583	251·7	222·8	− 9·9	2	5	
		3554	0·572	251·5	222·1	− 9·8	0	6	
		3554	0·577	249·1	222·0	−11·2	5	8	
		3554	0·557	242·3	219·3	−14·3	2	7	
		3554	0·539	248·3	219·3	−10·8	0	5	
		3554	0·519	247·7	217·9	−10·6	0	4	
		3554	0·520	246·0	217·7	−11·5	2	10	
		3554*a*	0·526	243·0	217·4	−13·1	39	162	
		3555	0·480	225·5	209·9	−18·8	2	6	
		3558	0·283	306·0	202·2	+10·3	0	2	
		3558	0·260	297·1	202·2	+ 7·5	1	3	
		3558	0·251	294·7	202·0	+ 6·8	0	2	
		3558*a*	0·234	294·2	201·1	+ 6·3	7	15	
		3558	0·166	304·7	196·7	+ 6·2	0	1	
		3558	0·153	301·6	196·3	+ 5·4	0	4	
		3558	0·128	306·1	194·7	+ 5·1	0	13	
		3558	0·114	315·0	193·4	+ 5·4	2	11	
		3558	0·112	325·8	192·4	+ 6·1	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 3564, June 9–17. A very unstable group. A few small spots in an irregular stream on June 10. Two nebulous spots on June 12. A long curved stream of small faint spots on June 15.
Group 3565, June 10–22. A large regular spot, *a*, followed by a stream of small spots which undergo great variation. *a* moves forward in longitude, and the following spots increase in size until June 18, when the group practically consists of one very large nebulous composite spot. *a* is, however, distinguishable from the rest of the group, being separated from it by a very narrow bright bridge, except on June 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).
1894.				°	°	°			
161d.470	HA,FT	3566	0·157	322·7	194·3	+ 7·9	0	2	
		3567	0·243	201·6	194·0	−12·2	1	8	
		3559*a*	0·310	184·9	190·4	−17·2	3	21	
		3559*b*	0·272	182·6	189·5	−15·0	18	112	
		3559	0·294	178·0	188·2	−16·3	1	5	
		3559	0·335	174·7	186·9	−18·6	8	52	
		3559	0·320	173·3	186·6	−17·7	0	6	
		3559	0·326	169·6	185·3	−17·8	10	57	
		3559	0·355	163·6	182·7	−19·0	4	39	
		3559	0·358	159·0	181·1	−18·7	9	92	
		3559	0·346	156·2	180·4	−17·6	2	8	
		3559	0·375	155·7	179·4	−19·1	4	27	
		3559	0·387	152·6	178·0	−19·2	0	2	
		3559	0·429	156·0	178·0	−22·2	0	2	
		3563	0·332	151·3	179·3	−16·1	0	13	
		3560*a*	0·279	151·0	180·8	−13·3	2	6	
		3560	0·300	147·9	179·4	−13·9	0	2	
		3560	0·286	142·8	178·6	−12·4	0	3	
		3560	0·296	140·4	177·7	−12·4	1	4	
		3568	0·378	137·9	173·6	−15·5	0	11	
		3562*a*	0·495	123·3	163·5	−15·0	15	66	
		3562	0·498	120·2	162·6	−13·8	0	5	
		3562	0·517	121·2	161·7	−14·8	0	2	
		3562	0·507	118·4	161·6	−13·2	1	7	
		3562	0·524	118·2	160·5	−13·6	0	2	
		3562*b*	0·578	119·1	157·3	−15·6	8	32	
		3562	0·615	114·4	153·7	−14·0	0	2	
		3564	0·602	79·0	152·4	+ 7·2	0	9	
		3564	0·662	81·6	147·8	+ 6·2	2	8	
		3564	0·679	80·9	146·5	+ 6·7	0	1	
		3564	0·692	81·7	145·4	+ 6·3	12	25	
		3564	0·693	80·4	145·4	+ 7·2	7	18	
		3564	0·709	81·1	144·1	+ 6·8	0	3	
		3564	0·726	80·4	142·8	+ 7·5	3	6	
		3565*a*	0·898	80·5	125·3	+ 8·9	27	222	
		3565	0·927	82·3	121·2	+ 7·4	5	21	323*c*
		3565	0·939	82·4	119·2	+ 7·4	0	12	
		3365	0·939	81·3	119·2	+ 8·5	0	5	
			0·752	112·9	142·7	−16·5			79
			0·874	113·9	130·6	−20·2			80
			0·875	103·3	128·8	−11·2			468
			0·975	113·5	113·2	−22·7			337
June 11		Centre			(188·8)	(+0·8)	(214)	(1212)	(1287)

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).
1894.				°	°	°			
162d.417	CL,FT	3554	0·747	254·4	223·1	−11·0	3	7	75*c*
		3554*a*	0·693	249·8	217·9	−13·1	20	165	
		3569	0·598	243·6	209·7	−14·6	0	2	
		3558	0·448	278·9	202·5	+ 4·8	0	1	
		3558	0·433	279·3	202·1	+ 4·8	9	26	
		3558*a*	0·442	281·4	201·9	+ 5·8	8	43	
		3558	0·428	284·3	200·8	+ 6·8	0	6	
		3558	0·340	283·2	195·5	+ 5·3	0	2	
		3558	0·324	284·5	194·5	+ 5·5	0	4	
		3558	0·306	286·7	193·3	+ 5·9	0	6	
		3566	0·323	289·7	194·0	+ 7·1	0	3	
		3567	0·400	234·6	195·6	−12·5	0	2	
		3559*a*	0·398	218·4	191·1	−17·3	5	22	
		3559	0·430	213·8	190·9	−20·0	0	3	
		3559	0·380	219·5	190·7	−16·1	1	3	
		3559*b*	0·359	220·6	190·1	−14·9	20	130	
		3559	0·372	217·6	189·8	−16·2	0	4	
		3559	0·319	224·4	189·3	−12·2	0	1	
		3559	0·330	219·0	188·5	−13·9	0	3	
		3559	0·304	223·2	188·4	−11·9	0	2	
		3559	0·380	209·7	187·6	−18·3	7	14	
		3559	0·359	208·8	186·6	−17·4	6	12	
		3559	0·383	206·3	186·5	−19·1	3	10	
		3559	0·358	206·7	185·9	−17·7	2	8	
		3559	0·356	204·5	185·1	−18·0	1	3	
		3559	0·377	201·5	184·6	−19·5	2	12	
		3559	0·369	197·3	182·9	−19·6	1	3	
		3559	0·353	196·0	182·1	−18·9	5	54	
		3559	0·334	193·4	180·8	−18·0	2	11	
		3559	0·349	190·7	180·1	−19·0	2	9	
		3559	0·364	199·8	180·0	−20·0	3	14	
		3559	0·366	189·6	179·9	−20·1	1	4	
		3559	0·355	188·1	179·2	−19·6	0	5	
		3563	0·309	193·7	180·6	−16·5	0	9	
		3560*a*	0·262	199·7	181·4	−13·3	1	3	
		3562*a*	0·350	142·7	163·6	−15·2	10	48	
		3562	0·348	138·7	162·6	−14·2	0	7	
		3562	0·342	136·5	162·2	−13·4	1	3	
		3562	0·398	136·5	159·7	−15·9	0	2	
		3562	0·407	134·6	158·8	−15·7	0	2	
		3570	0·342	111·7	157·6	− 6·4	0	6	
		3564	0·462	78·5	149·2	+ 6·1	9	29	
		3564	0·520	78·2	145·5	+ 6·8	10	95	
		3571	0·529	121·7	148·5	−15·3	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 3566, June 11–12. One or two very small faint spots, *n* of Group 3558. The group is measured as a single spot on both days.
Group 3567, June 11–14. A very small spot, *np* of Group 3559. It is not seen on June 13.
Group 3568, June 11. A small spot, *s* of Group 3560.
Group 3569, June 12. A very small spot.
Group 3570, June 12–19. Two very small faint spots on June 12. These have disappeared by June 13, and two small spots have appeared *s* of their place. The group increases in size, and consists, on June 15, of two principal spots, *a* and *b*, united by a stream of spots mostly very small. *a* is a large regular spot; *b* is much smaller than *a* and is irregular. *a* and *b* alone remain by June 19.
Group 3571, June 12. 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).
				°	°	°			
1894. 162d.417	CL,FT	3565a	0·762	79·5	127·1	+ 8·5	44	278	
		3565	0·782	80·0	125·3	+ 8·3	0	7	
		3565	0·793	80·1	124·2	+ 8·4	0	9	
		3565	0·819	80·7	122·7	+ 8·1	0	4	209c
		3565	0·817	79·9	122·0	+ 8·7	0	13	
		3565	0·822	81·4	121·3	+ 7·6	4	19	
		3565	0·838	81·3	119·7	+ 7·9	4	12	
		3572	0·944	111·5	107·3	−19·9	0	9	267sp
		3573a	0·969	80·0	100·8	+ 9·9	44	358	304c
June 12		Centre			(176·2)	(+0·9)	(228)	(1512)	(855)
163·264	FT,HA		0·747	245·3	210·1	−17·3			59
		3554	0·864	256·1	223·6	−11·4	0	6	
I.		3554	0·852	254·6	222·1	−12·5	1	6	266n
		3554a	0·817	252·0	217·8	−13·9	27	135	
		3558	0·617	279·6	202·6	+ 6·8	1	10	
		3558a	0·608	276·8	202·1	+ 5·0	27	115	
		3558	0·587	279·2	200·5	+ 6·3	0	12	
		3558	0·520	278·1	196·0	+ 5·7	0	4	
		3559a	0·527	232·8	191·0	−17·5	3	7	
		3559	0·506	233·8	190·1	−16·3	0	4	
		3559b	0·494	235·7	189·9	−15·1	27	125	
		3559	0·470	241·2	189·8	−12·0	1	4	
		3559	0·445	243·1	188·7	−10·6	0	3	
		3559	0·502	227·8	188·0	−18·6	1	9	
		3559	0·490	228·5	187·6	−17·8	0	3	
		3559	0·482	228·0	187·0	−17·7	8	15	
		3559	0·490	225·5	186·6	−19·0	0	3	
		3559	0·471	227·2	186·2	−17·6	4	25	
		3559	0·461	228·9	186·2	−16·6	0	3	
		3559	0·471	220·1	183·8	−20·0	9	19	
		3559	0·463	217·9	182·6	−20·3	0	8	
		3559	0·451	219·3	182·5	−19·3	1	13	
		3559	0·461	215·6	181·6	−20·9	2	12	
		3559	0·434	216·0	180·6	−19·5	1	3	
		3559	0·470	211·5	180·3	−22·5	3	6	
		3559	0·437	213·6	179·9	−20·2	0	8	
		3559	0·409	216·5	179·8	−18·0	1	6	
		3563	0·390	219·5	179·9	−16·3	0	4	
		3574	0·373	199·1	172·4	−19·5	0	7	
		3562	0·259	173·2	163·2	−13·7	1	5	
		3562a	0·290	173·5	163·1	−15·6	21	43	
		3562	0·263	171·2	162·6	−13·9	1	11	

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).
				°	°	°			
1894. 163d.264	FT,HA	3562	0·332	160·6	158·4	−17·1	0	1	
		3562	0·327	158·6	157·9	−16·6	2	4	
I.		3562	0·329	156·3	157·1	−16·4	0	5	
		3562	0·338	155·4	156·6	−16·8	1	4	
		3570	0·157	121·8	157·4	− 3·6	0	7	
		3570	0·207	109·3	153·8	− 2·8	0	5	
		3564	0·279	71·7	149·6	+ 6·0	6	26	
		3564	0·285	76·1	148·9	+ 4·9	0	2	
		3564	0·294	72·7	148·7	+ 6·0	0	1	
		3564	0·312	71·9	147·7	+ 6·6	2	10	
		3564	0·337	72·2	146·2	+ 7·0	8	26	
		3564	0·362	71·9	144·8	+ 7·5	2	11	
		3565a	0·608	77·2	128·3	+ 8·6	57	240	
		3565	0·634	77·7	126·4	+ 8·6	1	15	
		3565	0·644	76·8	125·7	+ 9·3	1	7	
		3565	0·692	78·1	121·9	+ 9·0	2	14	
		3565	0·708	77·7	120·6	+ 9·5	2	17	
		3565	0·708	79·7	120·5	+ 8·1	2	4	
		3573a	0·898	78·9	101·6	+10·5	55	322	124c
			0·849	117·6	110·7	−22·5			348
			0·895	84·8	101·7	+ 5·2			57
			0·948	109·7	95·2	−18·3			254
			0·962	77·4	91·2	+12·4			261
June 13		Centre			(165·0)	(+1·1)	(281)	(1355)	(1369)
164·464	HA,JG		0·892	247·9	209·9	−19·0			104
		3554	0·956	255·6	221·1	−13·4	0	6	386np
		3554a	0·937	255·4	217·6	−13·3	31	121	
		3558a	0·803	276·3	202·3	+ 5·8	16	99	438c
		3558	0·783	278·8	200·3	+ 7·6	0	19	
		3567	0·720	252·3	193·3	−10·9	0	5	
		3559a	0·709	245·1	191·1	−16·5	1	4	
		3559b	0·688	247·2	190·0	−14·5	26	135	
		3559	0·676	239·7	187·2	−19·0	12	63	
		3559	0·657	238·8	185·5	−18·9	7	24	
		3559	0·646	237·7	184·4	−19·2	28	115	
		3559	0·640	238·8	184·4	−18·8	0	15	270p
		3559	0·653	235·3	184·1	−20·7	1	4	
		3559	0·619	235·8	181·9	−19·3	4	19	
		3559	0·628	233·5	181·8	−20·9	1	6	
		3559	0·596	236·5	180·6	−18·1	0	9	
		3574	0·556	231·7	176·6	−19·0	1	5	
		3574	0·502	232·9	173·8	−16·5	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 3572, June 12. A small spot.
Group 3573, June 12–23. A large spot, *a*, with two nuclei. It has begun to divide by June 14 but the components are not measured separately, as *b* and *c*, until June 16. *b* remains a regular spot. *c* diminishes and has died out by June 21. Small companions are occasionally seen near the principal spots.
Group 3574, June 13–18. A very few small spots in an irregular group, *f* Group 3559. The group increases in size very rapidly, especially after June 16, and by June 17, a large spot, *a*, has formed in the *sf* part of the group. A further development, but to the *n* has taken place by June 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).
				°	°	°			
1894. 164d.464	HA,JG	3574	0·521	227·7	173·2	−19·3	3	13	
		3574	0·498	228·1	172·7	−18·3	2	7	
		3574	0·504	224·5	171·1	−19·3	1	7	
		3562	0·354	223·0	163·5	−13·8	1	4	
		3562*a*	0·370	218·4	162·9	−15·7	12	36	
		3562	0·334	220·6	162·1	−13·4	1	6	
		3562*c*	0·355	208·3	159·3	−16·9	10	18	
		3562	0·332	202·8	156·9	−16·6	1	4	
		3570*a*	0·195	242·5	159·1	− 4·0	10	25	
		3570	0·187	238·1	158·3	− 4·4	1	4	
		3570	0·154	234·4	156·4	− 3·9	4	9	
		3570	0·145	240·1	156·4	− 2·9	3	5	
		3570*b*	0·133	235·3	155·5	− 3·1	0	4	
		3564	0·083	347·8	150·2	+ 5·9	8	17	
		3564	0·063	17·2	148·1	+ 4·7	0	1	
		3564	0·097	22·3	147·1	+ 6·3	4	6	
		3565*a*	0·356	69·5	129·6	+ 8·3	55	262	
		3565	0·383	71·2	127·8	+ 8·2	3	9	
		3565	0·422	70·8	125·5	+ 9·1	0	13	
		3565	0·454	72·1	123·4	+ 9·1	5	21	
		3565	0·452	78·8	122·8	+ 6·1	0	4	
		3565	0·470	73·9	122·1	+ 8·5	3	19	
		3565	0·471	77·1	121·8	+ 7·1	1	5	
		3565	0·481	71·1	121·8	+10·0	4	24	
		3573*a*	0·745	77·4	101·8	+10·2	52	291	
		3573	0·780	78·2	98·6	+ 9·9	2	10	347*f*
		3573	0·791	79·6	97·4	+ 8·9	2	16	
		3575*a*	0·958	106·2	77·1	−15·1	125	713	
		3575	0·972	107·4	74·0	−16·6	4	26	246*c*
		3575	0·977	105·7	72·5	−15·0	24	130	
		3575	0·988	106·7	69·1	−16·3	0	146	
			0·742	124·6	107·4	−24·0			173
			0·912	113·0	85·9	−20·3			140
			0·924	53·9	85·9	+33·5			48
			0·951	94·6	77·5	− 4·0			134
June 14		Centre			(149·2)	(+1·2)	(469)	(2508)	(2286)
165·489	AW,M	3554*a*	0·994	256·9	218·3	−12·8	23	74	
		3558*a*	0·922	276·0	202·4	+ 6·0	11	70	744*c*
		3558	0·920	274·8	202·1	+ 5·0	0	5	
		3559	0·865	246·4	192·4	−19·5	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).
				°	°	°			
1894. 165d.489	AW,M	3559*b*	0·831	251·9	189·7	−14·1	24	152	428*c*
		3559	0·820	245·9	187·4	−18·7	0	7	326*c*
		3559	0·797	245·4	185·0	−18·5	0	4	
		3559	0·786	244·2	183·7	−19·1	9	100	495*c*
		3574	0·717	242·2	177·2	−18·5	0	9	
		3574	0·702	243·0	176·3	−17·6	0	13	
		3574	0·606	246·9	175·9	−14·6	0	4	
		3574	0·689	239·8	174·4	−19·2	1	7	
		3574	0·681	241·4	174·2	−18·0	0	7	
		3574	0·671	241·4	173·4	−17·6	7	17	
		3574	0·652	240·0	171·7	−18·0	0	14	
		3574	0·662	237·2	171·5	−19·9	0	12	
		3574	0·649	237·7	170·8	−19·2	0	6	
		3574	0·633	235·1	168·8	−20·1	0	5	
		3562	0·535	241·0	164·1	−13·8	0	3	
		3562*a*	0·530	237·6	162·9	−15·3	7	21	
		3562	0·513	241·1	162·7	−13·1	0	6	
		3562	0·505	237·4	161·4	−14·6	0	3	
		3562*c*	0·502	231·8	159·6	−16·8	1	7	
		3562	0·444	232·1	156·5	−14·6	0	4	
		3570*a*	0·423	257·6	159·8	− 4·0	25	179	
		3570	0·401	261·0	158·6	− 2·4	0	3	
		3570	0·403	257·1	158·5	− 4·0	2	5	
		3570	0·396	254·6	157·8	− 4·8	0	4	
		3570	0·389	258·8	157·8	− 3·1	1	5	
		3570	0·385	261·9	157·8	− 1·9	0	3	
		3570	0·387	257·3	157·5	− 3·7	0	3	
		3570	0·386	253·6	157·1	− 5·1	2	7	
		3570	0·372	261·9	156·9	− 1·8	0	3	
		3570	0·355	260·6	155·8	− 2·1	0	10	
		3570*b*	0·355	257·7	155·6	− 3·1	15	63	
		3570	0·347	254·7	154·9	− 4·0	0	4	
		3564	0·272	287·5	150·5	+ 6·3	4	14	
		3564	0·249	292·0	148·8	+ 6·6	3	13	
		3564	0·215	294·9	146·7	+ 6·5	2	9	
		3564	0·211	299·8	146·0	+ 7·3	0	4	
		3564	0·188	306·3	144·2	+ 7·7	0	5	
		3576	0·211	176·3	134·6	−10·8	0	6	
		3565*a*	0·145	31·9	131·0	+ 8·3	42	203	
		3565	0·172	39·1	129·1	+ 8·9	15	72	
		3565	0·150	53·4	128·5	+ 6·4	0	3	
		3565	0·179	48·8	127·6	+ 8·0	0	4	
		3565	0·206	47·1	126·6	+ 9·3	0	5	
		3565	0·261	58·6	122·4	+ 9·1	7	30	

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

Group 3575, June 14–26. A very large spot, *a*, followed by a number of unstable spots in an irregular stream. The nucleus of *a* has divided into two portions by June 23. *a* is seen as a very shallow notch on the limb on June 26, but is not measurable on that day.
Group 3576, June 15–16. A very small spot on June 15. A few very small spots irregularly scattered on June 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).
				°	°	°			
1894. 165d·489	AW, M	3565	0·279	58·2	121·6	+ 9·7	0	4	
		3565	0·302	59·5	120·1	+10·1	0	9	
		3577	0·350	120·0	117·6	− 8·8	3	7	
		3573*a*	0·568	73·3	101·9	+10·5	51	268	77*c*
		3573	0·610	74·1	98·9	+10·6	0	5	
		3575*a*	0·862	108·4	77·7	−15·0	109	787	
		3575	0·908	106·8	71·7	−14·6	19	194	512*c*
		3575	0·921	106·8	69·8	−14·9	0	22	
		3575	0·934	107·9	67·9	−16·2	9	177	
June 15		Centre			(135·4)	(+1·3)	(392)	(2690)	(2582)
166·242	AW,FT		0·886	239·2	183·4	−26·2			176
			0·839	256·1	181·4	−10·9			517
M.		3558*a*	0·973	275·9	202·1	+ 6·1	5	28	670*f*
		3559	0·941	249·0	193·9	−19·2	6	21	
		3559*b*	0·910	253·6	189·6	−14·3	14	96	
		3559	0·917	245·9	189·4	−21·4	3	20	
		3559	0·906	252·3	188·9	−15·4	0	8	
		3559	0·907	249·2	188·6	−18·2	15	48	
		3559	0·898	248·2	187·1	−18·8	2	17	901*c*
		3559	0·897	247·1	186·8	−19·7	7	26	
		3559	0·876	248·0	184·2	−18·4	0	10	
		3559	0·873	247·0	183·7	−19·2	17	89	
		3574	0·819	246·2	177·6	−18·4	0	6	
		3574	0·792	246·7	175·1	−17·3	0	2	
		3574	0·777	248·9	174·1	−15·3	0	14	
		3574	0·786	243·1	173·6	−19·9	4	12	
		3574	0·776	245·0	173·2	−18·2	13	28	448*c*
		3574	0·764	242·9	171·5	−19·3	0	5	
		3574	0·763	241·8	171·1	−20·1	5	13	
		3574	0·755	241·6	170·4	−20·0	3	10	
		3562*a*	0·648	244·2	162·6	−15·2	1	4	
		3570*a*	0·575	260·4	160·1	− 4·4	32	192	
		3570	0·550	258·0	158·2	− 5·4	3	25	
		3570	0·534	258·9	157·2	− 4·7	3	8	
		3570	0·531	260·4	157·1	− 3·8	2	5	
		3570	0·529	257·7	156·7	− 5·2	0	2	
		3570	0·517	259·7	156·1	− 4·1	0	1	
		3570	0·512	258·4	155·7	− 4·7	0	6	
1894. 166d·242	AW, FT	3570*b*	0·501	261·6	155·2	− 3·0	16	86	
		3570	0·499	258·5	154·8	− 4·5	0	1	
M.		3564	0·432	280·7	150·8	+ 5·9	3	10	
		3564	0·412	283·9	149·3	+ 6·6	1	3	
		3564	0·378	285·5	147·0	+ 7·1	2	12	
		3576	0·279	216·6	135·3	−11·5	2	9	
		3576	0·267	199·5	130·8	−13·1	1	17	
		3576	0·303	187·3	127·9	−16·0	0	7	
		3565*a*	0·160	320·3	131·5	+ 8·5	42	220	
		3565	0·179	329·0	131·0	+10·2	2	8	
		3565	0·136	318·7	130·8	+ 7·3	0	2	
		3565	0·161	333·6	129·8	+ 9·7	13	32	
		3565	0·183	339·1	129·4	+11·2	0	3	
		3565	0·127	329·4	129·3	+ 7·7	1	3	
		3565	0·167	346·3	127·9	+10·7	1	2	
		3565	0·135	348·4	127·2	+ 9·0	0	10	
		3565	0·135	17·1	123·3	+ 8·8	6	20	
		3565	0·125	20·3	123·1	+ 8·1	0	2	
		3565	0·208	20·9	121·3	+12·6	0	2	
		3565	0·176	29·7	120·5	+10·2	3	9	
		3577	0·220	143·4	118·0	− 8·7	0	2	
		3573*b*	0·409	66·3	103·3	+10·7	20	106	
		3573*c*	0·434	69·5	101·3	+10·0	16	76	
		3573	0·451	66·3	100·7	+11·7	1	4	
		3575	0·738	108·6	80·0	−12·6	10	38	
		3575	0·750	108·9	79·0	−13·1	7	43	
		3575*a*	0·769	110·8	77·7	−14·9	130	646	
		3575	0·812	112·2	73·9	−17·0	0	4	
		3575	0·808	109·6	73·8	−14·9	6	40	279*c*
		3575	0·807	101·4	72·7	− 8·3	0	2	
		3575	0·828	110·6	72·0	−16·1	0	25	
		3575	0·830	108·8	71·5	−14·7	18	15[illegible]	
		3575	0·846	109·1	69·8	−15·3	12	3[illegible]	
		3575	0·859	110·0	68·6	−16·3	15	1[illegible]	
			0·833	97·6	69·8	− 5·5			299
			0·896	75·4	62·7	+13·7			134
			0·931	107·0	58·5	+15·3			170
June 16		Centre			(125·6)	(+1·4)	(463)	(246[illegible])	(3594)
167·309 I.	CL,HA		0·951	258·7	182·6	−10·2			262
			0·899	239·6	171·1	−26·2			109

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 3577, June 15–22. A very variable group. A very small spot on June 15, which is not seen on June 17. A fresh outburst has taken place by June 18, and the group consists of a number of small spots in a short stream. The two principal spots, *a* and *b*, have greatly increased in size by June 19, and are large and regular. They break up and diminish after June 20, and *a* has disappeared by June 22.

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).
				°	°	°			
1894. 167d·309	CL, HA	3559	0·990	251·2	192·2	−18·4	8	50	
		3559b	0·984	254·7	190·1	−14·7	28	111	
I.		3559	0·972	248·5	186·1	−20·4	14	111	
		3559	0·966	249·3	184·8	−19·5	6	26	
		3559	0·959	255·5	183·9	−13·4	0	13	
		3574	0·938	249·1	179·1	−18·9	5	29	
		3574	0·932	247·5	177·9	−20·3	11	63	1143c
		3574	0·923	249·5	176·8	−18·2	13	52	
		3574	0·926	246·0	176·6	−21·4	1	16	
		3574	0·919	248·4	176·0	−19·1	6	27	
		3574a	0·897	247·0	172·6	−19·8	99	301	
		3574	0·882	245·6	170·3	−20·5	0	2	
		3578a	0·889	280·5	173·9	+10·1	7	23	79c
		3570a	0·759	261·4	160·2	− 5·5	40	255	
		3570	0·742	260·0	158·6	− 6·3	0	6	157c
		3570	0·732	263·4	158·1	− 3·7	0	3	
		3570b	0·704	263·5	155·8	− 3·4	16	76	
		3564	0·590	279·5	147·2	+ 6·9	0	6	
		3565a	0·366	288·5	131·9	+ 8·2	50	252	
		3565	0·375	295·7	131·5	+10·8	3	20	
		3565	0·362	293·0	131·2	+ 9·6	8	26	
		3565	0·362	298·3	130·4	+11·4	0	3	
		3565	0·355	295·5	130·4	+10·3	1	4	
		3565	0·336	299·4	128·8	+11·0	17	46	
		3565	0·301	299·8	126·8	+10·2	4	13	
		3565	0·246	302·4	123·6	+ 9·1	11	90	
		3573b	0·208	39·6	103·8	+10·8	29	144	
		3573c	0·225	48·5	101·7	+10·1	17	87	
		3575	0·562	115·1	80·2	−12·4	5	13	
		3575	0·580	113·3	78·7	−11·8	0	4	
		3575a	0·607	116·6	77·6	−14·4	135	649	
		3575	0·644	117·4	75·2	−15·9	1	15	
		3575	0·645	115·4	74·6	−14·8	4	26	
		3575	0·681	114·6	71·8	−15·1	4	39	
		3575	0·683	112·9	71·2	−14·2	32	222	
		3575	0·714	112·0	68·6	−14·3	1	4	
		3575	0·719	113·7	68·6	−15·6	15	62	
		3575	0·725	112·1	67·7	−14·7	11	69	
			0·914	119·5	49·4	−26·0			141
			0·905	109·4	48·7	−16·8			316
			0·935	100·2	43·1	− 8·9			54
			0·961	63·7	38·8	+25·7			222
June 17		Centre			(111·5)	(+1·6)	(602)	(2958)	(2483)

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).
				°	°	°			
1894. 168d·372	FT, AW		0·974	294·7	175·4	+24·4			130
			0·905	280·7	161·9	+10·4			203
			0·922	244·5	161·5	−22·6			94
			0·903	253·3	160·3	−14·3			232
			0·784	275·7	148·8	+ 5·5			153
			0·797	245·2	146·9	−18·4			70
		3574	0·991	251·4	178·6	−18·2	95	415	401c
		3574a	0·973	249·9	172·4	−19·1	103	549	
		3578	0·976	281·2	174·7	+11·3	0	9	157c
		3578a	0·972	280·4	173·6	+10·5	0	15	
		3570a	0·897	263·4	160·6	− 5·1	40	253	
		3570	0·882	262·5	158·7	− 5·8	0	8	
		3570	0·869	264·8	157·3	− 3·7	0	6	323c
		3570b	0·861	265·4	156·4	− 3·1	11	39	
		3565a	0·578	283·4	132·0	+ 9·1	55	359	
		3565	0·584	287·6	131·9	+11·5	0	8	
		3565	0·542	287·3	129·0	+10·7	65	241	
		3565	0·505	279·4	127·3	+ 6·2	0	4	
		3565	0·500	289·0	126·0	+10·9	14	109	
		3565	0·488	286·1	125·6	+ 9·3	5	8	
		3565	0·458	279·4	124·3	+ 5·8	0	3	
		3565	0·460	285·0	124·0	+ 8·3	0	11	
		3565	0·455	288·8	123·2	+ 9·9	53	472	
		3577a	0·409	238·4	118·1	−10·7	12	28	
		3577	0·408	235·5	117·4	−11·7	2	5	
		3577	0·392	237·5	117·0	−10·6	0	4	
		3577b	0·389	232·5	115·7	−12·1	11	24	
		3577	0·378	233·6	115·4	−11·3	4	11	
		3579	0·439	205·3	109·0	−21·6	0	3	
		3579	0·418	204·8	108·1	−20·6	0	6	
		3579a	0·394	204·7	107·4	−19·2	1	5	
		3573b	0·193	324·6	103·9	+10·7	25	145	
		3573c	0·169	333·7	101·7	+10·4	18	75	
		3573	0·170	343·6	100·2	+11·0	3	6	
		3575	0·381	129·9	80·1	−12·5	5	11	
		3575a	0·431	130·0	77·5	−14·4	140	778	
		3575	0·490	128·7	74·0	−16·2	2	11	
		3575	0·494	123·5	72·4	−14·2	8	95	
		3575	0·523	126·2	71·4	−16·5	2	6	
		3575	0·526	123·1	70·4	−15·1	24	74	
		3575	0·571	128·6	69·3	−19·3	0	6	
		3575	0·544	122·5	69·1	−15·4	0	4	
		3575	0·543	120·5	68·6	−14·5	8	25	
		3575	0·557	122·4	68·3	−15·8	11	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.

Group 3578, June 17–18. A regular spot, *a*. A small companion is also seen on June 18.
Group 3579, June 18–23. A very variable group. On June 18 three very small spots, the last of which is *a*. The group has greatly increased in size by June 19, and a double spot, *b*, has broken out, preceding *a*, which is now large. The components of *b* have united by June 20. *a* and *b* are united by a stream of smaller 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).
				°	°	°			
1894. 168d.372	FT,AW	3575	0·567	120·5	67·1	−15·3	13	69	
			0·869	117·5	39·7	+24·5			196
			0·917	62·3	33·1	+25·9			224
June 18		Centre			(97·4)	(+1·7)	(730)	(3922)	(2183)
169·391	HA,AW		0·956	254·3	150·5	−14·4			230
			0·902	275·6	148·1	+ 5·9			267
			0·884	250·1	143·8	−16·6			179
			0·770	250·8	132·1	−13·4			62
		3570*a*	0·974	263·6	160·3	− 5·8	32	203	} 242*c*
		3570*b*	0·957	266·1	156·7	− 3·2	6	23	
		3565*a*	0·749	280·2	131·9	+ 8·8	77	345	
		3565	0·716	283·2	128·9	+10·7	106	646	
		3565	0·669	282·1	125·3	+ 9·4	13	109	
		3565	0·656	280·7	124·4	+ 8·3	3	8	
		3565	0·639	282·9	122·9	+ 9·6	77	349	
		3565	0·633	285·9	122·1	+11·4	1	3	
		3577*a*	0·608	249·7	119·2	−10·7	29	128	
		3577	0·586	248·3	117·4	−11·0	0	3	
		3577*b*	0·565	245·0	115·4	−12·3	25	142	
		3577	0·547	247·2	114·7	−10·7	1	4	
		3580	0·611	298·0	118·3	+18·1	0	33	
		3579	0·622	232·3	115·5	−20·7	0	3	
		3579*b*	0·577	228·6	111·4	−20·7	12	76	
		3579*b*	0·587	226·7	111·2	−22·1	20	32	
		3579	0·556	229·7	110·5	−19·4	0	19	
		3579	0·347	227·5	109·2	−20·0	0	3	
		3579*a*	0·524	226·0	107·4	−19·6	40	129	
		3579	0·504	226·2	105·4	−18·7	2	7	
		3573*b*	0·376	294·2	104·1	+ 9·3	24	137	
		3573	0·350	299·2	102·0	+11·5	0	3	
		3573*c*	0·342	295·9	102·0	+10·3	15	38	
		3573	0·332	294·7	101·6	+ 9·7	0	3	
		3575	0·234	163·5	80·0	−11·1	1	2	
		3575	0·245	164·1	80·0	−11·8	2	10	
		3575	0·336	158·4	76·5	−16·3	1	15	
		3575*a*	0·304	153·3	76·4	−14·2	176	958	
		3575	0·363	157·7	75·6	−17·8	0	3	
		3575	0·383	147·1	74·9	−11·9	1	5	
		3575	0·353	149·1	73·1	−15·8	1	3	
		3575	0·355	147·6	72·6	−15·6	3	9	
		3575	0·365	148·9	72·6	−16·4	0	2	
		3575	0·352	145·3	72·0	−15·1	5	13	
1894. 169d.391	HA,AW	3575	0·340	143·7	72·0	−14·1	7	29	
		3575	0·382	147·1	71·4	−16·9	0	7	
		3575	0·369	143·6	70·8	−15·5	13	42	
		3575	0·374	139·4	69·4	−14·7	3	9	
		3575	0·382	137·1	68·4	−14·5	7	26	
		3575	0·417	142·2	68·4	−17·4	1	5	
		3575	0·397	139·0	68·3	−15·6	10	29	
		3575	0·403	136·0	67·1	−15·1	14	79	
		3575	0·423	137·9	66·8	−16·5	7	35	
		3581*a*	0·995	78·0	359·7	+12·1	51	405	
			0·749	121·6	40·7	−21·7			103
			0·847	57·5	30·1	+28·0			178
			0·897	96·4	20·6	− 4·9			101
			0·927	82·7	16·1	+ 7·5			167
			0·953	62·7	13·0	+26·5			111
June 19		Centre			(83·9)	(+1·8)	(786)	(4132)	(1640)
170·273	AW,HA		0·963	275·4	146·5	+ 5·7			217
			0·963	252·9	145·1	−15·9			299
I.			0·893	255·2	134·1	−12·3			128
			0·894	245·3	132·4	−21·0			213
		3565	0·850	279·3	130·1	+ 8·9	202	1012	} 591*c*
		3565	0·842	277·3	129·3	+ 7·2	5	19	
		3565	0·784	279·5	123·5	+ 8·6	98	434	
		3565	0·772	282·6	122·1	+10·9	0	12	
		3577*a*	0·759	253·2	119·8	−11·4	21	120	} 91*c*
		3577*b*	0·712	248·9	115·1	−13·4	23	118	
		3579*b*	0·732	235·3	112·9	−23·1	35	190	} 140*c*
		3579	0·709	234·8	110·9	−22·6	3	13	
		3579*a*	0·650	235·0	106·6	−20·3	41	195	
		3579	0·632	236·7	105·9	−18·7	1	7	
		3579	0·633	234·4	105·3	−20·0	0	2	
		3573*b*	0·547	285·1	104·5	+ 9·8	28	136	
		3573*c*	0·513	285·5	102·2	+ 9·6	1	12	
		3573	0·512	288·8	101·7	+11·1	0	2	
		3573	0·494	289·2	100·4	+11·0	0	3	
		3582	0·356	324·4	84·8	+18·6	1	4	
		3575*a*	0·293	197·0	77·3	−14·3	212	791	
		3575	0·338	189·1	75·4	−17·5	0	11	
		3575	0·302	185·4	73·9	−15·5	11	165	
		3575	0·313	182·3	72·9	−16·2	0	7	
		3575	0·295	178·8	71·8	−15·2	4	8	
		3575	0·278	177·7	71·5	−14·1	1	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 3580, June 19. A nebulous group of small spots *nf* of Group 3565.
Group 3581, June 19–July 1. A large regular spot, *a*, with occasionally some small companions.
Group 3582, June 20. 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).
				°	°	°			
1894. 170d·273	AW,HA	3575	0·329	173·6	70·0	−17·1	0	2	
		3575	0·304	171·6	69·6	−15·5	5	30	
I.		3575	0·309	166·9	68·1	−15·6	9	54	
		3575	0·308	162·9	66·8	−15·1	6	14	
		3575	0·331	164·0	66·8	−16·6	4	60	
		3581*a*	0·959	77·3	358·9	+12·7	79	347	282*c*
			0·770	51·1	28·5	+30·2			132
			0·849	82·5	14·3	+ 7·4			212
			0·888	60·1	12·5	+27·2			153
June 20		Centre			(72·2)	(+1·9)	(790)	(3778)	(2458)
171·426	FT,AW		0·957	256·0	129·1	−12·8			170
		3565*a*	0·968	278·2	132·5	+ 8·5	58	480	
		3565	0·959	280·7	130·5	+10·8	90	351	
		3565	0·955	277·0	129·7	+ 7·3	4	18	659*c*
		3565	0·926	279·7	124·7	+ 9·8	76	710	
		3565	0·905	281·4	121·6	+11·1	3	11	
		3577	0·913	258·3	122·0	− 9·9	6	12	60*c*
		3577*a*	0·902	257·9	120·4	−10·0	7	15	
		3577*b*	0·870	253·8	115·9	−13·0	19	76	
		3577	0·862	254·1	115·1	−12·6	0	4	68*c*
		3577	0·857	253·9	114·4	−12·6	4	7	
		3579*b*	0·873	242·5	113·9	−22·7	32	216	
		3579	0·851	242·7	111·4	−21·8	8	26	
		3579	0·812	242·4	107·3	−20·8	14	67	379*c*
		3579*a*	0·798	244·1	106·3	−19·0	31	171	
		3573*b*	0·748	281·9	105·0	+10·2	25	134	
		3575*a*	0·437	231·7	77·7	−14·4	166	702	
		3575	0·412	237·1	77·7	−11·0	5	8	
		3575	0·406	234·7	76·8	−11·6	3	10	
		3575	0·433	224·2	75·3	−16·2	1	10	
		3575	0·440	221·9	74·9	−17·2	0	4	
		3575	0·395	228·7	74·8	−13·1	0	3	
		3575	0·411	225·0	74·5	−14·9	16	78	
		3575	0·421	221·9	74·0	−16·3	0	6	
		3575	0·412	221·0	73·4	−16·1	1	7	
		3575	0·390	222·2	72·8	−14·8	4	51	
		3575	0·409	218·9	72·6	−16·6	6	22	
		3575	0·373	223·9	72·5	−13·6	1	2	
		3575	0·368	220·7	71·4	−14·3	0	9	
		3575	0·376	218·1	71·0	−15·2	0	4	
		3575	0·391	215·5	70·7	−16·6	5	10	
		3575	0·370	215·6	70·0	−15·5	4	11	

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).
				°	°	°			
1894. 171d·426	FT, AW	3575	0·361	213·9	69·1	−15·4	10	26	
		3575	0·373	210·6	68·5	−16·8	0	31	
		3575	0·349	211·0	67·8	−15·4	23	109	
		3581	0·815	75·0	3·3	+13·3	2	6	
		3581	0·830	73·8	1·9	+14·5	2	4	144*c*
		3581*a*	0·856	76·6	358·8	+12·5	68	328	
		3583*a*	0·941	92·3	347·2	− 1·5	21	84	233*c*
			0·893	110·6	14·1	−13·5			82
			0·907	151·8	13·7	−51·4			87
			0·936	120·6	351·9	−27·6			261
			0·920	73·6	350·8	+15·9			161
June 21		Centre			(57·1)	(+2·0)	(715)	(3823)	(2304)
172·232	AW,HA		0·742	283·2	93·5	+11·2			146
		3565*a*	0·997	277·7	131·9	+ 7·9	53	360	
M.		3565	0·996	280·4	131·3	+10·6	29	221	
		3565	0·988	279·6	127·5	+ 9·9	7	96	537*c*
		3565	0·975	278·9	123·4	+ 9·2	67	549	
		3577	0·942	254·3	115·2	−14·0	0	5	
		3577*b*	0·941	255·0	115·1	−13·3	10	30	
		3579*b*	0·943	244·4	113·8	−23·3	26	168	254*c*
		3579	0·928	245·0	111·3	−22·2	15	112	
		3579	0·916	245·1	109·5	−21·7	0	3	
		3579	0·903	244·1	107·4	−22·2	3	13	
		3579	0·894	245·2	106·4	−20·9	0	17	
		3579	0·892	244·5	106·0	−21·5	14	45	
		3579*a*	0·884	246·8	105·5	−19·3	19	102	422*c*
		3579	0·886	245·3	105·4	−20·6	6	11	
		3579	0·885	244·5	105·1	−21·3	0	3	
		3573	0·864	279·3	105·8	+ 9·1	6	12	
		3573*b*	0·855	280·2	104·7	+ 9·8	24	96	
		3573	0·854	277·4	104·7	+ 7·4	1	5	233*c*
		3573	0·844	278·0	103·6	+ 7·9	2	13	
		3575	0·557	246·1	77·5	−11·3	2	12	
		3575*a*	0·570	241·5	77·2	−14·0	165	718	
		3575	0·536	238·2	74·3	−14·5	0	3	
		3575	0·536	235·9	73·6	−15·6	0	16	
		3575	0·529	237·5	73·6	−14·6	0	21	
		3575	0·522	236·1	72·8	−15·0	3	28	
		3575	0·528	233·7	72·5	−16·3	9	35	
		3575	0·518	234·8	72·2	−15·4	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 3583, June 21–30. A diminishing nebulous spot, *a*, with a very small companion on June 22 and 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).
1894.				°	°	°			
172d·232	AW,HA	3575	0·502	235·8	71·6	−14·4	1	4	
		3575	0·517	231·4	71·2	−16·9	1	11	
M.		3575	0·494	232·0	70·1	−15·7	0	1	
		3575	0·475	233·0	69·3	−14·7	0	7	
		3575	0·501	227·8	69·1	−17·7	0	2	
		3575	0·481	230·9	69·0	−15·7	3	12	
		3575	0·490	228·7	68·8	−16·9	0	5	
		3575	0·464	229·5	67·7	−15·6	13	86	
		3581	0·691	71·5	3·9	+14·2	0	11	
		3581	0·721	71·5	1·5	+14·7	1	7	
		3581*a*	0·741	74·7	359·4	+12·7	55	287	122*c*
		3583*a*	0·856	92·8	347·7	− 1·3	14	68	301*f*
		3583	0·873	92·1	345·8	− 0·8	0	7	
			0·870	124·8	352·1	−28·5			270
			0·839	70·6	350·5	+17·4			229
			0·887	115·1	347·2	−21·0			164
June 22		Centre			(46·3)	(+2·1)	(549)	(3208)	(2678)
173·452	HA,AW		0·885	282·1	92·0	+11·7			194
			0·883	247·8	89·4	−18·4			77
		3579*b*	0·995	247·6	112·6	−22·0	0	116	
		3579*a*	0·970	249·4	104·1	−19·3	22	160	231*c*
		3573*b*	0·964	279·4	104·5	+ 9·6	18	104	238*c*
		3575*a*	0·759	249·8	76·6	−13·7	150	709	
		3575	0·744	245·7	74·8	−16·2	0	14	
		3575	0·739	244·4	74·1	−17·0	2	40	
		3575	0·722	248·2	73·6	−13·9	5	18	82*c*
		3575	0·717	246·2	72·7	−15·1	10	100	
		3575	0·663	243·6	68·0	−15·4	15	70	
		3584	0·227	192·9	34·0	−10·5	0	5	
		3584	0·195	181·5	30·4	− 9·0	0	6	
		3581*a*	0·532	69·8	359·5	+12·5	63	301	
		3583*a*	0·673	94·8	348·1	− 1·6	16	84	
		3585*a*	0·964	73·5	315·8	+16·5	20	99	315*c*
		3586*a*	0·993	81·4	306·9	+ 8·8	0	99	
			0·745	128·0	349·7	−25·5			91
			0·890	118·9	331·6	−24·3			132
			0·890	103·5	328·5	−10·9			145
			0·894	81·5	326·9	+ 8·6			202
			0·931	109·6	323·7	−17·3			164
June 23		Centre			(30·1)	(+2·2)	(321)	(1925)	(1871)

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).
1894.				°	°	°			
174d·512	CL,FT	3575*a*	0·890	253·7	77·3	−13·3	141	783	
		3575	0·860	251·8	73·4	−14·3	6	30	299*c*
		3575	0·815	249·8	68·2	−14·9	2	18	
		3584	0·382	234·5	34·5	−10·5	3	12	
		3584	0·344	232·4	32·1	− 9·8	0	6	
		3581	0·294	44·2	3·9	+14·5	0	3	
		3581	0·320	49·8	1·6	+14·2	2	5	
		3581*a*	0·333	56·9	359·6	+12·8	60	335	
		3581	0·357	51·0	359·5	+15·2	3	7	
		3583*a*	0·474	97·7	348·2	− 1·5	14	77	
		3587	0·759	78·7	327·2	+10·1	0	7	
		3585*a*	0·873	72·4	315·9	+16·5	24	148	317*n*
		3586*a*	0·932	81·6	307·5	+ 8·7	18	94	
		3586	0·948	81·5	304·7	+ 8·9	0	25	289*c*
		3586	0·967	79·7	300·9	+10·6	0	9	
June 24		Centre			(16·1)	(+2·4)	(273)	(1559)	(905)
175·488	CL,FT		0·960	263·2	75·9	− 5·8			83
			0·873	260·0	62·9	− 7·4			154
			0·840	284·9	59·5	+13·8			150
		3575*a*	0·966	253·9	76·4	−12·8	119	725	898*f*
		3575	0·950	254·5	73·1	−13·8	0	9	
		3584	0·547	248·8	34·1	− 9·2	0	3	
		3584	0·543	247·6	33·6	− 9·7	1	9	
		3584	0·535	246·8	33·0	− 9·9	0	3	
		3584	0·504	247·1	31·1	− 9·0	3	6	
		3581	0·189	9·4	1·4	+13·2	1	6	
		3581*a*	0·190	20·8	359·3	+12·7	60	314	
		3581	0·230	19·4	358·7	+14·9	1	8	
		3583*a*	0·276	104·5	347·8	− 1·6	14	73	
		3585	0·744	73·0	316·3	+14·2	0	25	
		3585	0·754	73·6	315·4	+13·9	0	5	183*c*
		3585*a*	0·762	70·1	315·1	+16·6	15	134	
		3586*a*	0·842	81·6	306·3	+ 8·4	11	103	
		3586	0·862	81·8	304·1	+ 8·3	0	9	137*c*
		3586	0·886	80·0	301·3	+10·0	0	22	
			0·814	130·2	317·7	−29·8			120
			0·809	121·9	315·0	−23·5			154
			0·867	100·1	304·1	− 7·4			102
			0·873	71·8	303·5	+17·0			148
			0·924	124·2	301·7	−30·0			194
			0·956	76·4	290·8	+13·7			230
June 25		Centre			(3·2)	(+2·5)	(225)	(1454)	(2553)

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 3584, June 23–26. A few very small spots irregularly arranged.
Group 3585, June 23–July 4. A large irregular spot, *a*, with occasionally one or two very small companions. Small spots also from time to time break off from *a*, which diminishes rapidly after June 25.
Group 3586, June 23–30. A nebulous spot, *a*, followed by a stream of small spots. *a* has divided into two spots by June 28, but they are not measured separately as *b* and *c* until June 29.
Group 3587, June 24. 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).
				°	°	°			
1894. 176d.454	M,AW		0·829	242·9	42·2	−20·5			265
		3584	0·708	252·4	33·6	−10·4	0	4	
		3584	0·698	251·5	32·6	−10·9	0	6	
		3584	0·680	253·2	31·5	− 9·4	0	8	
		3584	0·667	251·6	30·2	−10·2	0	9	
		3581	0·277	313·8	2·2	+13·6	0	3	
		3581	0·276	321·7	0·6	+15·0	2	13	
		3581	0·274	326·2	359·5	+15·7	0	4	
		3581*a*	0·237	319·6	359·4	+13·0	55	316	
		3581	0·261	330·9	357·9	+15·7	4	15	
		3581	0·219	329·6	356·9	+13·4	0	3	
		3583*a*	0·077	145·7	347·9	− 1·1	17	68	
		3588	0·179	19·4	346·9	+12·3	0	4	
		3588	0·210	29·3	344·4	+13·1	0	3	
		3585*a*	0·609	65·6	315·2	+16·6	15	63	
		3586*a*	0·703	79·4	306·2	+ 9·3	21	101	}
		3586	0·725	80·2	304·3	+ 8·9	0	4	} 427*c*
		3586	0·759	78·1	301·5	+10·7	0	10	}
			0·843	126·2	300·1	−28·1			139
			0·847	94·1	292·9	− 2·1			37
			0·864	70·2	291·7	+18·4			219
			0·933	103·7	282·8	−11·7			55
June 26		Centre			(350·4)	(+2·6)	(114)	(634)	(1142)
177·389	M,AW		0·916	244·1	40·9	−22·4			478
			0·854	285·7	36·1	+14·8			68
			0·832	255·8	32·9	−10·2			394
			0·838	299·7	32·0	+26·1			275
		3581*a*	0·405	296·2	359·9	+12·8	63	316	
		3581	0·409	304·5	358·5	+15·9	0	6	
		3589*a*	0·298	302·6	352·9	+11·9	0	7	
		3589*b*	0·257	311·4	349·4	+12·4	1	9	
		3583*a*	0·198	250·9	348·8	− 1·1	13	49	
		3583	0·180	244·4	347·4	− 1·8	0	4	
		3590	0·362	135·6	323·1	−12·3	0	10	
		3585	0·425	56·2	316·6	+16·2	0	9	
		3585	0·431	56·9	316·1	+16·1	0	7	
		3585*a*	0·443	55·6	315·7	+16·9	12	38	
		3586*a*	0·526	77·0	307·0	+ 9·1	25	83	
		3586	0·583	78·3	302·9	+ 9·0	0	4	
			0·891	102·3	276·3	− 9·6			347
June 27		Centre			(338·1)	(+2·7)	(114)	(542)	(1562)

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).
				°	°	°			
1894. 178d.396	HA,AW		0·934	258·1	32·7	−10·0			118
			0·918	299·7	29·4	+28·2			220
			0·872	280·3	25·3	+10·3			124
		3581*a*	0·597	288·0	0·3	+12·9	64	316	
		3589*b*	0·452	291·9	350·1	+12·2	0	13	
		3583*a*	0·422	261·5	349·4	− 1·1	6	22	
		3590*a*	0·259	183·6	325·7	−12·1	14	83	
		3590	0·221	183·6	325·6	− 9·9	1	5	
		3590	0·283	180·0	324·8	−13·6	7	30	
		3590	0·280	175·1	323·4	−13·3	7	41	
		3590	0·264	171·3	322·5	−12·3	0	7	
		3590	0·272	167·7	321·4	−12·6	8	25	
		3585	0·243	26·9	318·3	+15·2	0	7	
		3585*a*	0·277	30·1	316·5	+16·6	14	72	
		3591	0·337	26·9	315·5	+20·2	0	10	
		3586*a*	0·313	68·5	307·7	+ 9·2	16	38	
		3586	0·357	67·9	305·2	+10·3	0	10	
			0·867	74·6	265·2	+14·7			36
			0·975	88·7	247·8	+ 1·9			241
June 28		Centre			(324·8)	(+2·8)	(137)	(679)	(739)
179·424	M,AW		0·941	278·5	21.3	+ 9·0			98
		3581*a*	0·761	284·2	0·1	+12·9	51	316	}
		3581	0·726	285·5	356·8	+13·2	0	7	} 494*c*
		3583*a*	0·622	264·8	349·2	− 0·4	6	19	}
		3590*a*	0·360	223·3	325·7	−12·3	20	165	
		3590	0·332	226·0	325·1	−10·4	0	5	
		3590	0·360	218·0	324·2	−13·6	0	28	
		3590	0·345	215·9	323·0	−13·3	7	32	
		3590	0·327	213·6	321·8	−12·9	7	27	
		3590	0·324	210·4	320·8	−13·3	3	25	
		3590	0·312	211·4	320·6	−12·5	4	22	
		3585*a*	0·252	340·9	316·0	+16·6	11	49	
		3591	0·320	344·7	316·3	+20·8	0	8	
		3586*b*	0·138	30·8	307·0	+ 9·7	3	14	
		3586*c*	0·140	36·7	306·3	+ 9·3	3	13	
		3592	0·612	113·5	276·3	−11·7	8	22	
		3592	0·631	114·4	275·1	−12·7	0	7	
		3592	0·652	110·5	272·8	−10·9	3	16	
		3593	0·883	89·8	249·3	+ 1·6	0	15	} 422*c*
		3593	0·912	90·0	229·0	+ 0·1	0	19	}
			0·962	71·1	237·1	+19·0			39
June 29		Centre			(311·1)	(+2·9)	(126)	(809)	(1053)

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 3588, June 26. A pair of very small spots.
Group 3589, June 27–28. A pair of small spots, *a* and *b*, on June 27. Only *b* is seen on June 28.
Group 3590, June 27–July 2. A small faint spot on June 27. The group has greatly increased by the succeeding day, when it consists of a regular spot, *a*, followed by a short broad stream of spots mostly small. The group has increased still further by June 29, after which it rapidly diminishes and dies out when still two days from the West limb.
Group 3591, June 28–30. A small faint spot *n* of Group 3585.
Group 3592, June 29–July 6. A few small and very unstable spots.
Group 3593, June 29–July 7. A few small unstable spots, usually forming a short 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).
1894.				°	°	°			
180d·444	HA,AW		0·791	287·7	348·9	+15·7			158
			0·824	234·0	345·8	−26·9			304
		3581*a*	0·887	282·9	359·8	+12·8	48	311	156*c*
		3594	0·878	286·6	358·3	+16·0	0	5	
		3583*a*	0·786	266·9	349·1	− 0·6	3	16	
		3590*a*	0·534	242·8	326·5	−11·5	19	80	
		3590	0·519	240·2	324·9	−12·2	10	107	
		3590	0·496	236·4	322·6	−13·1	0	3	
		3590	0·481	236·3	321·7	−12·7	10	37	
		3585*a*	0·372	306·5	315·6	+15·6	0	12	
		3591	0·426	313·2	316·8	+19·7	0	15	
		3586*b*	0·197	306·2	306·8	+ 9·6	1	6	
		3586*c*	0·180	306·6	306·0	+ 9·1	0	5	
		3592	0·425	126·2	277·2	−11·7	3	8	
		3592	0·476	119·6	272·8	−10·9	1	12	
		3593*a*	0·749	91·3	249·3	+ 1·1	3	21	190*c*
			0·901	71·0	234·0	+18·4			181
			0·920	101·2	231·8	− 9·1			284
June 30		Centre			(297·6)	(+3·0)	(98)	(638)	(1273)
181·472	HA,AW		0·930	240·6	347·9	−25·8			311
			0·872	269·2	344·5	+ 0·9			179
			0·888	230·5	338·2	−32·6			92
			0·807	237·7	331·8	−23·4			87
		3581*a*	0·971	282·3	0·2	+12·7	50	309	373*f*
		3590*a*	0·709	250·1	326·7	−11·7	8	57	
		3590	0·692	250·3	325·4	−11·1	0	6	
		3590	0·691	248·9	325·1	−12·1	3	45	
		3590	0·658	247·1	322·2	−12·4	7	18	
		3590	0·660	245·7	322·0	−13·3	1	10	
		3585*a*	0·561	294·3	316·0	+15·9	0	6	
		3585	0·541	296·2	314·3	+16·5	0	3	
		3595	0·568	223·8	310·1	+26·9	0	10	
		3595	0·539	222·1	307·7	+26·3	1	7	
		3592	0·315	143·3	273·0	−11·5	0	18	
		3596	0·272	120·4	270·4	− 4·9	0	5	
		3593	0·553	92·4	250·6	+ 1·3	10	23	
		3593	0·567	91·9	249·6	+ 1·5	0	4	
		3593	0·586	91·4	248·3	+ 1·7	4	16	
		3593	0·619	91·2	245·9	+ 1·7	0	6	
		3597	0·822	65·5	230·5	+21·5	0	4	
		3598*a*	0·919	84·1	217·3	+ 6·7	14	63	270*c*
		3598	0·945	84·9	213·1	+ 5·9	0	31	
1894.				°	°	°			
181d·472	HA,AW		0·809	67·2	231·6	+20·1			165
			0·882	106·0	223·9	−12·5			378
July 1		Centre			(284·0)	(+3·1)	(98)	(641)	(1855)
182·497	HA,AW		0·941	238·9	335·8	−27·8			20[illegible]
			0·905	284·1	335·0	+14·1			26[illegible]
			0·829	275·4	326·3	+ 6·3			10[illegible]
			0·800	238·1	317·7	−22·8			151
		3590	0·867	256·0	329·0	−10·4	1	3	
		3590*a*	0·849	253·9	326·6	−11·8	5	11	
		3590	0·845	256·3	326·6	− 9·7	0	9	
		3590	0·845	254·8	326·4	−11·0	0	9	339*c*
		3590	0·839	253·2	325·5	−12·2	7	20	
		3590	0·828	252·4	324·2	−12·6	0	9	
		3585*a*	0·729	288·0	316·2	+15·2	0	6	
		3592	0·286	199·3	275·9	−12·4	0	7	
		3592	0·261	190·6	273·2	−11·6	0	14	
		3596	0·165	193·7	272·6	− 6·0	2	8	
		3596	0·140	184·1	271·0	− 4·8	2	7	
		3593	0·319	95·3	252·0	+ 1·3	0	13	
		3593	0·376	91·9	248·4	+ 2·3	0	10	
		3593	0·401	94·2	246·9	+ 1·3	1	11	
		3593	0·403	90·2	246·7	+ 2·9	1	20	
		3597*a*	0·651	63·2	232·5	+19·5	7	17	
		3597*b*	0·677	63·8	230·4	+19·8	3	19	
		3598	0·780	86·9	219·2	+ 4·4	0	12	315*c*
		3598*a*	0·803	84·0	217·1	+ 6·7	17	75	
		3598	0·824	85·0	215·0	+ 6·0	0	6	426*c*
		3598	0·849	84·9	212·4	+ 6·0	5	58	
		3599*a*	0·996	79·0	185·1	+11·2	0	193	
			0·823	111·1	217·9	−15·3			245
			0·965	107·6	197·5	−16·0			581
			0·972	100·9	195·0	− 9·8			228
July 2		Centre			(270·4)	(+3·2)	(51)	(537)	(2866)
183·627	FT,AW		0·938	253·5	323·4	−14·3			202
			0·871	259·0	315·0	− 8·0			75
			0·843	277·9	312·9	+ 8·4			137
			0·844	294·6	311·4	+22·4			127
			0·866	240·7	310·5	−23·2			221

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 3594, June 30. A very small spot.
Group 3595, July 1. Two small spots.
Group 3596, July 1–2. A very small spot *nf* of Group 3592 on July 1. A second similar spot has formed before it by July 2.
Group 3597, July 1–9. A very small spot on July 1. A pair of small spots, *a* and *b*, on the succeeding days. These move apart in longitude, and other spots form between them, so that the group becomes a long straight stream. *a* diminishes in latitude from July 2 to July 5, producing the effect of a slight partial direct rotation of the axis of the group.
Group 3598, July 1–10. A regular spot, *a*, followed by a short irregular stream of small spots until July 5. *a* moves forward in longitude.
Group 3599, July 2–15. A large regular spot, *a*, followed by a straight stream of small spots. The latter increase in number and area, and the last spot, *b*, has become a large regular spot by July 7. The spots between *a* and *b* diminish after the group has passed the central meridian, and have all disappeared by July 13. *b* is seen as a notch on the limb, but cannot be measured, on July 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).
1894.				°	°	°			
183d.627	FT, AW	3585*a*	0·876	287·7	316·1	+17·1	4	10	265*c*
		3600	0·413	243·4	277·3	− 7·6	0	3	
		3592	0·445	231·2	276·3	−13·0	1	2	
		3592	0·435	232·1	276·0	−12·4	2	4	
		3592	0·418	231·5	274·9	−12·0	0	2	
		3601	0·129	235·8	261·6	− 0·9	2	4	
		3601	0·149	221·6	261·2	− 3·1	0	6	
		3593*a*	0·086	105·9	250·8	+ 2·0	5	25	
		3593*b*	0·129	105·1	248·4	+ 1·4	5	11	
		3593	0·130	96·6	248·1	+ 2·4	4	9	
		3593	0·149	95·6	247·0	+ 2·5	0	14	
		3597*a*	0·447	52·5	233·6	+18·9	17	28	
		3597	0·456	51·5	233·4	+19·5	5	10	
		3597	0·460	52·9	232·7	+19·1	1	12	
		3597	0·467	53·9	232·1	+19·0	0	3	
		3597	0·466	55·6	231·7	+18·3	1	5	
		3597	0·491	54·8	230·4	+19·4	0	3	
		3597*b*	0·508	55·1	229·3	+19·8	23	53	
		3602	0·533	49·5	229·5	+23·2	0	4	
		3598*a*	0·611	82·6	218·0	+ 7·1	16	61	
		3598	0·645	83·7	215·5	+ 6·6	2	6	
		3598	0·685	85·3	212·4	+ 5·6	9	27	
		3603*a*	0·917	106·4	190·7	−14·0	9	41	
		3599*a*	0·929	78·5	187·2	+12·0	31	155	151*c*
		3599	0·959	79·6	181·9	+11·0	11	44	
		3604*a*	0·978	109·7	179·6	−18·5	37	258	335*c*
		3604	0·993	111·8	174·3	−21·2	0	86	
			0·814	83·9	201·1	+ 6·9			290
			0·883	111·4	196·4	−17·1			308
			0·928	100·6	188·5	− 8·5			147
July 3		Centre			(255·5)	(+3·3)	(185)	(886)	(2258)
184·424	M, AW		0·980	254·5	321·8	−14·4			131
			0·925	241·3	308·1	−24·8			277
			0·901	289·1	306·8	+15·5			910
			0·870	277·2	305·3	+ 8·0			255
		3585*a*	0·946	286·3	316·3	+16·5	0	15	
		3592	0·559	240·3	274·7	−13·0	0	3	
		3592	0·542	243·1	274·3	−11·1	0	4	
		3593*a*	0·109	256·2	251·0	+ 2·0	0	13	
		3593*b*	0·074	241·3	248·6	+ 1·5	11	32	
		3593	0·056	244·3	247·8	+ 2·1	0	5	

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).
1894.				°	°	°			
184d.424	M, AW	3597*a*	0·302	33·3	234·9	+18·0	9	46	
		3597	0·325	33·7	233·9	+19·1	2	6	
		3597	0·324	37·7	232·9	+18·3	2	11	
		3597	0·354	37·7	231·7	+19·6	0	5	
		3597	0·362	40·7	230·5	+19·3	0	8	
		3597	0·380	40·1	229·8	+20·2	0	5	
		3597*b*	0·386	43·6	228·6	+19·5	6	36	
		3598*a*	0·447	80·9	218·6	+ 7·2	13	67	
		3598	0·527	83·1	213·3	+ 6·6	0	7	
		3598	0·537	85·3	212·5	+ 5·5	1	22	
		3603	0·824	107·2	191·5	−12·0	0	7	
		3603*a*	0·831	108·9	191·1	−13·5	7	19	
		3599*a*	0·842	77·6	187·8	+12·3	34	177	
		3599	0·906	78·1	180·0	+12·3	0	21	647*c*
		3604*a*	0·930	111·6	179·3	−18·6	39	291	
		3604*b*	0·955	112·5	175·0	−20·3	8	32	
		3604*c*	0·980	110·2	168·6	−19·0	66	299	2413*c*
		3605*a*	0·986	116·2	167·5	−25·1	0	43	
July 4		Centre			(244·9)	(+3·5)	(198)	(1174)	(4633)
185·424	HA, FT		0·981	290·1	310·7	+20·4			122
			0·961	279·3	305·8	+ 9·9			140
			0·881	285·3	293·1	+15·1			140
		3592	0·753	250·1	278·0	−12·4	0	5	
		3593*a*	0·353	265·9	252·1	+ 1·8	3	8	
		3593	0·316	261·1	249·8	+ 0·5	0	2	
		3593*b*	0·291	261·7	248·4	+ 1·0	4	21	
		3597*a*	0·238	343·1	235·8	+16·6	7	25	
		3597	0·248	347·0	235·0	+17·4	3	7	
		3597	0·249	349·3	234·5	+17·6	0	2	
		3597	0·266	351·3	234·1	+18·7	1	6	
		3597	0·279	2·9	230·8	+19·6	0	5	
		3597	0·273	6·2	229·9	+19·2	0	28	
		3597*b*	0·280	11·9	228·2	+19·3	11	26	
		3598*a*	0·232	72·2	218·9	+ 7·5	12	58	
		3598	0·260	73·5	217·2	+ 7·6	0	19	
		3598	0·281	70·2	216·3	+ 8·8	0	3	
		3606	0·587	123·9	201·3	−16·0	0	8	
		3603*a*	0·691	114·0	191·4	−13·7	4	12	
		3603	0·718	113·0	189·0	−13·7	0	4	97*c*
		3603	0·718	112·0	188·8	−13·0	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 3600, July 3. A very small spot.
Group 3601, July 3. A pair of very small spots.
Group 3602, July 3. A very small spot *nf* Group 3597.
Group 3603, July 3–9. A small regular spot, *a*, with occasionally one or two very small companions.
Group 3604, July 3–16. A group consisting chiefly of two large regular spots, *a* and *c*, with a much smaller regular spot, *b*, between them. A few smaller spots are also seen from time to time. *b* has disappeared by July 8, *a* by July 10. and *c* remains alone by July 13.
Group 3605, July 4–11. An irregular spot, *a*, *sf* Group 3604*c*. A very small companion is seen on July 7. After that date, the group is a cluster of very small unstable spots.
Group 3606, July 5–13. A small faint spot on July 5. The group increases in size and complexity.

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).
1894.				°	°	°			
185d·424	HA, FT	3599*a*	0·694	75·4	188·4	+12·6	28	171	
		3599	0·729	78·1	185·3	+11·1	2	12	
		3599	0·748	78·8	183·6	+10·7	12	77	164*c*
		3599	0·761	77·0	182·6	+12·1	5	14	
		3599	0·787	77·4	180·1	+12·1	12	58	
		3604*a*	0·829	115·1	179·6	−18·4	32	211	
		3604*b*	0·871	115·6	175·1	−20·2	5	49	1031*c*
		3604*c*	0·916	112·6	168·5	−19·0	44	290	
		3605*a*	0·928	118·4	168·0	−24·7	6	32	
		3607	0·982	81·3	152·4	+ 9·2	0	39	
			0·871	120·5	176·5	−24·2			86
			0·926	86·7	163·9	+ 4·4			111
			0·938	99·8	163·0	− 7·9			199
July 5		Centre			(231·7)	(+3·5)	(191)	(1196)	(2090)
186·423	AW, CL		0·938	289·2	288·0	+19·3			199
			0·816	260·9	272·3	− 5·2			78
		3592	0·894	254·5	280·0	−12·1	0	9	195*c*
		3592	0·865	254·2	276·5	−11·7	0	11	
		3593*a*	0·568	267·7	252·9	+ 1·7	0	7	
		3593*b*	0·518	266·8	249·5	+ 1·5	0	4	
		3593	0·506	265·5	248·7	+ 0·9	0	8	
		3597*a*	0·376	307·0	236·7	+16·6	5	22	
		3597	0·367	313·4	234·7	+18·1	0	14	
		3597	0·347	310·3	234·5	+16·5	0	3	
		3597	0·335	325·1	230·2	+19·5	0	6	
		3597*b*	0·316	329·5	228·2	+19·4	0	16	
		3598*a*	0·072	355·4	218·8	+ 7·8	10	65	
		3606	0·416	142·5	203·3	−15·6	3	15	
		3606	0·431	138·3	201·3	−15·2	0	5	
		3608	0·358	75·3	198·1	+ 8·7	0	8	
		3609	0·520	131·5	194·6	−16·7	0	4	
		3603*a*	0·529	123·1	191·5	−13·4	2	7	
		3599*a*	0·512	71·3	188·8	+12·6	28	155	
		3599	0·540	73·9	186·6	+11·7	4	44	
		3599	0·550	76·0	185·7	+10·7	8	33	
		3599	0·555	73·0	185·7	+12·9	4	30	
		3599	0·566	74·6	184·8	+11·7	0	3	
		3599	0·572	73·6	184·5	+12·3	0	3	
		3599	0·577	75·7	183·9	+11·3	0	4	
		3599	0·593	73·9	183·0	+12·5	8	26	
		3599	0·596	72·2	182·9	+13·5	0	5	
1894.				°	°	°			
186d·423	AW, CL	3599	0·612	74·2	181·5	+12·6	0	8	
		3599	0·624	75·6	180·5	+11·8	0	6	
		3599*b*	0·638	74·7	179·6	+12·5	13	62	
		3604	0·688	120·6	180·3	−17·5	0	18	114*c*
		3604*u*	0·706	121·8	179·3	−18·9	28	128	
		3604*b*	0·744	120·8	175·9	−19·7	0	15	
		3604	0·780	115·7	171·3	−17·2	0	10	
		3604*c*	0·816	116·6	168·2	−19·0	33	247	301*c*
		3604	0·819	114·2	167·2	−17·3	0	41	
		3605*a*	0·837	122·6	167·9	−24·4	0	39	195*c*
		3607	0·922	81·4	151·3	+ 9·3	0	9	253*c*
		3610*a*	0·991	78·3	135·9	+12·1	18	171	209*c*
		3610*b*	0·992	82·0	135·4	+ 8·4	42	246	38*c*
			0·774	125·6	175·1	−24·0			115
			0·877	101·6	158·5	− 8·3			452
			0·982	71·4	141·0	+19·0			188
July 6		Centre			(218·5)	(+3·7)	(206)	(1507)	(2337)
187·422	AW, M		0·999	285·8	293·3	+15·9			1182
			0·917	305·4	269·2	+33·8			115
			0·874	288·4	265·7	+17·9			117
		3593*a*	0·746	269·3	253·4	+ 0·2	0	9	
		3597*a*	0·560	295·0	237·2	+16·9	8	24	
		3597	0·544	298·2	235·5	+18·1	0	6	
		3597	0·512	301·8	232·6	+19·0	0	3	
		3597*b*	0·458	307·3	227·9	+19·6	0	8	
		3597	0·436	310·0	226·0	+19·8	0	4	
		3598*a*	0·249	286·4	219·2	+ 7·7	10	45	
		3606	0·324	179·0	205·0	−15·0	17	58	
		3606	0·314	174·3	203·4	−14·3	0	9	
		3606	0·329	169·2	201·7	−15·0	0	21	
		3606	0·343	164·2	199·8	−15·4	0	3	
		3606	0·367	162·7	198·8	−16·6	4	16	
		3603*a*	0·374	142·5	191·8	−13·5	3	8	
		3603	0·406	139·0	189·4	−14·1	0	11	
		3599*a*	0·317	60·8	188·9	+12·5	38	178	
		3599	0·340	65·5	187·0	+11·7	6	51	
		3599	0·350	63·0	186·7	+12·7	1	4	
		3599	0·339	69·1	186·6	+10·5	4	13	
		3599	0·354	64·6	186·3	+12·3	0	5	
		3599	0·366	68·1	185·1	+11·4	0	10	
		3599	0·402	67·6	183·0	+12·3	17	82	

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 3607, July 5–8. A faint spot which has greatly diminished by July 6
Group 3608, July 6. A very small spot.
Group 3609, July 6. A very small spot.
Group 3610, July 6–18. A stream at right angles to the equator, consisting chiefly of two large spots, *a* and *b*, with several small faint companions. *a*, the more northern spot, has broken up into a number of small spots by July 12. These appear to unite again later, and have mostly coalesced with *b* by July 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).
1894.				°	°	°			
187d.422	AW, M	3599	0·411	69·9	182·2	+11·6	0	3	
		3599	0·422	68·6	181·7	+12·3	0	3	
		3599	0·433	69·4	180·9	+12·2	0	5	
		3599*b*	0·450	70·5	179·7	+12·0	14	122	
		3611	0·472	127·5	182·8	−13·1	0	7	
		3604	0·546	132·1	180·2	−18·0	2	12	
		3604*a*	0·570	133·0	179·2	−19·3	21	101	
		3604*b*	0·610	131·4	176·2	−20·4	0	7	
		3604	0·622	130·1	174·9	−20·3	0	3	
		3604	0·652	124·1	170·8	−18·3	0	19	1125*c*
		3604	0·675	121·0	168·8	−17·3	0	7	
		3604*c*	0·693	123·6	167·7	−19·5	44	306	
		3605*a*	0·725	130·5	168·0	−25·0	0	35	
		3605	0·717	127·4	167·3	−22·8	0	5	
		3607	0·810	81·7	151·3	+ 8·9	0	10	
		3612	0·914	72·4	139·5	+17·6	0	9	
		3610	0·925	81·1	137·5	+ 9·7	0	10	
		3610	0·933	77·3	136·3	+13·2	0	15	
		3610*a*	0·933	79·1	136·3	+11·5	18	130	1253*c*
		3610	0·935	81·3	136·0	+ 9·5	0	9	
		3610*b*	0·938	83·0	135·5	+ 7·9	42	292	
		3613*a*	0·986	80·6	124·7	+ 9·9	28	135	
			0·837	83·5	148·5	+ 7·5			116
			0·892	115·3	146·1	−20·4			266
			0·919	72·3	138·8	+17·7			171
			0·938	104·5	137·8	−12·2			142
July 7		Centre			(205·3)	(+3·8)	(277)	(1813)	(4487)
188·507	CL, FT		0·859	270·7	250·1	+ 2·6			179
		3597*a*	0·745	289·9	238·0	+17·3	2	17	
		3597	0·711	297·4	233·7	+21·9	0	6	
		3597*b*	0·646	298·5	228·3	+21·0	0	8	
		3598*a*	0·487	279·1	219·9	+ 7·8	11	45	
		3606*a*	0·406	219·1	206·3	−14·5	25	112	
		3606	0·409	216·3	205·5	−15·4	4	10	
		3606	0·394	211·7	203·4	−15·7	1	4	
		3606*b*	0·386	211·3	203·0	−15·4	6	24	
		3606	0·374	208·8	201·7	−15·3	0	10	
		3606	0·414	205·0	201·6	−18·1	1	5	
		3606	0·389	204·8	200·8	−16·7	1	6	
		3606*c*	0·382	201·3	199·3	−16·9	9	25	
		3603	0·332	185·2	192·8	−15·3	0	2	
1894.				°	°	°			
188d.507	CL, FT	3603*a*	0·302	183·8	192·2	−13·6	2	9	
		3599	0·177	4·9	190·1	+14·0	0	5	
		3599*a*	0·161	12·0	189·0	+12·9	35	166	
		3599	0·138	24·1	187·7	+11·1	1	3	
		3599	0·154	22·6	187·5	+12·0	6	18	
		3599	0·137	29·9	187·0	+10·7	1	4	
		3599	0·162	28·0	186·6	+12·1	4	45	
		3599	0·193	35·5	184·4	+12·9	0	2	
		3599	0·176	46·0	183·6	+10·8	0	2	
		3599	0·198	42·0	183·2	+12·3	15	52	
		3599	0·221	40·2	182·6	+13·6	1	7	
		3599	0·211	49·9	181·6	+11·7	8	22	
		3599*b*	0·238	53·2	179·8	+12·0	22	99	
		3599	0·278	53·8	177·7	+13·2	0	4	
		3614	0·185	76·7	180·6	+ 6·3	0	5	
		3614*a*	0·201	83·0	179·5	+ 5·2	1	8	
		3604	0·421	154·7	180·1	−18·4	0	8	
		3604*a*	0·440	153·9	179·2	−19·4	12	79	
		3604	0·423	146·7	177·0	−16·8	1	5	
		3604	0·434	146·9	176·7	−17·5	1	12	
		3604	0·455	148·0	176·3	−18·8	3	10	
		3604	0·500	140·4	171·4	−18·9	0	2	
		3604*c*	0·548	135·7	167·1	−19·5	57	293	
		3605*a*	0·593	142·9	167·9	−24·5	4	13	
		3607	0·648	81·6	150·8	+ 8·4	1	8	
		3610	0·813	81·1	136·7	+ 9·5	5	31	
		3610	0·823	76·3	135·9	+13·5	0	15	
		3610*a*	0·824	78·9	135·6	+11·4	37	195	
		3610*b*	0·826	83·2	135·4	+ 7·8	50	309	470*c*
		3610	0·830	80·9	135·0	+ 9·7	3	20	
		3610	0·844	78·2	133·6	+12·1	0	7	
		3610	0·847	79·6	133·2	+10·8	0	2	
		3610	0·856	81·3	132·1	+ 9·5	0	6	
		3613	0·907	79·4	125·8	+11·3	5	16	
		3613	0·919	83·9	124·2	+ 7·1	0	7	
		3613*a*	0·919	81·0	124·2	+ 9·8	26	184	738*c*
		3613	0·927	82·6	122·9	+ 8·3	1	8	
		3613	0·948	84·1	119·4	+ 6·8	3	13	
		3615	0·989	81·0	109·3	+ 9·4	0	28	141*f*
			0·790	119·1	143·9	−19·9			86
			0·824	107·9	137·8	−12·3			88
			0·946	103·9	121·5	−11·8			239
July 8		Centre			(191·0)	(+3·9)	(365)	(1996)	(1941)

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 3611, July 7. A very small spot.
Group 3612, July 7. A small spot.
Group 3613, July 7–18. A group following Group 3610, and consisting of a large regular spot, *a*, surrounded by a number of small companions.
Group 3614, July 8–12. A few faint spots, mostly very small, *s* Group 3599. The last spot, *a*, is the most stable.
Group 3615, July 8–12. A small spot *f* Group 3613.

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).
				°	°	°			
1894. 189d·642	AW,CL		0·964	270·9	250·3	+ 2·0			304
			0·793	250·5	225·7	−12·7			257
		3597*a*	0·882	287·0	237·5	+16·8	0	10	234*nf*
		3598*a*	0·692	276·7	219·6	+ 7·5	12	30	
		3606*a*	0·580	237·8	206·2	−14·5	16	113	
		3606*b*	0·534	232·9	202·0	−15·1	6	26	
		3606	0·536	230·0	201·2	−16·5	0	2	
		3606*c*	0·520	226·6	199·1	−17·2	10	45	
		3603	0·435	221·1	193·1	−15·3	0	4	
		3603*a*	0·401	222·2	191·9	−13·4	1	5	
		3603	0·386	218·2	190·1	−13·7	0	2	
		3599*a*	0·272	304·8	189·1	+12·8	26	161	
		3599	0·253	310·2	187·3	+13·3	0	3	
		3599	0·234	304·7	187·2	+11·5	5	41	
		3599	0·227	301·6	187·2	+10·7	0	3	
		3599	0·262	313·8	187·1	+14·3	0	3	
		3599	0·244	308·6	187·1	+12·7	0	6	
		3599	0·233	310·5	186·3	+12·6	0	1	
		3599	0·182	308·9	184·1	+10·5	0	5	
		3599	0·208	320·8	183·6	+13·2	0	2	
		3599	0·189	318·0	183·3	+12·0	13	45	
		3599	0·165	311·0	183·1	+10·2	2	6	
		3599	0·202	323·9	182·9	+13·3	2	11	
		3599	0·160	322·0	181·6	+11·2	4	18	
		3599	0·150	325·6	180·8	+11·1	0	6	
		3599*b*	0·157	333·0	180·1	+12·0	17	87	
		3614	0·133	287·2	183·2	+ 6·2	0	5	
		3614	0·116	288·5	182·2	+ 6·1	0	5	
		3614	0·069	299·0	179·4	+ 5·9	0	5	
		3614*a*	0·065	288·8	179·4	+ 5·2	3	9	
		3604*a*	0·396	187·0	178·8	−19·0	5	19	
		3604	0·363	180·1	175·8	−17·2	0	17	
		3604	0·444	165·9	169·3	−21·4	0	14	
		3604	0·449	165·0	168·9	−18·8	0	8	
		3604*c*	0·423	159·6	167·0	−19·3	67	275	
		3604	0·423	152·4	164·1	−18·0	0	5	
		3604	0·401	148·0	163·2	−15·9	0	3	
		3605*a*	0·505	163·4	166·8	−24·9	0	14	
		3610	0·629	78·9	137·3	+10·0	4	23	
		3610	0·636	73·3	137·2	+13·7	3	13	
		3610*a*	0·645	76·9	136·2	+11·4	17	115	
		3610*b*	0·642	82·2	136·1	+ 8·1	46	245	
		3610	0·646	78·5	136·0	+10·4	4	32	
		3610	0·668	77·1	134·4	+11·5	2	24	

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).
				°	°	°			
1894. 189d·642	AW,CL	3610	0·673	80·1	133·8	+ 9·6	0	5	
		3610	0·676	77·9	133·7	+11·1	0	6	
		3613	0·745	79·5	127·9	+10·5	0	5	
		3613	0·751	80·3	127·4	+ 9·9	0	8	
		3613	0·775	78·8	125·3	+11·2	0	4	
		3613	0·776	83·6	125·0	+ 7·5	0	6	
		3613*a*	0·780	80·3	124·8	+10·1	28	192	
		3613	0·796	81·5	123·2	+ 9·2	0	10	
		3613	0·797	82·8	123·1	+ 8·1	0	9	
		3613	0·799	83·8	122·9	+ 7·4	0	4	
		3613	0·826	83·9	120·2	+ 7·3	0	9	
		3615	0·911	80·9	110·1	+ 9·9	1	16	142*c*
			0·836	106·4	119·0	−17·2			144
			0·950	118·4	108·5	−25·4			576
			0·971	78·9	99·5	+11·7			225
July 9		Centre			(175·9)	(+4·0)	(294)	(1740)	(1882)
190·321	AW,FT		0·901	290·2	230·8	+20·0			593
			0·903	256·3	229·9	−10·6			306
I.			0·821	251·0	219·6	−13·1			158
			0·712	250·0	209·7	−11·1			56
		3598*a*	0·804	276·1	220·4	+ 7·3	6	30	170*c*
		3606*a*	0·694	243·5	206·7	−14·9	26	115	98*c*
		3606*b*	0·647	240·4	202·5	−15·4	10	33	
		3606*c*	0·631	235·2	199·7	−17·7	0	25	
		3599*a*	0·405	292·5	189·3	+12·6	41	166	
		3599	0·377	290·4	187·9	+11·3	3	16	
		3599	0·322	291·9	184·5	+10·7	0	5	
		3599	0·315	296·8	183·5	+12·0	6	32	
		3599	0·319	302·2	183·0	+13·6	0	4	
		3599	0·282	297·5	181·6	+11·3	0	19	
		3599*b*	0·271	301·0	180·6	+11·9	29	108	
		3614	0·228	283·0	179·8	+ 6·9	0	5	
		3614*a*	0·215	275·2	179·3	+ 5·0	5	24	
		3604	0·432	202·4	176·9	−19·5	0	25	
		3604*c*	0·400	180·0	166·9	−19·5	64	283	
		3605*a*	0·497	180·3	167·1	−25·7	0	13	
		3610	0·509	70·0	137·6	+13·5	0	8	
		3610	0·506	77·3	137·0	+ 9·9	3	20	
		3610	0·515	73·5	136·7	+11·9	7	18	
		3610	0·524	71·9	136·3	+12·8	0	4	
		3610	0·520	76·6	136·1	+10·4	7	37	
		3610*b*	0·516	81·4	136·0	+ 7·9	46	187	

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).
1894.				°	°	°			
190d·321	AW,FT	3610*a*	0·528	74·4	135·8	+11·0	23	73	
		3610	0·526	79·0	135·5	+ 9·2	7	30	
I.		3610	0·547	75·0	134·4	+11·5	8	46	
		3610	0·554	76·6	133·8	+10·7	0	15	
		3613	0·638	79·4	127·5	+ 9·9	0	6	
		3613	0·647	78·1	127·0	+10·7	0	3	
		3613	0·660	77·7	126·0	+11·1	0	7	199*c*
		3613*a*	0·678	79·2	124·5	+10·2	32	185	
		3613	0·692	83·2	123·2	+ 7·6	0	12	
		3613	0·701	82·2	122·5	+ 8·4	0	12	
		3615	0·836	80·5	110·2	+10·2	2	13	143*c*
		3616*a*	0·981	101·4	89·3	−10·9	14	77	114*c*
			0·877	102·4	107·0	− 8·8			373
			0·921	114·4	103·4	−20·6			315
			0·931	78·5	98·2	+12·2			458
July 10		Centre			(166·9)	(+4·0)	(339)	(1656)	(2983)
191·427	AW,M		0·972	290·4	229·2	+20·9			335
			0·942	256·1	221·1	−11·6			308
			0·912	278·3	218·2	+ 9·3			318
			0·869	240·0	207·1	−23·3			111
			0·819	283·8	207·0	+13·7			98
			0·774	267·2	202·7	+ 0·5			120
			0·755	240·3	196·0	−18·9			664
		3606*a*	0·843	249·5	206·8	−14·7	11	88	485*c*
		3606*b*	0·800	247·9	202·2	−14·8	4	6	
		3617	0·694	257·1	195·0	− 5·8	1	3	
		3599*a*	0·612	285·2	189·4	+12·8	27	162	
		3599	0·595	283·3	188·3	+11·3	3	6	
		3599	0·591	285·6	187·8	+12·5	2	11	
		3599	0·589	289·0	187·3	+14·5	1	6	
		3599	0·568	281·7	186·5	+10·0	0	6	
		3599	0·540	289·5	183·8	+14·0	0	2	
		3599	0·538	288·2	183·8	+13·2	0	3	
		3599	0·529	285·8	183·5	+11·8	5	19	
		3599	0·521	289·5	182·5	+13·6	0	1	
		3599	0·506	284·8	182·1	+11·0	0	11	
		3599	0·511	288·5	182·0	+13·0	3	9	
		3599	0·504	286·8	181·7	+12·0	2	6	
		3599	0·501	285·6	181·7	+11·4	1	6	
		3599*b*	0·490	287·3	180·8	+12·1	16	89	
		3599	0·479	284·0	180·4	+10·3	0	4	
		3618	0·609	239·1	184·9	−14·6	1	11	

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).
1894.				°	°	°			
191d·427	AW,M	3614	0·497	271·9	182·1	+ 4·6	0	4	
		3614*a*	0·454	273·3	179·3	+ 5·2	0	2	
		3604	0·532	228·4	176·8	−16·8	0	5	
		3604	0·539	226·5	176·5	−17·9	0	4	
		3604	0·558	223·8	176·4	−19·8	0	2	
		3604	0·506	208·0	167·1	−22·4	0	3	
		3604*c*	0·464	211·2	167·0	−19·2	52	296	
		3604	0·496	207·6	166·6	−21·9	0	2	
		3604	0·485	208·2	166·5	−21·2	0	1	
		3605*a*	0·535	207·3	167·8	−24·2	0	5	
		3619	0·124	322·0	156·7	+ 9·8	0	6	
		3620	0·183	40·3	145·4	+12·2	0	9	
		3621*a*	0·312	38·6	140·5	+18·2	5	17	
		3621*b*	0·342	43·6	138·0	+18·4	0	8	
		3622	0·324	133·6	138·6	− 8·8	0	6	
		3622	0·339	134·0	138·1	− 9·5	0	4	
		3622	0·351	134·4	137·6	−10·1	4	11	
		3622	0·360	133·7	137·0	−10·3	0	2	
		3622	0·356	131·5	136·7	− 9·5	2	4	
		3622	0·366	128·4	135·5	− 9·1	0	4	
		3622	0·389	127·6	134·2	− 9·7	2	14	
		3610	0·288	56·5	138·1	+13·2	0	7	
		3610	0·264	68·5	137·9	+ 9·6	0	2	
		3610	0·292	63·7	136·9	+11·4	3	13	
		3610	0·289	67·7	136·6	+10·3	6	22	
		3610*a*	0·300	66·0	136·2	+11·0	11	17	
		3610*b*	0·286	76·6	136·1	+ 7·8	38	208	
		3610	0·308	63·0	136·1	+12·1	0	14	
		3610	0·302	68·7	135·8	+10·3	2	11	
		3610	0·296	72·5	135·8	+ 9·1	9	20	
		3610	0·311	67·0	135·4	+11·0	4	6	
		3610	0·316	69·4	134·9	+10·4	2	13	
		3610	0·332	70·3	133·9	+10·4	0	3	
		3610	0·341	69·3	133·4	+10·9	0	2	
		3610	0·366	66·7	132·3	+12·2	0	5	
		3613	0·465	71·8	125·6	+12·1	0	2	
		3613*a*	0·481	76·8	124·0	+10·0	30	168	
		3613	0·478	82·9	123·9	+ 7·1	0	12	
		3613	0·500	82·0	122·5	+ 7·7	0	6	
		3615	0·679	79·7	109·8	+10·1	4	6	
		3623	0·807	118·1	103·4	−19·6	0	8	
		3623	0·807	117·0	103·1	−18·7	0	6	243*c*
		3623	0·813	116·4	102·3	−18·5	5	17	
		3623	0·832	117·1	100·6	−19·6	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 3616. July 10–15. A large regular spot, *a*, which diminishes very rapidly. A very small companion is seen on July 13.
Group 3617, July 11. A very small spot.
Group 3618, July 11. A small spot.
Group 3619. July 11. A very small spot.
Group 3620, July 11. A small spot.
Group 3621, July 11–13. Two small spots, *a* and *b*, on July 11 and 12. *a* alone is seen on July 13.
Group 3622, July 11–18. A number of spots, mostly very small, in an irregular group on July 11. The group has expanded by July 12 into a short broad stream, of which *a*, a large regular spot, is the leader.
Group 3623, July 11–14. A number of spots, mostly very small. Some of these have coalesced on July 18 to form an irregular composite 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).
				°	°	°			
1894. 191d.427	AW, M	3616*a*	0·909	104·6	88·7	−11·2	16	122	
		3624*a*	0·969	101·5	77·9	−10·0	38	150	
		3624*b*	0·976	105·2	76·6	−13·8	90	364	446*c*
		3624	0·984	102·1	73·9	−11·1	18	61	
		3625	0·963	75·1	77·5	+15·5	0	5	104*s*
			0·796	129·0	108·5	−27·0			505
			0·897	113·9	92·2	−19·2			136
			0·887	78·8	89·7	+11·8			238
			0·932	95·5	84·2	− 3·6			78
			0·948	108·2	83·2	−15·7			157
			0·949	65·6	80·9	+24·4			48
			0·983	113·3	75·7	−21·9			134
July 11		Centre			(152·3)	(+4·2)	(418)	(2131)	(4528)
192·421	CL, FT		0·924	281·7	206·8	+12·5			211
			0·887	275·1	201·7	+ 6·5			108
			0·866	254·3	197·1	−11·3			158
			0·866	246·0	195·3	−18·2			452
			0·838	238·4	189·9	−23·3			97
			0·755	250·0	185·4	−12·0			204
		3606*a*	0·938	252·5	206·6	−14·8	8	57	157*c*
		3606*b*	0·911	251·7	202·3	−14·7	0	5	
		3599*a*	0·772	282·8	189·4	+12·6	32	159	314*c*
		3599	0·755	282·8	187·8	+12·4	4	12	
		3599	0·711	280·7	184·2	+10·6	0	5	
		3599	0·708	282·4	183·9	+11·8	0	5	
		3599	0·686	280·9	182·2	+10·6	1	8	
		3599	0·685	282·5	182·0	+11·7	0	3	
		3599*b*	0·675	283·4	181·1	+12·1	17	81	
		3614	0·674	274·6	181·5	+ 6·8	0	6	
		3614	0·651	270·4	179·6	+ 3·5	0	11	
		3604	0·663	236·2	174·4	−18·1	0	6	
		3604	0·682	232·7	174·4	−20·8	0	4	
		3604*c*	0·589	228·9	167·0	−18·9	47	253	
		3604	0·607	226·2	167·0	−21·0	1	5	
		3621*a*	0·244	349·4	141·8	+18·1	3	9	
		3621*b*	0·240	4·7	137·9	+18·1	0	13	
		3622*a*	0·257	179·5	139·0	−10·6	25	102	
		3622	0·240	176·6	138·3	− 9·5	2	10	
		3622	0·256	171·3	136·8	−10·3	2	9	
		3622	0·255	168·0	136·0	−10·1	1	3	
		3622	0·240	165·4	135·6	− 9·1	1	3	
		3622	0·254	165·1	135·3	− 9·9	8	33	

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).
				°	°	°			
1894. 192d.421	CL, FT	3622	0·263	160·0	133·9	−10·0	18	55	
		3610	0·093	10·8	138·1	+ 9·6	0	5	
		3610	0·104	16·2	137·4	+10·0	0	12	
		3610	0·119	18·1	137·0	+10·7	3	5	
		3610	0·137	14·9	137·0	+11·8	1	11	
		3610	0·100	24·0	136·7	+ 9·6	0	2	
		3610	0·128	19·8	136·6	+11·2	4	[illegible]	
		3610*b*	0·080	35·3	136·4	+ 8·1	29	2[illegible]	
		3610	0·099	30·6	136·2	+ 9·2	6	[illegible]	
		3610	0·135	23·0	135·6	+12·4	2	[illegible]	
		3610	0·129	29·4	135·4	+10·7	1	[illegible]	
		3610	0·154	29·4	134·7	+12·0	1	9	
		3610	0·173	28·6	134·2	+13·0	0	3	
		3610	0·135	43·7	133·7	+ 9·8	0	3	
		3610	0·149	44·3	133·0	+10·4	1	4	
		3613	0·247	56·2	127·0	+12·1	1	3	
		3613	0·246	79·1	125·1	+ 6·8	0	5	
		3613	0·257	70·8	124·9	+ 9·0	0	1	
		3613*a*	0·278	68·5	123·9	+10·0	28	161	
		3613	0·269	79·1	123·7	+ 7·1	0	2	
		3613	0·289	79·0	122·6	+ 7·3	2	9	
		3613	0·305	78·0	121·7	+ 7·7	0	2	
		3626	0·362	143·8	126·5	−12·7	0	2	
		3627	0·413	133·2	124·3	−15·1	0	2	
		3615	0·494	77·0	110·0	+10·1	1	5	
		3623	0·674	125·1	103·6	−19·2	1	11	
		3623	0·676	123·4	102·8	−18·4	9	65	
		3623	0·690	124·2	102·0	−19·4	0	1	96*c*
		3623	0·689	123·2	101·8	−18·7	4	18	
		3623	0·707	123·1	100·4	−19·3	0	5	
		3616*a*	0·792	107·5	89·0	−11·0	19	8[illegible]	
		3624*a*	0·893	103·7	77·5	−10·2	48	[illegible]	
		3624*b*	0·907	107·3	76·3	−13·7	70	[illegible]	
		3624	0·902	101·6	76·0	− 8·5	7	[illegible]	996*c*
		3624	0·920	103·5	73·8	−10·6	19	[illegible]	
		3628	0·961	102·5	66·6	−10·7	9	66	
		3628*a*	0·965	104·4	66·0	−12·7	22	57	
		3629*a*	0·995	81·9	54·6	+ 8·5	0	111	
		3630	0·999	100·9	52·8	−10·6	0	150	
			0·737	78·1	91·9	+11·7			78
			0·809	115·4	87·6	−17·5			175
			0·859	111·3	83·0	−15·8			200
			0·868	75·3	79·0	+14·9			74
July 12		Centre			(139·1)	(+4·3)	(458)	(2738)	(3320)

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 3624, July 11–23. A fine group, the major axis of which is nearly perpendicular to the equator on July 11. The group consists of two large spots, *a* and *b*, and a number of small unstable companions.
Group 3625, July 11. A very small spot.
Group 3626, July 12–13. A very small spot on July 12. A wide pair of very small spots on July 13.
Group 3627, July 12. A very small spot.
Group 3628, July 12–21. A few spots, mostly very small, irregularly scattered, *sf* Group 3624. *a*, the last spot on July 12, is the largest. It has become the leader by July 16, through the disappearance of the preceding spots, and the formation of fresh spots following it.
Group 3629, July 12–24. A large regular spot, *a*, which undergoes considerable change. A number of small spots, arranged in a spiral form, proceed from the *f* side of *a* on July 15, but have disappeared again by July 21.
Group 3630, July 12–24. A considerable irregular stream of spots which 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).
1894.				°	°	°			
193d.422	AR,AW		0·920	257·9	191·4	− 9·3			228
			0·927	248·9	190·9	−17·6			572
			0·880	264·9	187·0	− 2·4			111
			0·820	273·6	181·0	+ 5·5			101
			0·825	242·3	176·6	−19·7			814
			0·911	188·2	140·9	−59·9			76
		3606*a*	0·990	254·6	206·0	−14·5	0	54	
		3599*a*	0·894	281·9	189·4	+12·6	22	160	662*c*
		3599*b*	0·827	281·8	181·6	+12·2	11	72	
		3604*c*	0·729	239·1	167·0	−18·6	33	257	364*c*
		3621*a*	0·362	310·6	142·6	+17·8	0	3	
		3622*a*	0·350	223·3	140·0	−10·4	26	167	
		3622	0·326	221·8	138·6	− 9·7	3	15	
		3622	0·325	219·1	137·9	−10·2	2	10	
		3622	0·286	219·6	136·5	− 8·3	0	4	
		3622	0·311	213·1	135·8	−10·7	0	2	
		3622	0·320	210·6	135·4	−11·5	0	7	
		3622	0·326	209·1	135·2	−12·1	0	6	
		3622	0·283	211·4	134·5	− 9·6	25	126	
		3622	0·287	206·4	133·3	−10·5	3	26	
		3610	0·285	295·7	141·0	+11·4	0	3	
		3610	0·289	298·1	140·9	+12·0	0	2	
		3610	0·251	292·1	139·5	+ 9·7	1	6	
		3610	0·248	294·5	139·1	+10·2	0	5	
		3610	0·228	272·3	139·1	+ 4·8	0	11	
		3610	0·237	297·9	138·2	+10·7	4	25	
		3610	0·208	279·0	137·8	+ 6·2	0	2	
		3610*b*	0·201	289·9	136·9	+ 8·2	49	309	
		3610	0·192	279·6	136·8	+ 6·2	0	3	
		3610	0·211	298·1	136·7	+10·0	0	4	
		3610	0·220	302·8	136·7	+11·1	3	16	
		3610	0·185	297·7	136·5	+ 5·8	1	3	
		3610	0·207	303·6	136·0	+10·9	2	4	
		3610	0·173	282·1	135·7	+ 6·4	0	3	
		3610	0·172	278·1	135·7	+ 5·8	0	7	
		3610	0·197	310·3	134·7	+11·7	1	9	
		3610	0·174	311·1	133·6	+10·9	0	9	
		3610	0·176	313·9	133·3	+11·3	0	2	
		3613	0·056	33·2	124·1	+ 7·1	0	3	
		3613*a*	0·103	18·9	124·0	+10·0	18	129	
		3613	0·067	42·6	123·2	+ 7·3	1	6	
		3613	0·106	48·5	121·3	+ 8·4	0	12	
		3613	0·118	58·7	120·1	+ 7·9	0	3	
		3613	0·147	65·0	118·2	+ 8·0	0	7	
1894.				°	°	°			
193d.422	AR,AW	3631	0·329	7·7	123·2	+23·3	0	4	
		3626	0·265	177·8	125·3	−10·9	0	6	
		3626	0·283	161·9	120·8	−11·2	0	6	
		3623	0·532	142·8	105·8	−20·9	0	3	
		3623	0·547	139·1	103·5	−20·3	1	6	
		3623	0·544	137·1	102·9	−19·4	0	6	
		3623	0·541	136·1	102·6	−18·8	2	20	
		3623	0·534	134·7	102·5	−18·0	4	6	
		3623	0·538	134·6	102·2	−18·1	0	5	
		3623	0·563	137·9	102·2	−20·6	0	1	
		3623	0·551	135·1	101·7	−18·9	2	12	
		3623	0·561	136·3	101·7	−19·8	0	1	
		3623	0·545	133·7	101·5	−18·1	0	3	
		3623	0·570	137·0	101·5	−20·6	2	11	
		3623	0·549	133·7	101·3	−18·3	0	5	
		3623	0·565	131·3	99·5	−17·9	0	2	
		3616	0·630	113·4	90·0	−10·9	1	4	
		3616*a*	0·642	112·8	89·0	−10·9	9	72	
		3624	0·784	114·9	78·3	−16·3	6	44	
		3624*a*	0·769	107·4	77·8	−10·4	45	271	
		3624*b*	0·795	111·0	76·3	−13·7	74	398	326*c*
		3624	0·790	106·3	75·7	−10·0	0	28	
		3624	0·800	106·1	74·8	−10·1	4	19	
		3624	0·807	106·9	74·3	−10·8	5	56	
		3628	0·860	106·0	68·6	−11·4	3	12	
		3628	0·867	106·1	67·9	−11·5	1	5	539*c*
		3628*a*	0·879	107·0	66·6	−12·7	12	48	
		3629*a*	0·943	83·0	55·2	+ 8·1	13	92	280*c*
		3630	0·962	102·0	53·1	−10·3	36	174	483*c*
		3630	0·987	101·9	46·4	−11·0	4	57	
		3632	0·976	107·4	50·6	−15·9	0	9	
			0·880	117·2	69·0	−21·3			232
			0·868	78·2	65·7	+12·4			106
			0·899	78·3	61·8	+12·4			84
			0·973	105·9	51·1	−14·4			247
			0·975	75·4	48·2	+15·2			79
July 13		Centre			(125·9)	(+4·4)	(429)	(2878)	(5304)
194·500	CL,FT		0·945	273·9	182·6	+ 5·2			83
			0·928	248·0	176·5	−18·4			662
			0·898	280·0	175·6	+11·0			137

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 3631, July 13. A very small spot.
Group 3632, July 13–17. 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).
				°	°	°			
1894. 194d·500	CL,FT		0·808	251·6	163·0	−12·0			77
		3599*a*	0·973	281·9	188·7	+12·6	21	155	500*c*
		3599*b*	0·940	281·1	181·9	+12·0	14	81	
		3604*c*	0·861	245·2	167·0	−18·6	33	232	566*s*
		3622*a*	0·525	242·3	139·7	−10·1	39	262	
		3622	0·507	239·8	138·0	−10·7	3	12	
		3622	0·475	239·5	136·0	− 9·8	0	6	
		3622	0·480	235·7	135·4	−11·5	4	23	
		3622	0·458	239·9	135·2	− 9·1	7	21	
		3622	0·453	236·2	134·0	−10·4	3	16	
		3622	0·438	238·2	133·7	− 9·1	9	45	
		3622	0·445	234·6	133·2	−10·7	0	6	
		3610	0·478	280·2	139·9	+ 8·8	13	47	
		3610	0·459	283·0	138·5	+10·0	10	151	
		3610*b*	0·432	280·1	137·0	+ 8·4	69	360	
		3610	0·435	290·9	136·1	+13·0	0	3	
		3610	0·410	289·5	134·8	+12·0	1	9	
		3610	0·394	288·7	133·9	+11·4	1	17	
		3613	0·270	300·2	125·3	+12·2	0	3	
		3613*a*	0·238	294·5	124·2	+10·0	25	116	
		3613	0·221	281·1	124·2	+ 6·8	0	19	
		3613	0·222	291·8	123·6	+ 9·2	0	4	
		3613	0·177	288·8	121·3	+ 7·7	0	31	
		3623	0·411	159·2	102·8	−18·1	1	47	
		3616*a*	0·452	124·1	89·3	−10·5	9	31	
		3624*a*	0·594	113·9	78·2	−10·1	48	256	
		3624	0·608	110·3	76·5	− 8·5	8	24	
		3624*b*	0·635	117·8	76·5	−13·5	69	332	
		3624	0·629	113·5	75·8	−10·8	3	6	
		3624	0·642	112·2	74·6	−10·4	4	21	
		3628	0·705	111·5	69·7	−11·6	3	10	
		3628	0·716	112·2	69·0	−12·4	0	3	
		3628	0·717	111·2	68·7	−11·7	0	5	
		3628*a*	0·738	111·3	67·0	−12·4	8	31	
		3629*a*	0·825	83·5	56·0	+ 8·0	15	104	165*nf*
		3630	0·857	102·6	54·1	− 8·3	0	27	665*c*
		3630	0·864	104·5	53·6	−10·1	28	156	
		3630	0·880	103·4	51·6	− 9·5	4	28	
		3630	0·915	103·6	47·1	−10·5	18	75	
		3632	0·896	110·5	50·9	−16·1	3	16	
		3633	0·947	77·4	40·0	+13·4	0	7	80*c*
			0·791	87·6	59·4	+ 4·7			69
			0·929	74·5	43·2	+16·0			130
July 14		Centre			(111·6)	(+4·5)	(473)	(2798)	(3134)

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. Group
				°	°	°			
1894. 195d·208	AW,FT		0·963	282·8	177·0	+13·5			432
			0·970	246·9	175·0	−21·1			387
I.			0·909	254·6	165·6	−12·0			161
			0·870	265·8	162·2	− 1·4			193
			0·860	277·7	161·6	+ 8·9			104
			0·769	238·1	146·3	−20·8			84
		3604*c*	0·929	247·2	167·1	−19·2	44	209	738*s*
		3622*a*	0·654	248·2	140·2	−10·4	46	246	
		3622	0·643	246·5	139·0	−11·3	0	7	
		3622	0·636	245·8	138·3	−11·4	2	12	
		3622	0·630	246·7	138·2	−10·8	5	25	
		3622	0·621	245·5	137·2	−11·2	1	9	
		3622	0·605	245·7	136·2	−10·6	0	1	
		3622	0·600	246·8	136·1	− 9·9	1	5	
		3622	0·602	242·4	135·2	−12·4	8	35	
		3622	0·587	245·9	135·0	−10·0	5	43	
		3622	0·581	242·9	133·9	−11·5	1	7	
		3622	0·569	245·3	133·7	− 9·9	10	33	
		3610	0·614	277·7	140·0	+ 8·3	17	78	
		3610	0·593	280·2	138·3	+ 9·6	36	210	
		3610	0·582	271·5	137·8	+ 4·5	0	1	
		3610*b*	0·574	277·3	137·1	+ 7·8	66	274	
		3610	0·566	272·9	136·6	+ 5·4	0	8	
		3613*a*	0·386	285·2	124·3	+10·0	32	116	
		3613	0·374	282·9	123·8	+ 9·0	1	5	
		3613	0·369	292·5	122·5	+12·3	0	2	
		3616*a*	0·347	139·3	88·9	−10·8	2	8	
		3624*a*	0·481	121·4	77·6	−10·4	45	212	
		3624	0·484	116·6	76·4	− 8·4	1	5	
		3624	0·540	118·2	76·1	−10·8	0	1	
		3624	0·493	116·1	75·7	− 8·5	1	10	
		3624*b*	0·532	125·0	75·7	−13·7	80	317	
		3624	0·513	120·4	75·5	−11·0	5	10	
		3624	0·524	118·5	74·4	−10·4	4	16	
		3624	0·562	122·0	73·0	−13·4	1	4	
		3624	0·570	122·4	72·6	−13·8	0	2	
		3624	0·565	120·7	72·4	−12·8	0	3	
		3628	0·594	116·7	69·5	−11·7	1	4	
		3628	0·609	116·8	68·5	−12·2	0	6	
		3628*a*	0·635	115·5	66·4	−12·2	10	39	
		3629*a*	0·728	83·6	55·5	+ 7·8	21	89	120*c*
		3629	0·743	83·0	54·2	+ 8·2	0	8	
		3629	0·748	81·8	53·8	+ 9·1	2	17	
		3630	0·762	106·2	54·6	− 9·2	12	33	

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 3633, July 14–17. One or two very small unstable spots. The group is not seen on July 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).
1894.				°	°	°			
195d·208	AW,FT	3630	0·767	105·1	53·9	− 8·5	8	28	
		3630	0·788	107·0	52·4	−10·4	40	157	
I.		3630	0·796	105·1	51·3	− 9·1	0	10	
		3630	0·810	106·9	50·3	−10·9	0	6	243c
		3630	0·848	105·9	46·3	−10·9	17	61	
		3632	0·827	113·7	50·1	−16·7	2	14	54c
			0·920	125·1	42·3	−29·8			92
			0·920	113·7	38·9	−19·7			341
			0·889	75·1	35·2	+21·4			244
			0·963	61·3	27·9	+28·8			92
July 15		Centre			(102·2)	(+4·5)	(527)	(2386)	(3285)
196·325	CL,HA		0·963	254·9	159·9	−13·2			190
			0·924	278·2	155·1	+ 9·3			338
M.		3604c	0·988	250·3	166·1	−18·6	27	182	232sf
		3634	0·988	243·0	164·9	−25·7	10	102	460f
		3622	0·818	255·3	140·5	− 9·2	1	12	
		3622a	0·821	253·4	140·4	−10·8	24	136	354c
		3622	0·800	253·2	138·4	−10·5	7	43	
		3622	0·797	250·9	137·6	−12·1	0	5	
		3622	0·791	251·9	137·3	−11·3	3	18	
		3622	0·785	251·0	136·5	−11·8	3	15	
		3622	0·771	253·1	135·7	− 9·9	7	51	
		3622	0·770	250·8	135·2	−11·6	7	14	
		3622	0·782	246·2	135·1	−15·3	0	7	
		3622	0·753	250·7	133·7	−11·2	1	6	
		3622	0·746	252·7	133·5	− 9·6	7	13	
		3610	0·800	275·4	140·6	+ 7·1	1	5	
		3610	0·791	277·2	139·7	+ 8·5	13	34	
		3610	0·789	279·6	139·5	+10·4	2	12	305c
		3610b	0·770	278·0	137·8	+ 9·1	91	473	
		3613a	0·602	281·0	124·2	+10·3	20	77	
		3624	0·280	144·9	78·1	− 8·6	0	3	
		3624a	0·306	147·0	77·7	−10·3	54	224	
		3624	0·282	142·2	77·4	− 8·3	4	21	
		3624	0·324	142·9	76·0	−10·4	0	4	
		3624	0·306	139·2	75·8	− 8·9	1	8	
		3624b	0·371	146·7	75·4	−13·5	71	276	
		3624	0·412	145·6	73·5	−15·4	3	14	
		3624	0·435	146·0	72·8	−16·6	3	18	
		3624	0·387	139·7	72·6	−12·8	1	5	
		3624	0·400	141·0	72·5	−13·6	1	3	
		3628a	0·447	129·8	66·9	−12·3	7	22	

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).
1894.				°	°	°			
196d·325	CL,HA	3628	0·461	131·9	66·8	−13·6	1	3	
		3628	0·473	132·2	66·3	−14·1	0	1	
M.		3628	0·508	132·8	64·7	−15·9	0	3	
		3629	0·494	84·7	57·8	+ 6·6	0	3	
		3629	0·513	80·1	56·7	+ 9·1	1	6	
		3629	0·513	85·9	56·6	+ 6·0	6	19	
		3629a	0·522	83·0	56·0	+ 7·6	18	131	
		3629	0·534	85·5	55·2	+ 6·3	6	26	140c
		3629	0·543	77·4	54·9	+10·7	2	7	
		3629	0·541	83·7	54·7	+ 7·3	2	12	
		3629	0·551	84·4	54·0	+ 6·9	0	9	
		3629	0·559	78·2	53·7	+10·4	6	11	
		3629	0·560	81·1	53·5	+ 8·8	4	18	
		3630	0·574	113·2	55·2	− 9·2	14	48	
		3630	0·598	111·5	53·3	− 8·9	1	3	
		3630	0·623	113·4	52·0	−10·6	18	98	
		3630	0·637	111·1	50·5	− 9·6	0	6	
		3630	0·650	113·3	50·1	−11·2	4	16	
		3630	0·647	111·8	49·9	−10·3	1	7	
		3630	0·660	115·1	49·8	−12·6	0	3	
		3630	0·690	111·1	46·6	−10·9	5	15	
		3632	0·671	120·9	50·7	−16·4	4	7	70c
		3635	0·769	115·9	41·4	−16·5	3	9	185s
		3633	0·751	76·0	39·1	+13·5	0	7	
		3633	0·764	74·7	38·0	+14·6	0	8	
		3633	0·766	76·8	37·6	+13·0	0	7	
		3636	0·946	124·6	22·8	−30·6	0	8	90f
			0·910	56·4	23·8	+32·4			177
July 16		Centre			(87·4)	(+4·6)	(465)	(2294)	(2541)
197·573	AW,M		0·946	245·9	138·3	−20·9			163
			0·881	287·7	132·5	+17·8			191
		3622a	0·947	257·2	140·6	−10·5	24	194	
		3622	0·939	258·3	139·3	− 9·2	0	24	
		3622	0·918	255·3	135·7	−11·5	7	17	752c
		3622	0·916	255·2	135·5	−10·6	0	7	
		3622	0·914	257·3	135·4	− 9·6	0	64	
		3610	0·930	277·6	139·5	+ 8·8	0	34	
		3610b	0·917	278·2	137·6	+ 9·4	91	565	951c
		3613a	0·799	279·7	123·9	+10·6	13	88	416c
		3624a	0·289	205·9	78·2	−10·4	56	241	
		3624b	0·323	193·8	75·4	−13·5	63	307	
		3624	0·346	190·1	74·5	−15·1	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 3634, July 16. A large spot, first seen close to the West limb.
Group 3635, July 16–24. A few small unstable spots *sf* Group 3630, irregularly arranged. The group is not seen on July 22.
Group 3636, July 16–17. 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).
1894.				°	°	°			
197d.573	AW,M	3624	0·323	186·6	73·1	−13·9	0	3	
		3624	0·355	185·8	73·0	−15·9	2	22	
		3624	0·303	186·3	72·8	−12·8	0	7	
		3624	0·292	180·8	71·1	−12·3	0	6	
		3628	0·288	173·4	69·0	−11·8	0	2	
		3628	0·315	169·8	67·6	−13·3	0	9	
		3628*a*	0·297	168·2	67·4	−12·1	4	18	
		3629	0·217	85·1	58·4	+ 5·6	0	4	
		3629*a*	0·244	79·3	57·0	+ 7·1	28	167	
		3629	0·252	88·8	56·3	+ 4·8	0	2	
		3629	0·254	85·7	56·2	+ 5·6	9	59	
		3629	0·280	83·8	54·7	+ 6·3	0	13	
		3629	0·298	69·3	54·5	+10·5	4	9	
		3629	0·291	79·5	54·2	+ 7·5	1	6	
		3629	0·305	72·6	53·8	+ 9·7	8	23	
		3629	0·320	79·9	53·1	+10·5	0	8	
		3630	0·351	135·7	56·6	− 9·9	14	63	
		3630	0·370	129·7	54·2	− 9·2	9	54	
		3630	0·390	133·1	54·1	−10·8	7	48	
		3630	0·409	130·0	52·4	−10·7	5	41	
		3630	0·435	133·4	52·1	−12·9	0	3	
		3630	0·426	131·6	52·0	−12·0	5	39	
		3630	0·401	126·2	51·8	− 9·2	0	1	
		3630	0·423	127·2	51·0	−10·4	11	40	
		3630	0·442	128·7	50·4	−11·5	0	12	
		3632	0·485	138·0	51·2	−16·6	0	3	
		3635	0·561	128·3	43·7	−16·1	2	11	
		3633	0·551	71·2	38·5	+14·2	0	3	
		3636	0·839	131·8	24·4	−30·7	0	4	180*f*
		3637*a*	0·940	77·6	0·6	+13·3	25	157	
		3637*b*	0·962	78·9	356·4	+12·0	35	201	
		3638*a*	0·996	76·0	345·1	+14·4	26	271	537*c*
			0·765	136·2	33·4	−29·7			71
			0·826	53·0	19·5	+32·7			176
			0·918	62·4	5·1	+27·1			83
			0·949	114·9	3·1	−21·8			133
July 17		Centre			(70·9)	(+4·7)	(449)	(2852)	(3653)
198·527	M,FT		0·859	238·8	111·4	−23·6			141
			0·818	231·2	104·1	−27·5			121
			0·740	234·8	98·7	−21·6			149

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).
1894.				°	°	°			
198d.527	M,FT	3622*a*	0·993	258·5	140·3	−10·8	20	168	785*f*
		3610*b*	0·981	277·6	137·5	+ 8·4	98	367	} 907*c*
		3610	0·980	280·8	137·3	+11·6	0	27	
		3613*a*	0·907	279·5	123·6	+10·6	8	27	
		3624*a*	0·429	232·4	78·4	−10·6	60	272	
		3624*b*	0·420	222·5	75·2	−13·4	62	230	
		3624	0·411	218·7	73·6	−14·0	0	11	
		3624	0·434	214·2	73·0	−16·3	0	12	
		3628*a*	0·327	206·8	66·9	−12·2	0	13	
		3628	0·344	202·6	65·3	−11·8	0	6	
		3628	0·295	202·9	65·0	−11·0	0	9	
		3628	0·294	196·1	63·1	−11·6	1	5	
		3628	0·298	193·2	62·3	−12·0	0	15	
		3639	0·357	183·1	59·9	−16·0	0	2	
		3629*a*	0·039	37·8	56·9	+ 6·6	39	344	
		3629	0·118	30·6	54·8	+10·6	0	7	
		3629	0·081	63·4	54·1	+ 6·9	4	15	
		3629	0·114	40·7	54·0	+ 9·8	8	56	
		3630	0·259	175·1	57·0	−10·1	5	39	
		3630	0·282	174·7	56·8	−11·4	0	8	
		3630	0·297	173·7	56·4	−12·3	4	27	
		3630	0·277	172·0	56·1	−11·1	0	14	
		3630	0·251	170·4	55·9	− 9·5	11	42	
		3630	0·245	167·7	55·3	− 9·0	0	3	
		3630	0·276	169·4	55·3	−10·9	0	5	
		3630	0·263	167·8	55·1	−10·0	0	6	
		3630	0·295	167·0	54·4	−11·8	0	4	
		3630	0·263	160·3	53·2	− 9·5	16	94	
		3630	0·287	161·1	52·9	−10·9	0	5	
		3630	0·318	160·5	52·1	−12·7	4	10	
		3630	0·291	158·1	52·0	−10·8	5	22	
		3630	0·329	156·6	50·6	−12·8	17	97	
		3635	0·425	146·5	44·2	−16·0	0	27	
		3635	0·453	141·6	41·3	−16·1	0	10	
		3637	0·831	78·6	2·1	+12·1	0	5	}
		3637*a*	0·848	77·2	0·3	+13·4	25	171	
		3637*b*	0·884	79·1	356·0	+11·9	57	205	
		3637	0·905	78·2	353·3	+12·7	0	11	} 835*c*
		3638*b*	0·950	77·4	346·2	+13·4	31	159	
		3638*c*	0·956	75·3	344·9	+15·4	39	166	
			0·779	136·5	19·9	−30·6			135
July 18		Centre			(58·3)	(+4·8)	(514)	(2716)	(3073)

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 3637, July 17–29. An irregular stream, consisting of two large regular spots, *a* and *b*, and a few small companions. *a* moves backward in longitude, approaching *b*.
Group 3638, July 17–30. A large double spot, sometimes measured as one spot, *a*, sometimes as two separate spots, *b* and *c*. A small companion is occasionally seen.
Group 3639, July 18–19. A very small spot on July 18. A second very small spot is seen preceding it on July 19.
Groups 3616, 3624, 3628, 3630, 3632, 3635, and 3639 form parts of what is almost one long 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).
				°	°	°			
1894. 199d.394	CL, AW		0·937	277·6	116·7	+ 8·8			551
			0·922	237·6	107·8	−27·3			256
			0·866	242·0	101·8	−21·2			251
			0·779	283·4	97·9	+13·5			113
		3624*a*	0·585	243·9	79·1	−10·8	51	294	
		3624*b*	0·558	236·7	75·4	−13·5	51	241	
		3624	0·536	234·0	73·3	−14·0	1	9	
		3624	0·506	233·1	71·4	−13·2	0	7	
		3628*a*	0·444	229·8	67·1	−12·0	0	6	
		3628	0·418	222·8	63·8	−13·1	0	17	
		3628	0·400	222·5	62·9	−12·4	1	18	
		3628	0·377	223·2	62·1	−11·2	1	6	
		3639	0·442	212·4	61·2	−17·1	0	8	
		3639	0·420	211·1	59·9	−16·2	0	3	
		3629*a*	0·185	281·9	57·4	+ 7·0	59	334	
		3629	0·144	285·7	54·9	+ 7·1	3	21	
		3629	0·151	297·2	54·7	+ 8·8	0	8	
		3629	0·133	284·2	54·1	+ 6·7	4	27	
		3629	0·146	305·5	53·8	+ 9·7	9	21	
		3630	0·318	216·2	57·8	−10·0	7	32	
		3630	0·301	213·2	56·5	− 9·7	8	65	
		3630	0·323	210·1	56·4	−11·3	2	28	
		3630	0·295	207·2	54·7	−10·3	9	42	
		3630	0·277	200·6	52·6	−10·1	12	86	
		3630	0·328	196·0	52·2	−13·4	3	11	
		3630	0·290	197·2	51·9	−11·1	4	18	
		3630	0·334	192·5	51·2	−14·0	5	43	
		3630	0·283	193·5	50·7	−11·0	6	30	
		3630	0·312	191·8	50·6	−12·8	13	37	
		3630	0·292	190·6	50·0	−11·7	0	8	
		3635	0·362	175·7	45·3	−16·2	4	6	
		3635	0·371	172·7	44·1	−16·6	0	12	
		3635	0·386	165·5	41·1	−17·0	0	14	
		3637	0·677	78·9	4·5	+11·1	0	6	
		3637	0·709	76·7	2·1	+12·8	0	11	
		3637*a*	0·736	76·1	359·8	+13·5	23	176	
		3637	0·741	78·9	359·2	+11·5	6	26	369*c*
		3637*b*	0·783	78·7	355·4	+11·9	46	232	
		3637	0·810	77·6	352·9	+12·9	0	10	
		3638*b*	0·879	77·1	345·3	+13·7	34	178	
		3638*c*	0·887	75·3	344·3	+15·3	36	203	379*c*
		3638	0·922	76·4	339·4	+14·4	0	11	
			0·936	156·8	6·1	−55·7			334
1894. 199d.394	CL, AW		0·899	119·6	348·4	−23·8			168
			0·870	68·4	347·0	+21·1			175
July 19		Centre			(46·9)	(+4·9)	(398)	(2305)	(2596)
200·176	CL, HA		0·951	238·5	102·9	−27·9			144
			0·858	282·5	95·7	+13·3			76
I.			0·880	243·4	93·4	−20·5			300
			0·826	256·6	90·5	− 8·1			129
		3624*a*	0·711	248·4	78·8	−11·4	58	271	
		3624*b*	0·677	243·0	74·8	−13·9	47	210	
		3624	0·653	242·0	72·8	−13·8	1	7	
		3628	0·568	244·9	67·8	− 9·6	0	5	
		3628	0·530	237·4	63·6	−12·1	0	2	
		3628	0·522	235·4	62·5	−12·7	1	7	
		3629	0·371	270·3	58·3	+ 4·8	0	4	
		3629*a*	0·359	276·2	57·5	+ 6·9	53	273	
		3629	0·328	275·1	55·6	+ 6·4	2	10	
		3629	0·314	275·1	54·8	+ 6·4	0	2	
		3629	0·307	283·0	54·0	+ 8·7	0	4	
		3629	0·306	285·4	53·8	+ 9·5	0	6	
		3630	0·440	234·7	57·8	−10·0	18	71	
		3630	0·434	230·6	56·4	−11·2	1	9	
		3630	0·421	232·5	56·2	−10·1	3	11	
		3630	0·434	229·4	56·1	−11·6	0	4	
		3630	0·418	229·3	55·3	−11·0	6	33	
		3630	0·422	217·6	51·9	−14·7	4	14	
		3630	0·378	224·0	51·9	−10·9	16	93	
		3630	0·392	217·6	50·7	−13·2	4	22	
		3630	0·372	219·0	50·3	−11·9	7	27	
		3630	0·387	216·4	50·1	−13·2	1	7	
		3630	0·363	216·4	49·2	−12·1	0	7	
		3635	0·392	199·9	44·5	−16·6	0	7	
		3637*a*	0·605	73·6	359·9	+13·9	24	121	
		3637	0·609	77·5	359·3	+11·6	2	16	
		3637*b*	0·656	77·0	355·8	+12·3	47	208	
		3637	0·689	75·8	353·3	+13·4	0	6	
		3638*b*	0·780	76·0	345·4	+14·0	38	166	
		3638*c*	0·796	74·3	344·0	+15·5	33	154	266*f*
		3638	0·828	75·0	340·7	+15·2	0	6	
		3640	0·976	101·6	320·5	−10·1	0	10	150*c*
			0·884	123·5	341·3	−26·4			179
			0·926	71·1	328·6	+19·3			140
			0·953	108·8	326·7	−16·2			92
July 20		Centre			(36·5)	(+5·0)	(366)	(1793)	(1476)

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 3640, July 20–31. A small spot on July 20. A considerable stream, of which *a*, the leader, is a large regular spot, has formed by July 21. The following spots of the stream have disappeared by July 27, leaving *a* alone. *a* is seen as a notch on the limb on July 31, but is not measurable.

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).
1894.				°	°	°			
201d.503	AW,HA		0·957	257·6	95·4	−16·1			227
		3624*a*	0·882	254·7	78·8	−10·9	52	282	128*c*
		3624*b*	0·850	250·3	74·3	−13·8	26	188	350*c*
		3628	0·730	249·7	63·1	−11·0	0	13	
		3629*a*	0·618	275·5	57·2	+ 7·4	50	282	
		3630	0·669	250·3	58·5	− 9·1	16	52	
		3630	0·658	247·5	57·0	−10·6	0	9	
		3630	0·640	246·9	55·6	−10·4	3	22	119*c*
		3630	0·626	239·7	52·9	−15·0	2	12	
		3630	0·587	243·1	51·1	−11·1	27	83	
		3630	0·603	238·3	50·8	−14·1	0	8	
		3630	0·575	240·8	49·7	−11·8	13	31	
		3635	0·524	228·1	42·8	−15·8	0	9	
		3641	0·363	296·1	38·5	+14·0	0	7	
		3637	0·300	61·6	3·3	+13·1	0	3	
		3637	0·333	69·3	0·5	+11·6	0	6	
		3637*a*	0·357	63·9	359·8	+13·8	25	129	
		3637*b*	0·405	70·5	356·1	+12·4	33	191	
		3637	0·440	69·0	354·1	+13·7	0	2	
		3637	0·447	67·0	353·9	+14·7	1	5	
		3638*a*	0·576	71·9	344·7	+14·5	61	360	
		3640*a*	0·818	104·6	326·0	− 8·9	28	154	
		3640	0·831	105·5	324·8	− 9·9	1	7	
		3640	0·834	103·3	324·1	− 8·2	9	19	219*c*
		3640	0·854	105·0	322·3	−10·0	1	17	
		3640	0·871	102·9	320·1	− 8·6	6	30	
		3640	0·873	104·2	320·0	− 9·7	5	61	
		3642*a*	0·971	72·6	302·2	+18·1	40	204	229*c*
			0·836	113·3	326·1	−16·3			177
			0·889	73·1	316·2	+17·3			526
			0·931	117·7	315·3	−23·4			230
			0·906	64·0	314·6	+25·7			142
July 21		Centre			(19·0)	(+·51)	(399)	(2186)	(2347)
202·515	AW,HA		0·903	244·5	65·6	−20·3			266
		3624*a*	0·967	257·3	79·1	−10·8	0	241	653*sf*
		3624*b*	0·946	253·3	74·2	−13·9	35	192	
		3629*a*	0·785	275·2	57·3	+ 7·3	52	293	181*c*
		3629	0·759	277·3	55·0	+ 8·9	1	8	
		3630	0·829	255·3	59·6	− 9·1	11	40	
		3630	0·809	254·1	57·4	− 9·6	1	10	
		3630	0·804	252·8	56·7	−10·5	8	16	
		3630	0·787	251·8	54·9	−10·8	1	21	318*c*
		3630	0·772	251·4	53·4	−10·7	6	16	

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).
1894.				°	°	°			
202d.515	AW,HA	3630	0·752	250·3	51·5	−11·1	10	32	
		3630	0·747	248·3	50·6	−12·4	23	66	
		3637	0·135	10·1	4·1	+12·8	3	9	
		3637*a*	0·176	35·1	359·6	+13·4	21	117	
		3637*b*	0·200	51·3	356·3	+12·3	28	177	
		3643	0·486	154·6	352·7	−20·9	0	4	
		3638	0·374	59·1	346·1	+15·9	0	6	
		3638*a*	0·384	64·5	344·6	+14·4	55	323	
		3638	0·446	67·2	340·5	+14·6	3	12	
		3638	0·475	68·2	338·5	+14·8	3	9	
		3640*a*	0·655	109·7	327·1	− 8·6	38	262	
		3640	0·694	108·6	323·9	− 8·9	0	5	228*c*
		3640	0·734	108·1	320·7	− 9·5	33	133	
		3642*a*	0·895	72·7	301·9	+17·8	43	263	226*f*
			0·741	75·9	317·9	+13·9			113
			0·776	69·7	315·4	+18·9			221
			0·812	60·2	313·4	+27·0			109
			0·847	122·4	304·3	−23·8			233
July 22		Centre			(5·5)	(+5·2)	(375)	(2255)	(2548)
203·166	AW,HA	3624*b*	0·984	254·1	74·6	−14·6	31	136	
		3629*a*	0·875	275·1	58·1	+ 7·0	49	282	
I.		3629	0·851	278·2	55·3	+ 9·6	2	6	354*c*
		3630	0·908	257·0	60·4	− 9·5	3	19	
		3630	0·884	255·0	57·0	−10·6	0	2	
		3630	0·871	253·9	55·3	−11·3	2	13	
		3630	0·863	253·1	54·2	−11·7	9	38	1075*c*
		3630	0·839	252·7	51·5	−11·4	7	25	
		3630	0·841	251·0	51·4	−12·9	7	42	
		3630	0·831	250·1	50·1	−13·3	4	12	
		3635	0·779	242·9	43·3	−17·2	0	4	
		3637	0·180	311·8	4·7	+12·0	0	6	
		3637	0·164	314·1	3·8	+11·7	1	4	
		3637*a*	0·150	341·8	359·6	+13·4	26	101	
		3637*b*	0·129	2·4	356·6	+12·6	35	145	
		3643	0·439	177·1	355·5	−20·7	1	6	
		3643	0·446	170·4	352·3	−21·0	1	5	
		3643	0·467	165·8	349·8	−21·7	2	11	
		3638*b*	0·247	53·1	345·2	+13·6	32	139	
		3638*c*	0·271	49·9	344·6	+15·1	22	92	
		3638	0·350	60·4	338·6	+14·9	1	4	
		3640*a*	0·531	115·5	328·0	− 8·6	48	203	
		3640	0·576	113·3	324·7	− 8·8	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 3641, July 21. A very small spot.
Group 3642, July 21–August 2. A large regular spot, *a*, with occasionally some small companions.
Group 3643, July 22–24. One or two very small unstable 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).
1894.				°	°	°			
203d·166	AW,HA	3640	0·606	112·9	322·6	− 9·3	0	2	
		3640	0·615	112·3	321·9	− 9·2	1	9	
I.		3640	0·617	113·3	321·9	− 9·9	1	5	
		3640	0·626	111·6	320·9	− 9·1	1	6	
		3640	0·633	112·5	320·6	− 9·8	12	30	
		3640	0·637	111·2	320·1	− 9·1	1	8	
		3640	0·637	109·7	319·8	− 8·2	2	11	
		3640	0·642	110·6	319·6	− 8·9	2	9	
		3640	0·647	111·7	319·5	− 9·7	5	21	
		3640	0·659	109·8	318·2	− 8·9	2	6	
		3642*a*	0·823	71·2	301·9	+18·4	57	257	} 240*c*
		3642	0·850	69·3	299·2	+20·3	0	11	
		3644	0·912	82·3	290·8	+ 9·2	0	6	128*c*
		3645*a*	0·978	113·5	282·3	−21·7	29	153	66*c*
			0·860	124·9	305·2	−26·2			153
			0·920	71·2	289·8	+19·3			142
July 23		Centre			(356·9)	(+5·2)	(396)	(1830)	(2158)
204·224	AW,FT	3629*a*	0·965	276·3	58·0	+ 7·5	45	262	371*c*
M.		3630	0·957	257·4	54·4	−10·4	0	11	} 803*c*
		3630	0·937	254·8	50·3	−12·2	0	14	
		3635	0·894	248·7	42·9	−16·3	3	9	270*c*
		3637*a*	0·313	297·0	359·5	+13·3	19	106	
		3637*b*	0·270	299·5	356·8	+12·8	30	156	
		3643	0·491	206·1	356·2	−20·9	1	13	
		3643	0·466	199·6	352·5	−20·7	2	7	
		3638	0·199	328·1	349·1	+15·0	2	6	
		3638	0·172	325·8	348·6	+13·4	0	3	
		3638	0·203	337·3	347·6	+16·0	0	3	
		3638	0·212	344·8	346·2	+17·1	0	2	
		3638	0·176	342·1	346·1	+14·9	0	3	
		3638*b*	0·147	345·5	345·1	+13·4	26	143	
		3638*c*	0·170	351·4	344·4	+15·0	23	78	
		3638	0·164	1·5	342·6	+14·7	0	3	
		3640*a*	0·345	135·9	328·9	− 9·2	39	209	
		3640	0·435	125·5	321·9	− 9·7	0	5	
		3640	0·449	124·7	321·0	− 9·8	4	20	
		3640	0·451	122·0	320·2	− 8·9	6	17	
		3640	0·463	123·3	319·9	− 9·8	2	5	
		3640	0·470	122·1	319·2	− 9·6	4	12	
		3640	0·485	120·2	317·9	− 9·3	0	7	
1894.				°	°	°			
204d·224	AW,FT	3642*a*	0·677	68·3	301·5	+18·4	44	204	
		3642	0·697	67·4	300·1	+19·4	2	8	
M.		3644	0·773	84·4	292·2	+ 7·7	0	7	
		3644	0·800	84·7	289·7	+ 7·4	5	11	
		3644	0·799	83·7	289·7	+ 8·2	0	3	
		3645*a*	0·913	117·1	281·9	−22·0	33	170	
		3645	0·917	115·5	280·8	−20·8	0	7	
		3645	0·925	117·0	280·0	−22·5	11	24	} 319*c*
		3645	0·937	116·6	277·9	−22·6	8	15	
		3645	0·948	116·0	275·8	−22·5	0	8	
		3645	0·960	115·6	273·3	−22·8	0	8	
		3646	0·942	78·3	272·1	+12·8	0	27	53*c*
			0·776	69·4	292·8	+19·3			112
			0·959	71·8	268·8	+19·0			304
July 24		Centre			(342·9)	(+5·3)	(309)	(1586)	(2232)
205·418	AW,CL		0·860	299·5	24·9	+28·0			98
			0·805	308·5	16·1	+33·7			106
			0·889	200·7	357·4	−51·5			113
		3637*a*	0·530	285·9	358·5	+13·0	12	111	
		3637*b*	0·494	286·3	356·1	+12·7	28	167	
		3638*a*	0·323	296·3	344·3	+13·4	20	105	
		3638	0·324	300·6	343·8	+14·7	13	98	
		3638	0·307	293·8	343·7	+12·3	0	25	
		3640*a*	0·253	190·3	329·7	− 9·0	34	238	
		3640	0·279	163·4	322·5	−10·1	0	12	
		3640	0·275	156·5	320·7	− 9·2	3	21	
		3640	0·295	151·6	319·0	− 9·6	4	11	
		3640	0·381	135·4	311·4	−10·5	0	2	
		3642	0·411	62·6	304·9	+15·9	2	8	
		3642	0·453	65·4	301·9	+15·7	0	14	
		3642*a*	0·480	61·4	300·9	+18·1	44	271	
		3642	0·516	59·9	298·9	+19·8	0	7	
		3644	0·522	89·7	295·6	+ 4·8	0	2	
		3644	0·548	88·9	293·9	+ 5·1	0	5	
		3644	0·569	84·8	292·4	+ 7·4	0	27	
		3644	0·590	82·2	291·0	+ 8·9	3	9	
		3644	0·601	86·5	290·1	+ 6·4	0	9	
		3645*a*	0·791	123·2	281·8	−21·8	32	256	} 355*c*
		3645	0·860	120·9	274·0	−23·0	0	21	
		3646	0·825	78·4	271·4	+12·6	0	3	250*nf*
July 25		Centre			(327·1)	(+5·4)	(195)	(1422)	(922)

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 3644, July 23–26. A few faint unstable spots, mostly very small, irregularly scattered.
Group 3645, July 23–August 3. A large regular spot, *a*, with occasionally one or two small companions.
Group 3646, July 24–25. A small spot on July 24, which has greatly diminished by July 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).
				°	°	°			
1894. 206d.543	FT,HA		0·876	303·0	11·0	+33·1			119
		3637*a*	0·732	282·8	359·2	+13·1	12	79	
		3637	0·721	283·5	358·3	+13·5	0	4	
		3637	0·720	284·2	358·1	+14·0	2	9	
		3637	0·719	285·5	357·9	+14·9	0	4	
		3637*b*	0·706	282·8	357·1	+12·9	32	157	
		3638	0·565	289·4	345·7	+15·4	0	3	
		3638	0·550	289·4	344·7	+15·1	10	72	
		3638*a*	0·544	286·1	344·7	+13·4	25	106	
		3638	0·519	286·3	342·9	+13·1	0	5	
		3640*a*	0·397	233·1	330·9	− 8·5	39	231	
		3640	0·361	225·6	327·4	− 9·3	0	6	
		3640	0·320	216·1	323·3	− 9·5	0	3	
		3640	0·276	208·6	319·9	− 8·5	1	6	
		3640	0·290	205·8	319·6	− 9·6	0	3	
		3640	0·270	204·8	318·8	− 8·7	0	3	
		3647	0·227	338·0	317·4	+17·6	0	7	
		3648	0·258	144·5	303·7	− 6·6	1	4	
		3648	0·253	138·3	302·6	− 5·4	0	14	
		3648	0·280	142·5	302·5	− 7·4	1	2	
		3642*a*	0·296	40·3	300·7	+18·4	52	236	
		3642	0·343	48·9	296·6	+18·3	0	8	
		3644	0·212	100·2	300·3	+ 3·3	0	4	
		3644	0·234	99·6	299·0	+ 3·1	0	1	
		3644	0·266	93·5	296·9	+ 4·4	0	10	
		3644	0·306	90·3	294·5	+ 5·1	1	4	
		3644	0·343	84·3	292·3	+ 7·1	3	20	
		3645	0·617	140·0	286·8	−23·2	2	5	
		3645	0·630	131·4	282·3	−19·8	0	6	
		3645*a*	0·649	133·3	281·9	−21·7	39	207	134*c*
		3645	0·720	129·7	275·5	−22·9	0	4	
		3645	0·731	128·5	274·1	−22·7	5	12	
			0·851	93·1	254·3	+ 0·3			104
July 26		Centre			(312·3)	(+5·5)	(225)	(1235)	(357)
207·494	AW, FT		0·960	302·6	13·6	+32·8			138
		3637*a*	0·858	281·5	359·0	+12·7	2	59	
		3637*b*	0·839	281·3	356·9	+12·5	21	123	
		3638*a*	0·708	283·5	344·6	+13·5	9	32	
		3638*b*	0·709	285·3	344·5	+14·7	4	25	
		3638	0·703	282·5	344·2	+12·8	0	21	
		3640*a*	0·571	246·3	331·5	− 8·5	45	308	
		3648	0·227	200·6	304·3	− 6·7	0	8	
1894. 207d.494	AW, FT	3648	0·249	193·2	303·0	− 8·3	0	8	
		3642	0·204	342·0	303·5	+16·7	0	3	
		3642*a*	0·223	355·9	300·7	+18·4	50	276	
		3645*a*	0·540	147·4	281·5	−21·7	44	219	
		3649	0·609	139·4	274·4	−22·3	2	8	
			0·925	71·7	231·7	+19·0			174
July 27		Centre			(299·7)	(+5·6)	(177)	(1090)	(312)
208·222	AW,HA		0·948	245·1	357·3	−21·5			118
			0·840	294·6	346·2	+23·6			120
M.			0·840	234·8	339·3	−25·4			100
		3637*a*	0·931	281·3	359·0	+12·6	6	53	
		3637*b*	0·916	281·2	356·8	+12·6	19	135	
		3638*a*	0·815	282·5	344·7	+13·4	13	49	
		3638*b*	0·812	284·2	344·3	+14·8	3	13	513*c*
		3638	0·807	281·7	343·9	+12·7	0	8	
		3638	0·806	282·5	343·8	+13·4	0	4	
		3640*a*	0·693	251·9	331·6	− 8·2	45	243	
		3648	0·321	227·6	303·8	− 7·0	1	4	
		3648	0·285	233·0	303·1	− 4·4	2	6	
		3642*a*	0·285	321·8	300·7	+18·4	40	194	
		3642	0·261	322·2	299·6	+17·4	1	5	
		3645*a*	0·484	162·2	280·9	−21·8	29	159	
		3649	0·536	151·3	273·9	−22·6	0	3	
			0·860	109·4	233·6	−13·6			117
			0·881	67·8	228·5	+22·2			120
			0·923	81·0	222·3	+10·4			239
			0·965	105·7	217·3	−13·6			245
July 28		Centre			(290·0)	(+5·6)	(159)	(876)	(1572)
209·476	HA,FT		0·946	287·3	345·6	+18·3			174
			0·920	297·8	340·5	+27·7			97
M.			0·894	244·6	332·8	−19·7			102
			0·884	235·5	328·4	−26·8			133
			0·778	251·1	322·2	−10·8			195
		3637*b*	0·990	281·5	356·4	+12·1	26	127	
		3638	0·942	279·5	344·8	+10·9	0	8	271*c*
		3638*a*	0·940	282·3	344·5	+13·5	16	66	
		3640*a*	0·868	257·2	332·5	− 8·1	46	268	163*c*
		3650	0·597	301·3	307·4	+22·8	0	5	
		3642	0·538	292·1	305·1	+16·6	2	16	
		3642	0·535	295·6	304·3	+18·3	0	3	
		3642	0·496	289·0	302·7	+14·3	2	5	
		3642*a*	0·491	297·7	301·0	+18·3	43	209	

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 3647, July 26. A very small spot.
Group 3649, July 27–28. A very small spot.

Group 3648, July 26–28. A few scattered small spots.
Group 3650, July 29. 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).
1894.				°	°	°			
209d·476	HA,FT	3645*a*	0·480	194·7	281·4	−21·9	32	148	
		3651	0·796	108·1	223·7	−10·7	4	17	
M.		3651	0·817	107·6	221·6	−10·8	0	4	80*c*
		3651	0·827	108·1	220·7	−11·5	2	9	
		3652	0·988	78·6	192·0	+12·1	31	147	362*c*
			0·795	76·2	221·2	+14·4			121
			0·901	108·9	212·5	−14·3			251
			0·908	83·0	208·4	+ 8·8			142
			0·969	109·6	201·1	−17·4			228
July 29		Centre			(273·9)	(+5·7)	(204)	(1032)	(2319)
210·221	AW,M		0·920	245·8	326·4	−19·6			138
			0·872	255·1	322·2	−10·0			211
M.			0·825	289·8	318·8	+19·5			269
		3638*a*	0·984	283·2	344·1	+14·0	0	48	225*f*
		3640*a*	0·939	259·9	332·1	− 7·4	50	239	198*c*
		3642*a*	0·621	292·8	300·6	+18·6	43	239	90*c*
		3645*a*	0·528	211·2	280·6	−21·2	25	135	
		3651	0·687	112·5	223·5	−10·8	0	9	
		3651	0·715	111·3	221·1	−10·8	0	5	107*c*
		3653	0·795	110·1	214·0	−12·1	0	5	
		3653	0·824	108·0	210·7	−11·3	0	5	124*s*
		3652	0·930	77·0	194·7	+14·3	2	24	
		3652*a*	0·952	80·6	191·0	+10·7	37	264	
		3652*b*	0·980	79·9	184·4	+11·1	29	153	575*c*
		3652	0·985	81·7	182·6	+ 9·6	0	52	
			0·936	111·4	197·6	−17·7			285
July 30		Centre			(263·6)	(+5·8)	(186)	(1178)	(2222)
211·609	AW,FT		0·929	288·1	314·1	+19·0			226
		3642*a*	0·818	288·8	299·9	+18·7	56	248	86*c*
		3645*a*	0·692	230·2	280·0	−21·4	27	141	
		3652	0·772	77·6	194·7	+13·3	6	12	
		3652	0·775	80·8	194·3	+10·9	0	8	
		3652	0·786	80·9	193·3	+10·8	2	12	
		3652*a*	0·799	80·6	192·1	+11·0	33	162	
		3652	0·849	83·8	187·0	+ 8·4	9	40	
		3652	0·851	81·1	186·7	+10·7	6	19	279*c*
		3652	0·867	83·6	184·9	+ 8·5	2	23	
		3652*b*	0·874	81·8	184·1	+10·0	84	327	
		3652	0·888	83·3	182·4	+ 8·7	18	81	
		3652	0·919	84·8	178·3	+ 7·1	12	44	
		3652	0·945	85·5	174·2	+ 6·1	7	37	
1894.				°	°	°			
211d·609	AW,FT	3654*a*	0·994	110·0	164·3	−19·0	0	85	
			0·806	73·3	191·7	+16·9			82
			0·868	117·9	190·5	−20·6			316
			0·948	74·6	173·2	+16·5			131
July 31		Centre			(245·3)	(+5·9)	(262)	(1239)	(1120)
212·692	CL,AW		0·772	232·2	272·6	−23·7			147
		3642*a*	0·929	287·6	299·9	+18·6	44	221	215*p*
		3645*a*	0·823	238·0	279·6	−21·9	24	131	120*c*
		3651	0·446	135·3	223·7	−12·7	0	4	
		3653	0·387	140·9	216·6	−11·7	1	6	
		3653	0·466	135·3	211·4	−13·6	0	3	
		3653	0·512	132·0	208·2	−11·7	1	6	
		3652	0·582	79·5	195·5	+11·0	1	3	
		3652	0·587	75·8	195·4	+13·2	2	4	
		3652	0·602	77·9	194·1	+12·1	2	7	
		3652*a*	0·620	79·6	192·7	+11·1	21	84	
		3652	0·637	79·6	191·5	+11·3	2	8	
		3652	0·655	82·0	190·0	+ 9·7	0	1	
		3652	0·658	84·4	189·7	+ 8·2	1	10	
		3652	0·663	82·9	189·4	+ 9·2	3	24	224*c*
		3652	0·680	83·9	188·0	+ 8·6	6	55	
		3652	0·683	79·9	187·9	+11·3	8	36	
		3652	0·703	79·8	186·3	+11·4	4	11	
		3652	0·709	83·2	185·7	+ 9·0	0	5	
		3652	0·715	78·2	185·4	+12·6	1	4	
		3652*b*	0·733	82·1	183·7	+ 9·9	88	536	
		3652	0·736	77·1	183·7	+13·5	2	11	
		3652	0·753	77·8	182·1	+13·1	2	7	
		3652	0·772	85·9	180·3	+ 7·0	4	21	
		3652	0·780	86·9	179·6	+ 6·2	1	5	
		3652	0·781	85·2	179·5	+ 7·5	11	39	
		3652	0·807	84·7	177·0	+ 7·8	5	14	
		3652	0·813	83·4	176·4	+ 8·9	5	15	233*c*
		3652	0·817	85·1	176·0	+ 7·6	0	4	
		3652	0·832	86·4	174·6	+ 6·3	14	46	
		3652	0·832	83·6	174·5	+ 8·6	8	23	
		3654	0·934	115·9	166·6	−21·6	0	4	
		3654*a*	0·944	112·6	164·1	−19·0	23	142	436*c*
		3655	0·981	84·5	151·7	+ 6·6	0	13	
			0·865	120·5	177·4	−22·5			249
			0·891	105·1	170·2	−10·5			82
			0·902	92·4	166·9	+ 0·5			82
Aug. 1		Centre			(231·0)	(+6·0)	(284)	(1503)	(1788)

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 3651, July 29–August 1. A few small unstable spots, irregularly arranged. The group is not seen on July 31.
Group 3652, July 29–August 11. A very large irregular and scattered group. The leading spot, *a*, is at first large but has disappeared by August 7. *b*, the largest spot in the centre of the group, is a large irregular composite spot. The spots *sf b* are at first small and scattered, but tend to coalesce, and two of them, *c* and *d*, have become large by August 7 and 8 respectively.
Group 3653, July 30–August 4. A few unstable spots, mostly very small, irregularly scattered. The group is not seen on July 31.
Group 3654, July 31–August 6. A regular spot, *a*, which diminishes in longtitude and area. A few small spots form in advance of *a* on August 1 and the succeeding days, but have all disappeared by August 6.
Group 3655, August 1. 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).
1894.				°	°	°			
213d·617	AW,HA	3642*a*	0·985	288·2	300·0	+19·0	58	246	250*f*
		3645*a*	0·913	242·8	279·5	−21·8	25	132	137*s*f
		3653	0·316	176·8	217·7	−12·3	7	15	
		3653	0·313	170·3	215·6	−11·9	3	11	
		3652	0·319	62·1	201·9	+14·3	0	3	
		3652	0·388	65·9	197·3	+14·7	1	4	
		3652	0·409	70·1	195·5	+13·5	1	6	
		3652	0·428	64·0	195·2	+16·3	1	4	
		3652*a*	0·444	77·3	192·6	+11·0	10	38	
		3652	0·477	83·3	190·2	+ 8·5	0	6	
		3652	0·484	81·6	189·8	+ 9·3	0	13	
		3652	0·494	82·0	189·1	+ 9·2	5	36	
		3652	0·511	77·2	188·2	+11·7	1	7	
		3652	0·515	83·1	187·7	+ 8·7	0	4	
		3652	0·538	76·8	186·4	+12·1	7	19	
		3652	0·549	78·5	185·6	+11·3	3	13	
		3652	0·551	75·7	185·6	+12·8	4	18	
		3652	0·566	75·0	184·7	+13·4	0	10	
		3652	0·581	75·8	183·5	+13·1	1	6	
		3652*b*	0·577	81·2	183·5	+10·0	43	434	
		3652	0·591	75·5	182·8	+13·4	3	15	
		3652	0·604	75·1	181·9	+13·7	0	6	
		3652	0·619	86·2	180·4	+ 7·1	5	62	
		3652	0·658	85·2	177·4	+ 7·7	1	7	
		3652	0·701	85·6	174·1	+ 7·4	0	8	
		3652	0·702	83·2	174·0	+ 9·0	5	24	
		3652	0·702	87·1	174·0	+ 6·3	7	27	
		3654	0·850	119·2	166·3	−20·9	5	17	
		3654	0·855	115·8	164·7	−18·3	0	9	284*c*
		3654*a*	0·870	116·0	163·1	−19·0	13	58	
		3656	0·960	105·7	147·3	−13·2	2	32	
		3656*a*	0·984	107·5	141·5	−16·0	7	53	523*c*
		3657*a*	0·966	72·5	142·8	+18·4	28	148	293*c*
		3658*a*	0·972	83·9	141·6	+ 7·9	20	86	391*f*
			0·885	127·7	159·1	+35·9			219
Aug. 2		Centre			(218·7)	(+6·0)	(266)	(1577)	(2097)
214·438	AW,HA		0·873	284·7	268·9	+15·8			105
		3645*a*	0·971	244·9	279·7	−22·5	55	164	177*s*
		3653	0·366	207·9	217·9	−12·8	4	12	
		3653	0·342	205·8	216·5	−11·8	0	6	
		3653	0·356	203·8	216·2	−12·9	0	4	
		3653	0·333	202·4	215·2	−11·8	3	11	
		3652	0·191	47·2	199·6	+13·4	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).
1894.				°	°	°			
214d·438	AW,HA	3652	0·209	47·0	198·3	+14·6	0	4	
		3652	0·224	52·3	197·3	+13·9	0	6	
		3652*a*	0·269	69·7	193·0	+11·2	8	27	
		3652	0·278	65·8	192·8	+12·4	0	9	
		3652	0·299	62·1	192·1	+14·0	4	8	
		3652	0·298	66·8	191·6	+12·6	0	9	
		3652	0·318	78·2	189·5	+ 9·5	2	11	
		3652	0·323	75·4	189·3	+10·5	0	6	
		3652	0·333	78·7	188·6	+ 9·5	0	10	
		3652	0·341	72·4	188·5	+11·7	3	8	
		3652	0·365	70·2	187·3	+12·8	6	25	
		3652	0·376	71·3	186·5	+12·6	3	17	
		3652	0·393	69·4	185·7	+13·6	0	5	
		3652	0·393	74·2	185·2	+11·8	0	13	
		3652	0·405	70·0	184·8	+13·6	0	3	
		3652*b*	0·418	78·1	183·3	+10·5	53	488	
		3652	0·433	69·8	183·1	+14·1	3	20	
		3652	0·457	67·8	181·9	+15·4	0	4	
		3652	0·440	83·9	181·7	+ 8·2	0	12	
		3652	0·444	85·1	181·4	+ 7·7	7	37	
		3652	0·546	87·9	174·7	+ 6·3	0	4	
		3652	0·554	86·0	174·1	+ 7·3	1	7	
		3652	0·557	81·9	173·9	+ 9·6	2	21	
		3654	0·748	123·9	166·6	−20·1	7	34	
		3654	0·761	120·0	164·1	−18·0	0	12	
		3654	0·772	122·2	164·0	−19·9	6	39	173*c*
		3654	0·773	119·2	162·8	−17·8	0	10	
		3654*a*	0·785	120·6	162·3	−19·3	17	42	
		3656	0·882	106·4	148·3	−11·4	5	20	
		3656	0·926	105·3	142·2	−11·7	6	22	713*c*
		3656*a*	0·939	109·0	140·9	−15·5	17	70	
		3657*a*	0·900	72·3	143·3	+18·6	28	164	
		3657	0·945	74·2	136·2	+16·9	4	22	295*c*
		3658*a*	0·917	84·4	141·0	+ 7·6	13	69	387*c*
			0·739	136·0	172·7	−27·1			153
			0·841	129·1	160·3	−27·9			258
			0·921	119·9	146·7	−24·5			93
Aug. 3		Centre			(207·8)	(+6·1)	(257)	(1459)	(2354)
215·513	AW,FT		0·934	285·3	263·4	+16·5			192
		3653	0·519	232·6	218·6	−12·7	0	1	
		3653	0·509	230·6	217·4	−13·1	1	6	
		3652	0·110	5·3	193·1	+12·4	0	5	
		3652*a*	0·087	8·5	193·0	+11·1	3	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 3656, August 2–11. A regular spot, *a*, which diminishes in longitude and area. A few small spots are seen preceding *a* on August 2 and 3, and others following it on August 8 and 9. The group is not seen on August 10, but *a* appears to have revived again by August 11.
Group 3657, August 2–14. A large regular spot, *a*, closely followed on some days by a chain of spots mostly very small.
Group 3658, August 2–6. A spot, *a*, which rapidly diminishes in area. A very small companion is seen on August 5.

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).
1894.				°	°	°			
215d·513	AW,FT	3652	0·104	11·2	192·5	+12·0	0	2	
		3652	0·111	16·1	191·9	+12·3	0	4	
		3652	0·087	50·9	189·8	+ 9·3	0	2	
		3652	0·096	49·8	189·5	+ 9·7	0	3	
		3652	0·140	40·2	188·4	+12·3	8	14	
		3652	0·148	44·3	187·7	+12·2	2	8	
		3652	0·168	46·6	186·5	+12·7	3	12	
		3652	0·140	65·3	186·3	+ 9·5	6	57	
		3652	0·175	52·4	185·6	+12·3	6	16	
		3652	0·159	63·6	185·4	+10·2	0	5	
		3652	0·169	75·6	184·2	+ 8·5	0	6	
		3652*b*	0·191	66·5	183·5	+10·4	63	407	
		3652	0·228	50·3	183·3	+14·4	3	8	
		3652	0·189	85·6	182·8	+ 6·9	0	3	
		3652	0·201	84·0	182·1	+ 7·3	6	32	
		3652	0·213	83·5	181·4	+ 7·4	2	5	
		3652	0·222	89·7	180·9	+ 6·1	0	1	
		3652	0·269	86·9	178·1	+ 6·8	0	2	
		3652	0·323	83·7	174·9	+ 7·9	3	8	
		3659	0·139	110·8	186·3	+ 3·3	9	26	
		3659	0·192	99·6	182·8	+ 4·3	1	5	
		3659	0·196	93·7	182·4	+ 5·4	1	2	
		3659	0·205	104·4	182·3	+ 3·2	0	2	
		3659	0·209	106·8	182·2	+ 2·7	5	14	
		3654	0·593	136·2	168·0	−19·7	0	7	
		3654	0·628	132·1	164·2	−19·5	0	5	
		3654	0·637	133·2	164·1	−20·4	5	11	
		3654	0·624	130·7	163·9	−18·6	2	9	
		3654*a*	0·652	130·3	162·0	−19·6	10	24	
		3656*a*	0·842	113·3	140·4	−15·7	11	55	306*c*
		3657*a*	0·765	71·2	144·2	+18·3	33	239	
		3657	0·840	73·6	136·5	+17·1	0	9	200*c*
		3657	0·840	74·4	136·4	+16·5	0	9	
		3658*a*	0·794	85·8	141·0	+ 7·1	12	31	275*c*
			0·948	82·2	123·3	− 5·4			356
Aug. 4		Centre			(193·7)	(+6·2)	(195)	(1064)	(1329)
216·547	FT,HA	3652*a*	0·233	291·9	192·7	+11·0	0	1	
		3652	0·229	296·3	192·1	+11·9	0	10	
		3652	0·182	282·5	190·3	+ 8·4	1	18	
		3652	0·185	303·9	189·0	+12·0	4	11	
		3652	0·156	302·1	187·7	+10·9	0	9	
		3652	0·136	298·6	186·9	+ 9·9	7	49	
		3652	0·162	314·3	186·8	+12·7	7	26	

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).
1894.				°	°	°			
216d·547	FT,HA	3652	0·121	289·3	186·6	+ 8·5	2	7	
		3652	0·154	326·8	184·9	+13·6	0	2	
		3652	0·096	303·1	184·6	+ 9·2	1	13	
		3652*b*	0·117	328·2	183·6	+11·9	31	232	
		3652	0·088	321·8	183·2	+10·1	2	16	
		3652	0·162	341·5	183·0	+15·0	0	6	
		3652	0·066	307·6	183·0	+ 8·5	5	41	
		3652	0·050	285·9	182·8	+ 7·0	4	10	
		3652	0·015	309·1	180·7	+ 6·7	7	18	
		3652	0·033	28·8	179·1	+ 7·9	0	7	
		3652	0·021	92·1	178·8	+ 6·2	0	5	
		3652	0·023	89·6	178·7	+ 6·2	0	4	
		3652	0·038	69·1	178·0	+ 7·0	0	5	
		3659	0·105	242·6	185·3	+ 3·4	0	8	
		3659	0·061	238·9	183·0	+ 4·4	0	7	
		3659	0·074	215·9	182·5	+ 2·8	4	16	
		3654	0·515	150·8	164·5	−20·6	0	14	
		3654*a*	0·530	145·5	161·4	−20·0	0	17	
		3656*a*	0·716	119·3	139·7	−15·7	11	43	151*f*
		3657*a*	0·598	67·9	144·5	+18·1	43	219	
		3657	0·619	66·8	143·1	+19·1	0	2	
		3657	0·648	67·7	140·8	+19·0	1	4	
		3657	0·691	71·7	136·8	+17·1	1	5	
		3658	0·612	88·9	142·2	+ 5·6	0	3	
		3658*a*	0·627	86·4	141·1	+ 7·1	6	10	
			0·845	81·8	122·0	+10·3			136
			0·938	81·0	109·8	+10·6			319
Aug. 5		Centre			(180·0)	(+6·2)	(137)	(838)	(606)
217·258	CL,FT		0·925	258·5	236·6	− 8·1			114
			0·902	289·0	235·3	+19·8			88
	M.		0·775	247·9	217·7	−12·7			120
		3652	0·424	282·6	195·3	+11·0	1	5	
		3652*a*	0·384	285·6	192·6	+11·7	0	5	
		3652	0·335	289·5	189·3	+12·4	0	5	
		3652	0·308	285·2	188·0	+10·6	7	17	
		3652	0·301	291·7	187·1	+12·4	3	7	
		3652	0·291	284·0	187·1	+10·1	0	14	
		3652	0·291	288·7	186·8	+11·4	0	3	
		3652	0·283	292·8	185·9	+12·4	0	1	
		3652	0·263	288·0	185·2	+10·7	0	2	
		3652	0·255	284·6	184·9	+ 9·8	1	3	
		3652	0·251	282·1	184·8	+ 9·1	5	19	
		3652	0·240	279·2	184·3	+ 8·4	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 3659, August 4–6. A few small spots, irregularly scattered, *s* Group 3652.

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).
1894.				°	°	°			
217d·258	CL,FT	3652	0·246	290·0	184·1	+10·9	0	13	
		3652*b*	0·254	296·1	184·0	+12·6	28	210	
M.		3652	0·347	278·8	183·7	+ 8·0	3	10	
		3652	0·240	291·4	183·6	+11·2	2	5	
		3652	0·232	286·5	183·5	+ 9·9	0	2	
		3652	0·235	289·8	183·4	+10·7	0	2	
		3652	0·225	280·0	183·4	+ 8·4	8	22	
		3652	0·223	273·6	183·4	+ 7·0	3	5	
		3652	0·201	274·6	182·1	+ 7·1	12	22	
		3652	0·197	271·1	181·9	+ 6·4	0	3	
		3652	0·192	276·0	181·6	+ 7·4	0	1	
		3652	0·169	268·3	180·2	+ 5·9	1	3	
		3652	0·154	269·4	179·4	+ 6·1	0	3	
		3652	0·135	271·5	178·3	+ 6·4	1	8	
		3652	0·106	285·2	176·4	+ 7·8	0	5	
		3652	0·098	301·5	175·3	+ 9·2	0	3	
		3659	0·228	259·4	183·4	+ 3·8	1	4	
		3659	0·206	257·7	182·1	+ 3·8	0	9	
		3654*a*	0·471	161·7	161·5	−20·3	1	10	
		3656*a*	0·609	125·8	139·8	−15·4	10	29	
		3657*a*	0·464	62·1	145·0	+18·2	36	165	
		3657	0·484	64·1	143·4	+17·8	1	4	
		3657	0·496	62·1	143·0	+19·0	0	3	
		3657	0·509	63·6	141·9	+18·6	1	3	
		3657	0·525	64·1	140·7	+18·7	0	4	
		3657	0·531	63·3	140·5	+19·2	0	2	
		3657	0·550	65·3	138·8	+18·7	0	3	
		3657	0·569	67·9	137·1	+17·6	2	10	
		3658*a*	0·487	86·7	141·3	+ 7·1	1	6	
			0·723	82·0	124·0	+10·1			91
			0·868	80·5	109·9	+11·4			409
			0·951	118·3	103·8	−24·4			140
Aug. 6		Centre			(170·5)	(+6·3)	(129)	(658)	(962)
218·544	CL,HA	3652	0·596	276·5	189·0	+ 8·9	0	5	
		3652	0·594	280·0	188·7	+11·0	0	4	
		3652	0·558	279·8	186·2	+10·7	3	16	
		3652	0·550	281·1	185·6	+11·4	0	6	
		3652	0·552	284·8	185·4	+13·4	7	46	
		3652	0·549	282·4	185·4	+12·1	4	19	
		3652*b*	0·525	284·7	183·6	+13·1	28	207	
		3652	0·521	281·0	183·6	+11·1	6	26	
		3652*c*	0·509	273·6	183·0	+ 7·3	20	169	
		3652	0·506	280·8	182·6	+10·9	1	6	
1894.				°	°	°			
218d·544	CL,HA	3652	0·497	271·5	182·2	+ 6·2	0	3	
		3652	0·485	274·9	181·4	+ 7·9	0	5	
		3652	0·471	271·4	180·5	+ 6·3	1	8	
		3652	0·456	271·9	179·5	+ 6·5	5	25	
		3652	0·441	269·3	178·5	+ 5·4	1	6	
		3652*d*	0·438	273·2	178·3	+ 7·1	5	24	
		3660	0·485	214·7	169·0	−17·3	3	22	
		3660	0·487	209·7	167·0	−18·8	5	22	
		3660	0·460	211·5	166·8	−16·9	0	27	
		3661	0·263	167·2	148·9	− 8·5	1	3	
		3661	0·332	158·4	145·2	−11·7	2	8	
		3656*a*	0·426	150·1	139·6	−15·5	5	1	
		3657	0·212	20·7	147·8	+17·7	1	2	
		3657*a*	0·232	24·0	146·6	+18·5	23	115	
		3657	0·200	29·7	146·4	+16·2	0	21	
		3657	0·239	29·7	145·2	+18·2	2	12	
		3657	0·249	33·1	144·1	+18·2	2	4	
		3657	0·267	34·2	143·2	+18·9	1	10	
		3662*a*	0·953	104·3	82·0	−11·5	33	112	
		3663	0·992	105·2	71·7	−14·1	0	78	244*c*
			0·869	125·8	100·4	−26·7			97
			0·910	113·0	90·8	−17·9			187
Aug. 7		Centre			(152·3)	(+6·3)	(159)	(1031)	(528)
219·242	AW,FT		0·947	251·9	212·7	−14·9			180
			0·861	257·4	202·0	− 7·4			98
			0·832	281·4	200·9	+13·0			378
			0·857	241·8	197·6	−20·1			401
			0·784	268·1	195·8	+ 2·5			107
			0·752	252·4	190·6	− 8·7			169
		3652	0·691	279·2	188·1	+11·0	3	15	
		3652	0·687	281·0	187·8	+12·2	3	13	
		3652	0·679	278·3	187·2	+10·3	8	17	
		3652	0·680	281·6	187·1	+12·6	2	6	
		3652	0·674	282·1	186·7	+12·9	3	8	
		3652	0·667	279·3	186·2	+11·0	1	6	
		3652	0·665	278·6	186·1	+10·4	3	10	
		3652	0·662	280·3	185·8	+11·6	0	6	471*c*
		3652	0·659	281·8	185·5	+12·6	6	11	
		3652	0·658	279·4	185·5	+11·0	1	4	
		3652	0·648	280·0	184·8	+11·3	0	1	
		3652*b*	0·644	282·4	184·3	+12·9	49	209	
		3652	0·639	279·9	184·1	+11·3	3	7	
		3652	0·638	274·6	184·1	+ 7·9	4	19	

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 3660, August 7–9. A few small spots, irregularly scattered, *np* of the position of Group 3654.
Group 3661, August 7–14. Two small spots on August 7. On August 8, two small dark spots, *a* and *b*, are seen connected by a double stream of spots. *a* and *b* increase in size, and have become large spots with well-defined umbræ by August 9. The connecting spots have all died out by August 13.
Group 3662, August 7–18. A large regular spot, *a*, with a very small companion on August 16.
Group 3663, August 7–19. A large regular spot.
Groups 3662 and 3663 form a wide pair whose distance increases.

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).
1894.				°	°	°			
219d·242	AW, FT	3652	0·641	278·8	183·7	+ 5·5	4	10	
		3652c	0·625	273·2	183·1	+ 7·0	49	173	
I.		3652	0·623	271·4	182·9	+ 5·9	4	11	
		3652	0·624	282·3	182·8	+12·7	1	7	183c
		3652	0·601	273·2	181·3	+ 7·0	0	5	
		3652	0·590	271·4	180·5	+ 6·0	7	41	
		3652d	0·574	272·4	179·4	+ 6·6	27	99	
		3660	0·568	224·8	169·1	−17·9	8	18	
		3660	0·566	221·7	167·7	−19·0	1	5	
		3660	0·560	221·0	167·1	−19·0	3	5	
		3660	0·556	219·8	166·4	−19·3	0	7	
		3661a	0·338	192·6	148·6	−12·8	5	10	
		3661	0·331	188·9	147·3	−12·7	0	12	
		3661	0·360	187·6	147·1	−14·4	4	11	
		3661	0·364	185·5	146·4	−14·8	1	5	
		3661	0·362	184·3	145·9	−14·7	0	3	
		3661	0·328	184·9	145·9	−12·6	2	16	
		3661	0·320	183·8	145·5	−12·1	0	3	
		3661	0·354	182·9	145·4	−14·3	1	5	
		3661	0·369	181·2	144·8	−15·1	2	11	
		3661	0·338	179·3	144·1	−13·3	2	11	
		3661b	0·355	178·4	143·7	−14·3	14	26	
		3656a	0·388	167·7	139·4	−15·8	4	7	
		3656	0·392	165·9	138·6	−15·9	3	12	
		3656	0·407	164·2	137·7	−16·6	0	3	
		3657a	0·215	349·6	146·6	+18·6	27	116	
		3657	0·210	354·3	145·6	+18·4	3	10	
		3657	0·208	357·9	144·8	+18·4	0	4	
		3657	0·182	359·6	144·4	+16·9	0	3	
		3657	0·208	0·8	144·1	+18·4	3	6	
		3657	0·215	5·3	143·1	+18·7	0	6	
		3657	0·199	8·8	142·5	+17·7	0	1	
		3662a	0·906	105·9	81·7	−11·4	25	107	106c
		3664	0·930	115·3	80·5	−20·7	0	7	
		3664a	0·936	115·0	79·4	−20·7	12	39	
		3665	0·959	117·2	75·8	−23·8	5	17	284c
		3663	0·964	106·6	72·3	−14·1	23	115	231c
			0·814	128·2	99·2	−25·7			267
			0·869	117·4	89·3	−20·0			201
Aug. 8		Centre			(144·3)	(+6·4)	(326)	(1278)	(3076)
220·305	AW, CL		0·929	259·3	197·1	− 7·4			175
			0·934	247·4	195·4	−18·4			361
M.			0·931	239·5	192·7	−25·4			81

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).
1894.				°	°	°			
220d·305	AW, CL		0·877	270·2	191·5	+ 3·3			226
			0·833	234·3	178·3	−24·9			265
M.		3652	0·849	279·2	188·8	+11·2	10	59	
		3652	0·847	280·7	188·6	+12·5	0	2	
		3652	0·834	278·2	187·1	+10·4	4	15	
		3652	0·819	279·8	185·6	+11·7	0	3	
		3652	0·818	280·7	185·5	+12·4	0	6	611c
		3652	0·814	283·0	185·0	+14·3	0	14	
		3652	0·812	279·2	184·9	+11·2	0	8	
		3652b	0·804	281·4	184·1	+13·0	51	239	
		3652	0·803	278·5	184·0	+10·7	1	5	
		3652c	0·790	274·0	182·7	+ 7·1	31	187	
		3652	0·785	281·3	182·2	+12·8	0	3	
		3652	0·782	272·6	181·9	+ 6·0	0	9	
		3652	0·773	273·4	181·1	+ 6·7	0	15	
		3652	0·763	273·4	180·2	+ 6·7	4	32	225c
		3652	0·762	272·0	180·0	+ 5·6	4	46	
		3652d	0·741	273·3	178·3	+ 6·7	22	117	
		3660	0·713	239·1	169·8	−16·5	1	4	
		3661a	0·457	225·7	149·8	−12·6	34	203	
		3661	0·440	223·8	148·4	−12·4	2	4	
		3661	0·434	222·8	147·8	−12·4	0	2	
		3661	0·455	219·9	147·8	−14·3	4	12	
		3661	0·428	221·9	147·2	−12·4	0	3	
		3661	0·426	220·4	146·7	−12·7	0	4	
		3661	0·432	215·1	145·1	−14·4	2	6	
		3661	0·395	218·1	144·7	−11·8	0	2	
		3661	0·395	217·0	144·3	−12·1	1	5	
		3661b	0·409	214·7	144·1	−13·4	34	171	
		3656a	0·406	201·0	139·0	−15·9	1	7	
		3656	0·382	199·2	137·7	−14·7	1	6	
		3657a	0·343	308·9	146·6	+18·6	23	96	
		3662a	0·782	110·1	82·0	−11·3	23	116	96c
		3664a	0·834	119·7	79·9	−20·4	4	20	131c
		3665	0·882	122·0	75·4	−24·2	3	13	
		3663	0·881	109·9	71·8	−14·1	19	125	496p
			0·747	123·6	89·1	−19·7			77
			0·879	115·4	73·5	−18·7			187
			0·937	81·7	60·3	+10·0			232
Aug. 9		Centre			(130·3)	(+6·4)	(279)	(1559)	(3163)
221·609	CL, FT		0·924	238·2	173·9	−26·1			304
			0·827	238·3	162·1	−21·5			330

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 3664, August 8–14. A small spot, *a*, with a very small companion on August 8. The group is not seen on August 12 and 13, but *a* has revived by August 14.
Group 3665, August 8–9. 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).
1894.				°	°	°			
221d.609	CL, FT	3652	0·960	279·0	187·4	+10·4	6	43	
		3652*b*	0·939	281·0	183·7	+12·6	45	284	
		3652*c*	0·931	275·4	182·0	+ 7·4	21	139	
		3652	0·917	273·4	179·8	+ 5·8	0	16	360*c*
		3652	0·912	274·6	179·2	+ 6·9	0	32	
		3652*d*	0·901	273·7	177·6	+ 6·2	10	56	
		3652	0·893	274·9	176·6	+ 7·3	8	33	
		3666	0·698	237·9	151·0	−16·6	4	16	
		3661*a*	0·663	243·1	150·2	−12·3	49	226	
		3661	0·641	240·6	147·9	−13·0	0	9	
		3661	0·628	242·1	147·5	−11·7	5	18	
		3661	0·615	236·8	145·0	−14·1	0	8	
		3661*b*	0·591	236·7	143·5	−13·3	35	229	
		3661	0·572	234·0	141·5	−13·9	0	8	
		3661	0·536	232·6	138·9	−13·1	4	14	
		3657*a*	0·563	293·5	145·9	+18·4	23	108	
		3662*a*	0·580	120·0	82·4	−11·3	19	105	
		3657*a*	0·636	126·8	81·1	−16·8	5	11	
		3667*b*	0·653	123·0	78·6	−15·4	0	10	
		3664*a*	0·662	131·6	81·3	−20·5	4	14	
		3663	0·718	117·2	72·0	−14·3	15	105	136*c*
			0·828	110·9	60·7	−13·3			371
			0·874	105·4	54·5	−10·1			49
Aug. 10		Centre			(113·1)	(+6·5)	(253)	(1484)	(1550)
222·479	AW, FT		0·919	291·0	168·8	+21·9			91
			0·926	239·8	163·2	−24·8			378
			0·778	276·0	152·8	+ 8·8			190
			0·856	230·9	150·4	−28·4			110
		3652	0·990	280·1	184·1	+10·9	21	104	
		3652*b*	0·988	282·1	183·5	+13·0	23	201	371*c*
		3652*c*	0·984	276·3	181·7	+ 7·4	40	169	
		3652*d*	0·965	275·8	176·7	+ 7·3	0	16	
		3666	0·823	243·9	152·0	−17·1	3	11	
		3661*a*	0·786	248·5	149·8	−12·4	27	248	
		3661	0·771	249·4	148·7	−11·4	2	10	
		3661	0·760	246·2	146·9	−13·3	2	8	186*c*
		3661	0·740	245·1	145·0	−13·5	2	13	
		3661*b*	0·720	244·2	143·1	−13·4	31	174	
		3656*a*	0·687	238·3	138·8	−16·0	0	10	
		3657*a*	0·707	288·7	146·0	+17·8	26	124	38*c*
		3657	0·684	288·1	144·2	+17·1	0	6	
		3662*a*	0·441	133·2	82·4	−11·4	18	100	
1894.				°	°	°			
222d.479	AW, FT	3667*a*	0·513	139·4	81·2	−16·8	3	7	
		3667*b*	0·532	133·6	78·0	−15·5	0	5	
		3664*a*	0·556	144·5	81·4	−20·8	4	10	
		3663	0·591	125·4	71·8	−14·3	19	101	
		3668	0·963	84·8	26·7	+ 6·8	47	426	
		3668	0·980	87·3	22·9	+ 4·0	42	374	297*c*
		3668	0·982	84·2	22·0	+ 7·0	9	44	
			0·739	115·7	58·3	−14·0			223
Aug. 11		Centre			(101·5)	(+6·5)	(319)	(2161)	(1884)
223·381	CL, HA		0·951	241·5	156·1	−24·5			134
			0·890	259·4	151·0	− 6·3			115
I.			0·876	274·1	151·0	+ 6·8			275
			0·880	234·1	142·6	−27·1			128
		3661*a*	0·890	251·9	149·6	−12·8	22	250	
		3661	0·875	252·4	147·9	−11·9	0	18	541*c*
		3661	0·869	251·6	147·0	−12·4	0	12	
		3661*b*	0·840	249·0	143·2	−13·6	20	129	
		3657*a*	0·837	286·2	146·6	+17·1	16	70	277*c*
		3669*a*	0·745	248·6	134·4	−11·1	1	8	
		3669	0·715	247·8	131·8	−10·8	0	5	
		3669	0·711	248·3	131·6	−10·3	0	2	
		3669	0·714	246·4	131·4	−11·7	1	5	
		3662*a*	0·337	157·4	82·0	−11·6	23	112	
		3663	0·467	139·2	71·3	−14·4	19	92	
		3668	0·881	85·7	27·6	+ 6·9	38	339	
		3668	0·899	87·1	25·4	+ 5·5	9	53	
		3668	0·901	85·2	25·0	+ 7·2	0	5	
		3668	0·911	84·7	23·7	+ 7·5	2	9	418*c*
		3668	0·911	85·8	23·7	+ 6·6	1	12	
		3668	0·922	88·7	22·4	+ 3·8	40	352	
		3668	0·926	85·1	21·5	+ 7·0	32	173	
			0·824	115·6	38·9	−16·8			162
			0·988	118·9	13·5	−27·1			105
Aug. 12		Centre			(89·6)	(+6·6)	(224)	(1646)	(2155)
224·609	CL, HA		0·953	275·6	146·2	+ 7·4			78
		3661*a*	0·979	255·7	149·5	−12·5	9	165	
		3661*b*	0·951	253·8	142·8	−13·1	15	137	
		3657*a*	0·953	286·1	146·7	+17·4	10	73	170*c*
		3669*a*	0·912	254·9	136·9	−10·9	10	32	175*f*
		3662*a*	0·344	208·0	82·8	−11·0	10	113	

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 3666, August 10–11. A small spot.
Group 3667, August 10–11. A pair of small spots, *a* and *b*.
Group 3668, August 11–23. A very large fine irregular group. During the greater part of its passage across the disk it consists of one very large irregular composite spot, which has to be arbitrarily subdivided for the purposes of measurement. It breaks up into several separate and distinct spots as it approaches the West limb.
Group 3669, August 12–14. A few very small spots *f* Group 3661. Only *a*, the leader, which has increased in size, remains by August 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).
1894.				°	°	°			
224d·609	CL, HA	3663	0·359	175·2	71·6	−14·2	16	86	
		3670	0·560	125·6	45·6	−13·0	0	6	
		3670	0·585	124·3	43·8	−13·4	0	10	
		3668	0·709	86·4	28·1	+ 7·3	68	436	
		3668	0·735	86·5	25·9	+ 7·1	0	10	
		3668	0·738	85·1	25·6	+ 8·1	0	17	
		3668	0·740	88·3	25·5	+ 5·8	11	132	
		3668	0·753	85·6	24·3	+ 7·7	6	46	
		3668	0·769	88·0	23·0	+ 5·9	4	22	
		3668	0·773	90·2	22·8	+ 4·1	32	252	
		3668	0·782	85·9	21·7	+ 7·4	33	249	
			0·929	124·5	12·9	−28·6			120
			0·933	79·8	3·9	+11·9			124
Aug. 13		Centre			(73·4)	(+6·7)	(224)	(1786)	(667)
225·385	CL,FT		0·898	285·9	127·6	+17·2			81
			0·860	276·0	118·6	+ 8·6			167
		3661*a*	0·988	255·0	141·9	−13·6	0	66	216*c*
		3657*b*	0·992	284·6	147·2	+15·3	0	26	
		3669*a*	0·972	257·1	137·6	−10·8	11	25	
		3662*b*	0·445	227·6	82·6	−11·1	18	88	
		3664*a*	0·534	210·9	80·1	−20·8	0	3	
		3663	0·381	201·0	71·2	−14·1	17	87	
		3670	0·433	141·0	46·9	−13·2	0	2	
		3670	0·436	140·2	46·5	−13·1	1	3	
		3670	0·459	136·6	44·3	−13·1	1	4	
		3668	0·565	91·6	28·7	+ 4·6	0	5	
		3668	0·565	82·8	28·6	+ 9·6	0	3	
		3668	0·568	86·8	28·4	+ 7·3	123	600	
		3668	0·577	91·3	27·9	+ 4·7	0	1	
		3668	0·591	91·1	26·9	+ 4·8	0	1	
		3668	0·603	90·1	26·0	+ 5·3	0	10	
		3668	0·603	86·3	25·9	+ 7·6	6	18	
		3668	0·606	82·5	25·7	+ 9·9	0	4	
		3668	0·607	88·3	25·6	+ 6·4	16	95	
		3668	0·622	93·7	24·8	+ 5·0	3	18	
		3668	0·619	86·2	24·7	+ 7·7	0	16	
		3668	0·621	83·9	24·6	+ 9·1	0	2	
		3668	0·621	84·8	24·6	+ 8·5	5	21	
		3668	0·632	90·3	23·9	+ 5·1	94	444	
		3668	0·631	83·8	23·8	+ 9·1	3	10	
		3668	0·654	87·7	22·2	+ 6·6	2	9	
		3668	0·664	91·7	21·6	+ 3·9	16	69	
1894.				°	°	°			
225d·385	CL,FT	3668	0·662	85·7	21·5	+ 7·9	36	206	
		3668	0·665	88·1	21·3	+ 6·3	0	5	
		3668	0·666	83·6	21·2	+ 9·2	0	2	
		3668	0·667	82·4	21·1	+10·0	0	2	
		3668	0·672	88·2	20·8	+ 6·2	0	1	
		3668	0·673	91·1	20·8	+ 4·3	1	6	
		3668	0·674	90·1	20·7	+ 4·9	0	3	
		3668	0·680	88·4	20·2	+ 6·0	2	5	
		3671	0·839	128·6	15·9	−27·0	0	3	} 125*c*
		3671	0·845	128·8	15·3	−27·5	0	3	
		3672*a*	0·979	111·7	348·3	−19·6	0	68	
			0·834	79·9	6·2	+12·1			64
			0·889	51·1	2·9	+37·3			59
			0·915	81·3	356·4	+10·7			282
			0·910	73·4	356·9	+17·9			80
			0·967	75·0	346·9	+16·2			64
Aug. 14		Centre			(63·1)	(+6·7)	(355)	(1934)	(1138)
226·453	CL,HA		0·972	279·4	126·1	+10·7			251
			0·923	277·2	116·8	+ 9·2			161
			0·862	280·3	109·0	+12·3			179
			0·866	232·3	99·6	−27·8			177
		3662*a*	0·620	241·9	82·8	−11·4	14	76	
		3663	0·512	224·9	70·9	−15·0	14	86	
		3668	0·311	86·9	30·8	+ 7·5	0	7	
		3668	0·336	89·9	29·3	+ 6·3	82	329	
		3668	0·375	84·4	26·9	+ 8·3	53	349	
		3668	0·390	90·3	26·0	+ 6·1	9	181	
		3668	0·418	87·7	24·2	+ 7·1	2	19	
		3668	0·430	84·6	23·5	+ 8·3	5	51	
		3668	0·431	92·7	23·5	+ 4·9	95	422	
		3668	0·453	87·0	22·0	+ 7·3	2	13	
		3668	0·456	84·0	21·8	+ 8·7	4	20	
		3668	0·469	91·1	21·0	+ 5·4	0	4	
		3668	0·472	94·7	21·0	+ 3·7	10	45	
		3668	0·471	87·0	20·8	+ 7·3	37	179	
		3668	0·481	90·0	20·2	+ 5·9	2	7	
		3668	0·484	93·1	20·1	+ 4·4	0	13	
		3668	0·488	95·1	20·0	+ 3·4	0	2	
		3668	0·492	88·2	19·4	+ 6·7	2	7	
		3668	0·497	90·0	19·2	+ 5·8	0	6	
		3671	0·752	136·6	13·4	−27·7	0	6	72*c*
		3673	0·800	79·8	355·6	+12·1	2	11	201*c*
		3672*a*	0·917	115·0	347·2	−19·7	7	25	273*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 3670, August 13–14. A few very small unstable spots.
Group 3671, August 14–17. A few very small unstable and variable spots.
Group 3672, August 14–21. A small variable spot, *a*, with a very small companion on August 17.
Group 3673, August 15. 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).
				°	°	°			
1894.									
226d.453	CL,HA	3674*a*	0·965	97·4	335·2	− 5·3	16	80	222*c*
			0·888	74·5	345·9	+16·8			299
			0·905	87·5	344·0	+ 5·1			159
Aug. 15		Centre			(49·0)	(+6·7)	(356)	(1938)	(1994)
227·483	AW,M		0·957	278·7	109·0	+10·3			167
			0·922	236·8	95·0	−27·0			236
M.			0·871	247·2	91·6	−16·0			242
		3662	0·793	245·7	83·3	−14·6	0	5	128*c*
		3662*a*	0·776	248·6	82·6	−11·9	13	77	
		3663	0·663	237·1	70·5	−15·6	19	103	80*c*
		3668	0·083	58·9	31·1	+ 9·2	0	6	
		3668	0·109	88·8	28·9	+ 6·9	158	843	
		3668	0·127	112·0	28·5	+ 4·0	0	1	
		3668	0·121	101·3	28·4	+ 5·5	0	20	
		3668	0·161	107·8	26·4	+ 3·9	1	14	
		3668	0·169	104·6	25·8	+ 4·3	0	24	
		3668	0·171	81·5	25·4	+ 8·2	3	117	
		3668	0·172	91·1	25·3	+ 6·6	2	49	
		3668	0·194	111·5	24·8	+ 2·7	5	18	
		3668	0·193	83·4	24·1	+ 8·0	0	3	
		3668	0·209	112·2	24·1	+ 2·2	0	2	
		3668	0·202	81·3	23·6	+ 8·4	2	23	
		3668	0·206	100·5	23·5	+ 4·6	80	503	
		3668	0·227	110·4	23·0	+ 2·1	0	2	
		3668	0·214	85·5	22·8	+ 7·7	0	3	
		3668	0·218	88·7	22·6	+ 7·0	0	3	
		3668	0·230	88·3	21·9	+ 7·0	8	35	
		3668	0·233	82·8	21·7	+ 8·3	2	9	
		3668	0·245	94·7	21·1	+ 5·5	7	40	
		3668	0·248	86·9	20·8	+ 7·4	31	130	
		3668	0·255	101·3	20·8	+ 3·8	11	33	
		3668	0·260	92·8	20·1	+ 5·8	2	15	
		3668	0·269	101·0	19·9	+ 3·6	0	17	
		3671	0·641	150·8	14·6	−27·6	2	27	
		3671	0·668	148·7	12·0	−28·5	0	7	
		3671	0·679	146·7	10·2	−28·3	3	12	
		3672*a*	0·813	120·0	347·0	−19·5	10	47	164*p*
		3674	0·880	101·7	335·2	− 6·9	0	4	307*c*
		3674*a*	0·880	100·2	334·9	− 5·6	17	93	
		3675	0·972	118·8	324·2	−25·9	0	8	184*p*
			0·925	107·3	330·3	−13·2			119
			0·967	72·7	318·8	+18·4			130
Aug. 16		Centre			(35·2)	(+6·8)	(376)	(2293)	(1757)
1894.									
228d.400	HA,FT		0·945	247·3	90·2	−18·9			142
			0·867	243·8	78·3	−18·7			219
			0·806	236·7	69·6	−21·6			141
			0·739	250·0	67·9	− 9·8			85
		3662*a*	0·888	253·4	83·3	−11·3	11	55	79*s*
		3663	0·790	244·6	70·8	−15·3	12	71	30*c*
		3676	0·317	267·8	41·8	+ 5·7	3	9	
		3677	0·475	212·6	38·8	−17·0	2	3	
		3677	0·496	209·7	38·3	−18·9	1	5	
		3677	0·471	210·8	37·9	−17·2	0	4	
		3668	0·129	268·9	30·7	+ 6·6	87	376	
		3668	0·135	252·1	30·5	+ 4·4	3	21	
		3668	0·103	289·2	28·9	+ 8·7	57	371	
		3668	0·095	247·3	28·3	+ 4·7	1	3	
		3668	0·088	241·4	27·7	+ 4·4	4	6	
		3668	0·077	262·5	27·7	+ 6·2	7	82	
		3668	0·056	273·6	26·5	+ 7·0	0	2	
		3668	0·056	285·7	26·4	+ 7·7	3	17	
		3668	0·068	307·7	26·4	+ 9·2	0	2	
		3668	0·048	186·3	26·3	+ 4·1	45	267	
		3668	0·072	220·3	26·0	+ 3·7	2	22	
		3668	0·054	237·9	25·9	+ 5·2	4	78	
		3668	0·045	274·6	25·9	+ 7·0	4	28	
		3668	0·051	307·7	25·6	+ 8·6	6	23	
		3668	0·073	207·1	25·2	+ 3·1	0	3	
		3668	0·023	249·1	24·5	+ 6·4	19	122	
		3658	0·036	332·3	24·3	+ 8·6	0	6	
		3668	0·021	169·2	23·1	+ 5·6	0	3	
		3668	0·030	16·8	22·8	+ 8·4	5	12	
		3668	0·032	95·5	21·5	+ 6·6	43	177	
		3668	0·046	58·6	21·0	+ 8·1	3	22	
		3668	0·061	135·8	20·9	+ 4·3	16	40	
		3668	0·056	117·1	20·4	+ 5·3	0	4	
		3668	0·085	141·7	20·4	+ 3·0	0	2	
		3668	0·054	97·4	20·2	+ 6·4	1	4	
		3668	0·099	144·6	20·0	+ 2·2	0	2	
		3671	0·576	168·2	15·7	−27·4	0	5	
		3671	0·576	166·7	14·8	−27·2	0	8	
		3672	0·686	126·2	347·7	−18·4	1	3	57*c*
		3672*a*	0·702	126·9	346·9	−19·4	9	21	
		3674*a*	0·761	103·5	335·4	− 5·7	14	89	88*c*
		3675	0·922	122·9	323·4	−26·8	5	16	282*c*
		3675	0·941	121·2	319·7	−26·2	0	34	
		3678*a*	0·995	103·1	301·1	−12·2	0	50	

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 3674, August 15–24. A regular spot, *a*, which steadily diminishes in size. It is very small on August 24, and has a number of very small scattered companions.
Group 3675, August 16–21. Two or three small unstable and variable spots.
Group 3676, August 17. A small faint spot, *p* Group 3668.
Group 3677, August 17. 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).
1894.				°	°	°			
228d·400	HA, FT	3679*a*	0·994	73·0	297·9	+17·6	27	220	
			0·795	121·9	337·5	−20·1			138
			0·866	108·3	326·3	−12·1			177
			0·905	117·8	324·1	−21·5			128
			0·926	71·9	314·8	+19·3			658
Aug. 17		Centre			(23·3)	(+6·8)	(395)	(2288)	(2224)
229·406	AW, FT		0·814	278·0	64·8	+10·5			126
		3662*a*	0·966	256·3	83·0	−11·3	8	28	96*f*
		3663	0·900	249·1	70·5	−15·4	14	50	315*c*
		3680	0·632	240·0	43·9	−11·8	1	6	
		3668	0·369	269·3	31·7	+ 6·2	56	291	
		3668	0·361	264·7	31·0	+ 4·5	1	2	
		3668	0·351	271·6	30·6	+ 7·1	6	17	
		3668	0·340	269·8	29·9	+ 6·4	2	24	
		3668	0·322	275·4	28·8	+ 8·3	85	430	
		3668	0·311	266·0	28·1	+ 5·3	2	7	
		3668	0·315	254·1	27·6	+ 1·7	0	1	
		3668	0·293	264·1	26·9	+ 4·9	5	81	
		3668	0·290	278·2	26·7	+ 4·2	0	4	
		3668	0·284	266·1	26·5	+ 5·5	3	29	
		3668	0·283	261·2	26·2	+ 4·1	1	9	
		3668	0·277	270·0	26·1	+ 6·6	3	16	
		3668	0·276	274·8	26·1	+ 8·0	13	83	
		3668	0·277	258·3	25·7	+ 3·4	2	13	
		3668	0·254	268·0	24·7	+ 6·2	10	123	
		3668	0·249	272·8	24·5	+ 7·4	1	4	
		3668	0·241	259·3	23·7	+ 4·2	39	230	
		3668	0·234	265·2	23·5	+ 5·6	3	5	
		3668	0·244	251·8	23·4	+ 2·4	0	6	
		3668	0·229	275·9	23·2	+ 8·1	1	4	
		3668	0·227	279·8	23·0	+ 8·9	4	13	
		3668	0·223	267·0	22·9	+ 6·0	4	22	
		3668	0·217	273·5	22·6	+ 7·5	2	7	
		3668	0·213	276·6	22·3	+ 8·1	0	2	
		3668	0·209	269·7	22·1	+ 6·7	2	5	
		3668	0·206	265·5	21·9	+ 5·9	9	38	
		3668	0·204	273·0	21·8	+ 7·4	9	40	
		3668	0·211	250·6	21·8	+ 4·0	2	13	
		3668	0·210	258·3	21·8	+ 4·4	0	1	
		3668	0·198	275·9	21·4	+ 7·9	2	5	
		3668	0·204	256·9	21·4	+ 4·2	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).
1894.				°	°	°			
229d·406	AW, FT	3668	0·200	259·8	21·3	+ 4·8	6	11	
		3668	0·202	250·3	20·9	+ 2·9	0	1	
		3668	0·185	264·2	20·6	+ 5·8	1	3	
		3668	0·193	248·6	20·3	+ 2·8	0	1	
		3668	0·191	244·4	19·9	+ 2·1	3	11	
		3672*a*	0·572	139·4	346·9	−19·3	7	15	
		3674*a*	0·596	109·2	335·7	− 5·6	15	94	
		3675	0·833	129·1	323·7	−27·0	5	10	
		3675	0·836	128·6	323·1	−26·8	4	6	139*c*
		3675	0·863	126·3	319·2	−26·4	0	6	
		3678*a*	0·941	105·4	302·2	−12·0	9	26	352*c*
		3678*a*	0·960	103·7	298·4	−11·0	0	15	
		3679*a*	0·943	73·6	298·5	+17·7	26	99	189*c*
			0·812	70·3	315·8	+19·9			143
			0·911	59·2	304·6	+30·8			113
Aug. 18		Centre			(10·0)	(+6·9)	(366)	(1909)	(1473)
230·299	AW, HA		0·905	280·0	63·5	+12·0			98
			0·916	247·3	60·3	−17·5			110
I.		3663	0·965	251·8	69·9	−15·5	8	54	253*c*
		3668	0·550	270·4	31·5	+ 6·0	83	393	
		3668	0·512	267·2	28·8	+ 4·5	0	11	
		3668	0·500	273·7	28·2	+ 7·8	79	481	
		3668	0·500	268·3	28·1	+ 5·1	1	4	
		3668	0·500	266·5	28·0	+ 4·0	0	4	
		3668	0·484	267·9	27·0	+ 5·0	3	29	
		3668	0·478	265·8	26·5	+ 4·1	0	6	
		3668	0·468	269·6	26·0	+ 4·3	3	33	
		3668	0·460	272·9	25·6	+ 7·5	2	7	
		3668	0·456	274·3	25·3	+ 8·1	4	9	
		3668	0·444	270·1	24·5	+ 6·3	12	56	
		3668	0·437	277·8	24·0	+ 9·6	0	2	
		3668	0·434	268·4	23·8	+ 5·5	1	5	
		3668	0·434	265·3	23·7	+ 4·2	31	210	
		3668	0·423	276·9	23·2	+ 9·2	2	12	
		3668	0·414	268·4	22·6	+ 5·7	4	26	
		3668	0·397	273·5	21·6	+ 7·7	7	20	
		3668	0·397	266·8	21·4	+ 5·1	6	18	
		3668	0·394	263·2	21·1	+ 3·7	0	10	
		3668	0·386	258·9	20·3	+ 2·2	0	10	
		3672*a*	0·482	157·1	346·7	−19·5	6	19	
		3674*a*	0·433	119·0	335·8	− 5·8	17	85	

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 3678, August 17–22. A small spot, *a*, with one or more very small followers.
Group 3679, August 17–25. A large regular spot, *a*, with a very small companion on August 20. *a* diminishes steadily from day to day.
Group 3680, August 18. A very small spot, near the position of Group 3670 when last seen.

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).
1894.				°	°	°			
230d·299	AW,HA	3675	0·739	136·7	323·6	−26·8	3	10	
		3678*a*	0·857	108·5	302·1	−12·0	7	20	
I.		3678	0·896	107·4	297·2	−12·3	1	9	410*f*
		3679*a*	0·861	73·2	298·3	+18·0	22	80	164*c*
			0·843	57·7	302·3	+30·7			62
Aug. 19		Centre			(358·1)	(+6·9)	(302)	(1623)	(1097)
231·398	CL,FT		0·962	280·1	58·5	+11·5			113
			0·908	291·9	49·4	+22·8			37
			0·924	251·9	48·1	−13·8			230
			0·900	242·4	42·2	−21·1			148
			0·905	229·9	37·9	−31·7			127
		3681	0·848	271·8	41·7	+ 5·2	1	5	83*c*
		3668	0·754	277·4	32·8	+10·1	2	7	
		3668	0·747	269·2	32·0	+ 5·2	5	22	
		3668	0·742	272·4	31·7	+ 6·4	80	357	
		3668	0·732	269·4	30·6	+ 4·3	2	12	
		3668	0·720	271·2	29·7	+ 5·7	2	7	
		3668	0·717	269·5	29·4	+ 4·5	0	4	
		3668	0·709	275·0	29·0	+ 8·4	69	393	
		3668	0·709	269·1	28·7	+ 4·3	1	4	
		3668	0·691	270·4	27·4	+ 5·3	1	8	
		3668	0·692	269·3	27·4	+ 4·5	3	10	
		3668	0·684	272·8	26·9	+ 7·0	1	9	
		3668	0·678	275·5	26·5	+ 8·8	6	80	
		3668	0·667	273·6	25·6	+ 7·5	1	7	
		3668	0·656	270·5	24·7	+ 5·6	36	200	
		3668	0·636	270·7	24·3	+ 5·8	7	18	
		3668	0·647	276·4	24·1	+ 9·4	3	22	
		3668	0·633	275·5	23·0	+ 8·8	1	6	
		3668	0·633	267·9	22·8	+ 4·0	10	63	
		3668	0·619	269·7	21·9	+ 5·3	1	5	
		3668	0·618	275·3	21·9	+ 8·7	0	5	
		3682	0·681	234·6	19·1	−17·6	0	4	
		3683	0·108	272·3	349·8	+ 7·1	2	8	
		3672*a*	0·447	187·0	346·9	−19·3	7	13	
		3674*a*	0·254	150·0	336·3	− 5·8	15	83	
		3675	0·632	150·2	323·1	−26·7	0	11	
		3675	0·672	143·4	317·1	−26·7	0	6	
		3678*a*	0·717	114·3	301·8	−12·0	4	11	
		3678	0·762	114·6	298·3	−13·7	0	3	152*c*
		3678	0·769	113·3	297·3	−13·0	0	3	
		3678	0·771	112·5	296·9	−12·4	2	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).
1894.				°	°	°			
231d·398	CL,FT	3679*a*	0·720	71·9	297·8	+17·8	12	70	23*c*
		3679	0·735	71·5	296·6	+18·3	2	6	
			0·841	115·0	291·1	−16·7			143
			0·919	104·4	279·0	−10·3			33
			0·925	97·6	277·0	− 4·3			95
			0·953	116·5	276·2	−22·7			144
			0·959	68·7	268·8	+22·3			163
Aug. 20		Centre			(343·6)	(+6·9)	(276)	(1466)	(1491)
232·378	AW, FT		0·961	272·7	44·8	+ 4·6			79
			0·957	255·3	41·6	−11·9			133
I.			0·942	245·7	36·6	−20·1			164
			0·803	225·3	11·3	−29·1			140
		3668	0·895	270·6	34·2	+ 3·7	4	6	
		3668	0·884	273·2	33·1	+ 6·1	71	345	
		3668	0·878	270·5	32·1	+ 3·9	0	2	
		3668	0·864	273·6	30·7	+ 6·7	0	94	
		3668	0·861	271·7	30·2	+ 5·0	4	8	
		3668	0·857	275·5	30·0	+ 8·3	83	347	
		3668	0·850	271·6	29·0	+ 5·1	8	20	
		3668	0·847	273·9	28·8	+ 7·0	0	4	
		3668	0·849	270·7	28·8	+ 4·3	0	23	
		3668	0·838	275·9	28·0	+ 8·8	4	11	
		3668	0·835	277·1	27·7	+ 9·8	2	8	1005*c*
		3668	0·833	275·1	27·4	+ 8·1	6	32	
		3668	0·831	269·9	26·9	+ 3·9	0	6	
		3668	0·823	274·6	26·4	+ 7·0	1	4	
		3668	0·822	271·1	26·1	+ 5·0	21	150	
		3668	0·820	276·0	26·1	+ 8·9	2	16	
		3668	0·818	274·3	25·8	+ 7·5	0	5	
		3668	0·814	273·0	25·2	+ 6·5	18	59	
		3668	0·805	274·0	24·5	+ 7·4	6	13	
		3668	0·805	271·8	24·4	+ 5·6	6	18	
		3668	0·802	269·6	24·0	+ 3·9	7	28	
		3682	0·828	242·3	21·0	−18·2	6	14	
		3683	0·360	270·6	351·8	+ 6·2	11	23	
		3683	0·347	270·2	351·1	+ 7·3	1	6	
		3683	0·312	273·5	348·9	+ 7·8	3	8	
		3683	0·294	271·5	347·9	+ 7·2	5	13	
		3672*a*	0·519	211·4	347·3	−19·5	10	16	
		3674*a*	0·250	207·5	337·0	− 5·7	13	56	
		3675	0·596	162·2	318·9	−27·6	0	6	
		3678*a*	0·559	123·2	302·3	−11·7	4	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 3681, August 20. A very small spot near the West limb in the place occupied on August 17 by Group 3676.
Group 3682, August 20–22. A small spot.
Group 3683, August 20–22. A small spot on August 20. A few small spots in an irregular stream on the succeeding days.

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).
1894.				°	°	°			
232d.378	AW, FT	3678	0·612	122·1	298·7	−13·0	0	4	
I.		3679*a*	0·551	67·2	298·5	+18·3	14	54	
		3684	0·712	121·7	291·7	−16·5	0	2	106*c*
			0·860	131·4	282·7	−30·0			59
			0·857	98·6	272·8	− 3·7			123
			0·904	120·0	272·4	−23·3			272
			0·887	68·0	267·9	+22·7			257
Aug. 21		Centre			(330·7)	(−7·0)	(310)	(1408)	(2338)
233·412	CL, HA		0·894	232·9	11·1	−28·6			235
		3668	0·967	275·0	32·7	+ 6·7	56	322	
		3668	0·951	277·3	29·6	+ 9·1	46	266	
		3668	0·952	274·9	29·6	+ 6·8	0	39	
		3668	0·952	273·5	29·4	+ 5·5	5	34	
		3668	0·942	275·7	27·8	+ 7·7	5	26	1595*c*
		3668	0·940	276·9	27·5	+ 8·9	0	20	
		3668	0·932	273·3	26·0	+ 5·6	27	115	
		3668	0·920	274·5	24·3	+ 6·9	17	75	
		3668	0·920	271·7	24·0	+ 4·3	5	25	
		3682	0·929	247·8	21·3	−17·6	0	9	90*c*
		3685	0·826	245·0	8·0	−16·1	5	14	74*c*
		3683	0·577	271·4	352·4	+ 6·6	5	18	
		3683	0·513	273·1	348·0	+ 7·6	1	5	59*c*
		3674*a*	0·416	238·0	337·7	− 6·2	12	36	
		3678*a*	0·410	142·3	302·2	−12·1	3	7	
		3679*a*	0·368	57·9	298·0	+17·8	6	18	
			0·824	68·9	261·6	+21·3			105
Aug. 22		Centre			(317·0)	(+7·0)	(193)	(1029)	(2158)
234·327	CL, HA		0·974	274·6	22·1	+ 6·0			301
I.			0·945	237·1	9·0	−28·0			92
			0·912	248·2	6·7	−16·6			74
			0·815	277·4	359·9	+10·1			168
			0·754	290·8	353·4	+20·2			89
			0·700	277·8	349·6	+10·4			78
			0·751	233·7	345·2	−21·1			105
		3668	0·985	274·0	25·3	+ 5·2	0	120	
		3668	0·978	274·9	23·2	+ 6·3	0	52	
		3674*a*	0·580	247·8	337·5	− 6·8	5	18	
		3679*a*	0·224	33·2	297·5	+17·7	5	13	
			0·790	132·5	264·2	−27·0			118
Aug. 23		Centre			(304·9)	(+7·0)	(10)	(203)	(1025)
1894.				°	°	°			
235d.195	AR, FT		0·937	276·7	3·4	+ 8·8			122
M.			0·896	284·6	357·7	+16·2			139
			0·828	277·2	349·7	+10·0			221
			0·809	290·9	347·3	+21·1			137
			0·831	239·4	343·0	−20·5			112
		3674	0·779	255·7	342·7	− 6·5	0	3	
		3674	0·752	255·7	340·3	− 5·9	0	3	
		3674	0·734	255·5	338·8	− 5·6	0	2	
		3674*a*	0·731	254·3	338·3	− 6·4	1	3	67*c*
		3674	0·705	255·9	336·6	− 4·7	1	2	
		3674	0·705	254·7	336·3	− 5·5	0	5	
		3679*a*	0·202	339·8	297·6	+18·0	4	9	
			0·867	108·5	236·4	−12·1			86
			0·879	76·5	231·3	+15·2			62
Aug. 24		Centre			(293·4)	(+7·1)	(6)	(27)	(946)
236·243	AW, FT		0·946	247·5	346·6	−18·6			153
I.			0·938	278·2	349·9	+10·2			269
			0·907	294·0	345·2	+24·8			66
			0·903	288·4	344·8	+19·7			84
			0·865	257·3	337·7	− 7·3			44
		3679*a*	0·348	303·4	297·3	+17·8	2	10	
			0·919	111·4	216·6	−16·5			84
			0·969	78·6	202·9	+12·8			310
			0·974	86·1	202·4	+ 5·5			145
Aug. 25		Centre			(279·6)	(+7·1)	(2)	(10)	(1155)
237·445	CL, HA		0·956	290·7	338·0	+21·9			79
			0·958	261·1	335·8	− 6·4			152
			0·911	253·6	326·8	−11·8			219
			0·835	289·0	320·6	+19·7			301
			0·908	231·8	319·3	−30·3			154
		3686*a*	0·799	283·7	317·7	+15·2	2	5	44*c*
		3687*a*	0·763	103·3	215·0	− 5·4	14	28	
		3687	0·774	103·0	214·7	− 5·6	2	7	
		3687	0·783	102·0	213·8	− 4·8	0	5	
		3687	0·795	101·1	212·5	− 4·4	11	26	111*c*
		3688	0·912	83·5	197·6	+ 8·8	0	5	559*n*
		3689*a*	0·992	82·1	179·9	+ 8·6	24	87	301*p*
			0·857	74·8	204·4	+16·6			145
			0·937	116·0	199·3	−21·3			316
			0·907	89·5	198·7	+ 3·5			671
Aug. 26		Centre			(263·8)	(+7·1)	(53)	(163)	(3052)

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 3684, August 21. A very small spot.
Group 3685, August 22. A small spot.
Group 3686, August 26–28. A very small spot, *a*, on August 26. A pair of small spots, *a* and *b*, on August 27. *b* has considerably increased in size by August 28. diminishes afterwards, and *a* alone remains by September 2.
Group 3687, August 26–September 4. A number of small spots in a straight stream. *a*, the leader, is the largest. The group increases in size up to August 28, but
Group 3688, August 26. A very small spot.
Group 3689, August 26–September 4. A large regular spot, *a*. It diminishes in size after August 29, and is followed, after September 1, by a compact cluster of small irregular 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).
1894.				°	°	°			
238d.341	CL,HA		0·912	286·9	318·4	+18·3			161
			0·952	237·3	317·1	−28·2			72
I.			0·844	293·9	309·3	+24·0			103
			0·830	247·8	304·1	−14·0			129
			0·740	235·2	291·9	−19·6			103
		3686*a*	0·910	283·3	318·1	+15·0	5	29	120*c*
		3686*b*	0·883	282·8	314·5	+14·6	7	28	
		3687*a*	0·618	108·8	216·0	− 5·8	16	70	
		3687	0·636	108·3	214·7	− 5·8	5	16	
		3687	0·648	105·6	213·3	− 4·5	2	7	
		3687	0·651	106·5	213·3	− 5·1	1	6	
		3687	0·662	107·3	212·6	− 5·9	0	1	
		3687	0·662	105·4	212·2	− 4·7	9	28	
		3687	0·665	104·5	211·9	− 4·2	0	1	
		3687	0·687	105·7	210·4	− 5·4	0	3	
		3689*a*	0·944	83·1	180·7	+ 8·8	27	90	242*f*
			0·878	128·1	200·5	−28·1			58
			0·807	81·6	197·8	+11·1			226
			0·817	90·8	197·2	+ 3·5			183
			0·882	120·2	196·5	−22·4			234
			0·928	76·0	187·6	+ 4·0			236
Aug. 27		Centre			(251·9)	(+7·1)	(72)	(279)	(1867)
239·506	AW,HA		0·911	291·3	302·9	+22·3			275
			0·920	253·6	300·7	−12·0			197
			0·918	233·9	294·3	−29·0			59
			0·888	244·5	294·1	−18·7			178
			0·826	294·0	291·8	+23·8			92
		3686*a*	0·989	284·4	319·3	+15·2	0	41	
		3686*b*	0·967	283·3	312·8	+14·7	16	74	174*c*
		3687*a*	0·409	122·8	216·4	− 6·0	18	99	
		3687	0·429	123·2	215·4	− 6·9	0	6	
		3687	0·428	120·0	214·7	− 5·6	2	6	
		3687	0·446	116·4	213·0	− 4·8	9	30	
		3687	0·456	117·6	212·6	− 5·6	0	4	
		3690	0·466	141·2	214·9	−10·3	0	7	
		3691	0·554	89·8	202·8	+ 6·3	0	4	
		3691	0·563	93·4	202·4	+ 4·1	0	6	
		3689*a*	0·822	83·6	180·8	+ 9·4	17	90	
		3692*a*	0·848	79·0	178·0	+13·1	2	17	
		3692*b*	0·875	77·6	174·8	+14·3	6	17	443*c*
			0·726	126·7	198·4	−20·0			181

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).
1894.				°	°	°			
239d.506	AW,HA		0·942	118·3	171·9	−23·6			595
			0·955	84·2	163·3	+ 7·7			173
Aug. 28		Centre			236·5	(+7·2)	(70)	(401)	(2367)
240·381	CL,HA		0·953	249·5	293·8	−17·0			178
			0·889	233·2	278·6	−28·0			73
			0·851	242·1	277·6	−19·2			89
			0·803	227·8	266·9	−27·3			69
		3687*a*	0·273	147·3	216·5	− 6·1	23	64	
		3687	0·286	139·0	214·2	− 5·4	0	12	
		3687	0·286	135·9	213·5	− 4·8	1	5	
		3691	0·382	94·3	202·6	+ 5·1	1	6	
		3689*a*	0·690	83·8	181·1	+ 9·5	16	114	
		3692*a*	0·710	78·0	179·6	+13·6	4	10	
		3692	0·718	77·2	178·9	+14·2	1	7	
		3692	0·724	78·5	178·4	+13·3	1	6	
		3692*b*	0·764	78·2	174·8	+13·7	12	53	89*c*
			0·710	92·1	179·9	+ 3·6			92
			0·855	123·0	173·8	−23·3			378
			0·890	86·6	161·9	+ 6·3			309
			0·946	117·7	159·5	−23·3			253
			0·932	105·4	158·7	−11·5			213
Aug. 29		Centre			(225·0)	(+7·2)	(59)	(277)	(1743)
241·400	AW, CL		0·815	292·7	265·8	+22·6			160
			0·847	228·7	258·1	−29·1			146
		3687*a*	0·262	200·9	216·9	− 7·0	10	37	
		3687	0·237	198·3	215·8	− 5·7	5	14	
		3691	0·183	104·2	201·3	+ 4·5	0	8	
		3691	0·219	85·7	198·8	+ 7·9	0	4	
		3691	0·222	80·7	198·7	+ 9·0	1	2	
		3691	0·232	89·2	198·0	+ 7·2	0	3	
		3691	0·245	80·7	197·4	+ 9·3	0	1	
		3691	0·257	78·2	196·8	+10·0	0	3	
		3691	0·270	81·3	195·9	+ 9·3	1	2	
		3691	0·270	82·7	195·8	+ 8·9	1	3	
		3693	0·298	36·5	200·6	+20·9	0	3	
		3689*a*	0·513	83·4	180·5	+ 9·6	14	88	
		3692*a*	0·529	75·5	179·3	+13·8	7	37	
		3692	0·549	76·1	178·4	+13·6	4	31	
		3692	0·572	74·5	176·9	+14·7	3	9	
		3692	0·580	77·2	176·1	+13·2	4	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 3690, August 28. A very small spot.
Group 3691, August 28–September 1. A disturbed area in which very small unstable spots appear and disappear.
Group 3692, August 28–September 7. A stream composed of two principal spots, *a* and *b*, united by a number of small spots. *a* is not seen after September 5.
Group 3693, August 30. 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).
1894.				°	°	°			
241d.400	AW, CL	3692	0·595	74·9	175·2	+14·7	1	3	
		3692*b*	0·613	76·8	173·8	+13·7	21	121	
		3692	0·615	74·5	173·8	+15·2	0	5	
		3692	0·623	76·8	173·0	+13·8	0	3	
		3694	0·956	104·5	140·9	−11·5	5	19	220*c*
			0·818	132·5	168·4	−28·4			130
			0·779	87·4	160·1	+ 6·6			153
			0·881	124·5	158·0	−25·7			273
			0·885	112·3	153·4	−15·8			597
			0·914	81·1	144·8	+11·0			165
			0·931	71·1	142·0	+20·2			275
Aug. 30		Centre			(211·5)	(+7·2)	(77)	(411)	(2119)
242·467	HA, FT	3687*a*	0·400	234·7	216·5	− 6·5	9	35	
		3687	0·376	237·0	215·8	− 5·0	1	8	
		3691	0·109	311·4	202·2	+11·3	0	18	
		3691	0·035	311·4	198·9	+ 8·5	0	10	
		3689*a*	0·201	79·7	180·6	+ 9·9	13	75	
		3692	0·286	64·6	182·0	+14·0	0	8	
		3692	0·298	67·0	181·1	+13·6	13	67	
		3692	0·299	72·2	180·5	+12·1	0	4	
		3692	0·362	69·6	177·0	+14·0	0	4	
		3692	0·384	70·9	175·5	+13·9	5	32	
		3692	0·400	69·5	174·7	+14·7	0	6	
		3692	0·412	69·5	174·0	+14·9	3	11	
		3692	0·413	72·6	173·6	+13·7	20	113	
		3694	0·850	107·7	142·0	−11·0	0	15	46*c*
			0·762	122·2	154·7	−18·7			139
			0·825	114·4	146·4	−15·4			90
			0·883	106·3	138·0	−10·7			108
			0·942	110·2	130·6	−16·2			132
Aug. 31		Centre			(199·4)	(+7·2)	(64)	(406)	(515)
243·419	FT, HA		0·898	258·2	247·0	− 7·2			76
		3687*a*	0·573	247·2	216·8	− 6·7	11	41	
		3687	0·534	246·6	214·2	− 6·0	1	5	
		3691	0·333	283·8	204·0	+11·3	0	22	
		3691	0·333	260·1	203·9	+ 3·5	0	11	
		3691	0·235	269·4	198·4	+ 7·1	1	4	
		3689	0·055	79·1	181·7	+ 7·8	0	3	
		3689*a*	0·084	58·9	180·6	+ 9·7	14	62	
		3689	0·129	64·0	178·1	+10·4	1	4	
1894.				°	°	°			
243d.419	FT, HA	3689	0·143	69·2	177·0	+10·0	1	3	
		3692*a*	0·121	26·3	181·6	+13·4	10	82	
		3692	0·157	37·7	179·1	+14·3	1	3	
		3692	0·183	45·0	177·2	+14·6	0	2	
		3692	0·192	43·6	177·0	+15·1	1	2	
		3692	0·192	43·9	176·9	+15·1	1	2	
		3692	0·204	43·5	176·4	+15·6	2	7	
		3692	0·201	51·0	175·6	+14·4	1	7	
		3692	0·215	49·8	175·1	+15·1	6	29	
		3692	0·209	55·1	174·7	+14·0	2	4	
		3692	0·231	51·7	174·0	+15·3	0	8	
		3692*b*	0·234	58·4	173·0	+14·1	24	120	
		3695	0·314	95·5	166·6	+ 5·1	0	5	
		3694	0·721	112·9	142·4	−11·0	0	5	} 77*f*
		3694	0·742	110·6	140·1	−10·0	1	5	
		3694	0·770	109·4	137·5	−10·0	0	5	
		3696	0·916	112·3	122·6	−17·1	0	7	97*c*
			0·668	144·2	159·1	−26·2			112
			0·664	125·3	150·5	−16·6			90
			0·786	124·7	141·0	−21·4			92
			0·905	121·2	126·9	−24·2			97
			0·942	80·9	113·7	+11·0			107
			0·977	106·3	109·7	−14·2			299
Sept. 1		Centre			(184·8)	(+7·2)	(78)	(448)	(1047)
244·508	AW, CL	3687*a*	0·743	254·3	216·4	− 6·6	9	35	
		3689*a*	0·172	281·6	180·3	+ 9·1	10	43	
		3689	0·148	296·6	178·2	+10·9	5	72	
		3689	0·133	299·2	177·3	+10·9	3	36	
		3692*a*	0·218	299·7	181·7	+13·3	12	49	
		3692	0·151	332·6	174·6	+14·9	0	46	
		3692*b*	0·128	343·0	172·8	+14·2	24	119	
		3694	0·608	118·3	137·6	−10·7	0	15	
			0·854	80·9	111·3	+11·5			153
			0·915	109·8	107·7	−14·8			416
Sept. 2		Centre			(170·5)	(+7·2)	(63)	(415)	(569)
245·229	CL, FT		0·904	284·7	226·3	+16·3			263
			0·880	248·8	218·8	−14·8			158
M.		3687*a*	0·844	257·2	216·7	− 6·7	8	20	140*c*
		3689*a*	0·335	276·4	180·5	+ 8·9	10	35	
		3689	0·334	285·3	180·0	+11·8	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 3694, August 30–September 6. A few small unstable spots, irregularly scattered.
Group 3695, September 1. A very small spot.
Group 3696, September 1. 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 Spots. Longitude.	Heliographic Spots. 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).
1894.				°	°	°			
245d.229	CL,FT	3689	0·308	283·7	178·6	+11·0	7	21	
		3689	0·300	280·5	178·3	+10·0	9	45	
M.		3689	0·291	284·1	177·5	+11·0	3	25	
		3689	0·281	279·2	177·2	+ 9·6	0	9	
		3692*a*	0·368	287·1	182·0	+12·9	11	35	
		3692	0·272	302·0	174·7	+15·2	5	21	
		3692*b*	0·237	302·0	172·8	+14·2	28	117	
		3694	0·486	126·7	137·7	−10·2	0	6	
		3697	0·850	111·9	106·6	−14·4	4	15	
		3697	0·875	111·8	103·8	−15·1	4	16	634*c*
		3697	0·889	111·1	101·9	−15·0	0	7	
			0·950	105·3	91·6	−12·0			221
Sept. 3		Centre			(160·9)	(+7·2)	(89)	(374)	(1416)
246·688	AW,HA		0·891	274·1	205·0	+ 7·0			316
			0·886	241·9	198·2	−20·8			211
			0·797	278·3	194·9	+11·0			120
		3687*a*	0·974	260·4	217·2	− 7·6	5	29	190*f*
		3698	0·897	289·9	206·1	+21·1	0	11	
		3698	0·879	289·7	203·7	+20·8	0	10	198*sp*
		3689*a*	0·631	274·6	181·0	+ 8·6	3	9	
		3689	0·603	278·0	179·0	+10·7	0	10	
		3689	0·593	275·3	178·3	+ 9·1	2	12	
		3692*a*	0·641	280·6	181·7	+12·4	5	14	
		3692*b*	0·521	285·4	172·8	+14·3	11	77	
		3692	0·510	283·9	172·1	+13·3	0	4	
		3692	0·497	283·2	171·3	+12·8	0	6	
		3697	0·641	122·7	108·0	−14·1	8	29	
		3697	0·653	122·4	107·1	−14·5	1	6	
		3697	0·696	122·2	104·1	−16·0	8	34	
		3697	0·700	121·0	103·3	−15·4	0	6	
		3697	0·704	120·3	102·8	−15·1	5	24	
		3699	0·854	59·2	84·1	+30·0	6	26	95*c*
			0·863	118·0	87·9	−19·7			138
			0·893	108·6	81·6	−13·0			228
Sept. 4		Centre			(141·7)	(−19·7)	(54)	(307)	(1496)
247·470	CL,FT		0·947	287·6	203·7	+19·6			231
			0·932	274·8	200·5	+ 7·2			672
			0·943	241·9	196·1	−23·4			215
			0·836	280·7	188·5	+13·0			301
			0·810	271·6	185·5	+ 5·6			88

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 Spots. Longitude.	Heliographic Spots. 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).
1894.				°	°	°			
247d.470	CL,FT		0·787	231·3	173·4	−24·1			154
			0·712	218·3	161·1	−27·6			130
		3692*a*	0·760	280·2	181·1	+12·5	2	6	87*c*
		3692	0·672	283·1	173·6	+14·2	0	4	
		3692*b*	0·655	283·7	172·2	+14·4	13	53	70*c*
		3694	0·355	212·6	142·5	−10·2	3	19	
		3694	0·369	210·7	142·3	−11·3	7	12	
		3694	0·375	204·3	140·4	−12·7	0	6	
		3697	0·498	132·4	109·2	−12·8	2	8	
		3697	0·518	133·4	108·6	−14·1	11	33	
		3697	0·510	131·4	108·3	−13·0	0	2	
		3697	0·580	132·8	105·0	−16·6	0	3	
		3697	0·593	130·5	103·4	−16·2	5	14	
		3697	0·602	131·3	103·2	−16·9	0	6	
		3697	0·596	129·1	102·7	−15·7	6	22	
		3697	0·604	127·6	101·7	−15·2	0	4	
		3699	0·737	55·9	86·8	+29·7	0	5	
		3699	0·762	56·7	84·3	+29·8	0	3	
		3699	0·776	55·9	83·1	+30·7	5	8	40*c*
		3700*a*	0·976	99·6	55·3	− 7·7	19	93	127*c*
			0·782	114·2	84·2	−13·7			245
			0·845	127·4	83·1	−26·1			140
			0·893	109·1	71·4	−13·4			131
Sept. 5		Centre			(131·3)	(+7·3)	(73)	(303)	(2631)
248·605	CL,HA		0·994	280·0	201·2	+10·7			91
			0·937	283·6	186·9	+15·3			168
			0·898	270·8	180·3	+ 3·9			123
			0·877	236·7	169·9	−24·5			140
		3692	0·850	283·4	175·1	+15·2	3	13	
		3692	0·830	282·5	173·0	+14·4	0	6	460*p*
		3692	0·820	282·4	171·9	+14·3	5	21	
		3694	0·521	236·1	142·4	−10·3	3	13	
		3694	0·515	232·9	141·1	−11·4	2	7	
		3694	0·520	230·1	140·4	−12·8	0	4	
		3697	0·389	167·5	111·4	−15·0	0	5	
		3697	0·372	164·5	110·6	−13·7	0	13	
		3697	0·377	161·7	109·4	−13·7	0	9	
		3697	0·393	158·9	108·0	−14·2	0	5	
		3697	0·432	150·9	103·9	−15·0	0	7	
		3697	0·458	152·5	103·7	−16·8	0	10	
		3697	0·450	150·8	103·3	−15·9	0	8	
		3697	0·456	148·1	102·0	−15·6	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 3697, September 3–12. A number of ill-defined unstable spots, mostly small. The group, on September 7, consists of two straight streams of very small spots at right angles to each other. Only two or three very small spots in the following part of the group remain by September 8.
Group 3698, September 4. Two small spots.
Group 3699, September 4–11. A few very small spots.
Group 3700, September 5–14. An irregular spot, *a*, with a small companion on September 7. *a* has broken up by September 11 into a number 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).
1894.				°	°	°			
248d·605	CL, HA	3699	0·612	46·9	85·1	+30·9	0	4	
		3699	0·621	48·8	83·8	+30·3	0	4	
		3699	0·632	49·5	82·7	+30·3	0	4	
		3700*a*	0·887	102·9	55·8	− 7·9	19	58	358*c*
		3701	0·971	106·8	43·0	−14·3	30	162	
		3701*a*	0·988	105·8	37·8	−14·3	23	149	
		3702*a*	0·960	75·8	41·6	+15·6	34	252	245*f*
		3703*a*	0·981	85·7	37·2	+ 5·6	13	60	364*c*
		3704*a*	0·988	81·5	34·5	+ 9·5	26	146	
Sept. 6		Centre			(116·4)	(+7·3)	(158)	(966)	(1949)
249·205	CL, M		0·926	276·8	176·7	+ 9·1			204
			0·899	288·9	173·1	+20·1			165
M.			0·918	240·3	168·6	−23·5			222
			0·834	273·5	165·2	+ 7·0			162
			0·836	248·8	161·4	−13·3			113
			0·882	231·9	160·5	−28·6			177
			0·899	224·4	158·8	−35·5			93
		3692	0·913	283·7	175·1	+15·4	5	26	
		3692	0·900	282·9	173·3	+14·8	0	7	302*c*
		3692*b*	0·889	282·6	171·9	+14·5	4	22	
		3697	0·364	188·9	111·7	−13·7	0	2	
		3697	0·362	186·8	110·9	−13·7	2	8	
		3697	0·367	175·1	106·6	−14·1	1	4	
		3697	0·371	172·1	105·4	−14·2	3	8	
		3697	0·432	170·5	104·1	−17·8	0	8	
		3697	0·412	169·8	104·1	−16·5	2	10	
		3697	0·389	167·5	103·4	−15·0	2	9	
		3697	0·409	166·9	102·9	−16·2	0	4	
		3699	0·508	40·8	86·1	+29·4	3	5	
		3699	0·546	41·0	83·8	+30·9	1	6	
		3699	0·553	41·6	83·1	+31·0	5	10	
		3700*a*	0·820	104·8	55·5	− 7·7	11	51	157*c*
		3700	0·870	103·5	50·0	− 8·0	2	14	
		3701	0·914	110·1	45·9	−15·0	1	4	
		3701	0·934	108·2	42·4	−14·1	30	189	
		3701	0·944	109·3	41·0	−15·5	3	24	354*c*
		3701*a*	0·963	106·9	36·9	−14·0	28	167	
		3702*a*	0·916	75·9	41·2	+15·8	39	263	
		3703*a*	0·949	86·5	36·5	+ 5·6	13	56	560*c*
		3704*a*	0·962	82·1	33·5	+ 9·6	28	160	
		3705*a*	0·985	70·9	26·4	+20·1	6	34	383*c*
Sept. 7		Centre			(108·4)	(+7·3)	(189)	(1091)	(2892)

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).
1894.				°	°	°			
250d·460	AW, FT		0·980	285·1	171·7	+16·2			241
			0·973	243·4	163·6	−23·7			143
			0·936	273·5	161·6	+ 5·9			203
			0·968	236·0	160·1	−30·3			223
			0·944	251·6	159·5	−14·7			77
			0·900	246·1	151·5	−17·8			128
			0·844	289·5	149·8	+20·4			132
			0·816	250·1	143·3	−11·6			76
			0·800	242·8	139·7	−16·6			69
			0·724	285·7	138·3	+16·4			86
		3706	0·899	279·3	156·6	+11·6	6	16	
		3706	0·899	279·2	156·5	+11·4	6	18	164*c*
		3706	0·887	279·5	155·0	+11·8	0	10	
		3706	0·877	280·7	153·8	+12·9	4	20	
		3697	0·449	206·8	104·0	−16·4	4	17	
		3699	0·387	11·1	87·0	+29·3	0	2	
		3699	0·388	13·3	86·0	+29·3	0	4	
		3699	0·410	17·2	83·9	+30·2	0	7	
		3699	0·433	20·1	81·9	+31·1	0	4	
		3700*a*	0·626	111·9	56·2	− 7·6	7	37	
		3707*a*	0·612	70·3	54·0	+17·7	0	5	
		3707*b*	0·656	67·4	51·9	+20·2	2	7	
		3701	0·779	118·1	46·3	−16·5	21	61	
		3701	0·798	118·0	44·6	−17·1	1	6	
		3701	0·795	116·1	44·2	−15·6	11	41	
		3701	0·796	114·5	43·6	−14·5	4	10	
		3701	0·794	113·4	43·5	−13·6	17	65	
		3701	0·812	113·6	41·9	−14·3	0	19	39*c*
		3701	0·819	114·9	41·6	−15·6	25	127	
		3701	0·833	115·1	40·3	−16·2	1	5	
		3701	0·835	113·1	39·5	−14·7	5	19	
		3701	0·849	112·8	38·0	−15·0	0	4	
		3701*a*	0·858	111·2	36·6	−14·0	23	130	
		3708	0·775	109·2	44·1	− 9·9	7	39	
		3708	0·813	108·7	40·5	−10·6	3	11	
		3708	0·841	107·1	38·4	−10·1	0	4	
		3702*a*	0·768	75·5	41·5	+15·8	54	283	122*f*
		3703*a*	0·820	88·3	36·7	+ 5·6	9	43	
		3704*a*	0·842	83·4	34·1	+ 9·5	31	164	137*c*
		3705*a*	0·909	71·3	25·8	+20·0	6	32	149*c*
		3709	0·978	104·3	16·3	−12·3	6	34	268*f*
			0·900	89·0	27·7	+ 4·1			531
			0·897	80·6	27·5	+11·7			256
Sept. 8		Centre			(91·9)	(+7·3)	(253)	(1244)	(3306)

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 3701, September 6–18. A long intricate and irregular stream of spots. The individual members of the group undergo frequent change, and only the last spot, *a*, can be identified for any length of time. *a* is regular at first, but has become irregular, and has partly coalesced with neighbouring spots by September 15.
Group 3702, September 6–18. A large regular spot, *a*, with a very small companion on September 13.
Group 3703, September 6–13. A single spot, *a*, which diminishes from day to day. Several very small companions are seen on September 12 and 13.
Group 3704, September 6–14. A regular spot, *a*, with occasionally some small companions.
Group 3705, September 7–12. A small single spot, *a*. A very small companion is seen on September 10. *a* is not seen after this date, and the group consists of two or three very small companions.
Group 3706, September 8–9. A few small spots in a straight stream. The group is first seen near the West limb.
Group 3707, September 8–15. A pair of very faint small spots, *a* and *b*, on September 8. The group has greatly increased by September 10, and forms an irregular stream of which *a* and *b* are the first and last. The group then diminishes again, and only *b* remains by September 13.
Group 3708, September 8–10. A few small spots, irregularly arranged, *n* of Group 3701.
Group 3709, September 8–12. 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).
				°	°	°			
1894.									
251d·240	AW, AR		0·888	287·0	144·8	+18·4			276
			0·911	249·7	143·6	−15·1			800
M.		3706	0·963	279·1	156·6	+10·7	14	59	233*c*
		3697	0·562	221·5	104·5	−18·1	0	14	
		3697	0·550	221·9	104·1	−17·4	0	3	
		3697	0·538	223·0	103·9	−16·4	4	18	
		3699	0·394	348·4	86·7	+29·9	0	5	
		3700*a*	0·485	120·5	56·7	− 7·6	10	37	
		3707*a*	0·477	63·6	54·8	+18·7	0	4	
		3707	0·489	66·8	53·5	+17·5	0	2	
		3707*b*	0·536	63·6	50·9	+20·1	1	5	
		3701	0·645	125·5	48·5	−15·9	0	2	
		3701	0·660	125·3	47·5	−16·3	5	25	
		3701	0·669	124·4	46·6	−16·2	6	17	
		3701	0·673	122·2	45·5	−15·1	1	11	
		3701	0·679	123·3	45·5	−16·0	1	6	
		3701	0·685	124·0	45·3	−16·6	0	4	
		3701	0·683	122·9	45·0	−15·9	1	14	
		3701	0·691	123·3	44·6	−16·5	0	6	
		3701	0·684	121·6	44·5	−15·1	3	10	
		3701	0·700	123·0	43·9	−16·6	0	7	
		3701	0·687	119·2	43·5	−13·8	5	76	
		3701	0·694	120·8	43·5	−15·0	0	14	
		3701	0·709	117·7	41·4	−13·7	0	13	
		3701	0·719	120·1	41·4	−15·6	15	122	
		3701	0·740	120·2	39·8	−16·4	1	10	
		3701	0·738	117·6	39·1	−14·6	6	52	
		3701	0·752	116·8	37·5	−14·6	1	4	
		3701*a*	0·763	115·6	36·5	−14·1	22	122	
		3708	0·653	113·9	44·4	− 9·6	5	16	
		3708	0·698	114·4	41·3	−11·2	0	14	
		3708	0·699	112·2	40·6	− 9·8	0	5	
		3702*a*	0·644	73·8	41·6	+16·0	70	294	
		3703*a*	0·702	89·2	36·8	+ 5·8	5	33	77*c*
		3704*a*	0·731	83·9	34·2	+ 9·5	27	159	
		3705*a*	0·829	70·4	25·4	+20·3	9	19	103*c*
		3709	0·925	106·3	16·5	−12·0	6	20	263*p*
			0·822	86·3	26·0	+ 7·2			374
			0·916	111·9	19·1	−16·7			152
Sept. 9		Centre			(81·5)	(+7·3)	(218)	(1222)	(2278)
252·435	HA, FT		0·965	253·6	137·9	−13·7			222
			0·945	283·6	137·7	+15·2			218
			0·899	275·2	130·2	+ 7·8			87

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).
				°	°	°			
1894.									
252d·435	HA, FT		0·885	244·1	122·9	−18·9			66
			0·780	245·1	112·5	−14·3			122
			0·776	245·5	112·3	−13·8			130
		3710	0·693	257·1	108·2	− 3·6	4	11	
		3710	0·658	255·0	105·2	− 4·2	6	12	
		3697	0·713	238·4	104·9	−16·4	1	6	
		3697	0·710	236·4	104·0	−17·5	0	4	72*c*
		3697	0·706	237·3	104·0	−16·7	0	4	
		3699	0·492	322·2	86·0	+29·6	0	9	
		3699	0·488	330·3	82·3	+31·9	0	6	
		3700*a*	0·299	150·9	57·4	− 8·0	7	41	
		3707*a*	0·255	42·1	55·5	+18·0	4	27	
		3707*b*	0·309	46·6	52·1	+19·2	16	37	
		3701	0·494	143·2	47·9	−16·4	5	17	
		3701	0·506	140·8	46·4	−16·3	6	32	
		3701	0·511	136·0	44·3	−14·8	12	98	
		3701	0·504	134·0	44·0	−13·8	1	6	
		3701	0·530	137·3	43·9	−16·2	1	12	
		3701	0·521	134·6	43·3	−14·8	2	9	
		3701	0·531	134·2	42·7	−15·1	7	27	
		3701	0·533	132·6	42·0	−14·6	3	23	
		3701	0·551	131·4	40·6	−14·8	1	4	
		3701	0·566	132·7	40·3	−16·0	14	59	
		3701	0·568	128·9	38·7	−14·5	16	86	
		3701	0·594	131·0	38·0	−16·5	1	17	
		3701	0·586	128·6	37·6	−15·0	0	6	
		3701*a*	0·599	126·1	35·9	−14·4	20	136	
		3708	0·460	128·2	44·4	− 9·8	0	7	
		3702*a*	0·426	67·5	41·7	+16·0	68	278	
		3703*a*	0·482	92·0	37·0	+ 5·4	8	16	
		3704*a*	0·518	84·2	34·5	+ 9·2	23	138	
		3705	0·619	67·7	28·6	+19·3	0	4	
		3705*a*	0·671	68·1	24·5	+20·0	1	6	28*f*
		3709	0·800	111·5	16·3	−12·4	6	19	384*f*
		3709	0·815	111·2	14·8	−12·7	0	4	
		3711	0·839	80·4	8·3	+12·0	0	9	
			0·781	118·9	20·3	−17·2			114
Sept. 10		Centre			(65·8)	(+7·2)	(233)	(1170)	(1443)
253·624	AW, CL		0·904	277·5	115·3	+ 9·8			113
		3710	0·836	260·2	105·5	− 3·1	9	20	72*c*
		3697	0·864	247·0	105·6	−15·7	2	5	413*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 3710, September 10–12. One or two small spots, first seen near the West limb.
Group 3711, September 10. 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).
1894.				°	°	°			
253d·624	AW, CL	3712	0·756	238·3	92·5	−18·1	5	9	} 65c
		3712	0·717	238·1	89·4	−16·7	0	3	
		3699	0·657	307·7	86·6	+29·5	1	5	
		3700a	0·299	207·4	58·1	− 8·2	5	13	
		3700	0·282	207·3	57·6	− 7·4	8	42	
		3700	0·290	200·1	55·9	− 8·6	1	4	
		3700	0·283	197·5	55·0	− 8·5	3	6	
		3707a	0·214	331·3	56·3	+18·0	5	16	
		3707	0·216	339·0	54·8	+18·7	1	3	
		3707	0·200	347·8	52·6	+18·4	0	5	
		3707b	0·223	354·0	51·5	+20·0	13	72	
		3701	0·403	176·4	48·6	−16·4	2	6	
		3701	0·375	176·2	48·6	−14·7	0	3	
		3701	0·387	171·8	46·8	−15·2	0	17	
		3701	0·408	167·8	45·0	−16·2	8	25	
		3701	0·390	166·4	44·7	−15·0	8	17	
		3701	0·374	165·9	44·7	−14·0	4	29	
		3701	0·376	163·1	43·7	−13·8	0	2	
		3701	0·399	163·7	43·5	−15·3	0	17	
		3701	0·422	161·9	42·3	−16·4	3	14	
		3701	0·435	161·7	41·9	−17·2	1	5	
		3701	0·409	159·1	41·4	−15·3	3	8	
		3701	0·415	155·5	39·9	−15·0	2	18	
		3701	0·443	157·2	39·8	−16·9	2	7	
		3701	0·409	153·3	39·2	−14·3	0	16	
		3701	0·428	153·0	38·5	−15·3	42	196	
		3701	0·439	151·4	37·6	−15·6	1	5	
		3701	0·437	149·8	37·0	−15·1	1	3	
		3701	0·474	152·8	37·0	−17·8	3	9	
		3701	0·470	150·5	36·2	−17·1	0	3	
		3701a	0·443	146·4	35·5	−14·6	20	94	
		3702a	0·208	41·6	41·9	+16·1	63	281	
		3703a	0·231	98·3	36·9	+ 5·1	2	5	
		3704	0·251	81·4	35·6	+ 9·1	0	5	
		3704a	0·270	82·8	34·4	+ 8·9	24	94	
		3705	0·389	58·6	29·7	+18·4	2	5	
		3705	0·432	53·6	28·3	+21·5	0	5	
		3705	0·429	59·9	27·1	+19·0	1	3	
		3705	0·457	55·6	26·3	+21·5	0	2	
		3713	0·381	92·9	28·3	+ 5·6	0	7	
		3709	0·632	120·3	16·2	−12·6	9	17	
		3714	0·929	99·1	343·1	− 5·7	0	12	290s
			0·746	118·7	7·4	−15·7			119
			0·836	132·4	5·2	−29·3			84

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).
1894.				°	°	°			
353d·624	AW, CL		0·912	67·7	343·7	+23·3			87
			0·833	77·5	353·2	+14·4			65
Sept. 11		Centre			(50·1)	(+7·2)	(254)	(1133)	(1308)
254·426	AW, FT		0·933	278·4	109·0	+10·4			212
			0·829	246·8	91·3	−14·6			96
			0·770	233·9	81·4	−21·7			64
		3710	0·925	263·2	106·2	− 3·5	0	11	} 81c
		3710	0·924	262·3	105·9	− 4·3	3	11	
		3697	0·934	249·8	105·0	−15·9	0	3	773c
		3715	0·710	245·4	80·6	−11·7	3	7	}
		3715	0·708	244·6	80·2	−12·2	1	4	
		3715	0·688	244·8	78·8	−11·5	1	2	
		3715	0·683	245·5	78·6	−10·8	1	5	57c
		3715	0·674	245·0	77·8	−10·9	2	5	
		3715	0·667	244·5	77·2	−11·0	1	9	
		3700	0·412	233·0	58·8	− 7·5	8	22	
		3700a	0·418	231·2	58·6	− 8·3	10	18	
		3700	0·396	233·4	58·1	− 6·8	0	1	
		3700	0·408	229·4	57·7	− 8·5	0	6	
		3700	0·403	225·6	56·4	− 9·4	0	2	
		3700	0·389	226·1	55·9	− 8·6	0	1	
		3700	0·377	226·8	55·5	− 8·0	2	5	
		3700	0·386	224·7	55·4	− 8·9	6	10	
		3700	0·381	223·7	54·9	− 9·0	2	6	
		3707a	0·353	302·6	57·6	+17·8	4	8	
		3707	0·342	303·9	56·8	+17·8	1	3	
		3707	0·332	303·9	56·2	+17·5	1	2	
		3707	0·303	312·5	53·1	+18·8	0	2	
		3707	0·299	312·4	52·9	+18·6	0	1	
		3707b	0·307	320·3	51·5	+20·6	13	53	
		3707	0·290	318·5	51·2	+19·6	0	2	
		3701	0·429	202·1	49·1	−16·3	2	5	
		3701	0·398	203·1	48·7	−14·3	2	16	
		3701	0·418	200·2	48·1	−15·9	0	2	
		3701	0·419	197·8	47·1	−16·3	0	4	
		3701	0·411	195·2	45·9	−16·1	15	46	
		3701	0·387	194·6	45·3	−14·7	4	18	
		3701	0·405	193·3	45·0	−15·9	3	6	
		3701	0·418	192·4	44·9	−16·8	1	2	
		3701	0·371	194·4	44·9	−13·8	7	33	
		3701	0·388	192·9	44·6	−15·0	1	6	
		3701	0·391	192·1	44·4	−15·2	2	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 3712, September 11. Two small spots near the West limb.
Group 3713, September 11. A very small spot.
Group 3714, September 11. A small spot.
Group 3715, September 12. A number of very small spots, near the West limb, irregularly arranged.

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).
1894.				°	°	°			
254d·426	AW, FT	3701	0·395	190·5	43·8	−15·6	7	18	
		3701	0·423	188·6	43·3	−17·4	1	6	
		3701	0·413	186·4	42·2	−16·9	8	25	
		3701	0·398	186·4	42·1	−16·0	3	9	
		3701	0·391	185·1	40·6	−15·7	6	27	
		3701	0·396	181·6	40·1	−16·0	3	13	
		3701	0·384	181·3	40·0	−15·3	0	9	
		3701	0·407	181·0	39·9	−16·7	1	6	
		3701	0·413	179·9	39·4	−17·0	5	12	
		3701	0·375	179·3	39·2	−14·7	6	32	
		3701	0·399	178·5	38·9	−16·2	18	53	
		3701	0·372	175·5	37·8	−14·5	23	119	
		3701	0·424	174·4	37·1	−17·6	7	24	
		3701	0·384	173·7	37·0	−15·1	1	4	
		3701*a*	0·380	169·2	35·3	−14·6	16	70	
		3702*a*	0·162	344·3	42·1	+16·1	49	285	
		3703*a*	0·054	133·2	37·3	+ 5·1	0	5	
		3703	0·061	93·8	36·0	+ 7·0	0	6	
		3703	0·081	93·8	34·9	+ 6·9	0	6	
		3703	0·115	129·7	34·4	+ 3·0	0	2	
		3703	0·104	116·8	34·2	+ 4·5	2	6	
		3704	0·084	63·0	35·2	+ 9·4	4	9	
		3704*a*	0·085	71·5	34·9	+ 8·7	11	38	
		3705	0·280	36·7	29·3	+20·0	0	3	
		3705	0·328	43·0	25·7	+20·8	0	4	
		3709	0·506	130·9	16·5	−12·7	4	8	
		3716	0·962	102·8	327·4	−10·1	9	30	225*c*
			0·758	77·7	350·0	+13·9			31
			0·833	102·8	344·9	− 6·5			148
			0·909	119·7	340·5	−23·1			122
			0·898	102·8	337·5	− 8·1			179
			0·959	71·7	324·7	+19·5			188
			0·985	116·5	324·0	−24·5			174
Sept. 12		Centre			(39·5)	(+7·2)	(280)	(1172)	(2350)
255·616	AW, FT		0·869	301·5	83·1	+30·7			98
		3700	0·636	247·7	60·1	− 8·2	0	5	
		3700	0·634	246·4	59·7	− 8·9	0	9	
		3700	0·629	246·3	59·3	− 8·8	0	10	
		3707*b*	0·511	300·9	51·8	+21·5	4	12	
		3707	0·499	299·4	51·3	+20·6	0	6	
		3701	0·558	225·7	48·3	−16·3	0	9	
		3701	0·536	225·0	46·9	−15·6	8	36	
1894.				°	°	°			
255d·616	AW, FT	3701	0·538	223·1	46·2	−16·4	9	41	
		3701	0·517	224·2	45·6	−15·0	4	30	
		3701	0·522	219·3	43·9	−17·0	0	6	
		3701	0·525	217·7	43·4	−17·7	0	7	
		3701	0·497	218·5	42·5	−16·0	9	50	
		3701	0·474	213·9	39·7	−16·2	10	110	
		3701	0·432	217·0	39·2	−13·2	0	5	
		3701	0·474	212·2	39·0	−16·6	0	7	
		3701	0·476	209·6	38·0	−17·4	0	5	
		3701	0·435	212·6	37·7	−14·4	11	218	
		3701	0·471	208·1	37·2	−17·5	0	5	
		3701	0·426	208·3	35·8	−14·9	0	10	
		3701*a*	0·420	206·2	34·8	−15·0	10	32	
		3702*a*	0·347	297·4	42·4	+16·0	56	282	
		3702	0·319	300·3	40·4	+16·2	0	3	
		3703*a*	0·249	264·9	38·2	+ 5·7	0	4	
		3703	0·220	267·3	36·5	+ 6·5	0	3	
		3704*a*	0·208	278·2	35·8	+ 8·8	7	22	
		3716	0·857	107·0	327·5	−10·6	3	11	172*c*
		3717*a*	0·992	90·8	301·3	+ 0·2	0	79	
			0·942	122·0	320·4	−26·9			122
Sept. 13		Centre			(23·8)	(+7·2)	(131)	(1017)	(392)
256·230	CL, HA		0·933	300·9	85·1	+31·4			121
			0·917	250·3	78·7	−14·9			253
I.		3700	0·738	251·6	60·5	− 8·4	0	3	
		3707*b*	0·624	296·0	52·5	+21·6	4	10	
		3701	0·653	235·4	49·4	−15·8	1	4	
		3701	0·648	234·1	48·6	−16·3	3	18	
		3701	0·633	236·6	48·5	−14·3	0	5	
		3701	0·623	236·9	48·0	−13·8	0	4	
		3701	0·629	234·5	47·5	−15·3	10	28	
		3701	0·630	232·6	46·9	−16·3	8	27	
		3701	0·611	233·4	46·0	−15·1	1	17	
		3701	0·613	230·1	44·9	−16·9	0	3	
		3701	0·603	227·7	43·4	−17·5	1	5	
		3701	0·581	229·2	42·7	−15·9	10	27	
		3701	0·566	227·2	41·1	−16·0	4	33	
		3701	0·529	229·0	39·8	−13·7	0	7	
		3701	0·547	225·4	39·4	−16·0	8	40	
		3701	0·551	224·6	39·3	−16·5	0	6	
		3701	0·515	225·4	37·8	−14·4	20	110	
		3701*a*	0·495	221·4	35·3	−15·0	5	49	

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 3716, September 12–19. A single spot on September 12 and 13. It has broken up into a cluster of irregular nebulous spots by September 14.
Group 3717, September 13–25. A regular spot, *a*, with occasionally some 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).
1894.				°	°	°			
256d·230	CL,HA	3702*a*	0·474	291·0	42·9	+16·2	60	262	
		3704*a*	0·352	275·9	36·3	+ 8·8	1	9	
I.		3716	0·770	109·3	328·2	− 9·9	2	5	
		3716	0·776	108·2	327·5	− 9·3	1	10	
		3716	0·785	109·9	327·1	−10·7	1	6	
		3716	0·784	108·7	326·9	− 9·9	5	19	
		3716	0·806	107·8	324·6	− 9·7	2	6	
		3717*a*	0·962	91·3	301·7	+ 0·8	44	143	372*f*
			0·918	124·7	317·1	−27·9			667
			0·940	66·3	304·6	+24·7			287
Sept. 14		Centre			(15·6)	(+7·2)	(191)	(856)	(1700)
257·219	AW,HA		0·958	253·3	73·2	−13·7			142
			0·905	276·6	67·9	+ 9·1			109
I.			0·831	254·4	56·5	− 8·7			207
		3707*b*	0·766	291·8	52·1	+21·2	1	5	308*p*
		3701	0·784	244·1	49·4	−15·1	1	15	
		3701	0·780	242·0	48·3	−16·5	9	46	
		3701	0·773	243·6	48·2	−15·1	9	47	
		3701	0·768	245·0	48·2	−13·9	0	10	
		3701	0·759	243·3	47·0	−14·8	0	4	
		3701	0·747	242·8	45·8	−14·7	0	58	
		3701	0·747	241·3	45·3	−15·7	6	26	
		3701	0·727	240·3	43·4	−15·7	2	23	
		3701	0·721	238·7	42·4	−16·5	6	26	435*c*
		3701	0·701	237·6	40·5	−16·4	4	17	
		3701	0·708	235·7	40·4	−17·8	0	9	
		3701	0·684	237·2	39·2	−15·9	9	74	
		3701	0·668	239·5	38·8	−14·0	4	19	
		3701	0·659	237·2	37·5	−15·0	26	135	
		3701	0·664	235·1	37·1	−16·4	0	6	
		3701	0·642	235·4	35·7	−15·3	1	6	
		3701	0·631	234·2	34·6	−15·5	8	25	
		3702*a*	0·642	286·2	42·3	+15·9	60	261	
		3718	0·391	130·7	345·3	− 7·9	0	5	
		3718	0·412	131·1	344·4	− 8·9	0	3	
		3718	0·407	129·2	344·1	− 8·0	2	7	
		3718	0·413	127·2	343·3	− 7·7	5	23	
		3718	0·424	126·9	342·7	− 8·0	0	1	
		3716	0·627	116·7	328·0	−10·4	6	28	
		3716	0·636	118·8	328·0	−11·9	10	26	
		3716	0·640	115·9	326·9	−10·3	0	3	
		3716	0·653	113·5	325·4	− 9·3	0	3	
1894.				°	°	°			
257d·219	AW,HA	3716	0·671	114·8	324·4	−10·7	0	4	
		3716	0·678	113·6	323·6	−10·2	11	41	
I.		3717*a*	0·880	93·3	301·4	+ 0·6	30	127	
		3719	0·947	92·3	291·7	+ 0·2	8	92	603*c*
			0·847	130·0	315·4	−28·2			597
			0·774	63·9	312·9	+24·7			139
			0·889	111·9	303·9	−15·7			321
			0·904	65·9	297·4	+24·9			166
Sept. 15		Centre			(2·6)	(+7·2)	(218)	(1175)	(3027)
258·476	AW, FT		0·948	258·6	55·6	− 8·1			224
			0·921	287·7	54·1	+19·3			190
M.			0·878	277·0	48·0	+ 9·9			138
			0·726	273·1	32·8	+ 7·7			209
		3701	0·915	251·1	48·8	−13·7	8	22	
		3701	0·911	253·0	48·7	−11·9	0	7	576*c*
		3701	0·916	249·1	48·4	−15·5	0	6	
		3701	0·907	249·7	47·4	−14·7	13	64	
		3701	0·859	244·3	40·0	−17·3	0	17	
		3701	0·849	247·5	39·9	−14·4	10	42	
		3701	0·852	242·3	38·6	−18·6	5	29	
		3701	0·828	246·7	37·5	−14·3	9	65	
		3701	0·816	248·1	36·7	−12·8	0	5	290*c*
		3701	0·829	242·7	36·3	−17·4	0	4	
		3701	0·814	245·9	35·9	−14·4	9	62	
		3701	0·829	240·7	35·7	−18·9	15	88	
		3701	0·797	244·5	33·9	−14·9	4	11	
		3702*a*	0·828	284·9	42·5	+16·8	61	220	106*c*
		3718	0·253	184·7	347·2	− 6·7	0	3	
		3718	0·255	181·8	345·5	− 6·8	7	28	
		3718	0·240	175·2	344·8	− 5·9	0	1	
		3718	0·246	170·4	343·6	− 6·1	3	10	
		3718	0·260	167·5	342·8	− 6·7	0	2	
		3716	0·403	136·7	329·8	− 9·4	1	13	
		3716	0·398	134·6	329·4	− 8·6	0	3	
		3716	0·432	138·4	329·1	−11·3	5	27	
		3716	0·416	136·0	329·0	− 9·8	2	6	
		3716	0·411	134·7	328·9	− 9·2	0	3	
		3716	0·431	136·4	328·5	−10·6	0	16	
		3716	0·471	127·8	323·9	− 9·5	4	9	
		3716	0·481	127·9	323·4	− 9·9	1	2	
		3720*a*	0·600	114·5	312·7	− 7·8	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 3718, September 15–17. Several small faint spots in an irregular cluster.
Group 3719, September 15–17. A nebulous spot, which rapidly diminishes in size.
Group 3720, September 16–24. A number of spots, mostly small, in a short stream. *a* and *b*, the first and last spots, are the largest. The group rapidly increases in size up to September 19, and diminishes again almost as quickly after that date. The individual spots of the group undergo much change. *a* is measured in two parts on September 18, and *b* on September 20 and 21.

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).
1894.				°	°	°			
258d·476	AW, FT	3720*b*	0·634	112·7	310·0	− 7·8	4	13	
M.		3717*a*	0·701	96·3	302·0	+ 1·3	27	93	45*c*
		3719	0·806	94·6	292·7	+ 1·1	2	16	295*c*
Sept. 16		Centre			(346·0)	(+7·9)	(191)	(891)	(2073)
259·187	CL, HA		0·947	290·1	49·0	+21·3			441
			0·844	270·8	34·2	+ 4·6			357
I.			0·780	283·5	28·1	+15·0			352
		3701	0·971	253·7	50·1	−13·9	14	68	461*c*
		3701	0·966	252·4	48·8	−15·0	8	46	
		3701	0·923	249·6	40·4	−15·7	3	45	
		3701	0·908	249·1	38·1	−15·6	13	70	503*c*
		3701	0·894	248·6	36·1	−15·5	9	64	
		3701	0·903	243·5	35·9	−20·2	10	40	
		3702*a*	0·906	284·4	42·3	+16·0	63	244	263*c*
		3718	0·305	211·5	345·8	− 8·0	1	5	
		3718	0·274	207·5	343·9	− 7·0	0	6	
		3716	0·354	160·5	329·7	−12·4	0	5	
		3716	0·338	158·1	329·2	−11·2	1	4	
		3716	0·328	156·7	329·1	−10·4	1	6	
		3716	0·353	158·1	328·9	−12·0	5	15	
		3720*a*	0·467	123·9	313·6	− 8·5	7	24	
		3720	0·472	121·4	312·7	− 7·7	0	5	
		3720	0·477	120·0	312·1	− 7·3	1	6	
		3720*b*	0·523	119·9	309·4	− 8·8	14	35	
		3717	0·546	99·6	304·2	+ 0·8	0	4	
		3717*a*	0·576	99·2	302·1	+ 0·6	22	95	
		3717	0·595	99·2	300·8	+ 0·4	0	3	
		3719	0·694	97·4	293·3	+ 0·1	0	6	
Sept. 17		Centre			(336·6)	(+7·1)	(172)	(796)	(2377)
260·598	CL, HA		0·988	250·9	36·0	−17·5			418
			0·942	278·6	29·1	+10·5			250
			0·942	271·5	28·6	+ 4·0			258
			0·925	289·6	26·5	+20·7			201
			0·886	248·6	13·6	− 3·6			224
		3701	0·990	253·8	37·4	−14·8	0	35	
		3702*a*	0·992	285·7	42·2	+16·4	67	317	207*f*
		3716	0·388	215·4	331·2	−11·4	2	8	
		3716	0·385	214·3	330·7	−11·6	0	7	
		3716	0·375	212·6	329·8	−11·4	0	9	
		3716	0·344	208·7	327·6	−10·5	0	5	
1894.				°	°	°			
260d·598	CL, HA	3720*a*	0·266	169·6	315·2	− 8·0	15	61	
		3720*a*	0·267	165·1	314·1	− 7·8	8	36	
		3720	0·270	156·9	311·9	− 7·3	0	6	
		3720	0·297	157·1	311·3	− 8·8	0	4	
		3720	0·275	154·3	311·1	− 7·3	0	4	
		3720	0·291	154·4	310·7	− 8·1	0	6	
		3720*b*	0·311	152·6	309·7	− 8·9	19	116	
		3717*a*	0·285	111·3	302·7	+ 1·0	15	96	
		3717	0·307	107·4	301·0	+ 1·6	2	5	
			0·915	127·6	261·1	−30·2			82
Sept. 18		Centre			(318·0)	(+7·1)	(128)	(715)	(1640)
261·495	FT, CL		0·935	249·3	12·8	−16·5			386
			0·881	280·6	8·5	+12·7			204
		3716	0·494	232·4	329·6	−11·0	0	7	
		3720*a*	0·306	212·5	315·7	− 7·9	24	113	
		3720	0·286	208·2	314·0	− 7·5	3	18	
		3720	0·267	203·7	312·4	− 7·1	0	2	
		3720	0·284	201·9	312·3	− 8·1	1	6	
		3720	0·305	199·2	312·0	− 9·6	2	16	
		3720*b*	0·284	194·0	310·2	− 8·8	17	124	
		3717*a*	0·122	152·5	303·0	+ 0·9	16	83	
		3721*a*	0·954	71·6	232·6	+19·6	19	[illegible]	171*c*
Sept. 19		Centre			(306·2)	(+7·1)	(82)	(470)	(761)
262·214	AW, FT		0·955	249·9	5·9	−16·8			138
			0·922	280·7	4·5	+12·6			232
I.			0·909	289·0	2·7	+20·2			105
		3720*a*	0·403	231·4	315·1	− 7·8	26	144	
		3720	0·381	230·4	313·7	− 7·3	0	2	
		3720	0·385	227·0	313·1	− 8·4	0	4	
		3720	0·398	223·9	312·8	− 9·8	0	2	
		3720	0·388	222·0	311·8	− 9·9	0	3	
		3720*b*	0·365	219·1	310·0	− 9·5	9	40	
		3720*b*	0·351	219·0	309·5	− 8·9	6	32	
		3717*a*	0·157	225·6	303·0	+ 0·8	13	62	
		3717	0·163	212·0	301·5	− 0·9	0	3	
		3721*a*	0·890	70·3	233·2	+20·7	29	91	
		3721	0·900	71·5	231·8	+19·7	0	6	352*c*
		3721	0·935	69·3	226·4	+21·8	6	20	
Sept. 20		Centre			(296·6)	(+7·1)	(89)	(409)	(827)

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 3721, September 19–29. A regular spot, *a*, with occasionally some small followers.

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).
				°	°	°			
1894.									
263d.174	CL, HA		0·869	255·9	342·3	− 8·6			298
			0·731	247·8	327·4	−11·0			105
I.			0·767	224·1	321·0	−27·8			133
			0·695	211·0	308·3	−30·1			69
		3720*a*	0·570	246·2	315·6	− 7·3	21	96	
		3720	0·551	244·0	313·9	− 7·9	1	8	
		3720*b*	0·517	238·9	310·5	− 9·2	8	35	
		3720	0·509	238·3	309·9	− 9·2	0	3	
		3720*b*	0·499	238·5	309·4	− 8·8	3	11	
		3717*a*	0·352	253·5	303·6	+ 0·9	12	57	
		3721*a*	0·762	69·6	234·7	+20·0	20	77	228*c*
			0·892	115·2	225·7	−18·7			102
			0·896	105·9	222·9	−10·8			154
			0·936	75·9	213·8	+15·6			224
			0·956	89·0	211·1	+ 3·1			250
Sept. 21		Centre			(284·0)	(+7·0)	(65)	(287)	(1563)
264·149	AW, FT		0·955	258·4	342·0	− 8·8			248
			0·849	252·4	326·4	−10·9			455
I.			0·864	231·1	320·8	−28·4			293
			0·791	219·4	307·3	−32·0			255
		3720*a*	0·721	253·0	314·9	− 7·1	27	81	
		3720	0·711	251·8	313·9	− 7·7	6	16	
		3720	0·702	249·2	312·6	− 9·2	0	5	108*c*
		3720	0·692	251·0	312·3	− 7·8	0	5	
		3720*b*	0·676	247·8	310·3	− 9·4	4	11	
		3717*a*	0·553	260·8	304·1	+ 0·9	21	69	
		3721*a*	0·612	66·9	234·6	+19·6	18	67	
		3722*a*	0·798	91·1	218·2	+ 3·4	2	9	309*c*
		3722*b*	0·831	90·6	215·0	+ 3·4	4	7	
		3723*a*	0·949	111·0	203·2	−17·4	3	35	167*c*
			0·801	109·6	221·0	−11·1			210
			0·882	118·7	215·2	−21·2			87
			0·829	75·0	214·8	+16·3			191
			0·915	79·8	204·2	+12·2			407
			0·931	69·2	201·7	+21·9			104
Sept. 22		Centre			(271·1)	(+7·0)	(85)	(305)	(2834)
265·589	AW, CL		0·931	284·7	321·6	+16·2			145
			0·899	293·3	316·7	+24·0			192
			0·935	238·7	314·8	−25·9			315
			0·905	228·4	305·8	−32·9			221
1894.									
265d.589	AW, CL	3720*a*	0·909	258·8	316·0	− 7·1	11	76	369*c*
		3720	0·903	259·1	315·2	− 6·7	2	8	
		3717*a*	0·800	266·2	305·0	+ 1·2	12	65	98*c*
		3721*a*	0·365	53·4	234·2	+19·2	13	70	
		3722*a*	0·564	93·8	218·0	+ 3·7	0	6	
		3722	0·570	95·2	217·7	+ 2·8	0	3	
		3722*b*	0·582	93·6	216·8	+ 3·6	0	6	
		3723*a*	0·802	116·9	204·5	−16·6	6	21	125*c*
		3724	0·977	87·8	174·4	+ 3·7	19	76	325*c*
			0·878	117·7	196·5	−20·2			85
			0·933	126·1	191·8	−30·1			176
			0·886	86·8	189·6	+ 6·1			88
			0·920	76·9	184·5	+14·8			371
			0·946	100·5	182·7	− 7·5			78
Sept. 23		Centre			(252·2)	(+7·0)	(63)	(331)	(2588)
266·319	AW, FT		0·953	233·0	306·4	−32·2			251
			0·855	274·0	301·5	+ 7·0			74
I.			0·829	266·2	298·1	+ 0·8			221
		3720*a*	0·965	260·2	315·8	− 7·5	0	45	251*f*
		3717*a*	0·888	267·4	304·8	+ 0·9	9	37	55*p*
		3721*a*	0·250	32·0	234·5	+19·0	9	63	
		3721	0·263	34·7	233·4	+19·3	1	6	
		3722*a*	0·414	97·9	218·4	+ 3·1	0	5	
		3722*b*	0·443	95·8	216·4	+ 3·7	3	9	
		3723*a*	0·710	121·9	203·7	−16·6	2	12	
		3723	0·701	119·8	203·6	−15·0	2	5	
		3724	0·924	88·4	174·9	+ 4·2	21	77	229*c*
			0·861	126·9	192·2	−26·8			129
			0·913	76·7	175·7	+14·9			469
Sept. 24		Centre			(242·5)	(+6·9)	(47)	(259)	(1679)
267·205	AW, HA		0·938	270·1	300·4	+ 2·5			407
			0·917	246·8	293·1	−18·1			116
I.		3717*a*	0·964	269·0	305·1	+ 0·9	8	33	
		3721*a*	0·215	343·5	234·5	+18·7	16	52	
		3722*a*	0·226	108·5	218·5	+ 2·7	3	8	
		3722	0·231	106·0	218·0	+ 3·1	0	12	
		3722	0·236	109·7	218·0	+ 2·2	1	4	
		3722*b*	0·263	102·9	216·0	+ 3·3	2	6	
		3722	0·283	106·5	215·1	+ 2·1	2	10	
		3722	0·280	103·1	215·0	+ 3·0	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 3722, September 22–27. Two very small spots, *a* and *b*. Other small spots accompany them on September 23, 25 and 26.
Group 3723, September 22–25. A small spot, *a*, with a small companion on September 24 and 25.
Group 3724, September 23–28. A single spot, which steadily 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).
1894.				°	°	°			
267d·205	AW,HA	3723*a*	0·589	131·9	203·6	−17·0	0	4	
		3723	0·576	128·9	203·3	−15·1	1	7	
I.		3724	0·828	89·9	174·9	+ 4·0	13	60	279*c*
			0·722	75·3	184·6	+15·3			195
			0·737	91·6	183·4	+ 3·6			130
			0·844	72·0	173·0	+18·9			490
			0·920	122·7	171·2	−26·4			305
			0·923	80·0	162·8	+11·9			226
			0·949	104·1	161·4	−11·0			172
Sept. 25		Centre			(230·8)	(+6·9)	(46)	(202)	(2320)
268·304	CL,FT	3721*a*	0·363	305·9	234·3	+18·7	12	30	
		3722*a*	0·084	221·1	219·5	+ 3·2	4	17	
I.		3722*b*	0·065	188·0	216·8	+ 3·1	0	6	
		3722	0·098	169·8	215·3	+ 1·3	1	7	
		3724	0·659	91·6	175·1	+ 4·1	22	51	62*c*
			0·858	126·5	166·1	−26·4			154
			0·839	81·5	158·8	+10·9			161
			0·891	110·2	156·7	−14·6			312
			0·879	71·4	154·4	+19·6			120
Sept. 26		Centre			(216·3)	(+6·8)	(39)	(111)	(809)
269·429	AW,HA		0·941	236·9	264·5	−28·0			105
			0·925	230·0	259·0	−32·9			93
		3721*a*	0·566	293·2	234·6	+18·6	5	11	
		3722*a*	0·333	260·4	220·6	+ 3·3	0	4	
		3722*b*	0·279	255·6	217·1	+ 2·6	0	3	
		3724	0·445	93·8	175·2	+ 4·4	3	13	
		3725*a*	0·982	79·3	121·5	+11·8	0	21	} 208*c*
		3725*b*	0·990	80·7	118·9	+10·1	60	219	
			0·854	135·3	156·1	−32·6			118
			0·809	121·7	154·4	−20·6			91
			0·831	119·9	151·6	−20·1			83
			0·793	68·0	149·5	+21·5			97
			0·907	126·9	145·4	−29·3			121
			0·898	110·4	141·1	−14·9			144
			0·932	118·8	138·5	−23·7			111
			0·892	76·5	137·8	+15·1			146
			0·897	68·4	137·4	+22·3			161
Sept. 27		Centre			(201·5)	(+6·8)	(68)	(271)	(1478)
1894.				°	°	°			
270d·396	CL,FT	3721*a*	0·729	288·9	235·2	+18·4	1	8	
		3726	0·687	242·7	227·5	−13·1	4	11	
		3726	0·676	244·5	227·2	−11·6	1	6	
		3726	0·665	244·0	226·2	−11·5	3	9	
		3726*a*	0·649	244·1	225·1	−11·0	12	48	
		3726	0·642	243·6	224·5	−11·1	0	6	
		3726	0·626	243·8	223·5	−10·4	3	17	
		3726*b*	0·597	240·4	219·8	−11·3	9	56	
		3724*a*	0·230	99·7	175·7	+ 4·4	2	5	
		3725*a*	0·915	81·0	122·1	+11·0	6	34	} 396*c*
		3725	0·929	76·8	119·7	+14·7	0	10	
		3725*b*	0·934	81·5	119·2	+10·4	34	174	
			0·791	113·8	140·8	−13·8			238
			0·926	124·0	128·6	−27·9			228
			0·967	106·5	116·2	−14·0			614
Sept. 28		Centre			(188·8)	(+6·8)	(75)	(384)	(1476)
271·397	CL,FT		0·927	249·2	239·9	−16·4			74
			0·766	242·8	220·4	−15·7			54
		3721*a*	0·853	290·1	234·1	+20·6	2	7	} 142*c*
		3721	0·847	289·1	233·5	+19·7	0	4	
		3726	0·815	249·8	226·8	−12·2	0	5	
		3726*a*	0·805	251·1	226·2	−10·9	31	144	
		3726	0·758	249·2	221·5	−11·0	5	20	} 91*c*
		3726*b*	0·745	248·4	220·2	−11·2	13	46	
		3726	0·727	246·0	218·1	−12·3	1	7	
		3727	0·056	305·9	178·1	+ 8·6	1	3	
		3727	0·027	10·7	175·2	+ 8·2	1	3	
		3725*a*	0·799	82·6	122·1	+10·0	7	17	} 250*c*
		3725*b*	0·830	82·3	119·1	+10·1	37	194	
		3728	0·973	106·5	101·4	−14·3	9	37	
		3728	0·975	104·3	100·5	−12·3	27	212	} 314*c*
		3728	0·984	106·2	98·2	−14·6	0	203	
		3728	0·990	105·1	96·0	−13·8	0	18	
			0·862	112·8	120·1	−15·7			209
			0·917	108·6	112·1	−14·1			544
			0·968	111·8	103·7	−19·1			350
Sept. 29		Centre			(175·5)	(+6·7)	(134)	(920)	(2028)
272·496	AW, CL		0·937	288·1	231·4	+19·3			310
			0·927	246·9	224·8	+18·5			121
			0·831	269·7	217·1	+ 3·4			132
		3726*a*	0·930	255·2	227·2	−11·1	15	126	} 207*c*
		3726*b*	0·882	253·6	220·4	−11·1	9	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 3725, September 27–October 9. A small nebulous spot, *a*, followed by a large regular spot, *b*. *a* has disappeared by October 2. One or two small companions are occasionally seen.
Group 3726, September 28–October 1. A number of spots, mostly small, in a straight stream, suddenly appearing near the West limb. The two principal spots, *a* and *b*, alone remain by September 30.
Group 3727, September 29–October 4. A few small unstable spots in a straight stream, *n* of the place of Group 3724. The group is not seen on October 2.
Group 3728, September 29–October 7. A number of spots in a long irregular stream. The group diminishes rapidly after October 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).
1894.				°	°	°			
272d·496	AW, CL	3727	0·313	276·9	179·2	+ 8·4	4	17	
		3727	0·301	275·1	178·5	+ 7·8	0	5	
		3727	0·282	282·0	177·2	+ 9·7	0	4	
		3727	0·278	280·1	177·0	+ 9·1	0	4	
		3727	0·264	280·3	176·2	+ 9·1	0	3	
		3727	0·255	277·4	175·7	+ 8·2	0	6	
		3727	0·244	280·7	175·0	+ 9·0	2	6	
		3729	0·012	247·4	161·6	+ 6·3	0	8	
		3725*a*	0·619	82·7	122·6	+ 9·7	7	18	
		3725*b*	0·666	81·9	119·1	+10·3	18	190	
		3728	0·896	108·7	100·4	−13·5	8	86	
		3728	0·900	109·4	100·1	−14·2	0	87	
		3728	0·911	108·2	98·3	−13·6	0	22	
		3728	0·945	108·2	93·0	−14·8	3	18	535*c*
		3728	0·950	108·9	92·3	−15·6	0	24	
		3728	0·956	107·7	90·9	−14·7	7	24	
		3730*a*	0·954	102·0	90·3	− 9·3	13	65	214*c*
			0·816	115·3	111·0	−16·2			385
Sept. 30		Centre			(161·0)	(+6·6)	(86)	(742)	(1904)
273·445	HA, FT		0·979	289·0	228·2	+19·9			147
			0·939	282·8	219·1	+14·3			103
			0·920	271·7	215·5	+ 4·2			219
			0·861	283·0	208·4	+14·6			109
			0·878	244·3	205·0	−18·8			185
			0·827	276·5	204·6	+ 9·1			169
			0·801	294·1	201·0	+23·2			105
			0·823	238·0	196·9	−21·5			102
		3726*a*	0·987	257·5	227·4	−11·1	12	108	168*c*
		3726*b*	0·960	256·6	220·2	−10·9	0	13	
		3727	0·526	274·8	180·3	+ 8·2	0	4	
		3727	0·506	273·7	179·0	+ 7·5	4	8	
		3727	0·467	277·4	176·4	+ 9·3	0	37	
		3725*a*	0·434	81·4	122·8	+ 9·7	1	7	
		3725*b*	0·494	80·7	118·9	+10·3	26	141	
		3728	0·781	111·4	100·6	−12·1	20	75	
		3728	0·786	112·7	100·5	−13·1	1	7	
		3728	0·801	113·6	99·4	−14·4	8	34	
		3728	0·810	112·2	98·2	−13·6	0	7	
		3728	0·821	113·6	97·5	−15·1	3	9	
		3728	0·828	111·8	96·3	−13·9	0	13	
		3728	0·856	113·4	93·8	−16·1	5	41	430*c*
		3728	0·854	112·2	93·7	−15·1	0	5	
1894.				°	°	°			
273d·445	HA, FT	3728	0·857	113·0	93·6	−15·8	0	14	
		3728	0·863	112·7	92·9	−15·8	2	34	
		3728	0·867	111·7	92·2	−15·1	0	9	
		3728	0·872	112·9	91·9	−16·2	0	5	
		3730	0·862	104·0	91·0	− 8·5	0	4	120*c*
		3730*a*	0·866	104·8	90·7	− 9·3	12	69	
			0·943	104·8	60·2	−11·6			242
Oct. 1		Centre			(148·5)	(+6·6)	(94)	(644)	(2099)
274·408	CL, FT		0·960	248·2	205·8	−18·7			233
			0·932	278·6	205·1	+10·4			374
			0·914	292·0	202·3	+22·7			74
			0·904	237·2	193·2	−25·9			165
			0·837	269·9	192·6	+ 3·6			79
			0·810	281·0	190·2	+12·8			34
		3725*b*	0·292	75·2	119·2	+10·6	29	158	
		3728	0·637	121·3	101·8	−13·8	0	3	
		3728	0·628	118·2	101·5	−11·8	0	3	
		3728	0·648	121·5	101·2	−14·3	6	45	
		3728	0·636	117·3	100·7	−11·5	0	5	
		3728	0·641	118·6	100·7	−12·4	9	24	
		3728	0·646	119·6	100·7	−13·2	0	5	
		3728	0·655	120·4	100·3	−14·0	1	5	
		3728	0·667	119·7	99·3	−14·0	7	41	
		3728	0·663	117·2	98·8	−12·4	1	5	
		3728	0·672	118·6	98·6	−13·5	3	10	
		3728	0·694	121·4	97·9	−16·0	0	3	
		3728	0·677	117·1	97·8	−12·7	8	28	
		3728	0·686	118·0	97·4	−13·6	0	15	
		3728	0·716	117·6	95·0	−14·4	0	11	
		3728	0·717	115·7	94·4	−13·2	0	4	
		3728	0·728	117·7	94·1	−14·9	2	6	
		3728	0·735	118·9	94·0	−15·9	0	9	
		3728	0·730	116·9	93·7	−14·4	1	7	
		3728	0·743	117·2	92·8	−15·0	24	131	
		3730*a*	0·743	109·1	90·6	− 9·5	14	97	
		3731*a*	0·961	103·1	63·8	−10·6	42	275	
		3731	0·973	102·7	61·0	−10·7	24	191	
		3731	0·974	104·3	60·9	−12·3	42	203	469*c*
		3731	0·972	98·1	60·6	− 6·2	2	11	
		3731	0·986	102·6	57·4	−11·1	18	36	
		3731*b*	0·993	103·9	54·6	−12·9	29	154	
		3732*a*	0·983	76·3	55·0	+14·7	11	51	138*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 3729, September 30. A very small spot.
Group 3730, September 30–October 7. A regular spot, *a*, *n* of Group 3728. Other spots form near *a*, which diminishes after October 4, and the group has become two short straight streams of small spots by October 6.
Group 3731, October 2–14. A very fine and complicated group. The leader, *a*, is large and regular, and moves forward in longitude. The last spot, *b*, is very large and irregular, and moves south in latitude. The group between *a* and *b* is a very broad and complicated stream, made up largely of small streams of curved and spiral form.
Group 3732, October 2–14. A large regular spot, *a*, with occasionally some 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).
				°	°	°			
1894. 274d·408	CL, FT		0·833	110·0	82·7	−12·6			91
			0·910	102·7	72·2	− 8·6			182
			0·922	82·1	68·1	+ 9·9			111
			0·983	82·7	55·8	+ 8·4			81
Oct. 2		Centre			(135·8)	(+6·6)	(273)	(1536)	(2031)
275·205	CL, AR		0·903	278·0	190·2	+10·0			176
		3727	0·791	273·5	177·7	+ 6·8	2	12	340*n*
I.		3725*b*	0·128	56·7	119·0	+10·5	30	134	
		3728	0·518	131·2	101·6	−14·0	0	3	
		3728	0·494	126·6	101·5	−11·1	0	4	
		3728	0·531	130·4	100·6	−14·2	9	41	
		3728	0·521	128·1	100·4	−12·8	3	15	
		3728	0·536	128·0	99·6	−13·4	0	5	
		3728	0·550	128·0	98·8	−13·9	6	49	
		3728	0·546	125·6	98·2	−12·7	5	21	
		3728	0·634	124·0	92·3	−15·3	14	78	
		3730*a*	0·622	114·2	90·2	− 9·4	19	65	
		3730	0·642	112·1	88·3	− 8·8	1	6	
		3733	0·834	83·4	68·4	+ 9·1	0	7	144*c*
		3733	0·848	83·8	66·9	+ 8·7	0	8	
		3731*a*	0·898	105·2	63·6	−10·6	59	323	
		3731	0·907	107·5	62·8	−12·9	0	23	
		3731	0·905	101·2	61·9	− 7·2	5	33	
		3731	0·922	105·5	60·4	−11·5	74	472	1015*c*
		3731	0·933	100·4	57·7	− 7·3	0	18	
		3731	0·949	104·3	55·7	−11·4	14	46	
		3731*b*	0·959	105·9	54·1	−13·2	120	705	
		3732*a*	0·933	76·6	55·6	+14·9	29	123	269*c*
		3732	0·936	80·8	55·2	+10·9	0	23	
		3734*a*	0·992	72·2	41·0	+18·4	8	167	
			0·879	67·6	63·7	+22·7			119
Oct. 3		Centre			(125·2)	(+6·5)	(398)	(2381)	(2063)
276·197	AW, FT		0·885	284·6	174·8	+15·9			407
			0·831	250·6	165·3	−12·2			152
M.		3727	0·920	274·7	179·3	+ 6·9	0	3	437*c*
		3727	0·909	274·0	177·7	+ 6·4	0	9	
		3725*b*	0·140	300·0	119·2	+10·4	28	134	
		3728	0·394	152·1	101·2	−13·9	3	17	
		3728	0·384	150·2	100·9	−13·0	0	1	
		3728	0·389	146·9	99·6	−12·6	1	7	
1894. 276d·197	AW, FT	3728	0·409	148·6	99·5	−14·0	2	34	
		3728	0·449	140·6	95·7	−13·3	0	13	
M.		3728	0·485	138·7	92·8	−15·2	15	63	
		3730	0·421	127·8	92·5	− 8·8	0	4	
		3730	0·428	128·1	92·2	− 9·1	1	14	
		3730	0·459	130·8	91·4	−11·3	0	8	
		3730	0·424	123·5	91·3	− 7·4	9	25	
		3730*a*	0·450	127·3	90·9	− 9·8	15	62	
		3733	0·702	83·9	67·3	+ 8·9	0	4	
		3731*a*	0·774	109·8	64·4	−10·9	48	352	
		3731	0·784	112·3	64·2	−13·0	4	24	
		3731	0·768	105·5	64·0	− 7·5	10	41	
		3731	0·798	104·4	61·1	− 7·4	0	2	
		3731	0·820	110·2	60·3	−12·5	72	523	
		3731	0·821	106·6	59·3	− 9·7	6	50	1139*f*
		3731	0·818	104·4	59·2	− 7·9	0	4	
		3731	0·834	103·1	57·4	− 7·1	0	4	
		3731*b*	0·871	109·1	54·6	−13·1	113	691	
		3731	0·896	107·8	51·3	−12·8	5	40	
		3731	0·907	110·0	50·3	−15·1	12	72	
		3732*a*	0·824	77·5	56·3	+14·0	42	195	
		3732	0·861	79·2	52·3	+12·6	1	8	302*c*
		3732	0·862	76·7	52·1	+14·8	1	8	
		3735*a*	0·899	75·9	47·5	+15·5	8	36	
		3734	0·924	70·0	44·0	+20·9	0	13	
		3734*a*	0·938	72·4	41·6	+18·7	14	157	194*c*
		3734	0·939	69·9	41·5	+21·1	2	12	
		3736	0·962	105·3	40·3	−12·8	0	11	
			0·945	81·5	40·6	+10·2			191
Oct. 4		Centre			(112·1)	(+6·5)	(412)	(2641)	(2822)
277·473	CL, FT		0·948	276·0	167·1	+ 7·7			206
			0·947	255·4	164·4	−11·6			89
M.			0·921	284·5	163·0	+15·9			303
			0·836	243·1	146·9	−18·3			149
			0·871	232·0	146·5	−28·5			70
		3725*b*	0·411	280·8	119·4	+10·3	27	129	
		3728	0·363	196·0	101·2	−14·0	1	6	
		3728	0·347	194·1	100·2	−13·2	0	6	
		3728	0·353	192·3	99·7	−13·7	1	6	
		3728	0·343	190·5	99·0	−13·3	0	10	
		3728	0·380	172·7	92·4	−15·7	0	19	
		3728	0·325	169·2	91·7	−12·2	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 3733, October 3–4. One or two very small spots.
Group 3734, October 3–15. A large regular spot, *a*, with occasionally some small companions.
Group 3735, October 4–7. A small irregular spot, *a*, with a very small companion on October 5.
Groups 3732, 3734 and 3735 form practically a single stream.
Group 3736, October 4–8. A few very small spots in an irregular cluster.

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).
1894.				°	°	°			
277d·473	CL, FT	3730*a*	0·291	163·8	90·6	− 9·8	3	28	
M.		3730	0·254	160·1	90·3	− 7·4	15	75	
		3731	0·552	114·6	65·0	− 7·8	4	11	
		3731	0·577	118·8	64·5	−10·6	46	304	
		3731	0·594	122·2	64·4	−12·9	18	157	
		3731	0·581	113·0	62·8	− 7·7	3	6	
		3731	0·640	118·9	60·4	−12·7	66	863	
		3731	0·639	113·1	58·9	− 9·3	20	242	
		3731	0·673	117·2	57·6	−12·8	1	4	
		3731	0·727	115·9	53·2	−13·8	108	924	
		3732*a*	0·632	76·1	56·3	+13·7	41	204	
		3732	0·672	71·7	53·6	+17·0	0	4	
		3735*a*	0·733	74·6	48·3	+15·6	7	19	107*c*
		3735	0·746	75·9	47·0	+14·8	0	2	
		3734	0·775	68·9	45·0	+20·4	0	3	131*c*
		3734*a*	0·806	71·5	41·8	+18·6	27	145	
		3736	0·858	109·4	39·4	−13·0	0	6	814*s*
			0·800	262·2	41·9	+10·1			136
			0·890	85·0	32·2	+ 7·4			184
			0·899	76·0	30·8	+15·4			180
			0·926	66·5	27·0	+24·2			174
			0·956	105·4	24·7	−12·7			98
Oct. 5		Centre			(95·3)	(+6·4)	(388)	(3177)	(2641)
278·244	FT, AR		0·985	257·6	163·5	−11·0			132
M.			0·955	281·6	158·6	+13·0			158
			0·927	279·2	153·6	+10·9			112
			0·907	288·6	150·7	+19·5			510
			0·893	299·2	147·7	+28·8			58
			0·894	248·2	144·7	−16·2			503
			0·921	235·7	144·6	−28·2			175
			0·895	245·8	144·2	−18·4			519
			0·921	217·8	135·3	−42·8			135
			0·867	225·4	132·6	−33·3			63
		3725	0·598	278·5	121·9	+10·2	0	3	
		3725*b*	0·562	279·0	119·3	+10·3	28	150	
		3728	0·393	199·3	92·8	−15·4	0	2	
		3728	0·391	197·5	92·1	−15·6	0	5	
		3728	0·248	207·4	91·8	−12·0	0	3	
		3730	0·265	207·9	92·2	− 7·3	2	6	
		3730	0·261	207·7	92·1	− 7·1	0	5	
		3730	0·259	205·7	91·6	− 7·2	2	17	
		3730	0·256	203·6	91·0	− 7·3	1	4	
1894.				°	°	°			
278d·244	FT, AR	3730	0·281	199·9	90·6	− 9·1	1	5	
M.		3730*a*	0·293	198·2	90·4	− 9·8	3	8	
		3730	0·248	199·9	90·0	− 7·2	5	19	
		3730	0·278	195·5	89·4	− 9·2	0	2	
		3731	0·424	133·4	66·9	−10·9	33	155	
		3731	0·441	130·2	65·2	−10·6	18	89	
		3731	0·413	124·4	65·1	− 7·5	0	5	
		3731	0·469	133·2	64·7	−12·8	14	139	
		3731	0·469	127·9	63·1	−10·9	11	57	
		3731	0·442	121·6	62·9	− 7·5	11	104	
		3731	0·514	134·2	62·8	−15·2	2	4	
		3731	0·469	125·0	62·2	− 9·8	7	50	
		3731	0·514	128·8	60·9	−13·0	58	400	
		3731	0·511	123·3	59·5	−10·6	34	369	
		3731	0·508	118·3	58·4	− 8·2	25	86	
		3731*b*	0·611	122·3	53·1	−13·7	86	998	
		3732*a*	0·493	73·2	56·2	+13·7	43	189	
		3732	0·498	77·6	55·5	+11·6	0	3	
		3735*a*	0·606	72·0	48·4	+15·9	0	15	
		3734*a*	0·702	69·6	41·3	+18·7	42	161	
		3736	0·784	112·7	37·2	−13·4	0	5	
		3737	0·758	86·4	35·7	+ 6·9	0	22	
		3737	0·780	86·1	33·7	+ 7·0	0	8	142*c*
		3737	0·786	86·9	33·1	+ 6·3	0	12	
		3738*a*	0·892	81·9	21·6	+10·1	9	44	
		3738	0·898	81·8	20·8	+10·2	1	26	
		3738	0·901	81·6	20·4	+10·3	0	5	
		3738	0·900	82·2	20·3	+ 9·8	1	19	
		3738	0·922	83·1	17·5	+ 8·8	1	15	387*c*
		3738	0·928	81·7	16·6	+10·0	0	8	
		3738	0·939	81·8	14·7	+ 9·9	18	44	
		3738	0·945	81·8	13·7	+ 9·8	3	16	
			0·790	116·7	37·9	−16·5			301
			0·764	91·0	35·4	+ 3·3			41
			0·876	44·8	29·0	+42·1			65
			0·843	94·9	28·2	− 0·7			98
			0·859	64·8	26·4	+24·9			369
			0·946	108·5	16·9	−15·2			448
Oct. 6		Centre			(85·1)	(+6·3)	(459)	(3277)	(4216)
279·161	AR, FT		0·950	249·2	141·4	−17·5			173
I.			0·890	287·8	136·2	+18·7			190
			0·875	235·0	126·0	−26·4			78

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 3737, October 6. A few small spots in an irregular cluster.
Group 3738, October 6–17. A regular spot, *a*, which diminishes from day to day, and which is followed by a stream of irregular spots in close succession.

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).
1894.				°	°	°			
279d·161	AR, FT		0·779	244·5	119·6	−15·3			313
		3725*b*	0·722	277·8	119·4	+10·0	41	143	46*c*
I.		3728	0·452	227·0	92·7	−12·0	0	3	
		3730	0·428	235·0	93·7	− 8·3	2	8	
		3730	0·415	234·7	92·9	− 7·9	0	8	
		3730*a*	0·407	227·5	90·7	− 9·9	1	8	
		3731*a*	0·310	162·2	67·5	−10·9	62	195	
		3731	0·350	159·2	65·7	−12·8	10	129	
		3731	0·321	156·8	65·6	−10·9	19	48	
		3731	0·386	158·5	64·6	−14·8	5	25	
		3731	0·287	145·4	63·6	− 7·4	17	80	
		3731	0·335	149·4	63·1	−10·4	7	62	
		3731	0·392	149·4	61·2	−13·5	40	264	
		3731	0·424	150·4	60·5	−15·4	0	48	
		3731	0·386	143·7	59·6	−12·0	28	154	
		3731	0·344	137·1	59·4	− 8·4	32	138	
		3731	0·364	140·4	59·4	−10·2	5	149	
		3731	0·409	139·0	57·2	−11·9	5	44	
		3731*b*	0·470	137·3	53·9	−14·2	185	735	
		3732*a*	0·310	65·7	56·2	+13·3	42	171	
		3732	0·378	63·6	52·5	+15·6	0	5	
		3735*a*	0·435	65·9	48·7	+16·0	3	11	
		3734*a*	0·549	65·1	41·4	+18·7	34	175	
		3736	0·636	120·3	38·8	−13·5	0	4	
		3738*a*	0·773	82·2	22·2	+10·0	37	198	
		3738	0·805	81·7	19·1	+10·4	2	10	
		3738	0·818	83·6	17·9	+ 8·8	7	56	
		3738	0·818	81·8	17·8	+10·3	0	8	321*c*
		3738	0·844	82·2	15·1	+10·0	18	68	
		3738	0·857	82·2	13·7	+ 9·9	3	8	
			0·762	60·7	25·4	+26·2			134
			0·836	113·6	20·5	−15·7			149
			0·921	96·6	6·8	− 3·6			83
			0·941	112·1	6·6	−18·3			191
			0·926	83·3	4·8	+ 8·6			172
Oct. 7		Centre			(73·0)	(+6·3)	(605)	(2955)	(1850)
280·205	CL, M		0·804	239·3	106·4	−20·0			325
			0·879	249·3	117·3	−14·9			704
I.		3725*b*	0·863	278·0	119·2	+10·0	26	135	299*f*
		3731	0·386	200·3	67·1	−15·0	0	5	
		3731*a*	0·327	204·1	67·0	−11·1	80	375	
		3731	0·370	198·2	66·0	−14·4	11	54	

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. Group.
1894.				°	°	°			
280d·205	CL, M	3731	0·346	197·6	65·3	−13·0	3	15	
		3731	0·257	201·6	64·7	− 7·7	18	88	
I.		3731	0·294	193·4	63·2	−10·4	7	50	
		3731	0·371	188·6	62·5	−15·3	6	35	
		3731	0·348	187·0	61·7	−14·0	9	43	
		3731	0·312	181·3	59·6	−11·9	66	462	
		3731	0·358	180·6	59·4	−14·7	5	27	
		3731	0·257	179·3	59·0	− 8·6	19	136	
		3731	0·354	175·5	57·6	−14·4	1	6	
		3731*b*	0·367	165·2	53·7	−14·5	111	421	
		3731	0·347	156·3	51·0	−12·4	0	7	
		3731	0·332	155·1	51·0	−11·3	1	7	
		3731	0·411	153·7	48·4	−15·4	0	8	
		3732*a*	0·134	24·0	56·0	+13·2	36	182	
		3739	0·452	145·9	44·0	−16·0	3	18	
		3734*a*	0·369	53·3	41·1	+18·6	33	167	
		3736	0·471	133·6	38·8	−13·1	0	7	
		3738*a*	0·595	81·6	22·7	+10·0	33	203	
		3738	0·653	82·6	18·3	+ 9·5	0	2	
		3738	0·665	83·5	17·4	+ 9·0	11	44	
		3738	0·683	82·8	16·0	+ 9·5	6	25	402*c*
		3738	0·697	85·0	14·9	+ 8·0	2	11	
		3738	0·698	83·2	14·8	+ 9·2	0	7	
		3738	0·703	81·7	14·4	+10·3	13	47	
			0·822	99·7	5·1	− 4·3			110
			0·930	135·8	3·5	−38·5			309
			0·880	114·6	2·1	−18·1			211
			0·846	72·0	1·4	+18·5			133
Oct. 8		Centre			(59·2)	(+6·2)	(500)	(2587)	(2493)
281·180	AW, FT		0·838	246·7	99·3	−15·7			2164
		3725*b*	0·954	278·7	119·5	+10·2	0	125	188*f*
I.		3731*a*	0·456	232·3	67·8	−10·4	67	252	
		3731	0·468	225·4	66·3	−13·3	16	102	
		3731	0·401	233·8	65·4	− 7·8	17	155	
		3731	0·410	226·9	64·0	−10·3	3	8	
		3731	0·421	222·8	63·3	−12·0	1	13	
		3731	0·441	218·7	62·9	−14·1	5	26	
		3731	0·433	212·9	60·5	−15·3	4	31	
		3731	0·356	221·9	60·3	− 9·3	28	207	
		3731	0·392	215·5	59·8	−12·6	54	314	
		3731	0·370	207·4	56·4	−13·0	4	17	
		3731*b*	0·374	199·0	53·6	−14·5	98	395	

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 3739, October 8–14. One or two small unstable spots, not seen on October 10 and 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).
1894.				°	°	°			
281d·180	AW, FT	3732*a*	0·206	305·4	56·3	+13·0	41	172	
		3732	0·182	304·9	55·1	+12·1	0	5	
I.		3739	0·379	173·3	43·8	−15·9	2	14	
		3734*a*	0·232	22·0	41·2	+18·6	32	174	
		3738*a*	0·393	78·5	23·5	+10·2	33	155	
		3738	0·468	79·5	18·6	+10·4	11	47	
		3738	0·491	82·3	17·0	+ 9·2	16	74	
		3738	0·501	77·8	16·5	+11·5	0	3	
		3738	0·530	80·8	14·4	+10·2	12	34	
			0·926	103·3	340·5	− 9·8			415
Oct. 9		Centre			(46·4)	(+6·2)	(444)	(2323)	(2767)
282·273	CL, AR		0·903	250·7	93·5	−14·5			1588
		3731*a*	0·640	245·8	68·2	−10·3	62	243	
I.		3731	0·639	241·1	66·9	−13·0	38	139	
		3731	0·601	248·4	66·2	− 7·7	18	114	
		3731	0·609	239·1	64·3	−13·1	6	27	
		3731	0·585	244·1	64·1	− 9·6	6	78	
		3731	0·527	245·8	60·9	− 7·1	2	8	
		3731	0·536	242·7	60·7	− 8·9	12	47	
		3731	0·552	237·4	60·3	−11·9	51	221	
		3731	0·571	233·1	60·1	−14·7	15	98	
		3731	0·510	238·5	58·1	− 9·9	11	27	
		3731	0·526	231·4	56·9	−13·6	6	33	
		3731*b*	0·510	226·2	54·3	−15·0	84	266	
		3732*a*	0·427	287·0	56·6	+12·7	43	177	
		3734*a*	0·260	324·8	41·0	+18·3	34	158	
		3740	0·385	186·1	34·4	−16·3	5	37	
		3738*a*	0·151	61·4	24·3	+10·2	38	128	
		3738	0·226	73·7	19·3	+ 9·6	45	161	
		3738	0·258	74·0	17·5	+10·0	4	15	
		3738	0·298	76·7	15·0	+ 9·8	27	81	
		3741*a*	0·855	100·5	334·5	− 5·8	0	4	185*c*
			0·878	103·1	332·4	− 8·4			198
			0·938	73·6	321·6	+17·5			373
Oct. 10		Centre			(32·0)	(+6·1)	(507)	(2062)	(2344)
283·317	AW, FT		0·947	253·6	77·0	−13·4			551
		3731*a*	0·798	252·3	68·6	−10·3	56	193	
I.		3731	0·784	248·2	66·4	−13·0	28	177	
		3731	0·765	253·4	65·9	− 8·6	17	160	
		3731	0·766	246·4	64·3	−13·7	2	16	
1894.				°	°	°			
283d·317	AW, FT	3731	0·719	251·2	61·6	− 9·1	4	25	
		3731	0·715	246·3	60·1	−12·3	39	204	
I.		3731	0·724	242·8	59·8	−14·9	3	17	
		3731	0·680	248·3	57·9	− 9·9	2	5	
		3731	0·687	243·1	57·1	−13·4	2	15	
		3731*b*	0·668	239·3	54·6	−15·1	111	285	49*c*
		3732*a*	0·624	282·5	56·6	+12·5	43	177	
		3732	0·595	281·1	54·6	+11·4	1	3	
		3739	0·580	229·3	45·4	−16·8	0	15	
		3734*a*	0·423	300·4	40·6	+17·9	28	131	
		3740	0·494	222·2	38·3	−15·7	0	3	
		3740	0·458	213·8	33·5	−16·5	2	13	
		3738*a*	0·134	303·4	24·7	+10·2	24	117	
		3738	0·079	329·5	20·5	+ 9·9	35	136	
		3738	0·037	18·3	17·5	+ 8·0	0	9	
		3738	0·072	10·2	17·5	+10·0	25	108	
		3738	0·086	40·1	15·0	+ 9·8	11	51	
		3738	0·094	52·8	13·9	+ 9·2	1	13	
		3742	0·959	118·7	310·5	−24·8	0	11	339*c*
			0·738	107·1	332·9	− 8·3			130
			0·901	106·4	316·4	−11·9			75
			0·901	65·3	314·0	+24·9			156
			0·916	76·4	311·3	+14·9			449
			0·957	89·6	305·2	+ 2·2			139
Oct. 11		Centre			(18·2)	(+6·0)	(434)	(1884)	(1888)
284·592	AW, FT		0·928	280·6	71·6	+11·9			160
			0·960	246·6	71·3	−20·5			116
			0·842	289·1	58·6	+19·2			79
			0·829	274·7	57·5	+ 7·1			109
			0·725	285·0	47·6	+14·8			119
			0·723	237·7	41·3	−18·3			289
		3731*a*	0·938	257·0	69·3	−10·0	44	170	
		3731	0·928	258·8	68·1	− 8·1	0	35	
		3731	0·931	254·0	67·7	−12·6	7	62	
		3731	0·929	252·1	67·0	−14·3	0	27	
		3731	0·919	258·0	66·6	− 8·6	0	23	
		3731	0·914	256·7	65·7	− 9·7	0	64	1169*c*
		3731	0·883	251·8	60·6	−13·1	16	74	
		3731	0·868	254·2	59·4	−10·6	0	49	
		3731	0·872	251·4	59·2	−13·1	0	15	
		3731	0·873	250·4	59·1	−14·0	0	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 3740, October 10–11. A few small spots irregularly arranged on October 10. Only one small faint spot remains on October 11.
Group 3741, October 10–14. Some faint unstable spots. The group is not seen on October 11.
Group 3742, October 11. 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).
				°	°	°			
1894.									
284d·592	AW, FT	3731*b*	0·841	247·2	54·8	−15·6	112	298	317*c*
		3731	0·817	248·6	52·8	−13·7	0	10	
		3732*a*	0·823	281·0	57·0	+12·4	23	178	156*c*
		3743	0·695	244·5	41·3	−12·9	0	2	
		3734*a*	0·645	289·9	40·6	+17·2	27	118	76*c*
		3738*a*	0·416	280·8	25·8	+ 9·7	16	96	
		3738	0·380	285·8	23·2	+11·4	0	4	
		3738	0·364	283·9	22·4	+10·4	13	62	
		3738	0·343	282·5	21·2	+ 9·8	21	94	
		3738	0·325	284·4	20·0	+10·2	1	14	
		3738	0·305	285·0	18·7	+10·0	0	7	
		3738	0·273	286·2	16·8	+ 9·9	28	181	
		3738	0·274	292·7	16·3	+11·7	0	3	
		3738	0·249	288·9	15·2	+10·3	6	41	
		3744	0·301	21·0	354·8	+22·0	0	10	
		3744*a*	0·310	22·8	354·0	+22·3	5	14	
		3744*b*	0·329	28·5	351·7	+22·5	6	26	
		3744	0·313	34·4	350·6	+20·6	0	6	
		3744	0·339	35·4	349·3	+21·6	0	5	
		3741	0·465	114·6	336·4	− 5·9	2	12	
		3741*a*	0·513	113·9	333·3	− 6·8	4	14	
			0·828	128·4	314·8	−27·0			150
			0·747	74·6	313·3	+15·3			130
			0·860	60·7	303·4	+28·0			134
			0·853	91·9	303·1	+ 1·4			130
			0·865	77·5	301·3	+13·7			141
			0·942	126·6	299·0	−31·6			135
Oct. 12		Centre			(1·4)	(+5·8)	(331)	(1728)	(3410)
285·424	AW, CL		0·848	253·9	46·1	−10·3			115
			0·764	277·3	40·4	+ 9·3			126
			0·781	246·1	37·8	−14·6			219
			0·790	238·8	36·3	−20·1			165
		3731*a*	0·985	259·1	69·0	− 9·6	66	240	
		3731	0·982	256·0	67·6	−12·5	24	115	
		3731	0·974	259·5	65·9	− 8·8	7	57	842*c*
		3731	0·959	255·3	61·9	−12·3	7	14	
		3731	0·948	254·4	59·6	−12·7	0	13	
		3731	0·944	256·1	59·2	−11·0	0	9	
		3731	0·944	252·6	58·5	−14·3	5	20	253*c*
		3731*b*	0·920	250·9	54·4	−15·0	73	262	
		3732*a*	0·912	281·3	56·6	+12·7	23	159	300*c*
		3732	0·896	283·7	54·4	+14·8	2	17	
1894.									
285d·424	AW, CL	3739	0·881	247·6	48·4	−16·6	0	6	129*c*
		3739	0·869	245·1	46·3	−18·3	0	14	
		3734*a*	0·772	287·5	40·6	+17·2	29	142	175*c*
		3738*a*	0·588	278·7	26·4	+ 9·8	18	103	
		3738	0·538	281·2	22·8	+10·9	15	62	
		3738	0·522	279·3	21·8	+ 9·8	15	133	
		3738	0·501	280·4	20·3	+10·3	2	8	
		3738	0·475	283·5	18·4	+11·5	2	8	
		3738	0·472	279·9	18·4	+ 9·7	0	5	
		3738	0·450	284·2	16·7	+11·5	2	13	
		3738	0·445	280·8	16·6	+10·0	31	116	
		3738	0·440	286·0	15·9	+12·2	1	3	
		3738	0·429	283·1	15·5	+10·8	5	15	
		3738	0·421	281·1	15·1	+ 9·9	6	23	
		3745*a*	0·531	227·4	14·3	−15·7	14	35	
		3745	0·506	226·0	12·5	−15·1	0	4	
		3745*b*	0·502	222·8	11·1	−16·1	2	12	
		3745	0·487	223·1	10·5	−15·3	0	4	
		3745	0·490	220·2	9·6	−16·5	0	2	
		3744*a*	0·299	344·7	355·3	+22·5	14	24	
		3744	0·293	349·3	353·8	+22·5	0	1	
		3744	0·276	349·4	353·5	+21·5	0	2	
		3744	0·270	351·2	352·9	+21·2	0	4	
		3744	0·245	359·5	350·5	+19·9	1	3	
		3744	0·273	4·9	349·0	+21·5	2	5	
		3744*b*	0·393	356·0	351·7	+22·7	19	84	
		3741	0·299	130·4	337·2	− 5·5	2	8	
		3741*a*	0·372	126·3	332·9	− 7·1	4	12	
		3741	0·383	128·4	332·8	− 8·2	0	27	
			0·748	47·6	308·4	+34·6			84
			0·826	64·1	295·9	+24·5			94
			0·878	99·0	290·1	− 5·1			174
Oct. 13		Centre			(350·4)	(+5·8)	(391)	(1784)	(2676)
286·226	M, AR		0·915	248·9	42·6	−16·6			694
			0·829	275·4	36·0	+ 7·7			262
I.			0·871	241·4	34·8	−21·4			359
		3732*a*	0·974	281·3	57·4	+12·3	47	188	245*c*
		3732	0·969	283·5	56·2	+14·5	0	11	
		3731*b*	0·979	252·7	55·6	−15·6	115	391	1098*c*
		3739	0·943	247·7	46·7	−18·8	4	18	
		3734*a*	0·875	286·0	41·0	+16·8	13	114	203*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 3743, October 12. A very small spot.
Groups 3736, 3739, 3740 and 3743 are all composed of small unstable spots that arise in a disturbed region *f* Group 3731. Usually only one of these groups is seen on any particular day; never more than two.
Group 3744, October 12–16. A few spots, mostly small, in a straight stream. The principal spots are *a*, the leader on October 13, and *b*, the largest spot. *b* is in the centre of the group.
Group 3745, October 13–18. A stream of spots, forming to the west of the central meridian, and rapidly increasing in size until October 15, after which it diminishes again. *a* and *b*, the first and last spots, are the largest; *b* has a large retrograde motion in longitude.

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).
1894.				°	°	°			
286d·226	M, AR	3738a	0·731	277·7	26·9	+ 9·6	19	100	
		3738	0·681	278·6	22·8	+10·1	13	115	
I.		3738	0·670	278·2	21·9	+ 9·8	0	28	
		3738	0·654	278·9	20·6	+10·2	1	6	
		3738	0·643	278·6	19·8	+10·0	0	3	
		3738	0·600	281·0	16·6	+11·2	0	14	213c
		3738	0·598	277·5	16·6	+ 9·1	18	80	
		3738	0·587	279·4	15·7	+10·2	18	75	
		3738	0·586	280·3	15·6	+10·7	0	3	
		3738	0·575	275·4	15·0	+ 7·9	0	3	
		3745a	0·652	237·6	14·5	−15·6	38	124	
		3745	0·628	238·3	13·1	−14·4	0	2	
		3745	0·631	236·6	12·8	−15·4	0	6	
		3745	0·620	237·3	12·3	−14·7	0	3	
		3745	0·626	235·1	12·0	−16·0	0	4	238c
		3745	0·611	236·4	11·4	−14·8	1	10	
		3745	0·614	235·1	11·2	−15·6	0	9	
		3745	0·615	235·0	11·2	−15·7	1	9	
		3745b	0·603	232·4	9·6	−16·5	18	74	
		3744a	0·393	318·5	356·1	+22·7	4	30	
		3744	0·357	322·0	353·4	+21·9	0	1	
		3744b	0·352	327·4	351·6	+22·9	9	42	
		3744	0·305	332·0	348·6	+21·3	0	3	
		3741a	0·262	150·4	332·3	− 7·4	1	5	
			0·867	134·7	292·2	+33·7			153
			0·812	118·0	290·8	−18·6			76
			0·931	76·6	270·7	+14·6			71
Oct. 14		Centre			(339·8)	(+5·8)	(348) 320	(1525) 1471	(3612)
287·439	AW,HA		0·974	254·2	38·6	−14·0			186
			0·961	279·4	38·3	+10·6			135
			0·946	274·5	35·1	+ 6·2			186
			0·955	246·1	32·6	−20·8			219
			0·879	252·1	30·3	−12·7			95
			0·897	286·7	27·8	+17·5			152
			0·900	295·3	27·6	+25·2			193
		3734a	0·968	285·7	40·0	+16·6	20	97	287c
		3738a	0·891	277·7	27·1	+ 9·4	19	93	
		3738	0·863	277·8	23·7	+ 9·6	14	49	
		3738	0·855	278·1	22·8	+ 9·9	1	6	
		3738	0·851	278·9	22·4	+10·6	8	29	
		3738	0·849	277·6	22·1	+ 9·5	0	9	
		3738	0·846	276·6	21·8	+ 8·6	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).
1894.				°	°	°			
287d·439	AW,HA	3738	0·834	278·2	20·5	+10·0	2	7	
		3738	0·820	277·8	19·1	+ 9·6	0	5	
		3738	0·818	279·3	18·9	+10·9	0	5	
		3738	0·805	278·8	17·6	+10·4	7	29	
		3738	0·793	278·3	16·4	+10·1	5	15	448c
		3738	0·793	279·6	16·4	+11·1	2	7	
		3738	0·789	276·8	16·0	+ 8·9	12	63	
		3738	0·781	277·9	15·3	+ 9·8	11	45	
		3745a	0·826	246·8	15·6	−15·5	30	192	
		3745	0·771	244·3	9·8	−15·6	19	84	249c
		3745b	0·765	242·0	8·6	−17·0	19	106	
		3744a	0·589	300·6	356·9	+22·2	5	10	
		3744	0·552	303·0	353·7	+22·4	2	6	
		3744b	0·529	304·7	351·8	+22·5	7	24	
		3746	0·616	227·5	352·5	−19·6	2	6	
		3747	0·353	95·1	303·3	+ 3·6	0	3	
		3747	0·369	97·7	302·4	+ 2·4	2	5	
		3747	0·386	103·2	301·8	+ 0·3	0	4	
		3747	0·399	106·8	301·4	− 1·3	0	3	
			0·975	80·1	246·0	+11·0			112
			0·989	73·5	241·4	+17·1			367
Oct. 15		Centre			(323·8)	(+5·7)	(187)	(906)	(2629)
288·198	CL,FT		0·962	285·1	28·6	+16·0			127
			0·913	295·6	19·5	+25·6			131
I.			0·807	292·5	6·8	+21·4			77
			0·782	284·5	5·1	+14·8			78
		3738a	0·957	277·7	27·4	+ 9·1	17	53	
		3738	0·936	278·1	23·6	+ 9·6	8	23	
		3738	0·918	277·1	20·7	+ 8·8	0	8	
		3738	0·905	277·6	18·9	+ 9·3	0	5	945c
		3738	0·899	278·6	18·1	+10·2	12	91	
		3738	0·883	277·7	16·1	+ 9·5	7	30	
		3738	0·879	276·6	15·6	+ 8·5	11	96	
		3745a	0·906	249·7	15·6	−15·7	29	161	
		3745	0·864	247·3	9·8	−16·4	0	17	
		3745	0·860	248·4	9·6	−15·3	0	28	352c
		3745b	0·852	245·2	7·9	−17·7	26	131	
		3744a	0·706	295·8	356·9	+22·0	0	8	107c
		3744b	0·651	298·0	352·0	+22·2	6	23	
			0·935	109·5	247·5	−16·0			113
			0·939	78·5	243·4	+12·7			264
Oct. 16		Centre			(313·8)	(+5·6)	(116)	(674)	(2194)

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 3746, October 15. A very small spot.
Group 3747, October 15–17. A few very small unstable spots irregularly arranged. The group is not seen on October 16, and only one spot is seen on October 17.

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).
1894.				°	°	°			
289d·294	CL, FT		0·935	243·8	4·0	+22·0			68
			0·837	291·6	355·7	+21·1			340
I.			0·818	256·4	352·6	− 7·8			75
		3738	0·970	280·2	16·0	+11·3	0	4	144c
		3738	0·969	277·5	15·5	+ 8·7	0	9	
		3745a	0·978	252·6	15·0	−15·7	13	82	232c
		3745b	0·943	248·8	6·6	−17·8	16	143	
		3747	0·074	199·0	300·8	+ 1·6	0	3	
			0·934	174·6	288·3	−62·8			127
			0·855	112·7	244·4	−16·1			171
			0·852	105·2	243·0	− 9·9			118
			0·852	77·0	240·8	+14·0			282
			0·875	103·1	240·1	− 8·6			67
			0·932	68·1	230·3	+22·4			111
Oct. 17		Centre			(299·4)	(+5·6)	(29)	(241)	(1735)
290·209	CL, M		0·949	250·3	355·9	−16·7			76
			0·925	259·2	353·6	− 7·8			118
I.			0·908	292·9	352·5	+23·1			371
			0·854	253·8	343·7	−10·8			49
		3745b	0·989	251·3	6·3	−17·5	0	71	
		3748	0·766	257·2	335·8	− 6·2	1	5	235c
		3748	0·752	255·9	334·4	− 6·9	0	3	
		3749	0·531	300·3	316·4	+20·3	3	10	
		3750	0·319	292·1	304·8	+12·1	3	10	
		3751	0·331	237·8	303·6	− 4·8	0	7	
		3751	0·343	232·1	303·0	− 6·8	0	2	
		3752	0·880	105·3	227·8	−10·7	3	11	300sf
		3753	0·911	96·4	222·4	− 3·5	0	5	85sp
		3754	0·966	81·9	211·9	+ 9·2	16	72	305n
			0·735	75·4	240·2	+14·4			231
			0·850	132·3	240·2	−31·1			153
			0·906	116·6	227·2	−21·2			152
			0·871	68·3	227·1	+21·5			126
			0·905	87·8	222·4	+ 4·4			176
Oct. 18		Centre			(287·3)	(+5·5)	(26)	(196)	(2377)
291·256	AR, FT		0·843	252·5	328·5	−11·6			75
			0·779	280·8	324·7	+11·8			103
I.			0·711	284·1	318·5	+13·8			150
			0·787	224·3	312·8	−30·1			96

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).
1894.				°	°	°			
291d·256	AR, FT	3748	0·918	261·6	339·1	− 5·5	1	7	413c
		3748	0·899	260·5	336·4	− 6·0	0	5	
I.		3749	0·698	295·1	316·0	+21·2	0	5	
		3750	0·577	283·7	308·4	+12·3	0	4	112c
		3750	0·553	283·1	306·7	+11·7	0	5	
		3751	0·566	252·1	306·1	− 5·4	0	10	
		3755	0·433	286·5	298·5	+12·0	1	2	
		3752	0·739	110·4	228·8	−11·1	0	5	
		3754	0·860	83·2	214·0	+ 8·6	4	23	
		3754	0·879	82·1	211·7	+ 9·5	0	2	351c
		3754	0·887	82·1	210·7	+ 9·5	2	14	
		3754	0·898	80·7	209·3	+10·7	13	65	
		3756a	0·970	107·2	199·9	−15·2	26	196	131c
		3757	0·960	72·0	199·1	+18·8	4	44	106a
			0·790	109·6	224·2	−11·9			118
			0·794	87·5	220·9	+ 5·2			44
			0·871	119·3	218·6	−22·2			169
			0·923	111·5	209·6	−17·4			118
Oct. 19		Centre			(273·5)	(+5·4)	(51)	(387)	(1986)
292·187	CL, M		0·841	283·7	318·5	+14·4			205
			0·881	232·4	314·3	−29·4			127
I.		3748	0·979	262·7	338·6	− 6·0	0	5	273c
		3758	0·822	253·9	314·3	−10·0	2	9	
		3758	0·805	254·5	312·8	− 9·2	5	18	91c
		3758	0·787	254·3	311·1	− 8·9	0	3	
		3750	0·749	280·5	309·7	+11·4	0	5	
		3750	0·724	280·5	307·6	+11·2	0	5	
		3750	0·703	280·5	305·6	+11·1	0	5	
		3751	0·731	258·0	306·9	− 5·1	0	15	
		3751	0·717	255·1	305·3	− 6·8	0	3	189c
		3751	0·697	256·8	304·0	− 5·3	2	10	
		3751	0·688	256·0	303·2	− 5·6	0	7	
		3754	0·733	83·4	214·0	+ 8·5	5	13	
		3754	0·759	82·4	211·7	+ 9·2	2	6	299c
		3754	0·769	81·8	210·9	+ 9·7	11	35	
		3754	0·787	80·6	209·2	+10·7	33	117	
		3756a	0·900	109·2	199·9	−14·7	33	144	491c
		3756	0·922	109·9	197·0	−16·0	0	22	
		3757	0·887	71·8	198·7	+18·6	19	51	408nf
			0·881	116·2	204·1	−20·0			157
			0·886	77·4	198·6	+13·6			128

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 3748, October 18–20. A cluster of very small spots.
Group 3749, October 18–19. A small spot.
Group 3750, October 18–22. A few small spots. The group tends to increase when near the west limb.
Group 3751, October 18–21. A few small spots irregularly arranged.
Group 3752, October 18–19. A small spot.
Group 3753, October 18. A very small spot.
Group 3754, October 18–27. A number of very unstable spots in an irregular variable stream.
Group 3755, October 19. A very small spot.
Group 3756, October 19–30. A regular spot, *a*, with occasionally a small companion. *a* has a well marked forward motion in longitude, and a downward motion in latitude.
Group 3757, October 19–23. A single spot, which diminishes in area.
Group 3758, October 20. A cluster of very small spots *sp* Group 3751.

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).
1894.				°	°	°			
292d·187	CL, M		0·909	86·0	195·7	+ 5·9			90
I.			0·982	81·7	181·7	+ 9·2			280
Oct. 20		Centre			(261·2)	(+5·3)	(112)	(473)	(2738)
293·473	CL, FT		0·946	288·6	315·8	+19·3			92
			0·941	258·2	313·0	− 9·2			133
			0·894	298·0	306·7	+27·3			95
			0·869	268·9	304·4	+ 1·6			50
			0·836	305·8	297·5	+32·4			77
			0·830	226·6	288·9	−31·0			72
		3750	0·879	279·3	306·1	+10·7	2	8	251c
		3750	0·869	282·6	304·8	+13·5	4	20	
		3751	0·910	262·3	308·9	− 4·8	0	6	
		3751	0·904	262·5	308·1	− 4·5	2	7	170c
		3751	0·879	261·2	304·8	− 5·2	8	17	
		3754	0·496	81·9	214·7	+ 8·5	0	27	
		3754	0·500	82·7	214·4	+ 8·2	1	5	
		3754	0·514	79·7	213·6	+ 9·8	1	4	
		3754	0·516	81·0	213·4	+ 9·1	5	14	
		3754	0·530	79·5	212·5	+10·0	5	14	
		3754	0·541	78·2	211·8	+10·7	2	5	
		3754	0·549	78·6	211·2	+10·6	1	4	
		3754	0·564	78·6	210·2	+10·7	19	100	
		3754	0·575	81·1	209·3	+ 9·3	1	6	
		3754	0·579	78·6	209·1	+10·8	2	7	
		3756a	0·735	116·0	201·3	−15·0	28	130	120c
		3756	0·758	115·4	199·2	−15·3	1	4	
		3759a	0·704	88·6	199·6	+ 4·7	0	4	
		3757	0·726	69·1	198·8	+18·7	7	28	
		3760	0·853	114·8	190·0	−18·0	0	7	
		3761	0·940	101·4	175·7	− 8·9	7	29	
		3761	0·942	102·8	175·6	−10·2	3	12	183c
		3761	0·946	102·0	174·8	− 9·5	0	8	
			0·890	81·7	181·2	+ 9·8			148
			0·953	86·5	171·8	+ 4·9			107
Oct. 21		Centre			(244·3)	(+5·2)	(99)	(466)	(1498)
294·311	AW, FT		0·948	264·9	304·0	− 3·2			470
			0·905	233·0	289·8	−30·3			290
I.		3750	0·969	281·0	309·4	+11·9	9	39	
		3750	0·969	281·8	309·4	+12·7	0	14	515c
		3750	0·944	282·6	304·4	+13·6	0	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).
1894.				°	°	°			
294d·311	AW, FT	3762	0·240	24·0	227·4	+17·7	0	7	
		3754	0·301	77·8	216·0	+ 8·5	0	3	
I.		3754	0·336	77·8	213·9	+ 8·9	0	7	
		3754	0·351	75·6	213·1	+ 9·8	4	9	
		3754	0·381	74·6	211·4	+10·5	13	32	
		3754	0·412	71·8	209·7	+12·1	0	3	
		3754	0·410	75·9	209·5	+10·4	6	23	
		3754	0·411	79·0	209·2	+ 9·2	0	4	
		3756a	0·612	122·7	201·1	−15·0	25	118	
		3759a	0·544	90·1	200·3	+ 4·2	8	41	
		3759	0·556	87·9	199·4	+ 5·4	0	2	
		3759	0·582	86·5	197·6	+ 6·2	7	17	
		3757	0·597	65·3	198·4	+18·6	5	11	
		3760	0·709	121·5	193·9	−17·8	2	6	
		3760	0·742	120·8	191·1	−18·5	0	3	209c
		3760	0·739	119·3	190·9	−17·4	2	5	
		3761	0·850	102·9	176·6	− 8·2	0	4	
		3761	0·858	103·8	175·9	− 9·1	8	16	676f
		3761	0·868	103·1	174·6	− 8·8	16	35	
			0·774	81·0	182·4	+10·2			225
			0·880	87·4	171·5	+ 4·8			328
			0·895	73·5	169·6	+17·1			157
			0·963	102·3	160·4	−10·4			277
Oct. 22		Centre			(233·2)	(+5·1)	(105)	(405)	(3147)
295·316	CL, AB	3754	0·121	51·5	214·5	+ 9·3	1	9	
		3754	0·167	47·5	212·8	+11·4	1	9	
I.		3754	0·160	56·9	212·2	+10·0	4	37	
		3754	0·176	59·5	211·2	+10·1	3	14	
		3754	0·190	53·0	211·1	+11·5	0	6	
		3754	0·198	63·5	209·7	+10·0	0	2	
		3756a	0·459	137·3	201·3	−14·9	24	109	
		3759a	0·291	92·1	203·1	+ 4·1	8	29	
		3759	0·327	92·4	201·0	+ 3·9	1	5	
		3759	0·344	91·9	199·9	+ 4·1	3	17	
		3759	0·361	86·4	198·9	+ 5·9	2	7	
		3759	0·370	91·1	198·3	+ 4·3	9	16	
		3759	0·385	86·1	197·4	+ 6·2	5	15	
		3757	0·430	55·8	198·1	+18·6	2	11	
		3760	0·551	133·7	195·4	−17·8	8	14	
		3760	0·587	128·1	191·3	−16·8	1	2	
		3760	0·602	130·7	191·3	−18·7	0	4	
		3760	0·604	128·2	190·3	−17·5	1	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 3759, October 21–29. A very small spot, *a*, on October 21. *a* has increased considerably by the succeeding day, and is followed by a number of small unstable spots in a long stream. The following spots have all disappeared by October 26, but have reappeared by the following day. *a* is not seen on October 29.
Group 3760, October 21–27. A few very small unstable spots irregularly scattered. The group is not seen on October 25.
Group 3761, October 21–28. A number of unstable spots, mostly small, in an irregular stream.
Group 3762, October 22. 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).
1894.				°	°	°			
295d·316	CL, AR	3761	0·724	108·1	175·9	− 9·4	10	57	411f
			0·736	88·2	172·6	+ 4·7			196
I.			0·751	88·2	171·3	+ 4·7			171
			0·813	63·0	167·3	+24·7			130
			0·914	123·3	160·6	−27·6			158
			0·893	106·4	159·0	−12·2			488
			0·880	74·8	158·3	+15·7			181
			0·911	113·6	158·1	−19·1			91
			0·930	67·5	151·6	+22·7			226
			0·962	84·4	145·7	+ 6·7			166
Oct. 23		Centre			(220·0)	(+5·0)	(83)	(366)	(~~2052~~) 2218
296·238	AW, CL	3763	0·266	286·0	222·7	+ 9·1	0	3	
		3763	0·245	288·2	221·4	+ 9·3	0	3	
I.		3763	0·232	283·7	220·9	+ 8·0	1	5	
		3754	0·131	308·6	213·7	+ 9·6	5	18	
		3754	0·101	322·5	211·4	+ 9·6	5	16	
		3756a	0·358	162·1	201·3	−14·9	23	100	
		3759a	0·058	102·0	204·5	+ 4·3	4	14	
		3759	0·121	95·4	200·9	+ 4·3	0	7	
		3759	0·167	93·2	198·2	+ 4·4	1	6	
		3759	0·173	83·0	197·9	+ 6·2	0	2	
		3760	0·470	145·9	191·8	−18·0	2	8	
		3761	0·557	114·7	177·1	− 9·1	2	6	} 138c
		3761	0·587	113·5	174·9	− 9·3	3	8	
		3761	0·611	112·3	173·0	− 9·3	2	11	
			0·850	124·6	157·0	−25·7			153
			0·857	109·8	151·8	−14·1			447
			0·888	68·5	145·5	+21·4			262
Oct. 24		Centre			(207·8)	(+5·0)	(48)	(~~300~~) 207	(1000)
297·462	FT, HA		0·906	292·4	256·4	+22·3			94
		3754	0·352	282·2	212·0	+ 8·7	0	5	
		3754	0·343	284·2	211·3	+ 9·4	2	9	
		3754	0·339	281·8	211·2	+ 8·5	0	7	
		3754	0·332	283·7	210·7	+ 9·0	0	2	
		3754	0·324	280·8	210·4	+ 8·0	0	3	
		3756a	0·374	207·4	201·9	−14·6	21	101	
		3759a	0·263	268·8	206·9	+ 4·3	5	12	
		3759	0·192	267·5	202·7	+ 4·2	0	10	
		3759	0·136	267·5	199·5	+ 4·4	0	4	
		3761	0·367	133·8	176·2	−10·0	4	45	

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).
1894.				°	°	°			
297d·462	FT, HA	3761	0·384	130·2	174·5	− 9·7	0	3	
		3761	0·398	129·6	173·6	−10·1	10	25	
		3761	0·408	130·7	173·4	−10·8	0	4	
		3761	0·438	130·1	171·8	−11·8	1	7	
		3764	0·527	120·4	164·2	−11·2	0	4	
		3764	0·544	115·1	161·9	− 9·2	0	7	
		3764	0·585	116·7	159·7	−11·1	1	7	
		3765	0·793	109·5	142·0	−12·2	4	13	63c
			0·831	121·4	140·8	−22·5			144
			0·945	106·4	122·9	−13·8			337
			0·946	77·7	120·3	+13·1			146
Oct. 25		Centre			(191·7)	(+4·8)	(48)	(268)	(784)
298·380	AW, HA		0·881	283·4	241·4	+14·1			132
		3754	0·571	279·8	214·1	+ 9·5	0	4	
		3756a	0·489	229·2	201·8	−14·1	16	101	
		3759a	0·480	270·4	208·2	+ 4·4	4	10	
		3760	0·442	210·6	193·1	−17·6	1	7	
		3761	0·269	171·9	177·3	−10·6	10	24	
		3761	0·253	163·0	175·2	− 9·2	1	6	
		3761	0·275	158·5	173·7	−10·0	12	30	
		3761	0·290	157·1	172·9	−10·7	0	19	
		3764	0·431	129·6	159·8	−11·4	1	6	
		3764	0·456	132·1	159·2	−13·2	3	16	
		3765	0·648	115·9	143·0	−12·5	0	7	
			0·752	122·2	137·0	−20·0			72
			0·868	132·2	129·9	−32·5			65
			0·859	108·8	123·1	−13·1			254
			0·934	128·1	118·6	−32·9			111
			0·890	79·9	116·5	+11·2			77
			0·947	113·0	111·7	−19·9			171
			0·939	103·3	111·3	−10·7			291
Oct. 26		Centre			(179·5)	(+4·8)	(48)	(230)	(1173)
299·264	M, FT		0·860	250·8	224·5	−13·8			158
			0·822	262·5	222·4	− 3·5			142
I.		3766	0·928	280·5	236·3	+11·5	0	3	31c
		3754	0·703	277·6	212·5	+ 8·6	0	6	} 316np
		3754	0·691	278·9	211·5	+ 9·5	0	9	
		3756a	0·627	240·8	202·1	−13·9	21	90	
		3759a	0·660	270·9	209·1	+ 4·2	1	6	
		3759	0·619	271·2	206·1	+ 4·5	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 3763, October 24. A few very small faint spots, irregularly scattered.
Group 3764, October 25–26. A few very small spots, irregularly scattered.
Group 3765, October 26. A very small spot.
Group 3766, October 27. 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).
1894.				°	°	°			
299d·264	M, FT	3759	0·554	271·7	201·5	+ 4·8	1	9	
		3759	0·529	273·5	199·8	+ 5·9	4	14	
I.		3760	0·548	225·0	192·0	−18·4	0	5	
		3761	0·320	215·2	178·7	−10·4	8	25	
		3761	0·276	202·2	174·0	−10·1	2	19	
		3761	0·284	194·6	172·1	−11·2	0	3	
		3767	0·138	266·9	175·8	+ 4·3	0	1	
		3767	0·135	261·4	175·5	+ 3·5	0	1	
		3767	0·126	268·2	175·1	+ 4·4	0	2	
		3768	0·262	126·0	155·7	− 4·3	4	16	
		3768	0·288	123·1	154·0	− 4·4	0	6	
			0·767	110·6	120·8	−12·4			739
			0·784	78·4	116·4	+12·0			225
			0·918	109·2	104·0	−15·5			655
Oct. 27		Centre			(167·9)	(+4·7)	(43)	(~~198~~) 222	(2266)
300·612	CL, FT		0·889	280·3	212·9	+11·1			436
			0·853	243·7	204·1	−19·5			163
			0·730	240·8	191·9	−17·5			70
		3756*a*	0·815	249·8	201·8	−13·5	15	87	61*c*
		3759*a*	0·862	271·5	209·6	+ 3·6	1	12	89*c*
		3759	0·790	272·9	202·3	+ 5·1	7	27	93*c*
		3759	0·773	275·1	200·8	+ 6·8	2	6	
		3769	0·520	246·7	178·8	− 7·9	0	4	
		3761	0·520	242·1	177·8	−10·1	0	4	
		3767*a*	0·467	269·2	177·9	+ 3·7	7	37	
		3767	0·450	270·0	176·8	+ 4·0	3	12	
		3767	0·445	268·1	176·4	+ 3·2	0	5	
		3767	0·422	272·7	175·0	+ 5·2	0	4	
		3767	0·417	268·6	174·7	+ 3·5	2	7	
		3767	0·403	270·6	173·8	+ 4·4	0	2	
		3767	0·394	271·4	173·3	+ 4·7	3	9	
		3770*a*	0·950	77·1	78·0	+13·7	30	186	
		3770	0·959	78·1	76·2	+12·7	4	23	
		3770	0·978	76·7	71·3	+13·9	12	50	929*c*
		3770	0·981	75·7	70·7	+14·9	5	20	
		3770	0·996	76·9	64·5	+13·4	0	144	
		3771*a*	0·958	98·7	77·8	− 7·0	0	26	1091*p*
			0·883	115·6	92·3	−20·1			469
			0·963	81·8	75·5	+ 9·1			119
			0·977	110·7	75·3	−19·1			93
Oct. 28		Centre			(150·1)	(+4·5)	(91)	(665)	(3613)
1894.				°	°	°			
301d·433	CL, AW		0·962	278·8	213·8	+ 9·8			272
			0·924	285·8	206·9	+16·3			104
			0·902	245·8	199·9	−19·5			277
			0·852	292·2	196·9	+21·2			96
		3756*a*	0·909	253·2	202·4	−13·2	14	72	70*c*
		3759	0·898	273·3	203·2	+ 5·0	0	5	194*c*
		3767*a*	0·637	270·5	178·8	+ 3·9	5	16	
		3767	0·616	270·3	177·3	+ 3·7	0	3	
		3767	0·580	270·2	174·7	+ 3·8	2	7	
		3767	0·564	272·3	173·6	+ 5·0	1	3	
		3772	0·482	233·7	162·6	−12·4	0	12	
		3773	0·336	243·7	156·8	− 4·2	0	1	
		3774*a*	0·292	50·1	125·9	+15·1	2	4	
		3774*b*	0·324	51·8	124·0	+15·9	1	4	
		3770*a*	0·873	76·8	78·5	+13·7	37	191	
		3770	0·889	77·9	76·5	+12·8	4	19	
		3770	0·919	77·4	72·4	+13·4	0	5	
		3770	0·925	76·1	71·4	+14·6	5	14	381*c*
		3770	0·936	75·3	69·7	+15·3	0	23	
		3770	0·953	76·5	66·6	+14·3	5	15	
		3770	0·955	77·4	66·2	+13·4	10	37	
		3771*a*	0·886	100·2	78·1	− 6·8	6	23	671*c*
		3771	0·919	102·3	74·0	− 9·4	0	8	896*c*
		3771	0·959	101·5	67·2	− 9·6	9	44	
		3775	0·962	73·5	64·8	+17·1	0	11	
		3776	0·995	78·5	54·5	+11·9	0	116	170*p*
			0·936	83·7	69·8	+ 7·5			85
			0·958	95·9	66·7	− 4·3			104
Oct. 29		Centre			(139·3)	(+4·5)	(101)	(633)	(3320)
302·216	AW, AR		0·879	294·3	189·5	+23·4			191
			0·852	281·7	187·3	+12·3			236
I.			0·790	251·2	178·6	−11·9			298
		3756*a*	0·970	255·1	203·1	−13·3	11	78	377*s*
		3767*a*	0·768	271·1	179·0	+ 3·7	0	7	139*c*
		3767	0·717	270·8	174·6	+ 3·7	0	2	
		3774*a*	0·197	11·4	126·6	+15·5	6	42	
		3774*b*	0·219	24·5	123·5	+15·9	7	34	
		3770*a*	0·775	75·6	78·4	+14·0	49	221	
		3770	0·792	73·5	77·0	+15·7	0	3	109*c*
		3770	0·793	76·8	76·7	+13·1	3	13	
		3770	0·804	75·0	75·7	+14·7	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 3767, October 27–30. A few unstable spots, mostly very small, in an irregular and variable stream. *a*, the leader on October 28, is the largest.
Group 3768, October 27. A small spot with a very small companion.
Group 3769, October 28. A very small spot.
Group 3770, October 28–November 9. A large regular spot, *a*, followed until November 2 by a stream of very small spots.
Group 3771, October 28–November 4. A small spot, *a*, followed from October 29–31, by several very small faint spots, scattered over a wide area. The group is not seen on November 1, but *a* has reappeared by November 2.
Group 3772, October 29. A small spot.
Group 3773, October 29. A very small spot.
Group 3774, October 29–November 2. A pair of spots, *a* and *b*. Both are very small on October 29, but increase greatly until October 31, after which they diminish again, and *b* has disappeared by November 2. *a* moves forward in longitude.
Group 3775, October 29. A small spot, *nf* of Group 3770.
Group 3776, October 29–November 8. A regular spot, which diminishes 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).
1894.				°	°	°			
302d·216	AW, AR	3770	0·841	75·4	71·9	+14·7	6	18	670c
		3770	0·883	76·4	66·9	+14·1	9	40	
I.		3771a	0·797	101·9	77·3	− 6·7	2	27	
		3771	0·829	104·0	74·6	− 9·1	0	9	2020c
		3771	0·885	102·5	68·1	− 8·9	2	10	
		3776	0·963	78·6	54·2	+12·2	16	79	174f
		3777	0·980	82·4	50·0	+ 8·4	8	100	
Oct. 30		Centre			(128·9)	(+4·4)	(119)	(685)	(4214)
303·212	CL, FT		0·885	282·0	178·1	+12·6			335
			0·896	255·5	177·6	−10·9			538
I.			0·873	271·4	176·5	+ 3·3			330
			0·870	293·5	175·3	+22·5			109
			0·708	286·9	160·1	+15·0			96
			0·732	247·5	159·6	−13·1			270
		3774a	0·277	313·3	127·8	+15·1	19	94	
		3774b	0·246	325·5	124·1	+15·9	12	58	
		3778	0·267	182·8	116·6	−11·1	7	22	
		3770a	0·621	73·2	78·2	+13·7	54	215	
		3770	0·641	74·7	76·6	+13·1	2	16	
		3770	0·746	75·1	68·0	+14·0	0	6	
		3770	0·756	74·7	67·2	+14·3	2	19	350c
		3770	0·760	76·4	66·7	+13·1	0	9	
		3771a	0·643	105·0	77·3	− 6·2	0	16	1837c
		3771	0·764	105·8	67·9	− 9·1	2	11	
		3776	0·883	78·6	53·7	+12·1	16	79	643c
		3777	0·913	83·1	49·8	+ 8·1	28	135	
			0·916	108·2	51·9	−14·7			395
Oct. 31		Centre			(115·8)	(+4·3)	(142)	(680)	(4903)
304·531	CL, HA		0·985	257·9	177·2	−11·1			227
			0·967	272·2	173·7	+ 3·2			194
			0·909	285·7	163·8	+16·0			125
			0·887	254·1	159·0	−12·1			211
		3774a	0·532	292·3	129·0	+15·2	11	29	
		3774b	0·470	296·9	124·2	+15·9	3	13	
		3778	0·415	233·2	118·2	−10·5	1	5	
		3770a	0·376	62·5	78·5	+13·8	42	209	
		3770	0·400	66·0	76·6	+13·2	1	4	
		3776	0·703	76·7	54·2	+12·3	13	55	
		3777	0·743	83·2	50·6	+ 7·8	23	144	84f
			0·784	113·9	50·5	−15·7			121
1894.				°	°	°			
304d·531	CL, HA		0·843	77·3	41·2	+12·9			191
			0·862	89·1	39·1	+ 2·9			79
			0·901	109·7	36·9	−15·7			535
			0·954	117·9	30·3	−25·0			307
			0·944	82·3	27·6	+ 8·6			386
Nov. 1		Centre			(98·5)	(+4·1)	(94)	(459)	(2460)
305·321	AW, FT		0·957	253·6	159·2	−14·4			248
			0·863	292·2	146·7	+21·2			297
I.			0·809	249·6	139·2	−13·8			137
			0·808	231·6	133·2	−27·2			86
		3774a	0·674	287·9	129·4	+15·0	3	15	103c
		3770a	0·239	41·9	78·6	+14·3	49	209	
		3770	0·260	47·0	76·7	+14·2	0	4	
		3770	0·285	46·7	75·6	+15·3	0	1	
		3771a	0·262	132·4	76·8	− 6·1	0	3	
		3779	0·333	144·0	76·5	−11·5	0	6	
		3780	0·223	66·6	76·1	+ 9·1	1	2	
		3780	0·251	59·7	75·3	+11·3	0	1	
		3776	0·563	73·6	54·5	+12·6	13	48	
		3777	0·608	82·2	50·7	+ 8·0	34	163	
		3781	0·964	106·2	13·1	−16·7	8	52	321p
			0·831	116·0	36·1	−18·8			1174
			0·814	80·1	33·6	+10·4			953
			0·851	66·0	30·9	+22·5			308
Nov. 2		Centre			(88·0)	(+4·1)	(108)	(504)	(3627)
306·494	AW, FT		0·931	289·9	141·0	+20·0			136
			0·934	244·5	137·9	−22·1			431
			0·809	287·0	126·0	+16·0			111
			0·817	251·8	125·0	−12·4			226
			0·774	242·9	118·8	−18·0			91
		3770a	0·205	331·4	78·4	+14·3	34	230	
		3771a	0·213	204·0	77·6	− 7·3	0	15	
		3780	0·118	311·5	77·7	+ 8·4	0	1	
		3782	0·327	165·1	67·6	−14·5	0	21	
		3776	0·340	63·9	54·5	+12·3	9	42	
		3777	0·376	79·4	50·8	+ 7·6	33	172	
		3783	0·499	76·2	43·2	+10·2	0	2	
		3783	0·547	73·8	40·2	+12·1	0	12	
		3781	0·851	109·0	16·8	−13·9	8	52	
		3781	0·861	108·5	15·6	−13·7	0	4	90c
		3781	0·869	109·5	14·9	−14·8	10	39	

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 3777, October 30–November 10. A large regular spot.
Groups 3776 and 3777 form a wide pair.
Group 3778, October 31–November 1. A small regular spot on October 31. It has greatly decreased by the succeeding day.
Group 3779, November 2. A very small spot.
Group 3780, November 2–3. A very small spot *s* of Group 3770.
Group 3781, November 2–6. Several unstable spots, mostly small, in an irregular stream. The group increases rapidly up to November 4, and diminishes as quickly afterwards.
Group 3782, November 3. A small spot.
Group 3783, November 3–10. Several unstable spots, mostly small. On November 6 it forms a long straggling stream, but it diminishes rapidly on the succeeding days.

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).
1894.				°	°	°			
306d·494	AW, FT	3784	0·945	113·1	4·9	−20·3	0	11	189c
		3785	0·945	107·5	3·9	−15·1	3	17	349c
		3786a	0·996	95·2	348·4	− 4·8	53	277	370f
			0·784	128·8	29·7	−26·6			141
			0·769	111·0	25·2	−13·3			79
			0·818	79·1	17·9	+11·1			139
Nov. 3		Centre			(72·6)	(+3·9)	(150)	(895)	(2352)
307·411	AW,HA		0·943	290·1	130·9	+20·2			52
			0·911	253·4	124·1	−13·4			275
			0·896	285·3	123·9	+15·4			122
			0·818	247·3	112·1	−16·0			267
		3770a	0·343	301·8	77·9	+14·0	38	198	
		3771a	0·364	236·1	78·2	− 8·1	0	7	
		3776	0·175	35·4	54·6	+12·0	11	21	
		3777	0·169	69·8	51·3	+ 7·1	27	131	
		3783	0·275	67·3	45·6	+ 9·9	0	26	
		3783	0·328	69·4	42·4	+10·3	0	9	
		3781	0·711	114·6	18·8	−14·3	0	4	
		3781	0·732	115·3	17·3	−15·4	9	111	
		3781	0·742	113·0	15·9	−14·1	0	17	
		3781	0·754	114·1	15·2	−15·2	4	29	
		3784	0·845	116·8	7·2	−20·1	0	9	
		3785	0·850	110·7	5·2	−15·3	0	9	
		3786a	0·953	96·3	348·8	− 4·8	36	196	204c
			0·880	109·2	1·4	−14·9			218
Nov. 4		Centre			(60·5)	(+3·8)	(125)	(767)	(1138)
308·228	AW,M		0·962	284·9	124·1	+15·4			160
			0·938	254·7	117·6	−13·0			328
M.		3770a	0·502	291·9	78·3	+14·0	28	139	
		3787	0·422	286·7	73·9	+10·4	0	5	
		3787	0·416	284·1	73·8	+ 9·8	0	4	
		3787	0·412	280·6	73·7	+ 7·7	0	7	
		3776	0·166	328·1	54·8	+11·8	5	32	
		3777	0·072	326·7	52·0	+ 7·1	18	122	
		3783	0·174	48·7	42·1	+10·3	0	7	
		3783	0·238	42·6	40·2	+13·7	0	5	
		3783	0·266	47·7	38·1	+13·9	0	7	
		3781	0·616	122·8	17·2	−16·3	8	36	
		3781	0·609	120·6	17·0	−14·9	0	12	
		3781	0·620	118·9	15·8	−14·3	9	45	
1894.				°	°	°			
308d·228	AW,M	3781	0·634	119·6	15·0	−15·1	0	6	
		3786a	0·883	97·6	348·5	− 4·9	57	262	268c
M.		3786	0·890	100·5	347·9	− 7·6	0	7	
			0·829	115·6	357·8	−18·7			449
Nov. 5		Centre			(49·7)	(+3·7)	(125)	(696)	(1205)
309·412	CL,FT		0·872	243·3	90·5	−21·1			212
			0·740	253·8	80·0	− 9·4			170
		3770a	0·706	286·2	78·2	+14·0	26	163	104c
		3770	0·670	288·6	75·1	+15·1	1	6	
		3788	0·688	239·7	72·5	−17·4	1	4	
		3788	0·668	237·7	70·4	−18·0	1	5	
		3776	0·373	292·3	54·6	+11·5	8	18	
		3777	0·317	281·8	52·2	+ 7·1	23	132	
		3783	0·249	293·3	47·4	+ 9·2	2	4	
		3783	0·238	295·1	46·6	+ 9·3	0	3	
		3783	0·214	296·7	45·2	+ 9·0	3	12	
		3783	0·213	304·7	44·3	+10·4	4	12	
		3783	0·214	317·8	42·5	+12·7	12	23	
		3783	0·194	313·6	42·3	+11·3	0	5	
		3783	0·179	317·9	41·1	+11·2	0	2	
		3783	0·205	328·0	40·5	+13·6	0	3	
		3783	0·186	325·1	40·3	+12·4	0	2	
		3783	0·207	334·4	39·4	+14·3	0	2	
		3783	0·181	332·5	39·0	+12·8	3	8	
		3783	0·186	338·6	38·1	+13·6	1	6	
		3783	0·177	337·4	38·1	+13·0	4	10	
		3789	0·269	160·5	28·9	−11·1	0	3	
		3789	0·264	156·9	28·1	−10·4	4	23	
		3789	0·282	155·9	27·4	−11·3	1	5	
		3789	0·265	152·9	27·1	−10·0	0	5	
		3789a	0·296	151·0	25·7	−11·4	6	14	
		3781	0·429	138·0	16·9	−15·1	1	3	
		3781	0·430	136·7	16·4	−14·7	1	2	
		3781	0·453	134·9	14·8	−15·2	2	4	
		3785	0·591	124·5	3·7	−16·4	0	12	
		3786a	0·718	100·6	349·2	− 5·0	46	184	
		3786	0·735	100·0	347·7	− 4·8	5	11	109c
		3786	0·742	99·6	347·1	− 4·7	4	11	
			0·949	97·9	323·3	− 6·3			156
			0·959	79·1	320·4	+11·5			147
Nov. 6		Centre			(34·1)	(+3·6)	(159)	(697)	(898)

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 3784, November 3–4. A small spot.
Group 3785, November 3–8. A disturbed area in which small unstable spots are occasionally seen. No spots are seen on November 5 and 7.
Group 3786, November 3–14. A large irregular spot, *a*, followed by a few small companions. *a* has divided into two parts by November 7, which are measured separately as *b* and *c* on November 9. Both diminish, *b* the more rapidly. Only *c* remains by November 14.
Group 3787, November 5. A cluster of very small spots *s* of Group 3770.
Group 3788, November 6. A pair of very small spots.
Group 3789, November 6–12. A group forming on the central meridian. On November 7 it forms a long curved stream. *a*, the last spot, is a large regular spot, and has a retrograde motion in longitude, and moves away from the equator in latitude. *b*, the leader, is also regular, but rapidly diminishes in size, and has disappeared by November 11. It moves forward in longitude.

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).
				°	°	°			
1894.									
310d·306	AW, FT		0·949	245·8	90·7	−21·6			152
			0·853	258·1	79·6	− 8·2			546
I.			0·766	251·5	70·0	−11·7			504
			0·652	283·6	62·4	+11·5			170
		3770*a*	0·835	284·3	78·5	+13·8	24	157	333*f*
		3776	0·546	285·4	54·6	+11·3	3	14	
		3777	0·506	278·1	52·5	+ 7·1	33	115	
		3783	0·426	284·3	46·9	+ 9·2	1	16	
		3783	0·392	295·9	43·4	+13·1	5	13	
		3783	0·374	290·5	43·1	+10·8	0	12	
		3783	0·357	295·9	41·4	+12·3	0	1	
		3783	0·335	285·3	41·3	+ 8·4	0	6	
		3789*b*	0·326	219·8	34·5	−11·0	5	13	
		3789	0·309	217·4	33·3	−10·7	2	11	
		3789	0·290	218·3	32·8	− 9·7	2	13	
		3789	0·281	214·6	31·6	− 9·9	0	4	
		3789	0·298	211·2	31·3	−11·3	6	19	
		3789	0·274	204·5	28·9	−10·9	11	37	
		3789	0·272	199·8	27·7	−11·3	0	3	
		3789	0·259	199·8	27·4	−10·6	10	26	
		3789	0·246	196·7	26·4	−10·1	0	4	
		3789*a*	0·270	187·4	24·3	−12·0	21	101	
		3786*a*	0·567	103·8	348·9	− 4·9	32	129	
		3786	0·585	102·8	347·5	− 4·6	3	18	
		3786	0·633	100·3	343·8	− 3·8	0	4	
			0·896	99·3	319·6	− 6·7			508
			0·908	76·6	317·2	+13·7			370
Nov. 7		Centre			(22·3)	(+3·5)	(158)	(716)	(2583)
311·412	AW,HA		0·924	261·7	74·4	− 6·3			297
			0·884	251·5	67·5	−14·6			350
			0·833	286·8	63·5	+15·9			170
			0·742	282·2	55·2	+11·3			52
		3770*a*	0·941	283·4	77·9	+13·7	23	157	191*f*
		3790	0·940	278·0	77·7	+ 8·6	3	13	99*c*
		3776	0·736	282·8	54·6	+11·7	0	6	
		3777	0·705	276·6	52·4	+ 7·1	17	105	
		3783	0·603	287·3	43·8	+13·0	4	9	
		3783	0·594	288·1	43·0	+13·4	1	4	
		3783	0·582	283·4	42·7	+10·5	2	7	
		3783	0·555	287·2	40·4	+12·3	0	2	
		3789*b*	0·535	242·6	36·5	−11·3	14	84	
		3789	0·516	240·7	34·9	−11·6	1	12	
1894.									
311d·412	AW,HA	3789	0·496	244·4	34·5	− 9·3	0	3	
		3789	0·506	240·2	34·2	−11·5	1	4	
		3789	0·509	238·4	33·9	−12·4	0	2	
		3789	0·476	244·1	33·3	− 8·9	7	31	
		3789	0·495	237·2	32·8	−12·4	0	3	
		3789	0·464	237·1	31·0	−11·4	11	57	
		3789	0·455	238·2	30·8	−10·7	0	2	
		3789	0·437	236·7	30·5	−10·7	17	87	
		3789	0·454	235·1	30·0	−11·9	0	4	
		3789	0·430	234·0	28·4	−11·4	0	7	
		3789	0·412	235·0	27·7	−10·4	4	29	
		3789	0·415	233·0	27·4	−11·2	2	8	
		3789	0·393	231·2	25·8	−11·0	2	5	
		3789	0·393	229·1	25·3	−11·6	3	21	
		3789	0·390	227·7	24·8	−11·9	4	10	
		3789*a*	0·390	225·3	24·1	−12·6	20	99	
		3791	0·405	183·0	9·0	−20·4	0	3	
		3785	0·353	166·1	2·6	−16·6	1	3	
		3785	0·328	163·7	2·3	−14·9	0	10	
		3786*a*	0·344	114·6	349·5	− 5·0	22	110	
		3786	0·355	113·6	348·7	− 4·9	0	3	
		3786	0·362	111·7	348·1	− 4·5	7	12	
		3786	0·364	108·9	347·7	− 3·6	0	4	
		3786	0·417	108·8	344·5	− 4·6	1	3	
		3792*a*	0·943	96·9	297·9	− 5·4	7	15	
		3792	0·960	97·8	294·7	− 6·5	0	11	124*c*
		3792	0·973	96·3	291·7	− 5·4	0	21	
			0·760	106·8	320·2	−10·4			77
			0·826	77·4	312·3	+12·3			166
			0·850	101·6	310·7	− 8·0			150
Nov. 8		Centre			(7·7)	(+3·4)	(174)	(966)	(1676)
312·214	CL,FT		0·906	253·9	60·2	−13·0			466
			0·889	282·5	59·7	+12·7			275
			0·786	243·3	44·7	−18·4			218
I.		3770*a*	0·990	283·5	79·1	+13·8	0	147	
		3777	0·823	275·9	52·4	+ 6·7	26	119	157*c*
		3783	0·734	284·7	43·7	+13·0	2	8	120*c*
		3789*b*	0·679	249·7	37·4	−11·1	18	65	
		3789	0·652	247·3	34·9	−11·9	4	28	
		3789	0·615	244·9	31·7	−12·4	4	8	195*c*
		3789	0·581	245·9	29·7	−10·9	39	152	
		3789*a*	0·519	238·6	24·0	−12·7	33	123	

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 3790, November 8. A small spot *s* of Group 3770.
Group 3791, November 8. A very small spot near the position of Group of 3784.
Group 3792, November 8–13. A few small spots in an irregular stream. *a* is the leading 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).
1894.				°	°	°			
312d·214	CL,FT	3786*b*	0·198	139·8	349·8	− 5·4	14	72	
		3786*c*	0·188	133·4	349·3	− 4·1	12	37	
I.		3786	0·204	131·4	348·3	− 4·5	3	10	
		3786	0·225	131·4	347·4	− 5·3	1	6	
		3793*a*	0·495	146·7	340·2	−21·2	0	3	
		3793*b*	0·515	143·6	338·0	−21·3	1	6	
		3792*a*	0·865	97·1	297·9	− 4·5	2	15	
		3792*a*	0·900	98·2	293·7	− 5·9	7	27	156*c*
		3792	0·918	97·9	291·3	− 5·9	0	31	
			0·886	58·3	297·4	+29·4			81
			0·909	89·9	291·9	+ 1·5			102
Nov. 9		Centre			(357·1)	(+3·3)	(166)	(857)	(1770)
313·398	CL,FT		0·958	258·0	53·7	−10·6			77
			0·937	249·7	48·6	−17·7			162
			0·889	252·4	42·1	−14·0			146
			0·889	242·4	39·9	−22·6			59
			0·784	277·3	33·0	+ 7·7			168
			0·814	237·5	29·9	−23·7			107
			0·772	252·2	29·9	−11·5			187
		3777	0·941	276·0	51·7	+ 6·7	29	100	72*c*
		3783	0·882	282·9	43·2	+12·9	0	12	165*c*
		3789*b*	0·849	255·5	38·0	−10·5	10	40	
		3789	0·828	254·3	35·6	−11·1	4	11	
		3789	0·800	252·8	32·6	−11·7	6	19	
		3789	0·788	252·5	31·4	−11·6	10	36	
		3789	0·776	253·0	30·4	−11·0	10	25	
		3789	0·777	252·1	30·3	−11·7	4	13	
		3789	0·766	253·4	29·6	−10·5	12	69	
		3789	0·760	252·1	28·9	−11·4	0	9	
		3789	0·750	252·5	28·1	−10·9	5	11	
		3789	0·737	251·0	26·7	−11·6	3	7	
		3789*a*	0·705	248·5	23·6	−12·6	17	118	
		3786	0·243	225·5	351·5	− 6·6	1	5	
		3786*b*	0·221	225·8	350·6	− 5·7	10	51	
		3786*c*	0·196	226·4	349·7	− 4·6	8	35	
		3786	0·191	221·7	348·8	− 5·0	0	11	
		3786	0·198	216·7	348·3	− 5·9	0	8	
		3793*a*	0·417	180·9	341·9	−21·4	10	21	
		3793	0·417	178·1	340·7	−21·3	0	3	
		3793	0·426	175·2	339·3	−21·8	0	5	
		3793*b*	0·418	173·4	338·6	−21·2	6	17	
		3793	0·415	165·3	335·1	−20·4	1	3	
1894.				°	°	°			
313d·398	CL,FT	3794	0·484	77·3	313·1	+ 8·9	1	5	
		3792*a*	0·690	100·3	298·7	− 4·7	4	16	
		3792	0·699	100·2	298·0	− 4·8	0	5	
		3792	0·737	101·9	295·1	− 6·5	4	19	99*c*
		3792	0·768	99·4	292·2	− 5·1	0	3	
		3792	0·780	100·6	291·3	− 6·2	0	3	
		3795*a*	0·792	77·2	289·5	+12·1	9	22	
		3795	0·814	78·7	287·3	+11·1	0	4	47*c*
			0·923	128·9	281·9	−33·8			96
Nov. 10		Centre			(341·5)	(+3·2)	(164)	(706)	(1385)
314·433	HA,FT		0·929	279·8	36·1	+10·3			206
			0·900	242·6	27·9	−22·9			102
			0·786	281·8	19·4	+11·2			48
			0·795	243·4	16·3	−18·7			45
		3789	0·901	255·9	30·7	−11·3	1	58	154*c*
		3789*a*	0·843	252·8	23·3	−12·7	14	90	33*c*
		3786	0·425	247·3	351·0	− 6·6	0	9	
		3786*b*	0·418	249·4	350·9	− 5·6	8	27	
		3786*c*	0·400	250·7	350·1	− 4·7	8	27	
		3793*a*	0·503	212·0	344·6	−22·2	19	90	
		3793	0·489	208·0	342·2	−22·5	2	6	
		3793	0·469	206·8	341·0	−21·6	0	2	
		3793	0·446	207·4	340·5	−20·3	0	7	
		3793	0·458	206·1	340·4	−21·2	0	3	
		3793*b*	0·461	202·3	338·7	−22·1	7	32	
		3793*b*	0·450	200·2	337·5	−21·9	8	50	
		3792*a*	0·504	104·9	298·8	− 4·7	0	6	
		3792	0·552	106·6	295·9	− 6·5	1	10	
		3792	0·581	105·0	293·7	− 6·1	0	5	
		3795*a*	0·616	75·8	290·6	+11·1	9	30	
		3795	0·646	76·4	288·3	+11·1	0	8	
		3795	0·669	75·7	286·6	+11·8	5	34	
		3795	0·686	76·1	285·2	+11·7	0	8	
		3795	0·694	74·6	284·8	+12·8	0	10	
Nov. 11		Centre			(327·9)	(+3·1)	(82)	(512)	(588)
315·220	CL,FT		0·917	280·0	23·9	+10·4			154
			0·924	247·3	22·1	−19·7			312
I.			0·872	300·0	15·6	+27·4			60
		3789*a*	0·924	254·5	23·3	−13·1	21	87	384*p*
		3786	0·575	257·0	351·6	− 5·0	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 3793, November 9–16. A pair of very small spots, *a* and *b*, on November 9. *a* and *b* move apart and increase in size on the succeeding days, and new spots form between them, and the group becomes a straight stream. *a* is measured in two parts on November 13 and 14, and *b* on November 11. The group diminishes after November 14, only *a* and *b* remaining after that date.
Group 3794, November 10. A very small spot.
Group 3795, November 10–18. A regular spot, *a*, followed by a stream of small spots. *a* increases in size up to November 14, and then suddenly 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).
1894.				°	°	°			
315d·220	CL,FT	3786*b*	0·572	255·3	351·1	− 5·8	5	17	
		3786	0·567	254·3	350·7	− 6·3	0	2	
I.		3786*c*	0·556	256·9	350·3	− 4·7	7	24	
		3786	0·549	254·3	349·5	− 6·0	0	3	
		3793*a*	0·604	225·5	345·1	−22·3	18	79	
		3793	0·587	223·5	343·3	−22·5	0	3	
		3793	0·575	224·7	343·1	−21·4	1	10	
		3793*b*	0·521	216·8	337·0	−21·7	25	162	
		3796	0·479	253·8	344·9	− 5·0	2	13	
		3796	0·463	250·4	343·4	− 6·3	0	5	
		3796	0·437	252·5	342·1	− 4·8	1	7	
		3792*a*	0·349	111·1	298·5	− 4·4	1	8	
		3795*a*	0·471	70·6	290·6	+11·7	14	50	
		3795	0·525	71·5	287·0	+12·2	9	32	
		3795	0·567	70·4	284·3	+13·4	2	20	
		3797	0·978	80·6	239·5	+ 9·8	10	56	143*p*
			0·946	109·1	248·6	−17·0			164
			0·955	74·0	244·8	+16·2			72
Nov. 12		Centre			(317·5)	(+3·0)	(116)	(581)	(1289)
316·408	AW,HA		0·963	281·8	16·3	+12·1			82
			0·961	251·1	13·9	−17·3			124
			0·911	261·6	6·8	− 6·5			84
			0·873	253·0	0·8	−13·3			61
			0·851	245·6	356·7	−18·9			180
		3786*b*	0·777	260·2	352·0	− 5·8	0	7	
		3786*c*	0·763	261·6	350·9	− 4·6	5	15	89*c*
		3786	0·720	260·6	347·2	− 4·8	0	7	
		3798	0·745	254·4	348·4	− 9·6	0	7	26*c*
		3793*a*	0·770	237·8	346·5	−22·2	18	82	
		3793*a*	0·752	236·6	344·5	−22·4	4	42	94*c*
		3793	0·710	234·8	340·5	−21·9	0	6	
		3793*b*	0·672	233·0	337·0	−21·5	22	108	
		3792*a*	0·134	161·0	299·4	− 4·5	0	4	
		3792	0·171	159·2	298·4	− 6·4	0	5	
		3792	0·200	137·5	294·1	− 5·7	0	10	
		3795*a*	0·232	48·6	291·7	+11·6	13	100	
		3795	0·291	53·0	288·2	+12·8	0	4	
		3795	0·298	55·1	287·5	+12·6	0	4	
		3795	0·298	57·5	287·1	+11·9	1	4	
		3795	0·310	57·7	286·4	+12·2	0	5	
		3797	0·873	81·0	241·3	+ 9·2	8	59	458*f*
			0·845	113·5	247·5	−18·1			120
Nov. 13		Centre			(301·9)	(+2·8)	(71)	(469)	(1318)

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).
1894.				°	°	°			
317d·198	AW,M		0·951	249·3	1·1	−18·7			189
			0·890	282·5	354·0	+12·4			191
I.		3786*c*	0·871	262·9	351·3	− 4·8	0	8	413*c*
		3798	0·834	255·2	346·3	−10·7	0	8	156*c*
		3793*a*	0·863	242·1	346·7	−22·2	24	99	
		3793*a*	0·854	241·5	345·5	−22·4	6	20	288*c*
		3793	0·842	240·9	344·0	−22·5	0	8	
		3793*b*	0·772	238·8	336·5	−21·6	19	128	128*c*
		3795*a*	0·154	357·1	291·9	+11·6	22	116	
		3795	0·181	22·1	287·4	+12·3	0	21	
		3797	0·772	80·2	241·2	+ 9·3	18	55	486*nf*
		3799*a*	0·971	87·7	215·4	+ 2·9	15	95	243*f*
			0·750	115·9	246·7	−17·2			145
			0·914	80·1	225·5	+10·2			183
Nov. 14		Centre			(291·4)	(+2·7)	(104)	(558)	(2422)
318·602	AW,FT		0·955	260·7	344·9	− 8·1			281
		3793*a*	0·969	247·1	346·2	−21·4	22	93	310*c*
		3793*b*	0·914	245·6	335·9	−21·0	7	50	
		3795*a*	0·377	294·1	293·5	+11·2	5	23	
		3795	0·367	293·4	293·0	+10·8	0	7	
		3795	0·360	296·3	292·2	+11·6	0	5	
		3795	0·310	303·2	288·3	+12·2	3	[illegible]	
		3797	0·525	77·5	241·9	+ 8·7	9	5[illegible]	
		3799*a*	0·822	89·7	217·9	+ 1·7	26	12[illegible]	
		3799	0·837	88·2	216·3	+ 2·9	0	1[illegible]	240*c*
		3800*a*	0·896	86·1	209·5	+ 4·7	3	1[illegible]	
			0·905	73·0	209·0	+16·1			[illegible]
			0·946	113·0	204·7	−20·7			227
Nov. 15		Centre			(273·0)	(+2·6)	(75)	(392)	(1162)
319·460	FT,HA		0·872	259·6	321·3	− 7·8			222
			0·835	294·7	316·2	+21·9			41
			0·815	283·7	315·6	+12·6			77
		3793*b*	0·973	247·3	336·0	−21·4	8	36	232*p*
		3795*a*	0·554	286·2	294·3	+11·0	10	19	
		3795	0·480	291·6	288·7	+12·4	1	7	
		3797	0·353	71·2	241·9	+ 8·9	6	36	
		3799*a*	0·687	89·9	218·4	+ 1·9	21	110	35*c*
		3799	0·709	88·2	216·6	+ 3·1	4	12	
		3800*a*	0·798	85·5	208·8	+ 5·1	6	7	98*f*
			0·732	108·7	216·7	−11·8			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 3796, November 12. Three small spots, *f* Group 3786.
Group 3797, November 12–21. An isolated spot which slowly diminishes in size.
Group 3798, November 13–14. A very small spot, *sp* Group 3793.
Group 3799, November 14–23. A large regular spot, *a*, followed by a few very small spots in a short stream. The entire group diminishes steadily in size after November 15, and *a* remains alone by November 20.
Group 3800, November 15–19. A small spot, *a*, with a very small companion on November 18 and 19. The group follows Group 3799.

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).
1894.				°	°	°			
319d.460	FT,HA		0·889	116·4	202·6	−22·0			113
			0·888	113·2	202·0	−19·2			86
			0·912	67·1	197·0	+21·9			66
			0·957	75·5	188·6	+14·6			59
Nov. 16		Centre			(261·6)	(+2·5)	(56)	(227)	(1058)
320·396	CL,HA		0·906	282·1	313·9	+11·9			233
			0·898	261·9	312·5	− 6·2			180
			0·900	293·3	312·1	+21·9			79
		3795*a*	0·720	283·3	294·7	+11·1	4	10	} 90*c*
		3795	0·677	284·2	291·1	+11·2	0	5	
		3797	0·165	47·8	242·2	+ 8·6	7	18	
		3799*a*	0·499	90·5	219·5	+ 1·7	18	119	
		3799	0·534	88·7	217·1	+ 2·7	1	7	
		3800*a*	0·657	84·9	208·4	+ 5·1	3	12	
		3801*a*	0·698	111·6	207·7	−13·1	0	6	
			0·918	68·5	183·7	+20·6			142
Nov. 17		Centre			(249·3)	(+2·3)	(33)	(177)	(724)
321·520	CL,FT		0·943	284·8	304·7	+14·7			104
			0·898	261·8	297·7	− 6·4			146
			0·814	271·5	288·8	+ 2·5			47
		3795*a*	0·881	281·9	295·9	+11·5	2	9	205*f*
		3797	0·177	308·2	242·5	+ 8·5	7	16	
		3799*a*	0·246	91·0	220·3	+ 1·9	14	88	
		3799	0·279	87·5	218·4	+ 2·8	1	4	
		3799	0·283	85·6	218·2	+ 3·4	2	6	
		3799	0·329	88·2	215·4	+ 2·7	0	4	
		3800	0·383	85·7	212·1	+ 3·7	0	3	
		3800*a*	0·442	82·9	208·5	+ 5·1	1	5	
		3801*a*	0·492	123·2	209·5	−13·6	7	30	
		3801*a*	0·504	122·3	208·6	−13·6	10	26	
		3801	0·516	121·7	207·8	−13·7	1	5	
		3801	0·528	121·6	207·0	−14·0	0	2	
		3801	0·533	122·6	207·0	−14·7	0	5	
		3801	0·540	122·3	206·4	−14·8	1	7	
		3801*b*	0·547	122·8	206·2	−15·3	2	17	
		3801*b*	0·554	121·6	205·4	−14·9	8	17	
		3802	0·541	75·3	202·6	+ 9·8	0	2	
			0·954	102·5	163·0	−11·2			572
			0·968	94·9	159·5	− 4·2			176
Nov. 18		Centre			(234·5)	(+2·2)	(56)	(246)	(1250)
1894.				°	°	°			
322d.538	CL,FT		0·965	262·8	295·3	− 6·4			50
			0·933	282·3	289·7	+12·2			212
			0·920	272·9	287·8	+ 3·5			75
		3797	0·384	287·8	242·7	+ 8·7	8	18	
		3799*a*	0·006	51·7	220·8	+ 2·3	13	75	
		3799	0·021	86·5	219·9	+ 2·2	0	3	
		3800	0·162	76·1	212·1	+ 4·3	0	3	
		3800*a*	0·218	81·4	208·7	+ 3·9	0	3	
		3801*a*	0·331	148·0	210·7	−14·1	16	66	
		3801*a*	0·336	144·3	209·5	−13·7	10	25	
		3801	0·380	140·8	206·8	−15·0	0	1	
		3801	0·388	140·4	206·3	−15·3	2	9	
		3801	0·376	136·7	205·8	−13·8	1	3	
		3801*b*	0·401	138·2	205·1	−15·3	13	68	
		3803	0·914	104·1	156·4	−12·0	5	15	} 92*c*
		3803	0·936	105·0	153·1	−13·3	3	15	
			0·859	104·9	163·4	−11·6			101
			0·886	96·9	159·3	− 5·1			122
			0·981	100·3	143·0	− 9·7			225
Nov. 19		Centre			(221·1)	(+2·1)	(71)	(304)	(877)
323·396	AW,HA	3797	0·559	282·7	243·0	+ 8·7	4	13	
		3799*a*	0·204	273·8	221·4	+ 2·7	13	55	
		3801*a*	0·280	186·9	211·7	−14·1	10	72	
		3801	0·291	171·4	207·1	−14·7	0	3	
		3801	0·291	167·4	206·0	−14·4	0	4	
		3801*b*	0·307	167·5	205·8	−15·4	6	29	
		3804*a*	0·969	83·0	134·1	+ 7·3	26	170	428*f*
			0·771	96·3	159·7	− 3·6			66
			0·789	107·3	159·5	−12·3			89
			0·942	104·2	140·5	−12·6			613
Nov. 20		Centre			(209·7)	(+2·0)	(59)	(346)	(1196)
324·308	AW,FT	3797	0·725	281·0	243·7	+ 9·3	5	18	
		3805	0·573	232·4	226·2	−18·7	1	7	
I.		3805	0·567	230·1	225·1	−19·6	0	5	
		3799*a*	0·409	274·7	221·7	+ 3·6	14	58	82*c*
		3806	0·415	238·1	218·6	−10·8	0	5	
		3801*a*	0·366	223·1	212·5	−13·6	10	59	
		3801	0·332	216·1	209·3	−13·7	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 3801, November 17–25. A very small spot, *a*, on November 17. By the succeeding day the group has developed into a stream of spots, of which *a*, now double and much increased in size, is the leader, and another double spot, *b*, the last. *a* and *b* both become regular spots later. The group diminishes steadily after November 19, and *a* remains alone by November 23.
Group 3802, November 18. A very small spot.
Group 3803, November 19. A pair of small spots.
Group 3804, November 20–December 1. A large regular spot, *a*, followed by a number of small spots in a straggling stream. *a* remains alone by November 28.
Group 3805, November 21. A pair of very small spots.
Group 3806, November 21. 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).
1894.				°	°	°			
324d·308	AW,FT	3801	0·329	207·8	206·8	−15·0	0	3	
		3801*b*	0·328	204·8	205·9	−15·4	6	15	
I.		3807*a*	0·408	155·5	187·4	−19·8	4	15	
		3807	0·401	153·8	186·9	−19·2	0	6	
		3807	0·426	153·2	185·9	−20·4	0	4	
		3807	0·415	150·6	185·3	−19·3	0	5	
		3807	0·438	149·8	184·2	−20·3	3	8	
		3808	0·837	104·5	142·3	−11·0	2	10	979*f*
		3804	0·903	84·2	133·3	+ 6·0	0	12	
		3804*a*	0·904	81·8	133·2	+ 8·2	38	160	969*f*
		3804	0·913	83·8	131·9	+ 6·5	0	18	
		3804	0·916	81·0	131·6	+ 9·0	0	13	
			0·888	65·9	136·8	+22·2			207
Nov. 21		Centre			(197·7)	(+1·9)	(83)	(424)	(2237)
325·214	AW,FT		0·928	251·4	252·0	−16·5			142
			0·856	283·2	244·0	+12·2			464
I.		3799*a*	0·590	274·1	221·7	+ 3·9	13	46	
		3799	0·557	269·8	219·4	+ 1·4	0	3	
		3801*a*	0·519	239·7	213·0	−13·6	14	59	
		3801	0·464	231·9	207·8	−14·9	0	6	
		3801	0·450	229·5	206·4	−15·3	0	8	
		3801*b*	0·450	226·7	205·6	−16·2	0	11	
		3807*a*	0·372	185·7	187·9	−19·8	67	223	
		3807	0·350	181·2	186·1	−18·6	0	16	
		3807	0·371	179·3	185·4	−19·9	0	8	
		3807	0·386	179·4	185·4	−20·8	6	17	
		3807	0·377	177·4	184·7	−20·3	0	4	
		3807	0·366	176·3	184·3	−19·6	29	62	
		3807	0·401	176·5	184·2	−21·7	0	6	
		3807	0·388	176·1	184·1	−20·9	11	39	
		3807	0·392	174·1	183·2	−21·1	2	11	
		3804	0·789	82·8	133·9	+ 6·8	0	7	
		3804*a*	0·795	80·9	133·4	+ 8·3	31	118	
		3804	0·852	79·9	127·6	+ 9·6	0	19	1226*c*
		3804	0·862	79·0	126·6	+10·4	2	24	
		3804	0·878	81·1	124·6	+ 8·7	0	7	
		3804	0·891	81·0	123·0	+ 8·8	0	3	
			0·705	106·4	142·5	−10·2			218
			0·885	121·9	128·5	−26·9			137
			0·891	106·3	124·2	−13·7			466
Nov. 22		Centre			(185·7)	(+1·8)	(175)	(697)	(2653)

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).
1894.				°	°	°			
326d·529	AW,CL	3799*a*	0·813	274·1	222·6	+ 4·3	5	26	
		3801*a*	0·738	250·6	213·8	−13·0	6	44	
		3807*a*	0·497	224·8	190·1	−19·1	36	320	
		3807	0·468	219·9	186·9	−19·5	5	44	
		3807	0·476	216·6	186·0	−20·8	3	11	
		3807	0·478	212·6	184·5	−22·1	4	23	
		3807	0·439	204·8	183·7	−19·5	8	69	
		3807	0·455	212·0	183·3	−21·1	11	81	
		3809	0·404	120·6	147·8	−10·3	2	11	
		3810	0·561	121·3	138·7	−15·5	2	10	
		3804*a*	0·580	77·7	133·6	+ 8·4	10	88	
		3804	0·673	75·6	127·0	+10·9	3	14	
Nov. 23		Centre			(168·4)	(+1·6)	(95)	(741)	(0)
327·443	CL,HA		0·923	282·6	223·3	+12·2			243
			0·874	273·0	217·3	+ 3·4			183
		3801*a*	0·857	254·1	213·9	−12·7	4	36	1825
		3807*a*	0·636	237·7	190·8	−18·6	44	252	
		3807	0·623	235·5	189·2	−19·3	1	15	
		3807	0·608	235·1	188·1	−19·0	8	56	
		3807	0·597	233·9	187·0	−19·2	0	3	
		3807	0·609	229·3	186·1	−22·0	1	6	
		3807	0·597	229·8	185·6	−21·3	2	29	
		3807	0·589	227·9	184·4	−21·9	4	12	
		3807	0·565	231·2	184·1	−19·3	9	61	
		3807	0·565	227·7	182·9	−20·9	10	93	
		3811	0·286	220·8	167·3	−11·0	0	6	
		3811	0·273	220·9	166·8	−10·4	0	5	
		3811	0·273	217·9	166·2	−10·9	0	2	
		3811	0·261	215·0	165·1	−10·9	5	14	
		3809	0·229	149·5	149·7	− 9·9	2	9	
		3804*a*	0·398	71·9	134·0	+ 8·5	20	87	
		3804	0·416	71·2	133·0	+ 9·1	0	3	
		3804	0·414	73·3	132·9	+ 8·2	0	5	
		3804	0·419	76·6	132·3	+ 7·0	0	2	
		3804	0·457	74·1	130·1	+ 8·5	0	10	
		3804	0·475	73·9	129·0	+ 8·9	3	11	
		3804	0·502	74·2	127·2	+ 9·2	0	5	
		3804	0·512	71·7	126·9	+10·6	0	5	
		3804	0·514	73·4	126·5	+ 9·7	0	11	
			0·923	114·8	91·9	−22·1			64
			0·923	62·4	91·2	+25·9			77

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 3807, November 21–28. A group suddenly forming near the central meridian as a short stream of small spots. The group rapidly increases in size on November 22 and 23, when it consists of a large regular spot, *a*, followed by a number of irregular spots in a broad stream. A nebulous spot closely following *a* is measured with it on November 22.
Group 3808, November 21. A small spot.
Group 3809, November 23–24. A small spot.
Group 3810, November 23. A small spot.
Group 3811, November 24–26. A few small spots in a short stream. Only one very small spot remains by November 26.

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).
1894.				°	°	°			
327d·443	CL,HA		0·936	99·8	87·8	− 8·6			321
			0·935	77·5	87·6	+12·2			173
Nov. 24		Centre			(156·4)	(+1·5)	(113)	(738)	(1243)
328·507	AW,HA		0·945	274·1	213·1	+ 4·3			151
			0·938	240·2	204·1	−22·7			128
		3801*a*	0·951	256·3	213·4	−12·6	6	35	115*s*
		3807*a*	0·791	245·5	191·5	−18·3	41	243	
		3807	0·770	244·0	190·2	−18·7	8	34	
		3807	0·761	242·9	188·1	−19·3	0	13	
		3807	0·764	241·3	187·9	−20·6	0	5	228*c*
		3807	0·744	239·3	185·6	−21·4	18	125	
		3807	0·722	240·9	184·2	−19·5	4	52	
		3807	0·709	238·5	182·5	−20·7	10	63	
		3811	0·443	244·1	166·2	−10·0	0	6	
		3811	0·441	241·7	165·6	−10·9	2	20	
		3804*a*	0·193	47·7	134·1	+ 8·7	10	94	
		3804	0·310	60·9	126·5	+ 9·9	0	16	
			0·797	30·4	108·2	+44·4			156
			0·838	61·4	88·8	+24·3			54
			0·881	70·4	82·0	+17·8			47
			0·926	97·9	75·2	− 6·8			91
			0·933	108·6	75·2	−16·8			300
			0·937	63·0	74·8	+25·7			49
			0·946	76·3	71·8	+13·4			242
Nov. 25		Centre			(142·4)	(+1·3)	(99)	(706)	(1561)
329·223	AW,FT		0·951	255·2	203·8	−13·7			145
I.		3807*a*	0·875	248·2	191·5	−18·3	50	226	
		3807	0·855	247·2	189·0	−18·6	7	48	
		3807	0·848	244·7	187·6	−20·4	0	8	
		3807	0·823	242·5	184·4	−21·5	25	127	367*c*
		3807	0·813	244·4	183·9	−19·7	5	23	
		3807	0·798	242·8	182·0	−20·5	12	62	
		3811	0·569	249·1	165·5	−10·6	0	4	
		3804*a*	0·135	351·1	134·1	+ 8·9	25	93	
		3804	0·166	25·6	128·7	+ 9·9	0	2	
		3804	0·170	29·6	128·0	+ 9·8	1	4	
		3804	0·204	27·8	127·4	+11·7	2	8	
		3804	0·186	36·4	126·5	+ 9·9	0	8	
		3804	0·162	51·2	125·6	+ 7·1	0	6	
1894.				°	°	°			
329d·223	AW,FT	3812	0·849	75·9	75·6	+12·6	0	11	
		3812	0·858	76·4	74·5	+12·3	2	12	309*c*
I.		3812	0·895	75·8	70·1	+13·3	4	19	
			0·892	106·9	71·3	−14·4			714
			0·974	82·1	56·2	+ 8·0			162
Nov. 26		Centre			(132·9)	(+1·3)	(133)	(661)	(1697)
330·189	AW,AR		0·777	252·1	169·4	−13·1			76
I.		3807*a*	0·962	250·4	192·8	−18·5	39	241	
		3807	0·949	249·2	190·0	−19·3	0	13	
		3807	0·945	250·2	189·4	−18·3	0	34	615*c*
		3807	0·917	247·3	184·4	−20·2	0	24	
		3807	0·919	245·6	184·3	−21·8	15	159	
		3807	0·902	246·7	182·1	−20·4	5	37	
		3813	0·529	256·4	151·2	− 6·2	1	13	
		3813	0·499	254·7	149·1	− 6·6	0	6	
		3804*a*	0·280	298·3	134·6	+ 8·6	21	84	
		3804	0·259	296·2	133·7	+ 7·7	0	2	
		3804	0·249	292·0	133·6	+ 6·5	0	4	
		3804	0·245	295·4	133·0	+ 7·1	0	3	
		3804	0·255	311·2	131·4	+10·7	0	5	
		3804	0·218	312·4	129·6	+ 9·5	1	7	
		3804	0·192	313·6	128·2	+ 8·7	0	7	
		3804	0·151	309·9	126·9	+ 6·6	3	11	
		3814*a*	0·284	162·5	115·0	−14·6	3	13	
		3814	0·276	160·8	114·9	−14·0	0	3	
		3814*b*	0·307	151·8	111·6	−14·6	0	17	
		3815	0·595	48·5	91·1	+24·1	0	9	
		3815	0·613	51·0	89·0	+23·5	4	11	
		3812	0·730	74·3	74·4	+12·1	0	22	
		3812	0·731	77·2	74·0	+10·0	6	21	235*c*
		3812	0·773	73·9	70·7	+13·1	3	13	
			0·838	115·9	66·7	−20·8			605
			0·924	104·4	53·8	−12·8			566
			0·922	79·7	53·4	+10·0			498
Nov. 27		Centre			(120·2)	(+1·1)	(101)	(759)	(2595)
331·203	CL,AR		0·873	257·5	166·6	−10·4			174
I.		3807	0·983	247·5	184·8	−21·9	14	108	767*c*
		3813	0·720	259·7	152·1	− 6·7	0	8	
		3804*a*	0·494	285·8	135·4	+ 8·6	18	84	

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 3812, November 26–December 6. A few unstable spots in an irregular straggling stream. The group has undergone a great development by December 5, and contains two large irregular spots with several smaller companions. It has undergone a further increase by the succeeding day.
Group 3813, November 27–28. A small spot with, on November 27, a very small companion. The latter is not seen on the succeeding day.
Group 3814, November 27–December 1. A few spots, mostly very small, in a short stream. *a* and *b* are the first and last spots. *b* remains alone on December 1.
Group 3815, November 27–December 6. A few small unstable spots in a straight stream. The group increases rapidly after passing the central meridian on November 29, and by December 2 has become a fine straight stream, the leader of which is a large regular spot *a*. The axis of the stream is inclined at a considerable angle to the equator.

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).
1894.				°	°	°			
331d203	CL,AR	3814*a*	0·311	212·1	116·6	−14·2	6	29	
		3814	0·282	202·6	113·2	−14·0	0	4	
I.		3814*b*	0·273	199·8	112·2	−13·8	3	13	
		3814	0·284	194·6	111·0	−14·9	0	8	
		3815	0·447	31·2	92·2	+23·4	4	17	
		3815	0·468	33·2	90·6	+23·9	0	4	
		3815	0·481	37·2	88·4	+23·4	0	7	
		3812	0·501	68·0	78·6	+11·7	2	12	
		3812	0·522	66·0	77·6	+13·1	0	5	
		3812	0·534	73·0	75·7	+ 9·8	3	16	
		3812	0·558	73·1	74·1	+10·2	0	8	
		3812	0·564	70·5	74·1	+11·7	0	11	
		3812	0·594	67·5	72·5	+13·9	5	30	
		3812	0·584	73·4	72·3	+10·4	0	4	
		3812	0·607	69·7	71·2	+13·0	0	5	
			0·826	78·6	51·7	+10·0			246
			0·922	55·3	43·5	+32·1			82
			0·908	109·2	43·3	−16·9			519
			0·910	98·5	41·9	− 7·3			115
Nov. 28		Centre			(106·8)	(+1·0)	(55)	(373)	(1903)
332·195	AW,FT		0·929	264·1	161·5	− 5·1			172
			0·784	255·5	144·1	−10·7			530
I.			0·663	289·3	133·5	+13·3			107
		3804*a*	0·682	281·6	136·0	+ 8·6	17	82	
		3814*a*	0·462	236·0	116·9	−14·1	1	16	
		3814	0·437	233·9	114·9	−14·0	0	12	
		3814	0·425	230·5	113·4	−14·8	0	4	
		3814*b*	0·406	231·3	112·7	−13·8	4	16	
		3815	0·378	359·8	93·8	+22·8	0	6	
		3812	0·306	51·0	79·7	+12·0	2	6	
		3812	0·353	53·3	76·9	+13·0	0	4	
		3812	0·360	59·0	75·4	+11·6	0	6	
		3812	0·353	62·9	75·2	+10·1	2	8	
		3812	0·370	64·3	74·0	+10·1	0	3	
		3812	0·415	56·5	72·9	+14·0	6	20	
		3816*a*	0·990	108·2	12·8	−17·9	0	219	
			0·658	80·4	53·1	+ 7·0			113
			0·771	113·0	46·0	−16·9			476
			0·909	114·9	31·1	−22·0			235
			0·902	103·3	30·3	−11·6			320
			0·905	78·4	29·4	+10·9			274
Nov. 29		Centre			(93·7)	(+0·9)	(32)	(402)	(2227)

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).
1894.				°	°	°			
333d513	HA,FT		0·894	250·9	138·8	−11·4			319
			0·761	283·7	125·1	+10·8			201
			0·772	248·9	124·6	−15·6			74
		3804*a*	0·866	279·8	135·9	+ 8·8	9	35	128*p*
		3814*a*	0·667	248·0	115·8	−13·9	0	6	
		3814	0·630	248·5	113·2	−12·7	0	9	
		3814*b*	0·621	246·5	112·1	−13·7	5	23	
		3815	0·463	323·8	93·6	+22·5	3	11	
		3815	0·429	332·5	88·8	+23·0	2	10	
		3815	0·427	334·9	87·7	+23·3	0	4	
		3812	0·201	342·5	80·0	+14·6	0	11	
		3812	0·190	356·5	77·1	+11·6	0	20	
		3812	0·171	9·1	74·8	+10·4	0	20	
		3812	0·239	14·3	72·9	+14·0	4	9	
		3817	0·747	110·3	30·2	−14·5	0	8	158*f*
		3816*a*	0·915	110·3	12·0	−18·2	36	365	369*c*
		3816	0·926	108·8	10·2	−17·1	16	181	
		3816*b*	0·953	109·0	5·5	−17·8	47	274	
			0·906	79·7	11·9	+ 9·6			371
Nov. 30		Centre			(76·4)	(+0·7)	(122)	(986)	(1620)
334·527	AW,CL		0·958	257·7	136·7	−11·6			187
			0·901	281·9	127·8	+11·0			232
			0·894	251·5	125·9	−16·2			71
		3804*a*	0·949	279·5	135·3	+ 9·2	0	16	
		3814*b*	0·765	251·5	112·2	−13·6	2	15	82*c*
		3815	0·580	313·1	91·6	+23·8	19	87	
		3815	0·568	319·1	88·4	+25·9	1	8	
		3815	0·551	317·6	88·1	+24·5	0	7	
		3815	0·554	320·0	87·3	+25·6	11	48	
		3815	0·532	317·3	87·2	+23·5	0	21	
		3815	0·523	316·7	86·9	+22·8	0	4	
		3812	0·329	306·1	79·8	+11·7	2	8	
		3812	0·319	305·9	79·3	+11·3	0	6	
		3812	0·301	306·3	78·3	+10·8	2	10	
		3812	0·306	310·0	77·9	+11·9	0	5	
		3812	0·291	307·6	77·6	+10·8	1	8	
		3812	0·274	306·1	77·0	+ 9·8	0	13	
		3812	0·279	309·4	76·7	+10·7	0	3	
		3812	0·293	313·9	76·5	+12·3	0	3	
		3812	0·271	310·9	76·1	+10·8	0	6	
		3812	0·258	308·5	75·9	+ 9·8	0	3	
		3812	0·274	314·9	75·5	+11·7	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 3816, November 29–December 11. Three large irregular spots on November 30. The group soon becomes a straight stream of which the first spot, *a*, is large and regular, and the last spot, *b*, is also regular. The following portion of the group diminishes steadily, and on December 9 and 11, *a* alone is seen.
Group 3817, November 30–December 10. A very small spot on November 30, *np* Group 3816. The group rapidly increases in size on the three succeeding days, and becomes a considerable stream; *a* and *b*, the first and last spots, being the largest. *b* is much larger than *a* to begin with, but rapidly diminishes, and *a* remains alone by 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).
1894.				°	°	°			
334d·527	AW,CL	3812	0·278	319·2	74·8	+12·7	0	5	
		3817a	0·559	113·2	32·6	−12·1	6	14	
		3817	0·569	113·1	31·8	−12·3	4	9	
		3817	0·578	112·8	31·2	−12·4	1	6	
		3817	0·588	116·3	31·2	−14·5	0	11	
		3817	0·597	112·2	29·7	−12·6	0	10	
		3817	0·612	116·4	29·6	−15·2	1	7	
		3817	0·615	115·5	29·2	−14·8	0	17	
		3817b	0·621	114·7	28·6	−14·5	17	52	
		3816a	0·823	113·2	11·4	−18·5	35	332	
		3816	0·823	110·5	10·9	−16·3	1	10	327c
		3816b	0·875	110·8	5·1	−17·8	45	192	
		3818a	0·940	111·7	355·9	−20·1	10	52	240c
		3818	0·948	109·1	354·1	−17·8	6	31	
			0·842	77·8	7·5	+10·6			206
			0·928	98·4	356·5	− 7·6			289
Dec. 1		Centre			(64·1)	(+0·6)	(166)	(1026)	(1634)
335·248	CL,FT		0·944	279·5	123·8	+ 9·2			287
			0·909	253·8	117·6	−14·4			324
I.		3815a	0·705	303·7	93·0	+23·3	32	133	
		3815	0·689	305·3	91·3	+23·8	0	25	
		3815	0·695	308·2	90·7	+25·7	1	18	
		3815	0·658	305·5	88·9	+22·8	0	11	
		3815	0·657	308·7	87·7	+24·6	0	9	
		3815	0·659	310·8	87·0	+25·9	17	66	
		3815	0·641	307·7	86·9	+23·5	1	14	
		3819	0·592	261·3	89·3	− 4·7	0	8	
		3812	0·493	293·6	80·9	+11·9	9	25	
		3812	0·474	294·0	78·6	+11·6	0	11	
		3812	0·434	294·5	77·1	+10·8	1	6	
		3812	0·424	297·9	75·9	+11·9	0	6	
		3812	0·387	293·2	74·5	+ 9·2	0	9	
		3817a	0·406	123·1	33·2	−12·3	16	64	
		3817	0·425	122·8	32·1	−12·8	5	21	
		3817	0·450	122·9	30·7	−13·6	2	11	
		3817	0·442	119·6	30·5	−12·1	0	8	
		3817b	0·500	122·4	27·7	−15·0	36	177	
		3820	0·725	75·5	8·1	+10·8	0	8	
		3816a	0·718	116·6	11·1	−18·3	50	341	318c
		3816b	0·786	113·2	4·4	−17·7	33	206	
		3818a	0·873	113·2	355·2	−19·8	22	75	448c
		3818	0·876	110·6	354·3	−17·7	13	58	
			0·769	74·6	4·4	+12·1			121
1894.				°	°	°			
335d·248	CL,FT		0·851	99·2	355·8	− 7·5			279
I.			0·930	74·8	345·9	+14·3			151
Dec. 2		Centre			(53·3)	(+0·5)	(238)	(1310)	(1928)
336·617	AW,FT		0·975	255·3	114·1	−14·3			185
			0·750	255·1	85·1	−10·9			59
		3815a	0·857	296·3	93·7	+22·5	33	181	
		3815	0·840	297·3	91·5	+22·8	5	18	
		3815	0·830	298·1	90·3	+23·2	4	17	
		3815	0·829	298·9	90·0	+23·8	0	5	334c
		3815	0·814	300·8	87·9	+24·8	3	21	
		3815	0·803	303·1	86·0	+26·1	12	31	
		3815	0·799	301·9	86·0	+25·1	0	3	
		3819	0·801	263·8	90·5	− 4·8	2	7	267f
		3812	0·709	286·5	81·5	+11·8	6	16	
		3812	0·658	286·5	77·5	+11·0	0	3	82c
		3812	0·644	286·9	76·4	+11·0	0	4	
		3821	0·575	289·7	71·1	+11·4	1	5	
		3817a	0·232	164·6	34·1	−12·6	28	159	
		3817	0·248	158·7	32·4	−13·0	0	4	
		3817	0·253	156·5	31·8	−13·1	4	11	
		3817	0·279	156·1	31·0	−14·4	3	10	
		3817	0·254	150·1	30·3	−12·4	0	10	
		3817	0·271	151·5	30·1	−13·4	3	11	
		3817	0·333	156·6	29·8	−17·4	0	10	
		3817	0·262	147·3	29·4	−12·4	2	7	
		3817	0·329	151·8	28·4	−16·5	10	42	
		3817	0·311	148·9	28·2	−15·1	1	5	
		3817	0·331	149·0	27·5	−16·2	8	32	
		3817b	0·327	145·0	26·5	−15·2	19	75	
		3817	0·342	143·0	25·4	−15·5	0	4	
		3820a	0·458	71·0	11·8	+ 8·9	18	38	
		3820	0·502	71·8	8·9	+ 9·3	0	6	
		3820	0·501	74·7	8·6	+ 7·9	3	6	
		3820	0·514	70·9	8·3	+ 9·9	6	16	
		3816a	0·525	128·1	12·0	−18·6	44	270	
		3816	0·548	127·0	10·2	−19·0	1	6	
		3816	0·551	125·3	9·6	−18·3	4	47	
		3816	0·579	123·8	7·3	−18·5	0	4	
		3816	0·592	120·7	5·6	−17·3	0	2	
		3816	0·612	122·3	4·7	−18·8	13	65	
		3816	0·619	120·6	3·8	−18·1	1	5	
		3816	0·614	119·4	3·8	−17·2	7	38	

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 3818, December 1–12. A number of unstable spots, mostly small, *f* Group 3816. The principal spot, *a*, a somewhat small regular spot, is on most days the leader. The axis of the group is often inclined at a large angle to the equator.

Group 3819, December 2–3. A very small spot.

Group 3820, December 2–10. Several spots, mostly irregular and variable, in a straight stream. The leader, *a*, is measured in two parts on December 4, 5, and 6.

Group 3821, December 3–4. 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).
1894.				°	°	°			
336d·617	AW,FT	3818	0·721	118·8	355·6	−20·0	11	69	
		3818	0·713	116·0	355·5	−18·0	5	15	
		3818	0·750	117·4	352·8	−20·0	0	3	
		3818	0·755	118·3	352·6	−20·8	6	11	
		3818	0·764	116·7	351·4	−19·8	0	3	218c
		3818	0·777	118·9	350·8	−21·8	0	5	
		3818	0·789	116·0	348·9	−20·0	2	14	
		3818	0·797	114·3	347·7	−18·9	2	6	
		3822a	0·969	95·1	322·3	− 4·9	14	51	
		3822	0·970	94·1	322·0	− 3·9	6	32	268c
		3822b	0·978	93·0	320·0	− 2·9	5	26	
			0·740	70·7	351·7	+14·4			73
			0·885	74·9	336·5	+13·4			253
			0·903	115·4	335·8	−22·7			278
Dec. 3		Centre			(37·7)	(+0·3)	(292)	(1429)	(2017)
337·211	FT,AR		0·917	260·9	93·6	− 8·3			525
			0·791	248·5	77·6	−16·7			150
M.		3815a	0·926	293·6	93·4	+21·8	16	277	
		3815	0·909	294·6	90·7	+22·3	0	83	
		3815	0·904	299·1	89·0	+26·2	0	13	
		3815	0·892	297·2	87·8	+24·2	9	83	
		3815	0·884	298·4	86·4	+24·9	0	7	629c
		3815	0·880	299·1	85·7	+25·4	0	5	
		3815	0·879	300·1	85·3	+26·2	10	45	
		3815	0·879	301·0	85·1	+27·0	3	22	
		3812	0·818	283·9	81·5	+11·4	0	16	
		3812	0·785	280·3	78·7	+ 8·2	7	46	
		3812	0·773	282·5	77·4	+ 9·8	0	3	415c
		3812	0·763	280·3	76·7	+ 8·0	0	3	
		3812	0·740	281·5	74·6	+ 8·6	0	5	
		3821	0·698	286·3	70·5	+11·4	0	11	
		3817a	0·249	208·3	34·5	−12·4	24	160	
		3817	0·246	198·2	32·1	−13·3	0	3	
		3817	0·257	195·3	31·6	−14·1	0	3	
		3817	0·233	193·7	30·8	−12·8	5	21	
		3817	0·243	188·4	29·7	−13·7	3	10	
		3817	0·269	181·4	28·0	−15·4	0	10	
		3817	0·298	181·4	28·0	−17·1	2	18	
		3817	0·252	181·3	27·9	−14·4	0	5	
		3817	0·283	179·4	27·4	−16·2	0	10	
		3817	0·298	178·9	27·3	−16·7	6	34	
		3817b	0·270	175·7	26·4	−15·4	15	57	

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).
1894.				°	°	°			
337d·211	FT,AR	3820a	0·291	60·9	12·8	+ 8·5	5	22	
		3820a	0·313	62·1	11·4	+ 8·6	5	17	
M.		3820	0·319	64·0	10·8	+ 8·2	1	10	
		3820	0·332	63·9	10·1	+ 8·6	0	3	
		3820	0·342	69·3	8·9	+ 7·1	1	5	
		3820	0·364	64·2	8·3	+ 9·3	9	57	
		3816	0·431	145·7	12·6	−20·6	0	2	
		3816a	0·412	141·4	11·9	−18·6	42	260	
		3816	0·439	139·1	10·0	−19·1	0	11	
		3816	0·431	137·3	9·8	−18·2	0	32	
		3816b	0·494	131·2	4·6	−18·7	5	31	
		3816	0·495	127·5	3·4	−17·3	0	5	
		3818a	0·606	125·1	355·9	−20·1	8	49	
		3818	0·595	122·0	355·7	−18·1	0	10	
		3818	0·633	122·6	353·2	−19·7	3	34	
		3818	0·647	123·8	352·6	−20·9	0	7	
		3818	0·665	124·4	351·5	−21·8	0	4	
		3818	0·678	124·1	350·5	−22·1	0	4	
		3818	0·688	120·0	348·4	−19·9	0	9	
		3822a	0·907	95·0	322·8	− 4·5	17	94	
		3822	0·919	93·9	321·1	− 3·5	3	35	670c
		3822	0·927	94·9	320·0	− 4·5	0	9	
		3822b	0·945	95·6	317·0	− 5·2	5	36	
			0·818	118·7	336·6	−22·9			204
			0·827	118·1	335·5	−22·7			298
Dec. 4		Centre			(27·6)	(+0·2)	(204)	(1696)	(2891)
338·189	AW,M		0·966	265·0	89·4	− 4·8			105
			0·953	244·9	85·0	−23·8			115
I.			0·937	258·7	83·6	−10·5			69
			0·854	245·9	70·7	−20·3			755
			0·831	264·9	70·6	− 4·2			46
		3815	0·978	291·9	91·5	+21·4	0	190	672c
		3815	0·978	293·3	91·4	+22·8	0	35	
		3815	0·971	296·9	89·0	+26·1	0	44	
		3815	0·964	295·6	87·4	+24·6	0	169	
		3815	0·952	297·5	84·6	+26·1	0	39	
		3815	0·951	298·4	84·3	+27·0	0	22	
		3812	0·909	279·3	79·6	+ 8·5	35	180	
		3812	0·895	280·7	77·6	+ 9·6	0	11	
		3812	0·884	281·8	76·1	+10·4	12	41	1139c
		3812	0·872	278·6	74·9	+ 7·5	48	228	
		3812	0·861	281·8	73·4	+10·2	5	33	

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 3822, December 3–10. Several irregular spots in a straight stream. The spots tend to break up and scatter, and *a* and *b*, the principal spots, and the first and last on December 3, have completely broken up by December 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).
1894.				°	°	°			
338d·189	AW,M	3817*a*	0·401	236·6	34·7	−12·6	35	123	
		3817	0·386	239·6	34·4	−11·1	0	4	
I.		3817	0·381	235·0	33·3	−12·5	3	9	
		3817	0·356	230·5	31·0	−13·0	6	26	
		3817	0·352	226·7	29·9	−13·8	1	5	
		3817	0·334	221·3	27·8	−14·4	1	8	
		3817	0·364	214·8	27·2	−17·2	4	30	
		3817*b*	0·332	215·9	26·3	−15·4	17	59	
		3820*a*	0·133	6·1	13·9	+ 7·7	10	43	
		3820*a*	0·140	15·9	12·5	+ 7·8	10	42	
		3820	0·159	19·1	11·7	+ 8·8	0	3	
		3820	0·164	26·8	10·4	+ 8·5	0	6	
		3820	0·164	42·7	8·3	+ 7·0	0	2	
		3820	0·200	34·6	8·1	+ 9·6	16	40	
		3816	0·360	175·2	12·9	−20·8	0	3	
		3816	0·324	170·4	11·4	−18·1	52	281	
		3816*a*	0·325	164·0	9·3	−18·0	3	12	
		3816	0·349	158·6	7·0	−18·8	0	8	
		3816	0·366	159·4	6·9	−19·8	2	9	
		3816	0·355	153·7	5·2	−18·4	2	12	
		3816	0·366	151·0	4·0	−18·5	3	13	
		3816	0·354	147·2	3·2	−17·1	1	6	
		3818	0·441	135·3	355·7	−18·1	0	5	
		3818*a*	0·462	138·4	355·7	−20·0	19	48	
		3818	0·438	131·8	354·8	−16·8	0	4	
		3818	0·466	134·3	354·2	−18·8	1	4	
		3818	0·527	132·5	353·6	−20·8	0	4	
		3818	0·497	124·9	352·8	−20·3	4	30	
		3818	0·540	128·9	348·3	−19·7	0	8	
		3822*a*	0·793	95·5	322·6	− 4·3	37	181	
		3822	0·816	94·6	320·2	− 3·7	2	32	
		3822	0·836	92·4	318·2	− 2·0	0	14	
		3822*b*	0·851	95·8	316·7	− 4·9	21	87	735*c*
		3822	0·878	97·2	313·7	− 6·3	2	10	
		3822	0·889	96·2	312·3	− 5·5	3	13	
		3823*a*	0·972	88·9	298·5	+ 1·1	9	44	
			0·710	123·3	334·8	−22·8			166
			0·941	78·8	305·0	+10·6			53
			0·944	73·1	305·0	+16·0			76
Dec. 5		Centre			(14·7)	(+0·1)	(364)	(2220)	(3931)
339·244	M,FT		0·946	246·4	70·1	−22·2			405
			0·835	281·5	56·8	+ 9·6			294
I.			0·839	254·1	56·7	−13·3			201

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).
1894.				°	°	°			
339d·244	M,FT	3815	0·996	297·3	84·9	+27·2	0	34	
		3812	0·989	279·1	82·1	+ 9·0	175	594	
I.		3812	0·965	277·5	75·4	+ 7·3	54	344	712*c*
		3812	0·961	280·9	74·4	+10·5	15	105	
		3824	0·814	280·2	54·9	+ 9·0	0	5	
		3817*a*	0·595	247·5	35·1	−13·1	42	146	86*c*
		3817	0·521	238·7	28·3	−15·7	1	5	
		3817	0·526	235·4	27·8	−17·4	0	6	
		3817*b*	0·503	236·9	26·8	−15·9	12	34	
		3820*a*	0·278	299·0	15·0	+ 7·7	9	28	
		3820*a*	0·263	300·6	14·0	+ 7·7	19	48	
		3820	0·240	307·3	12·0	+ 8·3	0	12	
		3820	0·207	317·1	9·1	+ 8·7	0	4	
		3820	0·190	313·3	8·9	+ 7·5	2	7	
		3820	0·218	322·0	8·7	+ 9·9	19	74	
		3820	0·195	321·6	7·9	+ 8·7	0	13	
		3816*a*	0·363	208·8	11·5	−18·5	43	247	
		3816	0·337	206·6	10·0	−17·5	0	10	
		3816	0·327	204·9	9·2	−17·2	0	4	
		3816	0·306	203·4	8·1	−16·3	0	6	
		3816	0·332	197·6	6·9	−18·4	0	2	
		3816	0·306	193·2	5·1	−17·3	1	7	
		3816	0·326	189·3	4·1	−18·7	2	7	
		3816	0·313	188·9	3·8	−18·0	2	5	
		3816	0·295	189·8	3·9	−16·8	3	16	
		3818	0·311	167·7	356·9	−17·7	0	1	
		3818*a*	0·354	166·3	355·8	−20·1	10	22	
		3818	0·336	164·4	355·4	−18·8	0	2	
		3818	0·310	162·1	355·2	−17·1	0	2	
		3818	0·330	162·9	355·1	−18·3	3	14	
		3818	0·319	160·7	354·6	−17·5	1	10	
		3822*a*	0·614	96·8	323·4	− 4·2	36	161	
		3822	0·664	95·9	319·6	− 3·9	0	2	
		3822*b*	0·697	96·7	317·1	− 4·7	16	78	286*c*
		3822	0·743	96·6	313·3	− 4·9	0	7	
		3823*a*	0·884	88·1	299·0	+ 1·7	16	48	160*f*
			0·836	97·5	304·6	− 6·3			223
Dec. 6		Centre			(0·9)	(−0·0)	(481)	(2110)	(2367)
340·482	AW,FT	3824	0·923	282·6	51·2	+11·6	0	11	
		3817*a*	0·785	252·7	34·9	−13·6	8	118	
		3817*b*	0·707	247·0	27·1	−16·1	3	17	
		3820*a*	0·529	284·6	15·5	+ 7·5	10	84	

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.

The photograph on December 7 was taken through mist, and is faint and ill-defined. No faculæ can be seen upon it, and the areas of the spots are measured with difficulty.
Group 3823, December 5–15. A regular spot, *a*, with occasionally some small companions.
Group 3824, December 6–8. A small faint spot, first seen near the West limb. A second spot is seen near the first on December 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).
				°	°	°			
1894.									
340d.482	AW,FT	3820*a*	0·498	285·5	13·4	+ 7·5	2	26	
		3820	0·488	289·0	12·3	+ 8·9	0	6	
		3820	0·469	289·9	11·0	+ 9·0	0	4	
		3820	0·463	288·3	10·9	+ 8·2	0	3	
		3820	0·460	286·9	10·8	+ 7·5	0	6	
		3820	0·448	291·8	9·4	+ 9·4	0	6	
		3820	0·430	291·6	8·4	+ 8·9	3	19	
		3816*a*	0·536	233·6	11·6	−18·7	24	184	
		3816	0·498	235·8	9·9	−16·4	1	4	
		3816	0·445	228·6	5·0	−17·2	0	13	
		3816	0·457	224·8	4·4	−19·0	0	3	
		3818	0·373	211·1	356·4	−20·5	1	8	
		3818*a*	0·395	208·7	356·2	−20·4	3	16	
		3818	0·345	212·2	355·6	−17·1	0	4	
		3822	0·330	102·8	325·9	− 4·4	0	10	
		3822	0·344	102·9	325·0	− 4·6	0	20	
		3822	0·351	102·9	324·6	− 4·7	0	5	
		3822*a*	0·361	103·2	324·0	− 4·9	2	13	
		3822	0·379	102·0	322·9	− 4·7	0	8	
		3822	0·439	99·1	319·0	− 4·2	0	5	
		3822	0·443	101·9	318·9	− 5·4	0	9	
		3822	0·451	99·0	318·2	− 4·2	0	9	
		3822	0·454	101·6	318·2	− 5·4	0	14	
		3822	0·471	101·1	317·1	− 5·4	0	2	
		3822	0·479	100·5	316·5	− 5·2	0	3	
		3823*a*	0·715	88·1	299·2	+ 1·3	5	27	
Dec. 7		Centre			(344·6)	(−0·2)	(62)	(657)	(0)
341·179	AW,FT	3824	0·976	283·2	52·2	+12·8	0	14	} 541*p*
		3824	0·974	282·0	51·7	+11·6	0	14	
I.		3817*a*	0·870	254·2	34·7	−13·8	26	158	462*c*
		3817*b*	0·804	250·0	27·1	−16·1	5	21	283*c*
		3820*a*	0·657	282·1	15·6	+ 7·7	18	68	
		3820	0·635	283·1	13·9	+ 8·0	3	17	
		3820	0·610	283·7	12·0	+ 8·1	1	8	
		3820	0·599	285·8	11·0	+ 9·2	8	45	
		3820	0·581	287·2	9·5	+ 9·6	3	18	
		3820	0·556	286·1	8·0	+ 8·6	0	8	
		3816*a*	0·642	240·2	11·3	−18·8	36	219	} 129*c*
		3816	0·594	240·5	8·0	−17·2	0	5	
		3816	0·554	237·6	4·6	−17·5	4	16	
		3818*a*	0·473	225·1	356·2	−19·8	6	32	
		3818	0·446	220·9	353·4	−20·0	1	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).
				°	°	°			
1894.									
341d.179	AW,FT	3818	0·450	216·5	352·0	−21·4	0	7	
		3818	0·432	220·8	352·7	−19·3	0	6	
I.		3818	0·435	217·3	351·7	−20·5	0	5	
		3818	0·435	214·2	350·6	−21·3	0	4	
		3818	0·424	215·0	350·4	−20·6	0	1	
		3818	0·410	216·7	350·4	−19·4	2	7	
		3818	0·411	214·3	349·6	−20·1	3	18	
		3822	0·190	111·5	325·2	− 4·3	4	20	
		3822	0·204	115·3	324·8	− 5·3	0	3	
		3822	0·207	111·4	324·3	− 4·6	1	8	
		3822	0·301	107·0	318·7	− 5·4	2	10	
		3822	0·303	102·7	318·2	− 4·1	1	3	
		3822	0·331	103·4	316·6	− 4·7	1	6	
		3822	0·331	100·9	316·5	− 3·9	0	9	
		3822	0·352	102·8	315·3	− 4·8	0	3	
		3822	0·378	107·9	314·2	− 7·0	1	3	
		3825	0·221	2·5	334·8	+12·4	0	6	
		3825	0·238	17·5	331·2	+12·8	2	9	
		3825	0·233	25·8	329·5	+11·8	0	3	
		3823*a*	0·599	87·0	298·8	+ 1·6	10	29	}
		3823	0·620	82·5	297·5	+ 4·4	0	7	
		3823	0·622	84·0	297·3	+ 3·5	0	6	} 113*c*
		3823	0·655	83·2	294·9	+ 4·2	1	6	
			0·885	53·1	279·1	+31·9			160
			0·888	123·1	277·2	−29·1			449
			0·963	80·9	261·5	+ 8·7			185
Dec. 8		Centre			(335·4)	(−0·3)	(139)	(829)	(2322)
342·233	CL,AR		0·908	239·2	23·2	−27·9			107
		3817*a*	0·956	255·9	33·8	−13·6	27	158	875*f*
I.		3820*a*	0·820	279·8	15·9	+ 7·8	8	50	}
		3820	0·804	280·4	14·3	+ 8·1	0	2	
		3820	0·770	283·0	10·9	+ 9·8	7	53	} 1009*c*
		3820	0·760	281·4	10·2	+ 8·4	2	17	
		3816*a*	0·790	246·3	11·1	−18·7	32	172	430*c*
		3818	0·640	240·5	357·3	−18·6	1	8	}
		3818	0·638	237·7	356·4	−20·2	7	21	
		3818*a*	0·620	238·8	355·5	−19·0	11	64	
		3818	0·586	236·7	352·6	−19·1	5	18	} 188*c*
		3818	0·577	233·8	351·1	−20·2	7	40	
		3818	0·579	231·6	350·5	−21·4	2	13	
		3818	0·562	231·4	349·4	−20·8	0	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 3825, December 8. Three 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).
1894.				°	°	°			
342d·233	CL,AR	3822	0·072	219·4	324·1	− 3·6	0	2	
I.		3822	0·065	171·9	321·0	− 4·1	1	5	
		3822	0·095	157·6	319·4	− 5·4	1	3	
		3822	0·091	133·7	317·7	− 4·0	4	24	
		3822	0·114	136·2	317·0	− 5·1	0	2	
		3822	0·140	114·6	314·2	− 3·7	0	3	
		3822	0·174	112·6	312·3	− 4·3	0	4	
		3822	0·208	105·7	310·0	− 3·6	0	4	
		3823*a*	0·387	85·2	298·9	+ 1·5	9	30	
		3823	0·409	78·6	297·9	+ 5·0	0	12	
			0·895	82·0	258·5	+ 7·0			143
			0·925	107·9	254·9	−16·7			146
			0·948	73·2	251·1	+15·8			173
Dec. 9		Centre			(321·5)	(−0·4)	(124)	(714)	(3071)
343·212	CL,AW		0·953	242·5	18·8	−26·2			192
M.			0·861	284·6	6·9	+12·3			221
			0·769	261·8	358·4	− 6·6			152
		3817*a*	0·995	256·5	32·6	−13·5	0	118	4598*f*
		3820*a*	0·926	278·5	15·9	+ 7·7	6	26	
		3820	0·898	280·5	11·8	+ 9·2	2	14	591*c*
		3820	0·889	281·4	10·6	+ 9·9	4	11	
		3816*a*	0·900	249·4	11·2	−18·7	21	120	
		3816	0·901	248·1	11·1	−19·8	0	4	375*c*
		3818	0·783	244·4	357·1	−20·0	3	20	
		3818*a*	0·775	246·3	356·8	−18·4	11	41	
		3818	0·771	245·2	356·3	−19·2	0	5	
		3818	0·753	244·3	354·4	−19·4	2	9	
		3818	0·739	244·2	353·2	−19·1	2	11	207*c*
		3818	0·719	242·4	351·0	−19·8	8	38	
		3818	0·715	239·9	350·1	−21·4	0	3	
		3826	0·537	294·2	338·5	+12·2	1	4	
		3822	0·243	255·5	322·2	− 4·0	0	2	
		3822	0·203	250·2	319·6	− 4·4	0	2	
		3822	0·193	252·7	319·2	− 3·8	3	8	
		3822	0·185	246·2	318·3	− 4·8	0	1	
		3822	0·102	232·4	313·2	− 4·1	1	4	
		3822	0·071	200·7	310·0	− 4·3	0	2	
		3827*a*	0·315	184·4	310·1	−18·7	5	10	
		3827	0·302	184·1	309·9	−18·0	2	5	
		3827	0·335	181·8	309·2	−20·0	3	9	
1894.				°	°	°			
343d·212	CL,AW	3827	0·305	179·1	308·3	−18·2	2	6	
M.		3827	0·346	178·5	308·0	−20·6	2	7	
		3827	0·324	175·7	307·1	−19·3	2	6	
		3827	0·341	170·7	305·3	−20·1	2	15	
		3823*a*	0·157	77·2	299·8	+ 1·5	7	12	
			0·794	108·7	257·6	−15·0			76
			0·883	73·0	248·0	+14·7			152
Dec. 10		Centre			(308·6)	(−0·5)	(89)	(513)	(2425)
344·505	CL,FT		0·974	281·7	7·9	+11·2			362
			0·911	262·6	356·9	− 7·0			142
		3816*a*	0·984	251·0	10·9	−18·8	11	46	
		3818*a*	0·917	250·4	357·2	−18·2	10	47	430*c*
		3818	0·916	248·4	356·4	−20·0	1	6	
		3818	0·877	247·4	350·9	−20·0	2	9	
		3818	0·878	245·9	350·8	−21·4	0	4	
		3826	0·718	288·5	335·7	+12·6	0	3	
		3827*a*	0·436	226·8	311·0	−18·0	43	199	
		3827	0·413	228·4	310·3	−16·5	0	3	
		3827	0·421	224·0	309·5	−18·3	0	5	
		3827	0·406	222·9	308·4	−17·9	7	24	
		3827	0·428	219·2	308·3	−20·0	1	7	
		3827	0·447	215·0	307·6	−22·1	1	3	
		3827	0·437	215·3	307·3	−21·5	2	9	
		3827	0·396	220·8	307·3	−18·1	0	3	
		3827	0·411	218·4	307·2	−19·4	1	5	
		3827	0·421	216·7	307·1	−20·3	0	2	
		3827	0·433	214·0	306·6	−21·7	2	7	
		3827	0·395	215·3	305·5	−19·4	0	5	
		3827	0·375	217·4	305·4	−17·9	0	8	
		3827	0·425	211·6	305·4	−21·8	4	26	
		3827	0·414	210·9	304·7	−21·4	2	9	
		3827	0·407	208·8	303·7	−21·5	13	64	
		3827	0·387	209·9	303·4	−20·2	4	23	
		3827	0·386	206·8	302·3	−20·8	4	15	
		3827	0·391	202·8	300·9	−21·7	4	11	
		3823*a*	0·149	284·1	299·9	+ 1·4	6	17	
		3823	0·127	264·0	298·8	− 1·5	1	4	
			0·920	85·5	225·0	+ 3·9			87
			0·956	74·2	219·7	+14·9			149
Dec. 11		Centre			(291·6)	(−0·7)	(119)	(564)	(1170)

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 3826, December 10–11. A very small spot.

Group 3827, December 10–16. A number of small spots irregularly scattered, which have formed suddenly near the central meridian on December 10. The group has greatly increased by the succeeding day, and has become a fine complex stream, of which the first spot, *a*, is large and regular. The last spot on December 13, *b*, is a large nebulous irregular 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).
				°	°	°			
1894.									
345d.264	AW,FT		0·940	262·5	351·4	− 7·4			139
			0·872	287·6	340·7	+14·9			141
I.			0·836	241·5	334·9	−24·0			291
		3818*a*	0·974	251·4	357·8	−18·3	0	20	674*c*
		3818	0·950	247·9	352·1	−21·2	0	3	
		3818	0·949	248·9	352·0	−20·2	0	3	
		3827*a*	0·576	238·6	312·6	−18·1	69	255	
		3827	0·547	240·6	311·2	−16·3	0	5	
		3827	0·565	235·6	311·1	−19·3	0	6	
		3827	0·552	238·4	311·0	−17·5	0	4	
		3827	0·556	236·5	310·8	−18·6	1	9	
		3827	0·540	236·7	309·8	−17·9	2	11	
		3827	0·540	234·3	309·1	−19·0	0	1	
		3827	0·530	234·8	308·6	−18·4	0	4	
		3827	0·521	235·3	308·2	−17·9	5	37	
		3827	0·518	234·0	307·7	−18·4	0	6	
		3827	0·531	230·9	307·5	−20·3	0	6	
		3827	0·541	228·6	307·4	−21·6	0	10	
		3827	0·522	232·3	307·4	−19·3	0	4	
		3827	0·501	233·7	306·6	−17·9	8	28	
		3827	0·509	230·8	306·2	−19·4	5	16	
		3827	0·527	226·5	305·8	−21·9	2	38	
		3827	0·508	226·3	304·7	−21·2	0	5	
		3827	0·489	227·7	304·1	−19·9	22	96	
		3827	0·496	224·6	303·5	−21·4	21	81	
		3823*a*	0·327	277·1	300·5	+ 1·6	7	11	
		3828	0·339	63·3	263·9	+ 8·0	0	3	
			0·851	102·9	224·0	−11·4			81
			0·868	72·1	223·0	+15·0			128
			0·881	87·3	220·1	+ 2·0			146
Dec. 12		Centre			(281·6)	(−0·8)	(142)	(662)	(1600)
346·409	AW,FT		0·938	244·4	334·3	−24·3			136
			0·927	285·8	333·2	+14·3			112
I.			0·830	263·1	322·2	− 6·2			295
		3827*a*	0·757	246·7	313·3	−18·0	87	435	
		3827	0·718	242·6	309·0	−19·9	0	5	
		3827	0·710	244·4	308·8	−18·5	60	148	
		3827	0·702	242·3	307·6	−19·7	3	19	
		3827	0·690	243·1	306·9	−18·8	0	7	
		3827	0·704	238·8	306·8	−22·0	0	9	
		3827	0·676	242·1	305·6	−19·1	12	48	
		3827	0·663	241·7	304·5	−19·0	0	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).
				°	°	°			
1894.									
346d.409	AW,FT	3827	0·652	242·5	303·8	−18·2	0	1	
		3827*b*	0·658	238·8	303·3	−20·6	52	393	
I.		3823*a*	0·568	273·6	300·9	+ 1·3	4	11	
			0·907	116·3	203·9	−24·0			113
			0·976	109·8	189·8	−19·5			155
Dec. 13		Centre			(266·5)	(−0·9)	(218)	(1082)	(811)
347·211	AW,M		0·986	283·4	335·5	+13·0			150
			0·976	246·8	332·3	−22·8			245
M.			0·901	265·8	319·9	− 4·3			447
		3827*a*	0·861	249·6	313·7	−18·0	58	396	831*c*
		3827	0·830	248·3	310·1	−18·4	31	187	
		3827	0·824	246·6	309·1	−19·7	0	5	
		3827	0·813	246·5	308·0	−19·5	5	47	
		3827	0·799	247·6	306·8	−18·4	0	22	
		3827	0·789	246·4	305·6	−19·0	3	28	
		3827*b*	0·764	243·7	302·7	−20·4	32	330	
		3823*a*	0·714	273·2	301·2	+ 1·6	3	10	
			0·852	120·0	201·1	−25·7			87
			0·937	111·3	187·6	−20·3			437
			0·954	120·5	185·8	−29·2			142
Dec. 14		Centre			(255·9)	(−1·0)	(132)	(1025)	(2339)
348·431	AW,HA		0·940	264·5	309·6	− 5·6			128
			0·849	272·8	297·6	+ 1·7			140
		3827*a*	0·964	252·0	313·8	−17·7	62	292	328*c*
		3827	0·955	250·9	311·7	−18·6	16	95	
		3827	0·942	250·1	309·2	−19·1	10	128	
		3827	0·928	249·2	306·7	−19·7	3	39	
		3827	0·923	250·0	306·0	−18·9	0	14	
		3827*b*	0·897	248·0	301·9	−20·1	64	320	
		3823*a*	0·883	271·9	301·6	+ 1·1	0	23	
		3829*a*	0·944	104·8	169·6	−14·4	18	130	169*c*
		3829	0·954	103·2	167·7	−13·0	0	26	
		3829	0·960	105·4	166·6	−15·1	17	138	
		3829	0·964	103·6	165·6	−13·4	0	27	
		3829	0·976	103·2	162·6	−13·2	0	22	
		3829	0·983	104·9	160·5	−14·9	0	97	
			0·902	65·4	178·2	+21·5			136
Dec. 15		Centre			(239·8)	(−1·2)	(190)	(1351)	(901)

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 3828, December 12. A very small spot.
Group 3829, December 15–26. A number of spots mostly large and nebulous in a broad straight stream. The leader, *a*, is at first large and regular, but later diminishes and becomes irregular. It moves slowly forward in longitude until December 21, but quickly after that date.

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).
1894.				°	°	°			
349d·290	CL,AR		0·920	271·9	295·2	+ 1·2			161
		3827*a*	0·998	252·5	315·1	−17·6	0	455	
I.		3827	0·979	248·5	306·1	−21·3	13	79	
		3827	0·971	250·7	304·2	−19·1	0	26	526*c*
		3827*b*	0·959	248·8	301·2	−20·7	28	290	
		3829*a*	0·871	104·7	168·7	−13·4	29	205	
		3829	0·891	103·6	166·1	−12·7	8	52	
		3829	0·895	106·0	165·8	−14·9	11	121	694*c*
		3829	0·930	105·0	160·7	−14·4	39	452	
		3830*a*	0·994	106·6	144·8	−16·6	0	78	
			0·776	112·4	179·7	−18·0			161
			0·853	60·0	174·5	+24·4			97
			0·922	97·0	161·5	− 7·0			320
Dec. 16		Centre			(228·5)	(−1·3)	(128)	(1758)	(1959)
350·214	AR,FT		0·956	268·3	289·1	− 2·0			72
		3829*a*	0·743	106·9	169·6	−13·4	63	281	
I.		3829	0·775	105·8	166·5	−13·1	7	87	
		3829	0·779	107·8	166·4	−14·6	16	137	
		3829	0·793	106·3	164·9	−13·7	3	9	
		3829	0·812	107·0	163·1	−14·6	33	242	515*c*
		3829	0·817	104·8	162·4	−12·8	8	25	
		3829	0·843	105·4	159·8	−13·7	28	144	
		3829	0·857	107·1	158·4	−15·3	24	195	
		3830*a*	0·944	106·8	146·3	−16·3	25	70	
		3830*b*	0·963	103·9	142·3	−13·8	0	27	978*c*
			0·815	96·6	162·0	− 6·2			92
Dec. 17		Centre			(216·3)	(−1·4)	(207)	(1217)	(1657)
351·209	AW,CL		0·856	277·5	261·8	− 7·2			221
		3831*a*	0·127	31·0	199·5	+ 4·7	0	10	
I.		3831	0·172	37·4	197·2	+ 6·3	6	23	
		3831	0·192	45·6	195·3	+ 6·2	0	18	
		3831*b*	0·213	43·1	194·8	+ 7·4	4	16	
		3829*a*	0·578	112·0	169·9	−13·7	62	308	
		3829	0·608	111·6	167·7	−14·1	3	25	
		3829	0·607	109·9	167·5	−13·1	0	16	
		3829	0·614	112·9	167·5	−15·0	4	28	
		3829	0·624	108·7	166·1	−12·7	10	52	
		3829	0·632	111·6	166·0	−14·6	1	8	
		3829	0·638	113·5	165·9	−15·9	6	79	
		3829	0·649	111·0	164·6	−14·6	29	152	508*c*
1894.				°	°	°			
351d·209	AW,CL	3829	0·652	108·4	163·9	−13·0	4	15	
		3829	0·669	108·9	162·7	−13·7	0	37	
I.		3829	0·679	111·4	162·4	−15·4	24	157	
		3829	0·694	108·2	160·7	−13·6	0	8	
		3829	0·700	106·1	159·9	−12·3	0	4	
		3829	0·707	109·4	159·8	−14·7	11	42	
		3829	0·706	107·6	159·6	−13·4	0	39	
		3829	0·729	109·9	158·1	−15·4	23	108	
		3830*a*	0·852	108·5	146·0	−16·5	17	82	
		3830*b*	0·877	105·1	142·7	−14·0	4	40	1102*c*
		3830*c*	0·908	110·1	139·2	−18·8	0	14	
Dec. 18		Centre			(203·2)	(−1·5)	(208)	(1281)	(1831)
352·474	HA,FT	3831*a*	0·269	294·9	200·7	+ 4·8	3	17	
		3831	0·247	297·6	199·2	+ 4·9	0	5	
		3831	0·235	298·6	198·5	+ 4·8	1	5	
		3831	0·235	302·9	198·0	+ 5·6	0	6	
		3831*b*	0·215	318·4	194·8	+ 7·5	1	6	
		3829*a*	0·349	127·5	170·1	−13·8	55	260	
		3829	0·376	127·7	168·7	−14·9	7	28	
		3829	0·380	124·6	167·9	−14·0	7	46	
		3829	0·411	126·9	166·7	−15·9	27	259	
		3829	0·399	124·1	166·7	−14·5	7	25	
		3829	0·391	119·4	166·3	−12·6	5	42	
		3829	0·440	127·1	165·2	−16·9	2	6	
		3829	0·434	124·7	164·9	−15·9	1	10	
		3829	0·425	121·0	164·6	−14·2	11	98	
		3829	0·447	123·6	163·9	−15·9	11	83	
		3829	0·452	121·6	163·2	−15·3	0	2	
		3829	0·445	118·5	163·0	−13·8	0	5	
		3829	0·470	121·1	162·0	−15·6	0	5	
		3829	0·482	122·5	161·6	−16·5	14	90	
		3829	0·468	117·6	161·4	−14·0	6	47	
		3829	0·487	115·6	159·8	−13·7	2	6	
		3829	0·497	117·7	159·6	−14·9	7	34	
		3829	0·520	118·7	158·4	−15·9	5	35	
		3830*a*	0·676	113·9	146·4	−17·2	14	70	
		3830*b*	0·704	109·1	143·4	−14·6	1	9	
		3830*c*	0·766	114·5	139·0	−19·7	1	18	
Dec. 19		Centre			(186·6)	(−1·7)	(188)	(1217)	(0)
353·462	CL,AW	3831*a*	0·481	283·0	201·5	+ 4·6	4	20	
		3831	0·430	288·3	197·7	+ 6·1	0	6	
		3831*b*	0·402	293·1	195·4	+ 7·4	0	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 3830, December 16–26. A regular spot, *a*. A smaller spot, *b*, *nf a*, is seen December 17–20, and a third and increasing spot, *c*, *sf a*, December 18–26. A few very small companions make up with *a* and *c* an irregular stream on December 24.
Group 3831, December 18–21. A few small spots in an irregular stream. *a* and *b*, the first and last spots, are the most stable. *a* remains alone on December 21.

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).
1894.				°	°	°			
353d·462	CL,AW	3829*a*	0·217	165·2	170·3	−13·9	71	303	
		3829	0·232	154·4	167·7	−13·8	0	18	
		3829	0·260	155·1	167·1	−15·4	35	490	
		3829	0·233	143·7	165·5	−12·6	3	8	
		3829	0·287	149·3	164·9	−14·8	0	27	
		3829	0·261	143·9	164·5	−13·9	13	53	
		3829	0·285	144·0	163·7	−15·1	0	16	
		3829	0·326	141·8	161·5	−16·6	19	110	
		3829	0·303	133·7	160·6	−13·8	9	64	
		3829	0·324	136·5	160·3	−15·3	0	8	
		3829	0·344	136·5	159·4	−16·2	2	10	
		3829	0·341	133·5	158·8	−15·3	0	5	
		3830*a*	0·515	121·8	146·5	−17·3	17	70	
		3830*b*	0·537	114·7	143·5	−14·5	0	5	
		3830	0·569	114·7	141·3	−15·2	0	8	
		3830*c*	0·622	120·2	138·9	−19·7	4	25	
		3832*a*	0·861	102·8	114·7	−11·9	0	10	
Dec. 20		Centre			(173·6)	(−1·8)	(177)	(1265)	(0)
354·209	AR,FT		0·913	287·5	227·9	+15·1			464
		3831*a*	0·631	279·0	202·2	+ 3·8	0	7	
I.		3829*a*	0·239	210·4	170·8	−13·7	56	297	
		3829	0·236	202·4	169·0	−14·4	3	18	
		3829	0·248	197·5	168·1	−15·5	49	352	
		3829	0·214	197·5	167·5	−13·6	0	38	
		3829	0·215	190·2	165·9	−14·1	10	78	
		3829	0·240	186·4	165·3	−15·6	4	40	
		3829	0·225	184·6	164·8	−14·8	0	7	
		3829	0·207	182·7	164·3	−13·8	7	49	
		3829	0·229	180·3	163·8	−15·1	3	12	
		3829	0·246	179·6	163·6	−16·1	0	6	
		3829	0·263	172·5	161·7	−17·0	11	77	
		3829	0·192	167·5	161·3	−12·7	0	8	
		3829	0·212	165·4	160·6	−13·7	4	29	
		3829	0·249	166·9	160·3	−15·9	1	36	
		3830*a*	0·390	133·3	146·5	−17·3	18	79	
		3830	0·454	123·5	140·6	−16·2	0	5	
		3830*c*	0·506	127·4	138·6	−19·6	5	37	
		3832*a*	0·752	104·1	115·7	−11·9	0	6	} 68*c*
		3832	0·782	105·3	113·1	−13·1	0	8	
		3833*a*	0·992	81·0	81·6	+ 8·7	0	81	
			0·913	97·5	98·0	− 7·7			387
			0·961	65·3	92·3	+23·1			398
1894.				°	°	°			
354d·209	AR,FT		0·956	116·9	92·1	−26·2			179
I.			0·960	75·5	91·2	+13·4			337
Dec. 21		Centre			(163·7)	(−1·9)	(171)	(1270)	(1833)
355·435	HA,FT		0·927	279·0	214·8	+ 7·5			98
			0·799	278·2	200·0	+ 5·3			53
		3829*a*	0·457	244·2	172·5	−13·4	42	133	
		3829	0·437	241·6	170·8	−13·9	0	24	
		3829	0·446	236·4	170·3	−16·2	26	163	
		3829	0·422	240·2	169·7	−14·0	1	9	
		3829	0·425	238·1	169·4	−14·9	0	9	
		3829	0·417	235·3	168·4	−15·6	28	132	
		3829	0·397	238·5	167·9	−13·9	2	14	
		3829	0·405	232·6	167·1	−16·2	0	3	
		3829	0·392	233·7	166·6	−15·4	0	6	
		3829	0·378	236·8	166·5	−13·9	0	13	
		3829	0·383	233·8	166·2	−15·0	1	8	
		3829	0·367	232·2	165·0	−15·0	3	25	
		3829	0·356	234·0	164·8	−14·0	2	21	
		3829	0·369	229·5	164·5	−15·8	3	32	
		3829	0·333	232·6	163·3	−13·7	0	6	
		3829	0·352	222·0	161·8	−17·1	0	7	
		3829	0·300	232·9	161·7	−12·4	0	4	
		3829	0·320	225·2	161·1	−15·0	0	8	
		3829	0·344	220·4	161·0	−17·2	13	50	
		3829	0·298	226·8	160·5	−13·8	0	7	
		3829	0·323	221·9	160·5	−15·9	1	8	
		3829	0·322	214·4	158·5	−17·4	0	3	
		3830*a*	0·267	177·2	146·8	−17·5	20	71	
		3830*c*	0·321	155·7	139·6	−19·0	0	36	
		3832*a*	0·532	110·8	117·1	−12·7	4	16	
		3832	0·608	106·8	111·3	−11·8	0	5	
		3833*a*	0·913	80·4	82·5	+ 7·9	18	112	249*f*
			0·860	76·8	89·5	+10·2			197
			0·895	60·4	88·5	+25·2			394
			0·913	69·5	84·0	+17·7			140
			0·943	109·6	77·7	−19·2			264
Dec. 22		Centre			(147·6)	(−2·1)	(164)	(925)	(1395)
356·472	CL,AR		0·909	277·8	199·1	+ 6·2			234
		3829*a*	0·662	253·1	174·7	−12·8	16	115	
		3829	0·650	250·6	173·4	−14·1	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 3832, December 20–26. A small spot, *a*, with generally a small unstable companion. *a* is measured in two parts on December 24.
Group 3833, December 21–30. A very close pair measured as a single spot, *a*, until December 27, when the two components have separated somewhat, and are measured separately as *b* and *c*. *b* diminishes and has disappeared by December 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).
1894.				°	°	°			
356d·472	CL,AR	3829	0·631	251·5	172·2	−13·3	0	8	
		3829	0·634	247·1	171·7	−16·0	37	217	
		3829	0·617	248·6	170·7	−14·7	2	11	
		3829	0·611	250·5	170·6	−13·5	0	2	
		3829	0·618	245·3	170·2	−16·7	1	19	
		3829	0·608	246·8	169·7	−15·6	17	84	
		3829	0·600	244·8	168·8	−16·6	2	13	
		3829	0·575	247·8	167·6	−14·3	0	23	
		3829	0·560	246·2	166·3	−14·9	0	39	
		3829	0·538	244·4	164·5	−15·3	0	26	
		3829	0·510	239·7	161·7	−16·8	1	22	
		3830*a*	0·344	220·1	147·8	−17·4	14	50	
		3830	0·321	203·9	142·3	−19·2	0	6	
		3830	0·303	204·3	141·9	−18·2	0	9	
		3830*c*	0·303	199·7	140·6	−18·7	5	34	
		3830	0·318	195·5	139·6	−20·0	0	8	
		3830	0·304	190·9	137·9	−19·5	0	8	
		3834	0·255	354·3	135·9	+12·4	0	3	
		3832*a*	0·320	123·6	118·6	−12·3	3	12	
		3832	0·359	119·4	115·8	−12·2	3	8	
		3833	0·795	73·4	83·5	+11·7	1	4	208*c*
		3833*a*	0·794	77·9	82·9	+ 8·2	23	138	
		3835	0·940	80·8	65·1	+ 7·9	0	13	456*c*
			0·785	58·8	88·0	+22·4			330
			0·871	113·7	75·6	−21·6			189
Dec. 23		Centre			(134·4)	(−2·2)	(125)	(875)	(1417)
357·267	AW,M		0·977	277·7	200·5	+ 7·0			312
			0·899	247·0	186·1	−21·6			823
I.			0·849	298·0	177·2	+22·1			156
		3829*a*	0·789	256·2	174·9	−12·3	27	114	
		3829	0·761	251·8	171·7	−15·3	29	102	
		3829	0·754	250·0	170·8	−16·5	0	32	
		3829	0·741	250·8	169·9	−15·7	13	56	489*c*
		3829	0·736	252·5	169·6	−14·3	0	12	
		3829	0·699	251·0	166·4	−14·9	0	45	
		3829	0·665	250·4	163·6	−14·6	0	60	
		3830*a*	0·463	235·9	146·9	−17·1	11	36	
		3830	0·433	231·2	144·1	−17·8	0	7	
		3830	0·400	226·8	141·2	−18·0	0	2	
		3830	0·389	224·7	140·1	−18·2	0	4	
		3830	0·365	224·7	138·9	−17·2	0	5	
		3830*c*	0·389	219·9	138·7	−19·5	6	37	
1894.				°	°	°			
357d·267	AW,M	3832*a*	0·194	150·3	117·8	−12·0	6	13	
		3832*a*	0·205	147·3	116·9	−12·2	0	17	
I.		3833*a*	0·682	74·4	81·9	+ 8·8	17	92	91*c*
		3835*a*	0·851	78·7	66·1	+ 8·4	5	35	
		3835	0·870	78·7	64·0	+ 8·6	0	32	1718*n*
		3835	0·909	78·7	59·1	+ 9·3	5	30	
			0·762	73·5	75·5	+11·0			144
			0·849	115·2	67·4	−22·4			523
			0·922	101·1	56·4	−11·1			544
			0·951	109·9	51·9	−19·7			130
Dec. 24		Centre			(123·4)	(−2·3)	(119)	(731)	(4930)
358·287	CL,FT		0·948	245·0	180·5	−24·5			198
			0·786	250·8	160·5	−16·5			361
I.		3829*a*	0·915	257·4	175·9	−12·5	17	106	
		3829	0·890	254·1	172·3	−15·2	47	259	439*c*
		3829	0·865	252·5	169·0	−16·3	0	15	
		3830*a*	0·637	245·2	147·1	−17·4	10	37	67*c*
		3830*c*	0·549	235·2	138·6	−20·3	10	40	
		3832*a*	0·219	217·4	117·8	−12·4	0	4	
		3833*a*	0·502	68·0	82·0	+ 9·4	19	63	
		3835*a*	0·695	75·6	67·3	+ 8·2	19	73	
		3835	0·791	76·0	59·1	+ 9·5	0	47	292*c*
		3836*a*	0·982	104·6	30·9	−14·8	0	77	
			0·865	70·4	52·4	+15·6			253
Dec. 25		Centre			(110·0)	(−2·4)	(122)	(721)	(1610)
359·217	AW,CL		0·970	295·3	170·9	+23·8			182
			0·950	238·2	167·7	−30·9			126
I.		3829*a*	0·983	258·0	177·2	−12·3	27	110	
		3829	0·968	255·0	173·0	−15·1	68	332	
		3829	0·956	256·3	170·5	−13·8	5	25	2200*f*
		3829	0·956	254·0	170·4	−16·0	0	38	
		3830*a*	0·782	249·5	147·7	−17·5	9	36	343*n*
		3830*c*	0·698	242·2	138·9	−20·8	4	16	
		3830	0·692	243·8	138·8	−19·7	0	3	
		3832	0·417	244·8	120·3	−12·6	0	2	
		3832*a*	0·383	242·8	118·0	−12·4	0	8	
		3832	0·362	240·5	116·5	−12·6	0	4	
		3837	0·110	197·6	99·6	− 8·5	0	4	
		3833*a*	0·325	54·6	82·2	+ 8·4	17	62	

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 3834, December 23. A very small spot.
Group 3835, December 23–28. A few spots, mostly small, in a sparse stream. The spots are unstable with the exception of the leader, *a*, which alone remains by December 27.
Group 3836, 1894 December 25–1895 January 2. A somewhat ill-defined spot, *a*, with a very small companion on January 1.
Group 3837, 1894 December 26. 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).
1894.				°	°	°			
359d·217	AW,CL	3835*a*	0·511	67·2	69·3	+ 9·2	0	7	
		3835*a*	0·513	69·8	68·7	+ 8·0	12	52	
I.		3835	0·521	69·0	68·4	+ 8·6	0	2	107*c*
		3835	0·532	68·9	67·7	+ 8·9	0	6	
		3835	0·573	70·7	64·7	+ 8·8	0	7	
		3835	0·635	72·4	60·0	+ 9·1	0	4	
		3835	0·650	71·4	59·1	+10·0	0	11	
		3838	0·591	62·0	65·3	+14·0	0	7	
		3838	0·627	61·6	63·0	+15·3	1	3	
		3838	0·660	63·9	60·0	+14·9	1	5	
		3836*a*	0·914	104·8	32·0	−14·6	17	83	260*c*
			0·807	106·6	44·8	−14·9			243
			0·962	110·7	24·0	−20·6			624
			0·977	76·4	21·1	+12·7			610
Dec. 26		Centre			(97·7)	(+2·5)	(161)	(827)	(4695)
360·473	CL,HA		0·917	254·3	147·3	−15·4			116
		3833*b*	0·177	348·7	83·2	+ 7·3	4	17	
		3833*c*	0·197	351·5	82·9	+ 8·5	10	35	
		3835*a*	0·271	45·2	70·0	+ 8·4	5	22	
		3838*a*	0·378	44·3	65·5	+13·0	6	37	
		3838	0·417	46·2	63·2	+14·1	9	60	
		3838	0·418	49·3	62·3	+13·2	0	3	
		3838	0·470	50·5	59·3	+14·8	3	22	
		3836*a*	0·767	107·6	32·2	−15·1	5	31	
		3839	0·896	71·2	19·7	+15·5	3	20	217*s*
			0·874	113·9	21·8	−22·1			121
			0·909	96·6	16·0	− 7·1			53
			0·934	104·2	12·4	−14·2			82
Dec. 27		Centre			(81·2)	(−2·7)	(45)	(247)	(589)
361·467	CL,FT		0·956	252·5	140·9	−17·6			281
			0·909	286·6	131·6	+13·8			99
		3833*b*	0·317	303·7	83·5	+ 7·4	2	8	
		3833*c*	0·323	307·3	83·1	+ 8·6	6	20	
		3840	0·312	196·7	73·6	−20·1	0	31	
		3840	0·299	190·2	71·5	−20·7	0	4	
		3835*a*	0·203	347·2	70·7	+ 8·6	0	12	
		3838	0·272	355·8	69·3	+18·5	0	5	
		3838	0·245	355·2	69·3	+16·9	0	8	
		3838	0·292	6·5	66·2	+14·0	0	6	
		3838	0·278	6·6	66·2	+13·2	8	35	
1894.				°	°	°			
361d·467	CL,FT	3838*a*	0·272	11·5	64·9	+12·6	5	21	
		3838	0·298	16·2	63·2	+13·8	20	109	
		3838	0·334	26·6	59·2	+14·6	3	11	
		3838	0·348	26·6	58·8	+15·3	4	12	
		3841*a*	0·118	15·4	66·3	+ 3·7	2	8	
		3841*b*	0·119	33·7	64·3	+ 2·8	4	13	
		3836*a*	0·617	111·2	31·7	−15·1	13	37	
		3842*a*	0·992	72·8	346·7	+16·7	34	305	
			0·809	124·6	20·8	−25·4			29
			0·802	69·9	16·0	+17·7			242
			0·847	115·6	14·0	−19·8			65
			0·939	107·2	0·1	−15·1			142
Dec. 28		Centre			(68·1)	(+2·8)	(101)	(645)	(858)
362·459	AW,HA		0·946	282·3	124·9	+10·6			158
			0·902	253·8	119·0	−15·9			170
		3833*c*	0·510	292·8	83·3	+ 8·8	4	20	
		3840	0·418	226·4	73·6	−19·5	0	5	
		3838	0·351	317·0	69·1	+12·0	0	21	
		3838	0·342	323·8	66·9	+13·1	4	26	
		3838*a*	0·324	327·7	65·2	+13·0	9	54	
		3838	0·319	331·4	64·0	+13·4	2	12	
		3838	0·312	333·6	63·2	+13·3	0	13	
		3838	0·328	337·7	62·4	+14·7	5	26	
		3838	0·319	345·0	59·9	+15·0	0	14	
		3838	0·318	348·6	58·7	+15·2	5	20	
		3841*a*	0·238	298·9	67·0	+ 3·7	11	34	
		3841	0·228	306·1	65·6	+ 4·9	0	19	
		3841	0·192	302·4	64·3	+ 3·0	5	19	
		3841	0·200	309·2	63·9	+ 4·4	2	12	
		3841*b*	0·182	305·0	63·5	+ 3·1	4	15	
		3836*a*	0·440	119·7	31·8	−15·2	8	31	
		3842*a*	0·945	71·2	346·2	+16·7	46	253	283*c*
			0·650	71·9	16·4	+ 9·3			65
			0·803	67·4	4·7	+16·1			139
			0·845	109·7	358·4	+18·1			138
			0·855	95·7	356·4	+ 6·4			104
			0·962	98·0	340·8	− 8·5			89
Dec. 29		Centre			(55·0)	(−2·9)	(105)	(594)	(1146)
363·234	M,FT		0·960	256·6	118·5	−13·7			183
			0·838	261·5	101·6	− 8·8			283
I.			0·847	293·4	99·4	+17·9			90
			0·766	285·5	93·1	+ 9·8			116

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 3838, 1894 December 26–1895 January 1. Three very small spots on December 26. The group increases rapidly up to December 28, when it forms an irregular stream of nebulous spots. The spots are unstable, with the exception of *a*, the leader on December 27, and tend to form in front of the group and disappear at the rear.

Group 3839, 1894 December 27. A small spot.

Group 3840, 1894 December 28–29. A small spot, with a very small companion on December 28.

Group 3841, 1894 December 28–31. Two small spots, *a* and *b*, on December 28. The two spots separate on the succeeding days, and other spots, mostly very small, form between them, forming on December 29 an oval ring. *b* alone remains by December 31.

Group 3842, 1894 December 28–1895 January 8. A large spot, *a*, with double nucleus, sometimes attended by small companions. It has broken up by January 4, principally into two spots, *b* and *c*, which diminish on the succeeding days.

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).	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).
1894.				°	°	°				1894.				°	°	°			
363d·234	M,FT		0·776	304·1	89·2	+23·6			228	364d·210	CL,FT		0·915	260·7	98·2	− 9·8			171
			0·721	295·7	87·1	+16·0			116				0·879	287·9	91·4	+14·1			250
I.			0·711	316·2	78·7	+28·3			80	M.			0·870	299·1	87·6	+23·3			254
		3833c	0·652	287·0	83·7	+ 8·6	5	14	74c			3838	0·636	287·2	69·8	+ 8·6	0	4	
		3838	0·476	299·2	69·7	+10·7	0	3				3838	0·629	294·0	67·9	+12·3	0	4	
		3838	0·466	301·6	68·6	+11·4	0	3				3838a	0·623	295·8	67·0	+13·2	7	18	
		3838	0·458	304·4	67·4	+12·1	0	5				3838	0·583	300·4	63·2	+14·5	1	6	
		3838	0·462	307·6	66·8	+13·6	0	11				3841b	0·547	280·5	64·5	+ 3·1	6	21	
		3838a	0·450	308·4	66·0	+13·4	13	49				3843	0·505	307·2	56·5	+14·9	0	7	
		3838	0·424	316·0	62·5	+14·9	4	16				3836a	0·208	178·8	31·7	−15·1	4	12	
		3838	0·406	314·9	61·9	+13·7	1	4				3844	0·626	117·6	356·2	−19·3	0	6	69c
		3838	0·392	322·3	59·1	+15·1	1	6				3844	0·627	116·2	355·8	−18·5	1	9	
		3841a	0·412	286·6	68·0	+ 4·0	5	19				3844	0·648	116·9	354·4	−19·5	2	10	
		3841	0·396	286·9	67·0	+ 3·9	0	9				3842a	0·773	65·0	344·9	+17·4	38	279	318c
		3841	0·357	285·3	64·9	+ 2·6	0	6				3842	0·794	64·4	343·3	+18·0	3	13	
		3841	0·351	291·3	63·9	+ 4·5	0	9				3845a	0·867	81·8	332·7	+ 5·5	5	16	154c
		3841b	0·340	288·0	63·6	+ 3·2	8	25				3845	0·894	82·1	329·3	+ 5·7	0	4	
		3836a	0·308	132·7	31·3	−15·0	0	22				3846a	0·980	77·0	314·7	+12·1	0	20	212c
		3842a	0·891	68·6	344·6	+17·5	64	292	327c			3847a	0·989	107·7	310·2	−18·0	101	485	269c
		3842	0·906	69·8	342·3	+16·9	0	25					0·895	115·6	330·0	−24·2			80
			0·922	97·1	337·7	− 7·7			241				0·894	96·0	328·7	− 6·7			153
Dec. 30		Centre			(44·8)	(−3·0)	(101)	(518)	(1738)	Dec. 31		Centre			(32·0)	(−3·1)	(168)	(914)	(1930)

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 3843, 1894 December 31–1895 January 2. A few very faint, small, and unstable spots irregularly arranged.
Group 3844, 1894 December 31. Three small spots.
Group 3845, 1894 December 31–1895 January 3. A small faint spot, with a very small companion on December 31 and January 2.
Group 3846, 1894 December 31–1895 January 11. A composite spot, *a*, which speedily becomes large, but diminishes after January 2. It is followed by a few small spots on January 2, but these greatly increase in number, and the group becomes a very complicated and irregular stream. *a* has disappeared by January 7, but the succeeding day a very large spot, *b*, has appeared 4° south of its place, and has become the leader of the group, then a sparse stream, by January 9.
Group 3847, 1894 December 31–1895 January 12. A very large spot, *a*, with generally some small companions.

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.

1894.

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 1894.

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 3323.

A large regular spot, *a*, followed by several nebulous areas with many small nuclei distributed through them. These areas undergo many changes. The two largest are called *b* and *c* from December 29, and have become defined into two large regular spots by January 2. *a* has a large proper motion in longitude.

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.
1893. a					°	°	°
Dec. 23·425	5	130	11	359	192·3	−11·8	− 79·8
24·400	76	293	99	391	191·1	−11·1	− 68·1
25·252	77	550	71	513	190·7	−11·2	− 57·3
26·458	156	883	105	599	190·6	−11·4	− 41·5
27·266	187	1072	109	626	191·3	−11·3	− 30·2
28·248	223	1138	118	606	191·1	−11·4	− 17·4
29·282	131	1008	68	518	190·8	−11·7	− 4·1
30·444	282	1707	148	888	190·1	−12·5	+ 10·4
31	No	photo	graph.				
1894.							
Jan. 1	No	photo	graph.				
2·442	100	867	80	682	190·4	−12·9	+ 50·2
3·228	133	713	143	749	191·3	−13·3	+ 61·5
4·183	42	345	60	626	191·6	−13·4	+ 74·4
5·466	8	57	38	273	185·2	−13·4	+ 84·8
Means ...	...	...	88	569	190·54	−12·12	...

Group 3325.

A large regular spot, *a*, with occasionally some small companions. *a* moves forward in longitude after December 29.

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.
1893.							
Dec. 25·252	25	147	74	443	167·3	− 7·8	− 80·7
26·458	53	291	63	344	167·0	− 7·4	− 65·1
27·266	112	497	96	425	167·2	− 7·1	− 54·3
28·248	152	623	100	414	167·4	− 6·9	− 41·1
29·282	127	690	72	390	167·5	− 7·2	− 27·4
30·444	95	762	48	391	168·2	− 7·9	− 11·5
31	No	photo	graph.				

Group 3325—*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.
1894. a					°	°	°
Jan. 1	No	photo	graph.				
2·442	88	464	51	268	169·5	− 7·5	+ 29·3
3·228	87	408	57	268	170·2	− 8·0	+ 40·4
4·183	87	355	72	293	170·2	− 7·9	+ 53·0
5·466	30	177	43	259	170·7	− 7·3	+ 70·3
6·192	30	95	98	314	172·5	− 7·5	+ 81·7
Means ...	...	...	70	346	168·88	− 7·50	...

Group 3328.

A large spot, *a*, on December 26 and 27. It has broken up by December 28, the principal portions being the two spots *b* and *c*. *b* and *c* with some small spots near them make up an irregular stream, which diminishes from day to day.

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.
1893.							
Dec. 26·458	22	81	58	215	154·3	+17·5	− 77·8
27·266	20	124	29	176	154·1	+18·0	− 67·4
28·248	47	171	43	160	154·0	+18·4	− 54·5
29·282	36	147	26	107	153·5	+18·3	− 41·4
30·444	27	160	16	95	154·2	+17·3	− 25·5
31	No	photo	graph.				
1894.							
Jan. 1	No	photo	graph.				
2·442	0	40	0	22	154·1	+16·2	+ 13·9
Means ...	...	...	29	129	154·03	+17·62	...

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

Group 3329.

A large spot, *a*, with some very small companions. The nucleus of *a* is divided into two on December 29; and three separate nuclei are seen on January 2. These are seen as three distinct spots, *b*, *c* and *d*, after January 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.
1893. d					°	°	°
Dec. 26·458	18	97	47	257	152·6	− 8·4	− 79·5
27·266	57	176	79	241	152·8	− 8·0	− 68·7
28·248	59	302	52	266	153·3	− 7·4	− 55·2
29·282	75	357	51	242	153·2	− 7·5	− 41·7
30·444	99	436	56	243	154·3	− 7·9	− 25·4
31	No	photo	graph.				
1894.							
Jan. 1	No	photo	graph.				
2·442	106	868	55	454	155·9	− 8·6	+ 15·7
3·228	177	930	100	523	156·6	− 8·9	+ 26·8
4·183	127	669	84	437	157·0	− 8·7	+ 39·8
5·466	50	339	48	320	158·7	− 7·7	+ 58·3
6·192	38	201	50	266	158·7	− 7·6	+ 67·9
7·275	15	39	71	188	160·9	− 6·5	+ 84·4
Means ...	...	...	63	312	155·82	− 7·93	...

Group 3337.

A pair of very small spots on December 30. One very small spot on January 2 and 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.
1893.							
Dec. 30·444	8	27	5	17	145·0	−18·6	− 34·7
31	No	photo	graph.				
1894.							
Jan. 1	No	photo	graph.				
2·442	0	10	0	5	149·6	−17·9	+ 9·4
3·228	0	6	0	3	149·5	−17·6	+ 19·7
Means ...	...	...	2	8	148·03	−18·03	...

Group 3340.

A small spot, with a very small companion on January 4.

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.
1893.							
Dec. 30·444	3	18	5	32	105·3	− 7·4	− 74·4
31	No	photo	graph.				
1894.							
Jan. 1	No	photo	graph.				
2·442	3	28	2	17	106·2	− 8·3	− 34·0
3·228	0	5	0	3	106·1	− 8·1	− 23·7
4·183	0	8	0	4	105·7	− 7·0	− 11·5
Means ...	...	...	2	14	105·83	− 7·70	...

Group 3341.

A single spot, which has greatly diminished by January 2.

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.
1893. d					°	°	°
Dec. 30·444	0	10	0	73	92·7	−14·0	− 87·0
31	No	photo	graph.				
1894.							
Jan. 1	No	photo	graph.				
2·442	0	16	0	11	97·7	−14·9	− 42·5
Means ...	...	...	0	42	95·20	−14·45	...

Group 3342.

A very small faint 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. 2·442	0	2	0	4	224·0	+21·7	+ 83·8
Means ...	...	...	0	4	224·00	+21·70	...

Group 3343.

A number of small spots in a straight stream. *a* and *b*, the first and last spots on January 4, are the largest. *b* diminishes after January 5, and has disappeared by January 10. *a* increases in size until it reaches the W. limb.

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. 2·442	0	15	0	15	85·2	+21·9	− 55·0
3·228	16	77	13	62	83·6	+21·8	− 46·2
4·183	31	130	20	87	83·4	+22·1	− 33·8
5·466	66	313	39	181	84·8	+21·8	− 15·6
6·192	65	299	37	168	84·3	+22·2	− 6·5
7·275	42	240	24	137	86·7	+21·5	+ 10·2
8·217	51	196	30	119	88·1	+21·1	+ 24·0
9·189	44	239	32	174	90·4	+21·0	+ 39·1
10·209	42	196	42	190	92·3	+20·8	+ 54·4
11·532	3	104	6	189	91·3	+21·4	+ 70·8
Means ...	...	...	24	132	87·01	+21·56	...

Group 3343*.

A pair of very small spots *n* of Group 3337 and following Group 3329.

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. 3·228	0	13	0	6	144·9	−10·9	+ 15·1
4·183	0	8	0	4	144·4	− 9·9	+ 27·2
Means ...	...	...	0	5	144·65	−10·40	...

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

Group 3344.

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.
1894. d Jan. 3·228	0	16	0	25	° 57·9	° − 9·1	° − 71·9
Means ...	...	...	0	25	57·9	− 9·1	...

Group 3345.

A large regular spot, *a*, preceded on and after January 5 by a number of small spots in a straight stream. *a* is crossed by a bright bridge on January 4, which eventually divides it into two distinct spots, which are measured separately as *b* and *c* after January 11. The preceding spots also show the same kind of gemination on January 11 and 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.
Jan. 3·228	40	127	114	360	49·4	−13·3	− 80·4
4·183	42	226	55	295	49·5	−13·4	− 67·7
5·466	47	336	37	262	50·6	−14·0	− 49·8
6·192	93	406	62	268	51·0	−13·9	− 39·8
7·275	74	398	42	225	50·2	−14·4	− 26·3
8·217	89	415	47	218	50·2	−14·6	− 13·9
9·189	96	496	49	253	51·3	−14·3	0·0
10·209	91	420	48	221	51·6	−14·6	+ 13·7
11·532	62	368	37	223	52·6	−14·0	+ 32·1
12·467	45	329	33	233	52·7	−14·4	+ 44·6
13·470	33	211	30	190	51·1	−14·3	+ 56·2
14·214	26	169	32	210	51·9	−14·9	+ 66·8
15·410	0	24	0	60	48·9	−14·6	+ 79·5
Means ...	...	...	45	232	50·85	−14·21	...

Group 3346.

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.
Jan. 4·183	0	19	0	9	115·8	+ 8·5	− 1·4
Means ...	...	...	0	9	115·8	+ 8·5	...

Group 3347.

A small faint spot with 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.
Jan. 4·183	3	25	2	13	114·7	− 9·0	− 2·5
Means ...	...	...	2	13	114·7	− 9·0	...

Group 3348.

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.
1894. d Jan. 4·183	2	13	2	10	° 67·0	° −14·1	° − 50·2
Means ...	...	...	2	10	67·00	−14·1	...

Group 3349.

A very small spot on January 5. Two 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. 5·466	0	9	0	5	124·0	+ 4·1	+ 23·6
6·192	0	8	0	5	123·1	+ 3·7	+ 32·3
Means ...	...	..	0	5	123·55	+ 3·90	...

Group 3350.

A regular spot, *a*, which diminishes from day to day. A few small unstable companions are seen from January 7 to January 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.
Jan. 5·466	7	38	30	168	19·4	+25·2	− 81·0
6·192	14	49	29	102	18·1	+25·7	− 72·7
7·275	22	77	25	89	17·6	+25·7	− 58·9
8·217	24	118	21	99	18·1	+25·1	− 46·0
9·189	21	128	14	89	17·6	+25·8	− 33·7
10·209	21	74	13	45	18·3	+25·5	− 19·6
11·532	7	24	4	14	17·8	+25·7	− 2·7
12·467	4	18	2	10	17·8	+25·3	+ 9·7
Means ...	...	...	17	77	18·09	+25·50	...

Group 3351.

A few small spots in an irregular stream. *a*, the leader, is the largest spot after 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. 6·192	10	59	7	45	45·7	+16·7	− 45·1
7·275	20	93	12	58	46·3	+15·8	− 30·2
8·217	15	65	9	36	45·9	+16·2	− 18·2
9·189	1	39	1	22	46·5	+15·8	− 4·8
Means ...	...	...	7	40	46·10	+16·13	...

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

Group 3352.

A large regular stable spot, with a forward movement in longitude.

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.
1894. d					°	°	°
Jan. 9·189	0	68	0	150	334·3	− 1·4	− 77·0
10·209	19	154	21	171	334·5	− 2·0	− 63·4
11·532	30	227	21	162	334·9	− 1·9	− 45·6
12·467	37	216	22	129	335·3	− 2·0	− 32·8
13·470	36	284	19	150	335·4	− 2·0	− 19·5
14·214	56	268	28	135	336·0	− 1·7	− 9·1
15·410	50	288	26	146	336·1	− 1·9	+ 6·7
16·181	48	253	25	133	336·6	− 2·2	+ 17·4
17·182	48	210	28	123	336·9	− 2·2	+ 30·8
18·211	16	175	12	122	337·0	− 2·3	+ 44·5
19·486	13	114	13	119	337·1	− 2·5	+ 61·4
20·450	7	43	12	78	337·1	− 2·3	+ 74·0
Means ...	...	...	19	135	335·93	− 2·03	...

Group 3353.

A very small spot.

Jan. 10·209	1	11	1	7	75·8	− 7·4	+ 37·9
Means ...	...	...	1	7	75·8	− 7·4	...

Group 3354.

One spot on January 10. A large spot, *a*, on January 11, followed by a straight stream of smaller spots. The group increases in size, and *a* becomes a very large composite spot, rather faint for the most part, and with many distinct nuclei distributed through it. The greater portion of *a* is usually measured as a single spot, but its great size and complexity renders it necessary on some occasions to measure it in several instalments. A number of small outliers accompany the principal spot.

Jan. 10·209	10	40	18	76	322·8	−13·0	− 75·1
11·532	45	353	41	332	322·7	−12·9	− 57·8
12·467	87	616	61	434	323·6	−13·0	− 44·5
13·470	89	705	53	421	323·1	−13·4	− 31·8
14·214	174	929	97	509	322·6	−12·2	− 22·5
15·410	281	1804	144	926	322·0	−13·4	− 7·4
16·181	399	2103	203	1063	321·6	−13·6	+ 2·4
17·182	529	2183	277	1142	321·5	−13·4	+ 15·4
18·211	250	2010	143	1148	321·6	−13·4	+ 29·1
19·486	144	1351	104	971	321·5	−13·3	+ 45·8
20·450	68	988	65	952	322·1	−12·8	+ 59·0
21·183	30	569	40	765	322·3	−12·7	+ 68·9
22·213	37	240	121	886	323·0	−12·8	+ 83·2
Means ...	...	...	105	740	322·34	−13·07	...

Group 3355.

A stream of small spots preceding Group 3354. The leader, *a*, is the largest spot. The group rapidly diminishes and dies out.

1894. d					°	°	°
Jan. 11·532	15	103	10	73	336·6	−12·4	− 43·9
12·467	18	120	10	72	337·6	−12·2	− 30·5
13·470	9	35	5	18	337·9	−12·5	− 17·0
14·214	2	47	1	24	337·8	−12·3	− 7·3
15·410	0	30	0	16	336·0	−12·3	+ 6·6
Means ...	...	...	5	41	337·18	−12·34	...

Group 3356.

A large regular spot, *a*, accompanied by a number of small spots in an irregular stream. Some of these spots are very faint. *a* is seen as a notch on the W. limb on January 23.

Jan. 11·532	31	156	52	267	308·9	+12·3	− 71·6
12·467	49	393	50	405	309·0	+12·1	− 59·1
13·470	67	429	50	324	309·1	+11·7	− 45·8
14·214	178	706	116	457	309·1	+11·6	− 36·0
15·410	126	705	71	391	309·1	+11·2	− 20·3
16·181	152	677	79	358	309·5	+11·5	− 9·7
17·182	121	579	65	305	309·7	+11·8	+ 3·6
18·211	100	633	55	348	309·9	+12·4	+ 17·4
19·486	44	320	29	204	309·9	+11·8	+ 34·2
20·450	36	253	28	195	309·7	+11·5	+ 46·6
21·183	41	210	39	200	309·8	+11·4	+ 56·4
22·213	23	126	35	196	309·5	+11·6	+ 69·7
23·203	0	32	0	194	310·9	+11·3	+ 84·1
Means ...	...	...	51	296	309·55	+11·71	...

Group 3357.

A pair of small spots.

Jan. 12·467	10	36	5	20	345·8	+ 7·3	− 22·3
Means ...	...	...	5	20	345·8	+ 7·3	...

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

Group 3358.

A large spot, *a*, with several small companions. *a* diminishes rapidly after January 20, and has disappeared by January 24.

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.
1894. d					°	°	°
Jan. 13·470	9	85	14	130	284·3	+ 3·8	−70·6
14·214	39	192	41	205	283·4	+ 4·1	−61·7
15·410	35	276	26	201	283·4	+ 3·3	−46·0
16·181	39	240	24	150	283·7	+ 4·1	−35·5
17·182	56	276	31	151	283·6	+ 3·6	−22·5
18·211	59	286	30	146	283·7	+ 3·7	− 8·8
19·486	41	234	22	120	283·7	+ 3·8	+ 8·0
20·450	48	247	27	135	283·9	+ 3·8	+20·8
21·183	26	145	15	86	284·4	+ 3·9	+31·0
22·213	20	63	14	45	284·7	+ 4·0	+44·9
23·203	6	31	6	30	285·6	+ 3·7	+58·8
24·187	0	17	0	23	281·6	+ 3·5	+67·8
Means ...	...	...	21	119	283·83	+ 3·78	...

Group 3359.

A few very small spots, irregularly arranged, *n* of Group 3355.

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. 14·214	0	19	0	10	322·3	− 6·9	− 22·8
15·410	4	49	2	25	322·9	− 7·5	− 6·5
Means ...	...	...	1	18	322·60	− 7·20	...

Group 3360.

A large spot, *a*, followed by a number of spots very irregularly arranged. The following spots tend to die out, and as they disappear *a* becomes more regular.

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. 14·214	42	204	94	451	267·4	−14·7	− 77·7
15·410	106	539	114	578	267·0	−15·2	− 62·4
16·181	146	771	123	648	265·6	−14·8	− 53·6
17·182	163	854	106	560	266·2	−14·6	− 39·9
18·211	148	827	84	466	266·6	−14·9	− 25·9
19·486	98	695	50	357	266·7	−14·8	− 9·0
20·450	106	616	55	317	267·5	−15·0	+ 4·4
21·183	116	628	60	326	267·8	−14·6	+ 14·4
22·213	88	453	50	260	268·1	−14·8	+ 28·3
23·203	77	385	52	260	268·4	−15·1	+ 41·6
24·187	78	295	68	256	268·8	−15·2	+ 55·0
25·371	14	182	48	252	267·8	−14·6	+ 69·5
26·542	10	54	45	235	267·8	−15·1	+ 84·9
Means ...	...	...	73	382	267·36	−14·88	...

Group 3361.

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.
1894. d					°	°	°
Jan. 15·410	0	9	0	5	310·4	+19·1	− 19·0
Means ...	...	...	0	5	310·4	+19·1	...

Group 3362.

A group of very small faint ill-defined 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.
Jan. 15·410	0	10	0	5	304·6	− 9·1	− 24·8
Means ...	...	...	0	5	304·6	− 9·1	...

Group 3363.

A large spot, *a*, with a stream of small followers in the *nf* direction. The latter have all disappeared by January 19, but other small companions are occasionally seen.

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. 15·410	32	154	45	219	259·6	− 5·1	− 69·8
16·181	50	254	49	246	259·4	− 4·6	− 59·8
17·182	74	363	54	266	258·8	− 5·2	− 47·3
18·211	77	448	46	263	260·0	− 6·1	− 32·5
19·486	79	463	41	235	260·4	− 6·4	− 15·3
20·450	79	466	40	234	260·3	− 6·1	− 2·8
21·183	90	481	45	243	260·6	− 5·9	+ 7·2
22·213	71	427	38	227	260·5	− 6·0	+ 20·7
23·203	94	388	57	234	261·1	− 6·3	+ 34·3
24·187	77	334	57	247	261·7	− 6·6	+ 47·9
25·371	55	202	60	221	261·4	− 6·2	+ 63·1
26·542	18	74	42	174	261·1	− 6·0	+ 78·2
Means ...	...	...	48	234	260·41	− 5·88	...

Group 3364.

A large regular spot, *a*, with a very small companion on January 22.

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. 15·410	24	127	45	242	254·8	+ 1·6	− 74·6
16·181	51	196	61	236	253·9	+ 2·1	− 65·3
17·182	59	312	49	256	254·1	+ 2·2	− 52·0
18·211	73	379	47	241	254·3	+ 1·9	− 38·2
19·486	90	424	48	228	254·7	+ 1·7	− 21·0

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

Group 3364—*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.
1894. d					°	°	°
Jan. 20·450	55	389	29	199	254·8	+ 1·8	− 8·3
21·183	62	396	31	200	255·0	+ 1·9	+ 1·6
22·213	55	359	28	186	255·1	+ 1·6	+ 15·3
23·203	61	299	35	172	255·5	+ 1·3	+ 28·7
24·187	41	245	28	167	256·2	+ 0·9	+ 42·4
25·371	36	149	34	140	255·8	+ 1·2	+ 57·5
26·542	7	48	12	84	256·2	+ 1·1	+ 73·3
Means ...	...	...	37	196	255·03	+ 1·61	...

Group 3365.

Two small spots.

Jan. 16·181	6	17	7	19	255·1	−16·2	− 64·1
17·182	10	28	8	21	256·2	−15·9	− 49·9
18·211	2	12	1	8	256·7	−16·2	− 35·8
Means ...	...	...	5	16	256·00	−16·10	...

Group 3366.

Two or three small spots irregularly scattered. The group is not seen on January 19.

Jan. 16·181	8	43	18	94	242·4	− 2·3	− 76·8
17·182	6	35	7	39	242·8	− 1·9	− 63·3
18·211	5	29	4	21	244·9	− 2·8	− 47·6
19·486	0	0	0	0	...	...	...
20·450	0	8	0	4	242·9	+ 0·1	− 20·2
Means ...	...	...	6	32	243·25	− 1·73	...

Group 3367.

A large regular spot, *a*. A very small companion is seen on January 20, 23, and 25.

Jan. 17·182	23	122	43	227	231·6	− 2·6	− 74·5
18·211	30	208	30	206	232·6	− 2·8	− 59·9
19·486	59	297	41	198	232·7	− 3·0	− 43·0
20·450	45	314	26	182	233·1	− 3·1	− 30·0
21·183	66	402	35	213	233·4	− 3·2	− 20·0
22·213	78	389	39	195	233·6	− 3·3	− 6·2
23·203	61	406	31	205	234·2	− 3·5	+ 7·4

Group 3367—*continued.*

1894. d					°	°	°
Jan. 24·187	89	357	47	190	234·6	− 3·6	+ 20·8
25·371	61	343	38	214	234·6	− 3·2	+ 36·3
26·542	27	211	22	171	234·9	− 3·3	+ 52·0
27·515	14	115	16	137	235·3	− 3·2	+ 65·3
28·520	6	27	14	69	235·5	− 2·7	+ 78·8
Means ...	...	...	32	184	233·84	− 3·13	...

Group 3368.

A few small spots in an irregular stream.

Jan. 18·211	3	13	2	7	298·9	−16·4	+ 6·4
19·486	15	71	8	38	297·4	−16·5	+ 21·7
20·450	22	71	14	44	298·4	−15·7	+ 35·3
21·183	9	52	7	37	298·5	−16·1	+ 45·1
Means ...	...	...	8	32	298·30	−16·18	...

Group 3369.

Two very small spots on January 19. The following spot has disappeared by January 20.

Jan. 19·486	0	12	0	6	251·8	−17·1	− 23·9
20·450	0	14	0	7	252·3	−16·7	− 10·8
Means ...	...	...	0	7	252·05	−16·90	...

Group 3370.

A small regular spot.

Jan. 19·486	4	14	7	23	202·6	− 9·9	−73·1
20·450	7	19	7	19	202·0	− 9·9	−61·1
21·183	7	36	6	29	201·6	− 9·7	−51·8
22·213	20	40	12	26	201·5	− 9·8	−38·3
23·203	21	46	12	25	202·0	− 9·9	−24·8
24·187	7	25	4	13	202·1	−10·2	−11·7
25·371	0	17	0	8	199·5	− 9·3	+ 1·2
Means ...	...	...	7	20	201·61	− 9·81	...

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

Group 3371.

A few small faint spots on January 20. On January 21 and the succeeding days the group consists of a large spot, *a*, followed by a stream of spots, mostly very small. One of these following spots, *b*, increases in size and has become a large double spot by January 25. The other spots die out.

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.
1894. a					°	°	°
Jan. 20·450	10	107	5	57	259·9	+15·2	− 3·2
21·183	34	300	18	161	261·3	+15·4	+ 7·9
22·213	96	467	56	271	263·5	+15·4	+ 23·7
23·203	104	488	71	327	263·5	+15·3	+ 36·7
24·187	191	676	160	567	263·2	+15·4	+ 49·4
25·371	106	414	133	529	262·3	+15·8	+ 64·0
26·542	0	65	0	226	262·8	+15·7	+ 79·9
Means ...	...	...	63	305	262·36	+15·46	...

Group 3372.

A large spot, *a*, followed by a smaller spot, *b*. Both diminish in size, and *b* has disappeared by January 29. A very small companion is sometimes seen.

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. 21·183	6	33	17	90	173·4	− 6·5	−80·0
22·213	18	133	22	172	172·3	− 6·3	−67·5
23·203	57	240	48	202	172·8	− 6·4	−54·0
24·187	70	297	47	196	172·6	− 6·6	−41·2
25·371	64	283	35	156	172·9	− 6·3	−25·4
26·542	52	210	27	106	173·2	− 7·1	− 9·7
27·515	23	187	11	93	173·1	− 6·6	+ 3·1
28·520	25	205	13	107	173·5	− 7·0	+16·8
29·518	26	177	15	102	174·0	− 7·2	+30·4
30·478	13	115	9	78	174·0	− 7·5	+43·0
31·163	20	105	17	86	174·5	− 7·6	+52·6
Feb. 1·468	9	35	13	49	174·5	− 7·2	+69·7
2·224	6	25	16	63	174·1	− 7·4	+79·3
Means ...	...	...	22	115	173·45	− 6·90	...

Group 3373.

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. 23·203	0	14	0	7	248·4	− 2·4	+21·6
Means ...	...	...	0	7	248·4	− 2·4	...

Group 3374.

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.
1894. a					°	°	°
Jan. 23·203	2	16	1	8	224·2	− 6·1	− 2·6
24·187	4	13	2	6	224·1	− 6·5	+ 10·3
Means ...	...	...	2	7	224·15	− 6·30	...

Group 3375.

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. 23·203	0	6	0	3	216·6	− 8·4	− 10·2
24·187	0	8	0	4	217·0	− 9·0	+ 3·2
Means ...	...	...	0	4	216·80	− 8·70	...

Group 3376.

A few small faint unstable 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.
Jan. 23·203	6	43	4	29	188·0	−16·2	− 38·8
24·187	21	71	12	39	187·8	−15·6	− 26·0
25·371	5	23	3	12	188·4	−15·0	− 9·9
26·542	0	5	0	2	187·5	−15·8	+ 4·6
Means ...	...	...	5	21	187·93	−15·65	...

Group 3377.

Several small spots in a straight stream. The following part of the stream has disappeared by January 30, but has revived again by February 2.

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. 24·187	0	18	0	22	150·8	+16·9	− 63·0
25·371	64	269	53	221	150·4	+16·9	− 47·9
26·542	38	264	26	171	150·5	+16·1	− 32·4
27·515	71	390	40	222	150·2	+16·1	− 19·8
28·520	56	369	30	201	150·2	+16·0	− 6·5
29·518	29	228	16	124	151·2	+16·1	+ 7·6
30·478	25	56	15	33	155·1	+14·7	+ 24·1
31·163	17	70	11	46	155·8	+14·9	+ 33·9
Feb. 1·468	2	15	2	13	157·4	+14·8	+ 52·6
2·224	28	93	29	101	153·6	+16·1	+ 58·8
3·506	0	17	0	30	148·3	+17·5	+ 70·4
Means ...	...	...	20	108	152·14	+16·01	...

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

Group 3378.

A few small spots irregularly arranged.

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.
1894. d					°	°	°
Jan. 25·371	11	69	5	36	209·4	+11·2	+ 11·1
26·542	2	32	1	18	209·2	+10·6	+ 26·3
Means ...	...	...	3	27	209·30	+10·90	...

Group 3379.

A few small spots irregularly scattered on January 25. The group has become a small stream by the succeeding day. The most southerly member of the group, *a*, moves rapidly back in longitude.

Jan. 25·371	27	102	15	56	206·2	−29·5	+ 7·9
26·542	26	143	15	85	205·0	−30·0	+ 22·1
27·515	32	205	21	132	203·1	−30·0	+ 33·1
28·520	23	146	18	111	201·6	−30·0	+ 44·9
29·518	5	86	5	84	201·5	−30·1	+ 57·9
Means ...	...	...	15	94	203·48	−29·92	...

Group 3380.

Two small spots on January 25. The group has greatly increased by the succeeding day, when it consists of a large spot, *a*, with a few small companions. The latter have all disappeared by January 30. *a* moves forward in longitude.

Jan. 25·371	8	32	6	21	155·4	− 7·5	− 42·9
26·542	55	324	30	182	156·3	− 8·6	− 26·6
27·515	53	239	27	122	157·8	− 8·3	− 12·2
28·520	32	285	16	142	158·9	− 8·6	+ 2·2
29·518	30	258	15	133	159·1	− 8·5	+ 15·5
30·478	16	172	9	99	159·7	− 8·7	+ 28·7
31·163	28	158	18	101	160·0	− 8·6	+ 38·1
Feb. 1·468	10	64	9	56	160·4	− 8·2	+ 55·6
2·224	18	62	21	73	160·3	− 8·4	+ 65·5
3·506	0	14	0	45	160·0	− 8·6	+ 82·1
Means ...	...	...	15	97	158·79	− 8·40	...

Group 3381.

A few spots, mostly small, in an irregular stream, *ef* of Group 3377. *a*, the leader, is the largest, and alone remains by January 30.

1894. d					°	°	°
Jan. 25·371	24	72	21	63	146·0	+10·7	− 52·3
26·542	24	121	16	80	145·3	+10·3	− 37·6
27·515	36	161	21	92	145·4	+10·9	− 24·6
28·520	18	86	9	45	146·1	+10·8	− 10·6
29·518	10	62	6	32	145·9	+10·9	+ 2·3
30·478	0	17	0	9	147·8	+11·0	+ 16·8
31·163	0	6	0	4	148·0	+11·0	+ 26·1
Means ...	...	...	10	46	146·36	+10·80	...

Group 3382.

Two very small spots.

Jan. 29·518	5	21	2	10	132·4	−12·8	− 11·2
Means ...	...	...	2	10	132·4	−12·8	...

Group 3383.

A small spot.

Jan. 29·518	0	8	0	11	75·2	+11·6	− 68·4
Means ...	...	...	0	11	75·2	+11·6	...

Group 3384.

A small spot preceding Group 3377.

Jan. 30·478	2	16	1	10	164·3	+14·8	+ 33·3
Means ...	...	...	1	10	164·3	+14·8	...

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

Group 3385.

Three small spots on January 30. The group has considerably increased in size by the succeeding days and has become a straggling stream. The leader, *a*, has become a large spot by February 3 connected with *b*, also a fairly large spot, by parallel streams of small spots. *a* alone remains by February 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.
1894. a					°	°	°
Jan. 30·478	4	38	4	42	68·0	−18·4	−63·0
31·163	27	128	22	105	69·4	−18·7	−52·5
Feb. 1·468	14	168	8	101	73·4	−18·6	−31·4
2·224	84	468	45	256	73·7	−18·8	−21·1
3·506	140	756	71	386	73·9	−18·3	− 4·0
4·445	163	963	84	497	73·6	−18·3	+ 8·0
5·298	226	979	124	535	73·6	−18·5	+19·2
6·213	113	647	68	391	74·6	−18·0	+32·3
7·228	113	608	81	441	75·0	−18·0	+46·0
8·471	46	313	49	327	74·4	−17·9	+61·8
9·478	20	156	39	298	75·5	−17·8	+76·0
10·203	0	40	0	291	78·1	−17·7	+88·3
Means ...	...	...	50	306	73·60	−18·25	...

Group 3386.

A few small spots, mostly unstable, in an irregular group. *a*, the leader, has disappeared by February 4.

Feb. 1·468	5	68	3	42	136·7	+ 4·1	+ 31·9
2·224	6	27	4	19	139·0	+ 4·7	+ 44·2
3·506	11	83	11	86	138·2	+ 3·7	+ 60·3
4·445	0	71	0	121	138·0	+ 3·1	+ 72·4
5·298	9	47	63	345	141·1	+ 2·9	+ 86·7
Means ...	...	...	16	123	138·60	+ 3·70	...

Group 3387.

February 2–8. A few small unstable spots, irregularly scattered.

Feb. 2·224	13	35	7	19	78·6	+10·6	− 16·2
3·506	32	124	17	66	80·8	+12·4	+ 2·9
4·445	6	133	3	72	81·0	+12·5	+ 15·4
5·298	6	59	4	36	82·5	+12·2	+ 28·1
6·213	3	58	2	42	83·5	+13·1	+ 41·2
7·228	11	42	11	40	83·7	+12·9	+ 54·7
8·471	0	12	0	23	85·3	+13·5	+ 72·7
Means ...	...	...	6	43	82·20	+12·46	...

Group 3388.

Three very small spots following Group 3385.

1894. a					°	°	°
Feb. 2·224	7	26	4	17	55·4	−17·8	− 39·4
Means ...	...	...	4	17	55·4	−17·8	...

Group 3389.

A large regular spot, *a*, with a very small companion on February 8. *a* diminishes rapidly after February 7.

Feb. 2·224	17	53	35	111	21·0	+15·3	− 73·8
3·506	16	133	16	135	21·0	+15·1	− 56·9
4·445	34	186	26	144	20·8	+15·1	− 44·8
5·298	36	216	24	141	20·6	+15·6	− 33·8
6·213	45	210	26	123	20·5	+15·4	− 21·8
7·228	32	236	18	129	20·4	+15·0	− 8·6
8·471	32	108	17	59	20·5	+15·5	+ 7·9
9·478	6	22	4	13	20·7	+15·4	+ 21·2
10·203	3	17	2	11	20·6	+15·4	+ 30·8
Means ...	...	...	19	96	20·68	+15·31	...

Group 3390.

A few very small unstable spots which undergo constant change in number, position and distinctness.

Feb. 4·445	0	13	0	46	345·2	+12·5	− 80·4
5·298	4	20	6	27	348·6	+13·0	− 65·8
6·213	0	52	0	57	342·6	+12·0	− 59·7
7·228	7	39	5	30	345·1	+12·1	− 43·9
8·471	0	25	0	16	344·1	+12·0	− 28·5
Means ...	...	...	2	35	345·12	+12·32	...

Group 3391.

A number of small unstable spots in a V-shaped stream. The leader, *a*, tends to diminish in size.

Feb. 5·298	26	85	20	69	6·2	+14·8	− 48·2
6·213	22	184	15	122	6·9	+14·5	− 35·4
7·228	43	145	26	85	6·9	+14·2	− 22·1
8·471	28	149	14	80	5·9	+13·8	− 6·7
9·478	30	125	17	68	8·4	+13·9	+ 8·9
10·203	22	91	12	51	9·4	+14·0	+ 19·6
11·191	6	33	4	21	10·1	+14·3	+ 33·3
12·526	5	24	4	20	7·8	+14·1	+ 48·6
13·539	2	11	3	15	10·0	+14·1	+ 64·1
Means ...	...	...	13	59	7·96	+14·19	...

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

Group 3392.

A number of spots, several of which are of considerable size, very irregularly scattered. Many of the spots are very unstable. The largest spot, *a*, alone remains on February 14, the other spots having spread out from each other, and diminished and disappeared as they spread.

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.
1894. d					°	°	°
Feb. 5·298	4	21	13	64	332·9	−10·7	− 81·5
6·213	25	284	35	479	328·7	−10·4	− 73·6
7·228	78	467	72	428	331·7	−10·2	− 57·3
8·471	70	612	46	404	332·1	−10·0	− 40·5
9·478	33	235	19	133	332·5	−10·4	− 27·0
10·203	32	322	17	170	332·4	− 9·8	− 17·4
11·191	41	199	20	99	332·9	−10·8	− 3·9
12·526	23	206	12	107	333·9	−10·4	+ 14·7
13·539	16	105	9	60	334·8	−10·5	+ 28·9
14·288	14	61	9	39	335·6	−10·0	+ 39·6
15·232	9	41	7	32	335·4	−10·3	+ 51·9
16·221	0	5	0	6	335·6	−10·3	+ 65·1
Means ...	...	...	22	168	333·21	−10·32	...

Group 3393.

A few small unstable spots *nf* Group 3385.

Feb. 6·213	0	12	0	7	62·2	−13·2	+ 19·9
7·228	13	93	8	57	63·2	−14·5	+ 34·2
8·471	0	32	0	25	62·1	−14·4	+ 49·5
Means ...	...	...	3	30	62·50	−14·03	...

Group 3394.

A regular spot, *a*, with a very small companion on February 10. *a* has become small and faint by February 13.

Feb. 6·213	2	36	5	88	323·0	−15·3	− 79·3
7·228	13	73	16	87	323·2	−15·6	− 65·8
8·471	20	98	15	76	322·8	−15·8	− 49·8
9·478	22	91	14	57	322·4	−16·0	− 37·1
10·203	14	129	8	74	322·3	−15·8	− 27·5
11·191	19	99	10	52	322·3	−16·1	− 14·5
12·526	11	33	6	17	322·6	−15·8	+ 3·4
13·539	0	27	0	14	319·8	−14·4	+ 13·9
Means ...	...	...	9	58	322·30	−15·60	...

Group 3395.

A few small faint spots.

1894. d					°	°	°
Feb. 7·228	2	31	2	26	341·4	+19·3	− 47·6
8·471	0	16	0	11	339·0	+18·4	− 33·6
Means ...	...	...	1	19	340·20	+18·85	...

Group 3396.

A regular spot, *a*, followed on February 9 by two smaller spots, *b* and *c*. *b* has disappeared by February 13, but it is seen again on February 14. *c* is not seen after February 13. A few irregular unstable spots are sometimes seen, but *a* remains alone by February 16.

Feb. 7·228	6	39	18	111	310·7	+10·8	− 78·3
8·471	12	87	14	103	309·8	+11·1	− 62·8
9·478	39	171	36	153	306·3	+11·4	− 53·2
10·203	65	289	50	215	305·7	+11·5	− 44·1
11·191	38	246	24	151	307·5	+11·2	− 29·3
12·526	65	281	35	151	309·0	+11·1	− 10·2
13·539	67	306	35	160	309·7	+11·3	+ 3·8
14·288	64	255	35	141	310·1	+11·5	+ 14·1
15·232	26	179	15	105	309·4	+11·1	+ 25·9
16·221	21	100	14	68	309·2	+11·0	+ 38·7
17·177	32	83	27	71	309·5	+10·8	+ 51·5
18·522	13	47	18	68	308·1	+10·4	+ 67·9
19·446	0	6	0	24	309·4	+10·5	+ 81·3
Means ...	...	...	25	117	308·80	+11·05	...

Group 3397.

A small spot, *a*, *s* of Group 3396, with two very small companions on February 12.

Feb. 8·471	0	9	0	15	300·8	+ 4·4	− 71·8
9·478	4	14	4	14	302·0	+ 4·6	− 57·5
10·203	5	18	4	14	302·6	+ 5·0	− 47·2
11·191	5	14	3	9	303·6	+ 4·6	− 33·2
12·526	0	26	0	14	302·1	+ 3·5	− 17·1
13·539	0	11	0	6	303·2	+ 4·4	− 2·7
Means ...	...	...	2	12	302·38	+ 4·42	...

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

Group 3398.

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.
1894. d					°	°	°
Feb. 8·471	0	9	0	15	299·3	− 5·0	− 73·3
9·478	2	8	2	8	300·2	− 5·2	− 59·3
Means ...	...	...	1	12	299·75	− 5·10	...

Group 3399.

A small spot, preceded on February 10–12 by a few very small spots in an irregular stream.

Feb. 9·478	2	8	1	6	317·4	−22·9	− 42·1
10·203	16	62	9	37	318·1	−22·6	− 31·7
11·191	13	73	7	40	318·3	−22·9	− 18·5
12·526	2	19	1	11	319·3	−22·6	+ 0·1
13·539	0	14	0	7	316·0	−23·4	+ 10·1
Means ...	...	...	4	20	317·82	−22·88	...

Group 3400.

A few small spots in a short stream. The leader, *a*, alone remains by February 13.

Feb. 10·203	28	90	16	50	343·4	+19·0	− 6·4
11·191	22	64	12	36	343·5	+18·5	+ 6·7
12·526	9	40	6	25	345·9	+18·1	+ 26·7
13·539	7	25	5	19	346·2	+18·4	+ 40·3
14·288	0	4	0	4	346·7	+18·7	+ 50·7
Means ...	...	...	8	27	345·14	+18·54	...

Group 3401.

A large regular spot, *a*, with a very small companion on February 17.

Feb. 10·203	14	59	48	202	266·9	−14·1	− 82·9
11·191	29	131	39	178	267·6	−14·6	− 69·2
12·526	37	216	29	172	268·0	−14·4	− 51·2
13·539	29	243	18	155	268·0	−14·5	− 37·9

Group 3401—*continued.*

1894. d					°	°	°
Feb. 14·288	57	256	32	146	267·6	−14·4	− 28·4
15·232	40	267	21	139	267·2	−14·3	− 16·3
16·221	38	255	19	129	267·6	−14·5	− 2·9
17·177	57	284	29	145	268·0	−14·8	+ 10·0
18·522	47	216	27	123	267·2	−14·9	+ 27·0
19·446	27	154	17	100	267·6	−15·0	+ 39·5
20·454	18	106	15	87	267·3	−14·9	+ 52·5
21·417	13	72	15	82	267·1	−15·0	+ 65·0
22·518	0	6	0	15	267·7	−14·6	+ 80·1
Means ...	...	...	24	129	267·52	−14·62	...

Group 3402.

A large regular spot, *a*, with very small companions on February 13, 16, and 17.

Feb. 11·191	25	122	46	226	265·4	+16·8	− 71·4
12·526	39	213	37	205	264·9	+16·5	− 54·3
13·539	53	279	39	204	265·2	+16·3	− 40·7
14·288	65	327	42	210	265·1	+16·8	− 30·9
15·232	52	393	30	227	265·0	+16·6	− 18·5
16·221	67	375	36	205	265·6	+16·7	− 4·9
17·177	66	350	37	194	266·0	+16·8	+ 8·0
18·522	37	242	22	148	265·5	+17·1	+ 25·3
19·446	42	236	29	165	265·6	+17·3	+ 37·5
20·454	31	201	27	178	265·4	+17·3	+ 50·6
21·417	21	108	27	138	265·2	+17·5	+ 63·1
22·518	6	69	20	225	266·1	+17·6	+ 78·5
Means ...	...	...	33	194	265·42	+16·94	...

Group 3403.

A short stream of spots *nf* Group 3400, inclined at a large angle to the equator. The last spot, *a*, is the largest.

Feb. 12·526	5	34	3	21	340·3	+22·2	+ 21·1
13·539	32	150	23	106	339·7	+22·8	+ 33·8
14·288	16	76	14	62	339·9	+23·1	+ 43·9
Means ...	...	...	13	63	339·97	+22·70	...

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

Group 3404.

Several spots, mostly very small, forming a straight stream on February 14. The spots tend to coalesce on the succeeding days, and the group undergoes much change.

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.
1894. d					°	°	°
Feb. 12·526	27	147	13	73	314·5	− 8·2	− 4·7
13·539	49	200	25	101	314·3	− 7·5	+ 8·4
14·288	22	89	11	48	314·5	− 7·6	+ 18·5
15·232	27	95	15	55	314·3	− 7·5	+ 30·8
16·221	5	45	4	31	314·4	− 8·3	+ 43·9
17·177	14	88	13	87	317·5	− 7·5	+ 59·5
18·522	0	34	0	70	316·6	− 7·4	+ 76·4
Means ...	...	...	12	66	315·16	− 7·71	...

Group 3405.

Two very small spots.

Feb. 13·539	4	18	3	12	343·9	+ 9·6	+ 38·0
Means ...	...	...	3	12	343·9	+ 9·6	...

Group 3406.

A small faint spot.

Feb. 13·539	0	19	0	13	264·7	− 6·3	− 41·2
14·288	0	21	0	13	264·7	− 5·5	− 31·3
15·232	0	6	0	3	265·3	− 4·9	− 18·2
Means ...	...	...	0	10	264·90	− 5·57	...

Group 3407.

A small spot on February 14. Two spots, *a* and *b*, are seen on February 15, and these are united by a stream of very small spots on the succeeding days. *a* is greatly elongated on February 17, and is measured in two parts. Only *a* remains on February 21.

Feb. 14·288	0	9	0	10	233·6	+ 11·6	− 62·4
15·232	30	93	25	78	233·2	+ 12·0	− 50·3
16·221	30	197	20	129	234·7	+ 12·0	− 35·8
17·177	54	178	31	103	235·6	+ 12·1	− 22·4
18·522	25	189	13	100	236·7	+ 11·8	− 3·5
19·446	28	202	16	107	236·5	+ 12·4	+ 8·4
20·454	16	81	9	47	237·7	+ 11·9	+ 22·9
21·417	16	36	11	24	239·2	+ 11·8	+ 37·1
22·518	0	14	0	12	239·4	+ 11·8	+ 51·8
Means ...	...	...	14	68	236·29	+ 11·93	...

Group 3408.

A very large composite spot on February 15, which breaks up on the succeeding days into a great number of spots mostly unstable and very small.

1894. d					°	°	°
Feb. 15·232	20	170	52	450	202·1	− 27·5	− 81·4
16·221	46	289	61	385	201·8	− 27·5	− 68·7
17·177	96	452	89	421	201·2	− 27·4	− 56·8
18·522	46	444	32	301	201·6	− 27·8	− 38·6
19·446	99	589	58	351	200·9	− 27·2	− 27·2
20·454	70	366	39	200	201·5	− 26·7	− 13·3
21·417	81	289	43	153	201·0	− 25·9	− 1·1
22·518	25	173	14	94	200·4	− 25·6	+ 12·8
23·210	19	94	12	53	200·3	− 26·4	+ 21·8
24·504	7	57	5	39	200·7	− 25·1	+ 39·3
25·197	2	57	2	43	199·8	− 25·1	+ 47·5
26·224	7	30	7	31	199·7	− 25·4	+ 61·0
Means ...	...	...	35	210	200·92	− 26·47	...

Group 3409.

A small spot.

Feb. 16·221	4	19	3	15	322·8	− 18·7	+ 52·3
17·177	0	6	0	8	324·8	− 19·2	+ 66·8
Means ...	...	...	2	12	323·80	− 18·95	...

Group 3410.

A very small spot.

Feb. 16·221	3	15	2	8	293·3	− 8·5	+ 22·8
Means ...	...	...	2	8	293·3	− 8·5	...

Group 3411.

A very small spot.

Feb. 16·221	4	12	3	8	232·8	− 15·4	− 37·7
Means ...	...	...	3	8	232·8	− 15·4	...

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

Group 3412.

A very large composite spot, *a*, with a few very small companions. The components of *a* are measured separately on and after February 24.

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.
1894. d					°	°	°
Feb. 16·221	73	340	179	835	189·8	−32·5	−80·7
17·177	300	906	407	1232	189·3	−32·8	−68·7
18·522	306	1713	259	1451	189·4	−32·9	−50·8
19·446	372	2252	260	1574	188·9	−32·3	−39·2
20·454	315	2520	193	1547	188·2	−32·1	−26·6
21·417	363	3038	208	1742	187·5	−32·4	−14·6
22·518	378	2787	209	1541	188·0	−31·9	+ 0·4
23·210	493	2263	277	1275	187·5	−31·8	+ 9·0
24·504	372	2133	224	1292	186·4	−31·9	+25·0
25·197	335	1799	218	1177	185·6	−31·9	+33·3
26·224	200	1303	154	1012	184·9	−31·6	+46·2
27·535	95	697	103	768	184·2	−31·5	+62·7
28·217	66	483	96	718	183·7	−31·5	+71·2
Mar. 1·226	37	249	110	753	182·5	−31·4	+83·3
Means ...	...	...	207	1208	186·85	−32·04	...

Group 3413.

A large regular spot, *a*, with one or two very small companions on February 21, 26, 28, and March 1.

Feb. 18·522	2	42	9	162	154·8	−26·8	− 85·4
19·446	24	118	40	199	153·9	−25·9	− 74·2
20·454	45	249	47	261	153·0	−25·8	− 61·8
21·417	41	299	32	236	152·6	−25·7	− 49·5
22·518	56	394	36	251	152·7	−25·8	− 34·9
23·210	76	366	45	214	152·7	−25·8	− 25·8
24·504	71	381	38	204	152·4	−25·9	− 9·0
25·197	60	390	32	206	152·4	−25·7	+ 0·1
26·224	74	400	40	217	152·3	−25·6	+ 13·6
27·535	55	297	33	180	152·0	−25·9	+ 30·5
28·217	69	270	46	182	151·6	−26·3	+ 39·1
Mar. 1·226	49	268	41	223	151·1	−26·2	+ 51·9
2·508	19	151	24	191	150·0	−26·0	+ 67·6
3·490	7	65	15	143	148·4	−25·7	+ 79·0
Means ...	...	...	34	205	152·14	−25·94	...

Group 3414.

A small spot on February 19; a few small spots in a short stream on February 20. *a*, the leader, moves forward in longitude, and increases in size on the succeeding days.

Feb. 19·446	0	22	0	13	260·8	− 4·1	+ 32·7
20·454	17	81	12	56	258·7	− 5·0	+ 43·9
21·417	27	129	25	124	261·1	− 4·4	+ 59·0
22·518	19	87	42	174	263·6	− 3·9	+ 76·0
Means ...	...	...	20	92	261·05	− 4·35	...

Group 3415.

A small spot.

1893. d					°	°	°
Feb. 19·446	0	15	0	23	156·2	−16·2	− 71·9
20·454	3	14	2	13	156·1	−16·6	− 58·7
21·417	0	10	0	7	155·9	−16·6	− 46·2
Means ...	...	...	1	14	156·07	−16·47	...

Group 3416.

A regular spot, *a*, which diminishes in area from day to day. One or two very small companions are occasionally seen near it.

Feb. 19·446	8	42	18	96	151·2	+ 3·8	− 76·9
20·454	14	73	16	85	151·0	+ 3·8	− 63·8
21·417	22	113	18	93	150·8	+ 3·6	− 51·3
22·518	29	137	18	87	151·1	+ 3·5	− 36·5
23·210	33	155	19	90	151·0	+ 3·7	− 27·5
24·504	27	172	14	89	151·5	+ 4·0	− 9·9
25·197	25	135	13	70	151·2	+ 3·7	− 1·1
26·224	26	124	14	65	152·1	+ 4·1	+ 13·4
27·535	13	35	8	21	152·4	+ 3·9	+ 30·9
28·217	2	4	1	3	152·6	+ 4·3	+ 40·1
Means ...	...	...	14	70	151·49	+ 3·84	...

Group 3417.

A regular spot, *a*, with occasionally one or two small companions. *a*, has divided longitudinally into two spots, *b* and *c*, by February 28. *c* alone is seen on March 3.

Feb. 19·446	9	55	34	209	143·7	−16·5	− 84·4
20·454	23	134	35	203	142·9	−16·5	− 71·9
21·417	38	215	37	209	142·5	−16·7	− 59·6
22·518	47	262	33	187	142·0	−16·4	− 45·6
23·210	53	295	33	185	142·1	−16·1	− 36·4
24·504	48	357	26	189	142·7	−16·1	− 18·7
25·197	52	283	27	147	142·3	−15·7	− 10·0
26·224	59	355	30	181	142·7	−15·6	+ 4·0
27·535	32	312	17	167	142·9	−15·7	+ 21·4
28·217	43	226	25	134	143·0	−15·4	+ 30·5
Mar. 1·226	36	180	25	125	143·0	−15·2	+ 43·8
2·508	15	59	14	57	142·2	−14·8	+ 59·8
3·490	0	6	0	9	141·7	−15·3	+ 72·3
Means ...	...	...	26	154	142·59	−15·85	...

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

Group 3418.

A few small spots, irregularly arranged, between Groups 3408 and 3412.

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.
1894. d					°	°	°
Feb. 20·454	0	31	0	18	194·9	−27·8	− 19·9
21·417	2	18	1	10	194·5	−27·7	− 7·6
22·518	0	26	0	14	193·5	−28·1	+ 5·9
23·210	0	2	0	1	193·5	−27·7	+ 15·0
24·504	0	2	0	1	193·7	−27·6	+ 32·3
Means ...	...	...	0	9	194·02	−27·78	...

Group 3419.

A very small spot.

Feb. 20·454	0	8	0	5	178·4	− 8·8	− 36·4
Means ...	...	...	0	5	178·4	− 8·8	...

Group 3420.

A very small spot, *a*, on February 20. A number of other small spots, of which *b* is the principal, appear on the succeeding days, forming an irregular curved stream. The group undergoes considerable change from February 23 to February 25. *a* moves forward in longitude, and both *a* and *b* increase in size and become regular. *b* alone remains on March 1.

Feb. 20·454	3	9	2	6	173·0	−16·0	− 41·8
21·417	10	45	6	26	173·6	−15·9	− 28·5
22·518	54	207	29	107	173·2	−16·0	− 14·4
23·210	72	241	36	123	174·5	−15·7	− 4·0
24·504	96	561	49	289	173·1	−15·8	+ 11·7
25·197	56	400	30	218	173·3	−15·9	+ 21·0
26·224	57	243	36	152	175·2	−15·4	+ 36·5
27·535	42	196	35	162	176·0	−15·4	+ 54·5
28·217	19	69	20	75	175·9	−15·5	+ 63·4
Mar. 1·226	0	8	0	14	173·3	−15·0	+ 74·1
Means ...	...	...	24	117	174·11	−15·66	...

Group 3421.

A very small spot.

Feb. 20·454	0	6	0	5	161·5	−13·8	−53·3
Means ...	...	...	0	5	161·5	−13·8	...

Group 3422.

Two very small spots on February 24. Only one is seen on February 25.

1894. d					°	°	°
Feb. 24·504	0	14	0	7	169·6	+ 4·0	+ 8·2
25·197	0	9	0	5	170·2	+ 5·0	+ 17·9
Means ...	...	...	0	6	169·90	+ 4·50	...

Group 3423.

A very small spot.

Feb. 24·504	1	9	1	5	155·5	−15·9	− 5·9
Means ...	...	...	1	5	155·5	−15·9	...

Group 3424.

A small regular spot, *a*, with, until February 27, a small companion. The group moves forward rapidly in longitude.

Feb. 24·504	3	20	4	28	92·3	−10·5	− 69·1
25·197	7	56	7	54	93·0	−10·1	− 59·3
26·224	12	29	9	20	94·7	−10·2	− 44·0
27·535	7	16	4	9	97·4	−11·1	− 24·1
28·217	10	17	5	9	98·0	−10·9	− 14·5
Mar. 1·226	9	21	5	11	98·7	−10·6	− 0·5
2·508	6	16	3	8	99·4	−10·0	+ 17·0
3·490	0	7	0	4	99·6	− 9·7	+ 30·2
Means ...	...	...	5	18	96·64	−10·39	...

Group 3425.

A very small spot.

Feb. 26·224	4	7	2	4	163·4	−16·4	+ 24·7
Means ...	...	...	2	4	163·4	−16·4	...

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 3426. A few very small faint spots irregularly scattered.							
1894. d Feb. 26·224	0	16	0	8	° 142·4	° + 6·0	° + 3·7
Means ...	...	...	0	8	142·4	+ 6·0	...
Group 3427. One very small spot.							
Feb. 26·224	0	6	0	7	75·6	+19·2	− 63·1
Means ...	...	...	0	7	75·6	+19·2	...
Group 3428. A few small and very unstable spots irregularly scattered. The group is not seen on March 2.							
Feb. 27·535	20	79	10	43	125·4	−26·9	+ 3·9
28·217	8	33	5	18	127·1	−25·4	+ 14·6
Mar. 1·226	0	6	0	4	126·5	−28·5	+ 27·3
2·508	0	0	0	0	...	...	...
3·490	4	28	4	26	126·1	−24·5	+ 56·7
4·509	0	5	0	7	129·1	−24·1	+ 73·1
Means ...	...	...	3	16	126·84	−25·88	...
Group 3428*. Two very small spots.							
Feb. 27·535	2	16	1	10	86·6	−18·4	− 34·9
Means ...	...	...	1	10	86·6	−18·4	...
Group 3429. A few spots, mostly small, in an irregular stream. The first and last spots, *a* and *b*, are the largest. *a* alone remains on March 4.							
1894. d Feb. 28·217	13	26	7	13	° 101·9	° −18·8	° − 10·6
Mar. 1·226	52	143	28	73	102·5	−18·8	+ 3·3
2·508	29	138	16	75	103·9	−18·9	+ 21·5
3·490	11	69	7	42	104·2	−19·3	+ 34·8
4·509	7	27	5	20	105·8	−19·3	+ 49·8
5·491	3	11	3	12	106·0	−19·2	+ 62·9
Means ...	...	...	11	39	104·05	−19·05	...
Group 3430. Two very small spots.							
Mar. 1·226	0	22	0	11	85·2	−16·6	− 14·0
Means ...	...	...	0	11	85·2	−16·6	...
Group 3431. A small spot.							
Mar. 2·508	4	23	2	12	72·7	−19·0	− 9·7
Means ...	...	...	2	12	72·7	−19·0	...
Group 3432. A few very faint small spots on March 4, which expand into a well-defined stream on the succeeding days. The leader, *a*, moves forward rapidly in longitude and increases in size, becoming a large elongated spot. It has divided longitudinally by March 9 into two portions, *b* and *c*. Only *b* remains by March 11.							
Mar. 4·509	3	43	3	35	5·6	+ 6·9	− 50·4
5·491	23	118	15	76	6·8	+ 7·1	− 36·3
6·497	85	329	48	185	7·9	+ 7·4	− 21·9
7·543	112	537	59	283	8·6	+ 7·6	− 7·4
8·315	157	485	80	252	8·8	+ 7·8	+ 2·9
9·286	93	392	50	212	10·1	+ 7·1	+ 17·0
10·235	53	190	32	115	11·9	+ 6·4	+ 31·3
11·532	9	68	7	55	13·0	+ 6·0	+ 49·5
12·523	0	14	0	16	13·4	+ 6·4	+ 63·0
Means ...	...	...	33	137	9·57	+ 6·97	...

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

Group 3433.

A few spots, mostly very small, faint and unstable, in a short straight stream. A little cluster, *sp* the main stream, and seen only on March 6, is included in the group.

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.
1894. d					°	°	°
Mar. 5·491	17	63	12	48	354·6	−22·7	− 48·5
6·497	9	104	6	64	356·5	−22·2	− 33·3
7·543	2	33	1	18	356·6	−21·6	− 19·4
8·315	11	58	6	31	356·4	−21·2	− 9·5
9·286	2	36	1	19	357·2	−21·1	+ 4·1
10·235	1	26	1	13	356·1	−21·1	+ 15·5
Means ...	...	...	5	32	356·23	−21·65	...

Group 3434.

A small spot.

Mar. 5·491	0	14	0	16	339·2	− 8·9	− 63·9
Means ...	...	...	0	16	339·2	− 8·9	...

Group 3435.

A small spot.

Mar. 5·491	0	9	0	20	324·5	−18·7	− 78·6
Means ...	...	...	0	20	324·5	−18·7	...

Group 3436.

A very small faint spot, *a*, on March 6. Several similar spots have formed, preceding *a*, by March 7.

Mar. 6·497	4	14	2	7	23·7	− 8·9	− 6·1
7·543	4	30	2	16	25·9	− 8·9	+ 9·9
Means ...	...	...	2	12	24·8	− 8·9	...

Group 3437.

A somewhat small regular spot, *a*, with one or more small companions until March 11, when *a* remains alone.

1894. d					°	°	°
Mar. 6·497	15	31	13	27	334·3	−17·2	− 55·5
7·543	23	106	16	71	335·7	−17·3	− 40·3
8·315	33	85	20	50	336·3	−17·9	− 29·6
9·286	25	57	13	30	337·5	−18·0	− 15·6
10·235	28	79	14	40	337·6	−17·8	− 3·0
11·532	7	19	4	10	337·9	−17·8	+ 14·4
12·523	0	15	0	9	337·9	−17·5	+ 27·5
13·490	2	9	2	6	337·4	−17·4	+ 39·8
Means ...	...	...	10	30	336·83	−17·61	...

Group 3438.

A regular spot, *a*, with some faint irregular extensions. *a* increases rapidly in size, and has two distinct nuclei by March 10, which have become separate spots, *c* and *d*, by March 14. A spot, *b*, is seen preceding *a* on March 10, but has disappeared by March 16.

Mar. 6·497	0	4	0	29	306·1	+15·9	− 83·7
7·543	10	54	15	80	308·9	+15·0	− 67·1
8·315	14	94	15	100	307·7	+15·5	− 58·2
9·286	46	197	36	154	308·2	+15·6	− 44·9
10·235	91	445	58	286	308·8	+15·3	− 31·8
11·532	142	966	80	539	309·6	+14·9	− 13·9
12·523	137	805	75	437	309·3	+15·1	− 1·1
13·490	137	727	76	404	308·8	+15·4	+ 11·2
14·531	130	679	78	408	309·0	+15·2	+ 25·0
15·180	113	485	76	320	309·4	+15·2	+ 34·0
16·439	46	282	41	245	309·0	+15·1	+ 50·2
17·432	48	157	61	196	308·8	+15·2	+ 63·1
18·541	0	59	0	170	308·7	+15·1	+ 77·6
Means ...	...	...	47	259	308·64	+15·27	...

Group 3439.

A very small spot on March 7, not seen on March 8. A fresh outbreak has occurred by March 9, and a number of small spots are seen in an irregular stream. *a*, the leader on March 10, is the largest.

Mar. 7·543	0	14	0	11	323·9	− 4·7	− 52·1
8·315	0	0	0	0	...	...	...
9·286	23	103	12	56	326·0	− 4·4	− 27·1
10·235	76	217	39	110	327·9	− 4·2	− 12·7
11·532	48	367	25	186	328·8	− 4·4	+ 5·3

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

Group 3439—*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.
1894. a					°	°	°
Mar. 12·523	19	227	10	121	328·5	− 4·3	+ 18·1
13·490	20	172	12	102	329·2	− 4·1	+ 31·6
14·531	40	228	28	159	328·5	− 4·4	+ 44·5
15·180	15	82	14	73	331·2	− 4·8	+ 55·8
16·439	0	46	0	66	328·7	− 4·3	+ 69·9
Means ...	...	...	14	88	328·08	− 4·40	...

Group 3440.

A very small spot.

Mar. 8·315	0	11	0	6	345·9	−23·3	− 20·0
Means ...	...	...	0	6	345·9	−23·3	...

Group 3441.

A small spot.

Mar. 8·315	0	15	0	12	334·8	−11·3	− 31·1
Means ...	...	...	0	12	334·8	−11·3	...

Group 3442.

A large regular spot, *a*, with a small companion on March 11, 13, and 17.

Mar. 10·235	27	109	42	170	268·9	− 3·9	− 71·7
11·532	30	203	26	173	269·3	− 4·3	− 54·2
12·523	30	197	20	130	269·9	− 4·3	− 40·5
13·490	38	221	22	125	269·9	− 4·2	− 27·7
14·531	34	240	17	124	270·4	− 4·1	− 13·6
15·180	42	216	21	109	270·7	− 4·3	− 4·7
16·439	28	193	14	99	270·8	− 4·5	+ 12·0
17·432	25	146	14	82	270·9	− 4·5	+ 25·2
18·541	10	66	7	43	271·0	− 4·7	+ 39·9
19·307	27	89	22	71	271·7	− 4·9	+ 50·8
20·213	12	45	13	49	272·0	− 5·2	+ 63·0
21·419	2	13	4	32	271·8	− 4·7	+ 78·7
Means ...	...	...	19	101	270·61	− 4·47	...

Group 3443.

A regular spot, *a*, with a small companion on March 16.

1894. a					°	°	°
Mar. 10·235	4	36	11	90	264·8	+16·7	− 75·8
11·532	14	65	15	71	264·6	+16·2	− 58·9
12·523	12	57	10	46	264·2	+16·5	− 46·2
13·490	17	75	11	50	263·6	+16·8	− 34·0
14·531	24	123	14	73	263·5	+16·9	− 20·5
15·180	17	131	10	74	263·6	+17·2	− 11·8
16·439	20	112	11	61	263·6	+17·3	+ 4·8
17·432	21	103	12	59	263·2	+16·8	+ 17·5
18·541	8	52	5	34	263·9	+16·9	+ 32·8
19·307	10	35	7	27	264·4	+16·7	+ 43·5
20·213	4	22	4	22	264·5	+16·8	+ 55·5
Means ...	...	...	10	55	263·99	+16·80	..

Group 3444.

A few very small faint spots.

Mar. 11·532	9	36	6	20	348·1	−10·9	+ 24·6
12·523	0	14	0	9	349·0	−10·9	+ 38·6
Means ...	...	...	3	15	348·55	−10·90	...

Group 3445.

A very small spot on March 12. It has disappeared by March 13, and another spot has appeared near its place. Other spots appear on the succeeding days and form a short stream.

Mar. 12·523	0	7	0	4	328·2	−15·1	+ 17·8
13·490	0	23	0	14	325·8	−16·0	+ 28·2
14·531	19	98	13	65	326·1	−15·5	+ 42·1
15·180	9	48	7	39	327·9	−16·2	+ 52·5
16·439	0	8	0	11	329·2	−15·7	+ 70·4
Means ...	...	...	4	27	327·44	−15·70	...

Group 3446.

A very small spot.

Mar. 13·490	2	10	1	8	344·8	+ 5·5	+ 47·2
Means ...	...	...	1	8	344·8	+ 5·5	...

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

Group 3447.

A few small spots in a straggling stream. *a* and *b*, the first and last spots, have become the largest by March 14, and alone remain by March 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.
1894. a					°	°	°
Mar. 13·490	3	41	2	23	317·3	+ 4·6	+ 19·7
14·531	36	145	22	89	317·4	+ 4·6	+ 33·4
15·180	18	81	13	58	318·8	+ 4·1	+ 43·4
16·439	0	12	0	12	319·8	+ 4·6	+ 61·0
Means ...	...	...	9	46	318·33	+ 4·48	...

Group 3448.

A very small spot, not seen after March 19. Two very small spots are seen a little *sf* of its place on March 21.

Mar. 17·432	0	7	0	11	175·8	+ 8·4	− 69·9
18·541	2	10	2	9	177·7	+ 7·1	− 53·4
19·307	2	7	2	5	178·1	+ 7·2	− 42·8
20·213	0	0	0	0	...	...	...
21·419	1	17	1	9	172·4	+ 5·5	− 20·7
Means ...	...	...	1	7	176·00	+ 7·05	...

Group 3449.

A small spot, *a*, which gradually diminishes. Two small spots precede it on March 23.

Mar. 19·307	0	7	0	13	143·9	−25·6	− 77·0
20·213	0	17	0	21	143·6	−25·5	− 65·4
21·419	4	12	3	10	143·6	−25·9	− 49·5
22·217	4	8	2	5	142·9	−25·7	− 39·7
23·501	9	45	5	25	143·8	−26·2	− 21·9
24·286	2	9	1	5	142·8	−25·4	− 12·5
Means ...	...	...	2	13	143·43	−25·72	...

Group 3450.

A number of spots, mostly large, in a fine straight stream. *a*, the leader, moves forward in longitude and northward in latitude. It has broken up into two parts, *c* and *d*, by March 28, of which *d* has disappeared by March 29. *b*, the last spot of the group, is measured in two divisions on March 21. It moves forward in longitude, but southward in latitude, thus giving a retrograde motion of rotation to the axis of the group. Only *b* remains by March 31.

Mar. 20·213	0	109	0	297	130·7	+ 8·3	− 78·3
21·419	72	483	89	600	128·2	+ 7·6	− 64·9
22·217	159	722	142	649	128·3	+ 7·7	− 54·3
23·501	132	872	86	562	128·9	+ 6·9	− 36·8

Group 3450—*continued.*

1894. a					°	°	°
Mar. 24·286	178	885	102	512	129·4	+ 7·3	− 25·9
25·478	144	863	74	452	129·4	+ 7·0	− 10·2
26·463	136	714	70	366	129·5	+ 6·9	+ 2·9
27·469	115	536	62	288	129·3	+ 6·7	+ 16·0
28·477	66	329	38	195	129·2	+ 6·5	+ 29·2
29·506	30	222	21	155	128·9	+ 5·7	+ 42·4
30·438	23	128	21	112	128·5	+ 5·6	+ 54·3
31·358	15	60	20	79	128·9	+ 4·9	+ 66·9
Means ...	...	...	60	356	129·10	+ 6·76	...

Group 3451.

A small spot.

Mar. 21·419	0	8	0	13	264·3	− 2·8	+ 71·2
Means ...	...	...	0	13	264·3	− 2·8	...

Group 3452.

Two very small spots.

Mar. 21·419	4	11	2	7	161·2	+12·7	− 31·9
Means ...	...	...	2	7	161·2	+12·7	...

Group 3453.

A pair of small spots.

Mar. 23·501	6	32	3	17	174·2	−14·5	+ 8·5
Means ...	...	...	3	17	174·2	−14·5	...

Group 3454.

A pair of small spots, possibly a revival of Group 3452.

Mar. 23·501	7	34	4	18	160·4	+12·1	− 5·3
Means ...	...	...	4	18	160·4	+12·1	...

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

Group 3455.

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.
1894. d					°	°	°
Mar. 23·501	0	12	0	13	101·2	−19·5	− 64·5
Means ...	...	...	0	13	101·2	−19·5	...

Group 3456.

Two well-defined spots, *a* and *b*, on March 25. They have both grown faint by March 26. A very small companion is seen near *a* on March 25.

Mar. 25·478	20	91	12	55	128·8	+25·3	− 10·8
26·463	0	34	0	20	129·3	+25·6	+ 2·7
Means ...	...	...	6	38	129·05	+25·45	...

Group 3457.

A small spot on March 26. A close pair measured as one spot on March 27.

Mar. 26·463	0	14	0	14	68·7	+13·7	− 57·9
27·469	5	23	4	18	69·1	+14·3	− 44·2
Means ...	...	...	2	16	68·90	+14·00	...

Group 3458.

A few very faint small spots *nf* Group 3450.

Mar. 27·469	2	78	1	41	121·3	+ 7·9	+ 8·0
28·477	0	19	0	10	121·3	+ 6·5	+21·3
Means ...	...	...	1	26	121·30	+ 7·20	...

Group 3459.

Two well-defined small spots, *a* and *b*, with a very small companion between them on March 27. *a* has moved forward by March 28, and disappeared by March 29. A fresh outburst of very small spots preceding *b* has taken place by March 30, and the group has become a small straggling stream.

1894. d					°	°	°
Mar. 27·469	23	59	14	35	81·6	−15·9	− 31·7
28·477	7	49	4	26	82·0	−15·1	− 18·0
29·506	0	9	0	5	79·1	−15·8	− 7·4
30·438	12	49	6	24	83·1	−16·1	+ 8·9
31·358	0	15	0	8	84·8	−15·3	+ 22·8
Means ...	...	...	5	20	82·12	−15·64	...

Group 3460.

A few spots in an irregular stream on March 27. The largest spot, *a*, increases in size, and moves forward rapidly in longitude on the succeeding days, and the group becomes a fine stream, with *a*, its leader, a very large regular spot. The following spots die out. and *a* remains alone by April 6, and is seen as a notch on the limb on April 7.

Mar. 27·469	12	81	14	100	49·2	+10·7	− 64·1
28·477	28	136	23	113	49·6	+10·5	− 50·4
29·506	55	249	35	163	50·9	+10·2	− 35·6
30·438	71	366	39	207	53·3	+10·1	− 20·9
31·358	141	673	73	353	53·6	+10·0	− 8·4
Apr. 1·191	211	970	111	505	55·3	+ 9·4	+ 4·3
2·179	216	1039	117	567	54·6	+ 9·3	+ 16·6
3·475	200	1175	126	740	54·3	+ 9·4	+ 33·4
4·490	154	860	120	664	54·6	+ 9·7	+ 47·1
5·496	82	483	91	528	55·2	+ 9·8	+ 60·9
6·305	73	349	127	612	55·6	+ 9·5	+ 72·1
7·165	0	44	0	211	55·1	+ 8·9	+ 82·9
Means ...	...	...	73	397	53·44	+ 9·79	...

Group 3461.

A single spot, *a*, on March 27; two other spots, *b* and *c*, are seen following *a* on March 28 and 29. *c* has disappeared by March 30, *a* by April 1.

Mar. 27·469	6	23	10	40	38·8	−21·2	− 74·5
28·477	15	82	16	88	37·3	−22·1	− 62·7
29·506	15	97	11	75	38·2	−21·8	− 48·3
30·438	21	55	14	34	39·4	−20·8	− 34·8
31·358	15	35	8	19	39·2	−20·7	− 22·8
Apr. 1·191	0	8	0	4	38·8	−20·7	− 12·2
Means ...	...	...	10	43	38·62	−21·22	...

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

Group 3462.

An irregular group, which breaks out close to the West limb.

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.
1894. d					°	°	°
Mar. 28·477	15	109	22	155	168·3	+ 7·0	+68·3
Means ..	...	...	22	155	168·3	+ 7·0	...

Group 3463.

A very small spot on March 28. It is accompanied by a second on March 29–30. The group is not seen on March 31 and April 1. One small spot is seen on April 2.

Mar. 28·477	0	9	0	6	100·1	+25·5	+ 0·1
29·506	0	19	0	12	98·5	+25·3	+ 12·0
30·438	6	36	4	24	98·3	+26·0	+ 24·1
31·358	0	0	0	0	...	...	...
Apr. 1·191	0	0	0	0	...	...	...
2·179	0	10	0	12	95·3	+27·7	+ 57·3
Means ...	...	...	1	9	98·05	+26·13	...

Group 3464.

Two very large irregular spots, *a* and *b*, with a number of small spots between them. *a* is measured in two parts on March 31, and *b* has thrown off by March 31, a small spot, *c*, which increases rapidly in size.

Mar. 28·477	4	20	6	28	35·1	+20·8	− 64·9
29·506	61	375	59	362	34·1	+21·0	− 52·4
30·438	179	1069	141	823	32·8	+21·5	− 41·4
31·358	326	1645	216	1076	32·6	+21·7	− 29·4
Apr. 1·191	447	2251	266	1341	32·9	+21·2	− 18·1
2·179	486	2231	276	1272	33·3	+21·2	− 4·7
3·475	325	2247	188	1307	32·8	+21·3	+ 11·9
4·490	291	2061	185	1305	33·1	+21·5	+ 25·6
5·496	230	1690	170	1256	33·3	+21·4	+ 39·0
6·305	221	1178	203	1087	34·2	+21·5	+ 50·7
7·165	110	633	174	890	36·7	+21·8	+ 64·5
8·273	11	196	20	369	28·1	+22·6	+ 70·5
Means ...	...	...	159	926	33·25	+21·46	...

Group 3465.

A large regular spot, *a*. Some very small companions are seen on April 1, 2, and 4.

1894. d					°	°	°
Mar. 28·477	0	61	0	191	21·2	+14·6	− 78·8
29·506	26	132	34	172	21·8	+14·3	− 64·7
30·438	33	162	30	146	21·8	+14·3	− 52·4
31·358	46	206	33	147	21·4	+14·5	− 40·6
Apr. 1·191	58	253	35	155	22·1	+14·2	− 28·9
2·179	53	246	30	138	22·1	+14·2	− 15·9
3·475	47	259	25	139	21·7	+14·3	+ 0·8
4·490	55	270	31	149	21·5	+14·7	+ 14·0
5·496	33	176	20	107	21·8	+14·7	+ 27·5
6·305	44	139	31	96	22·2	+14·8	+ 38·7
7·165	28	114	24	99	22·8	+14·9	+ 50·6
8·273	18	91	23	120	22·4	+15·0	+ 64·8
9·479	5	42	16	146	21·7	+15·3	+ 80·0
Means ...	...	...	26	139	21·88	+14·60	...

Group 3466.

A very small spot.

Mar. 29·506	0	12	0	6	73·4	−19·5	− 13·1
Means ...	...	...	0	6	73·4	−19·5	...

Group 3467.

A number of very small unstable spots *n* of Group 3461. The group undergoes continual change, and is not seen on April 3 and 5.

Mar. 29·506	2	54	2	44	34·4	−17·7	− 52·1
30·438	11	32	7	21	34·6	−17·5	− 39·6
31·358	7	33	3	18	35·4	−15·8	− 26·6
Apr. 1·191	4	69	2	37	34·4	−15·8	− 16·6
2·179	0	35	0	17	35·5	−15·9	− 2·5
3·475	0	0	0	0	...	...	...
4·490	0	16	0	9	31·5	−16·8	+ 24·0
5·496	0	0	0	0	...	...	...
6·305	0	7	0	5	35·7	−16·8	+ 52·2
Means ...	...	...	2	17	34·50	−16·61	...

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

Group 3468.

A pair of small spots, first seen near the West limb. The preceding spot has disappeared by March 31.

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.
1894. d					°	°	°
Mar. 30·438	9	36	14	58	147·3	−13·0	+ 73·1
31·358	2	19	7	61	144·4	−12·8	+ 82·4
Means ...	...	...	11	60	145·85	−12·90	...

Group 3469.

A pair of faint spots, in the midst of bright faculæ, *n* of Group 3468, first seen near the West limb.

Mar. 31·358	0	27	0	91	144·0	− 6·6	+ 82·0
Means ...	...	...	0	91	144·0	− 6·6	...

Group 3470.

A very small spot.

Mar. 31·358	0	9	0	7	13·8	+15·9	− 48·2
Means ...	...	...	0	7	13·8	+15·9	...

Group 3471.

A regular spot on April 1. It has broken up by April 2, and is followed by several small spots in a straight stream. The group diminishes until April 5, after which it revives again as a straggling stream of spots mostly small. *a*, the last spot on April 7, increases in size and becomes well defined, and alone remains by April 11

Apr. 1·191	10	57	17	100	336·4	−15·6	− 74·6
2·179	39	176	39	183	336·1	−14·9	− 61·9
3·475	43	301	30	209	337·0	−14·6	− 43·9
4·490	32	139	19	81	337·6	−14·4	− 29·9
5·496	16	142	9	75	339·2	−14·8	− 15·1
6·305	85	308	43	160	336·5	−15·0	− 7·0
7·165	64	461	32	236	337·6	−14·6	+ 5·4
8·273	103	410	56	218	335·8	−15·6	+ 18·2

Group 3471—*continued.*

1894. d					°	°	°
Apr. 9·479	38	211	23	128	335·2	−15·5	+ 33·5
10·499	25	192	18	135	333·6	−15·7	+ 45·4
11·459	20	110	18	101	332·9	−15·9	+ 57·4
12·470	18	57	25	81	332·6	−15·7	+ 70·4
13·475	0	12	0	48	333·0	−15·7	+ 84·1
Means ...	...	...	25	135	335·65	−15·23	...

Group 3472.

Two small spots on April 2. One on April 3.

Apr. 2·179	8	35	5	22	69·8	+12·6	+31·8
3·475	0	9	0	7	68·3	+13·2	+47·4
Means ...	...	...	3	15	69·05	+12·90	...

Group 3473.

A pair of small spots, *a* and *b*. *b* has disappeared by April 5 and *a* by April 6. A fresh spot, *c*, has broken out by April 6 *sf* of the place of *b*. Another spot, *d*, has appeared *sf* of the place of *a* by April 7, and *d* and *c*, with a very small spot between them, form a short straight stream of considerable size, which has greatly increased by the succeeding day. *c* has divided into two portions, *e* and *f*, by April 8; these are again seen as one spot, *c*, on April 11.

Apr. 3·475	0	24	0	13	3·3	−26·6	− 17·6
4·490	18	51	9	27	3·6	−26·5	− 3·9
5·496	0	21	0	12	5·1	−26·8	+ 10·8
6·305	10	24	6	14	359·2	−28·2	+ 15·7
7·165	51	201	31	124	1·6	−28·3	+ 29·4
8·273	110	484	78	349	0·4	−27·5	+ 42·8
9·479	55	335	55	330	0·3	−27·7	+ 58·6
10·499	34	238	51	373	0·2	−27·4	+ 72·0
11·459	14	116	33	271	354·7	−27·7	+ 79·2
Means ...	...	...	29	168	0·93	−27·41	...

Group 3474.

Two small spots, *a* and *b*, on April 4. *a* has disappeared by April 5.

Apr. 4·490	2	25	2	20	316·9	−10·9	−50·6
5·496	0	7	0	5	316·0	−11·1	−38·3
6·305	0	14	0	8	316·0	−11·1	−27·5
Means ...	...	...	1	11	316·30	−11·03	...

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

Group 3475.

A regular spot, *a*, with a very small companion on April 10. *a* is overtaken by Group 3478 on April 15, and is seen as a small bud on the leader of that group on that day.

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.
1894. d					°	°	°
Apr. 4·490	12	48	24	97	294·7	+18·0	−72·8
5·496	12	68	13	77	294·9	+18·5	−59·4
6·305	20	99	17	86	294·3	+18·6	−49·2
7·165	23	127	16	89	294·9	+18·8	−37·3
8·273	57	143	35	86	293·9	+18·8	−23·7
9·479	24	119	13	66	294·8	+18·5	− 6·9
10·499	18	92	10	51	294·8	+18·5	+ 6·6
11·459	14	99	8	58	294·9	+18·4	+19·4
12·470	14	85	9	55	295·0	+18·3	+32·8
13·475	16	45	13	36	295·8	+18·2	+46·9
14·199	7	22	7	23	296·6	+18·0	+57·2
Means ...	...	...	15	66	294·96	+18·42	...

Group 3476.

Two small spots, *a* and *b*. A very small follower is seen on April 6. *a* moves forward in longitude very rapidly.

Apr. 5·496	8	63	4	34	13·2	+ 7·7	+18·9
6·305	24	59	14	36	13·1	+ 8·2	+29·6
7·165	0	20	0	14	13·7	+ 8·4	+41·5
Means ...	...	...	6	28	13·33	+ 8·10	...

Group 3477.

Three very small spots on April 6. The group has become a long straggling stream of spots, of which the leader, *a*, is the largest, by April 7. Portions break off from *a* on the succeeding days, causing an apparent change of place of the principal part of the spot.

Apr. 6·305	8	29	4	16	334·4	+13·5	− 9·1
7·165	34	207	18	111	335·4	+13·9	+ 3·2
8·273	61	219	34	122	336·5	+12·4	+18·9
9·479	40	172	26	109	337·0	+12·2	+35·3
10·499	6	78	5	63	336·6	+12·7	+48·4
11·459	2	17	3	19	338·4	+12·3	+62·9
Means ...	...	...	15	73	336·38	+12·83	...

Group 3478.

A few small spots, irregularly arranged, on April 6 and 7. The group has greatly increased in size by April 8, and has become a fine, broad stream. Two large composite spots, *a* and *b*, are formed on the succeeding days by the aggregation together of small spots. *a* moves forward in longitude and has overtaken and coalesced with 3475*a* by April 15.

1894. d					°	°	°
Apr. 6·305	0	24	0	24	287·9	+16·3	− 55·6
7·165	13	122	11	96	286·1	+16·1	− 46·1
8·273	121	389	78	249	286·2	+16·3	− 31·4
9·479	178	1259	99	705	286·6	+16·1	− 15·1
10·499	164	1570	89	848	287·3	+16·6	− 0·9
11·459	304	1674	169	927	287·3	+16·7	+ 11·8
12·470	138	1461	81	877	287·3	+16·8	+ 25·1
13·475	205	1020	143	714	288·0	+16·9	+ 39·1
14·199	102	845	85	736	290·1	+17·0	+ 50·7
15·553	88	433	135	676	289·9	+17·4	+ 68·4
16·198	30	289	99	969	292·4	+16·9	+ 79·4
Means ...	...	...	90	620	288·10	+16·65	...

Group 3479.

A very small spot.

Apr. 7·165	0	4	0	2	328·8	−17·0	− 3·4
Means ...	...	...	0	2	328·8	−17·0	...

Group 3480.

A small spot.

Apr. 9·479	0	9	0	13	231·9	−24·5	− 69·8
Means ...	...	...	0	13	231·9	−24·5	...

Group 3481.

A few small spots in an irregular group *nf* Group 3471.

Apr. 10·499	8	37	5	23	325·6	−11·9	+ 37·4
11·459	5	22	4	17	325·8	−12·0	+ 50·3
12·470	0	28	0	32	326·5	−10·9	+ 64·3
Means ...	...	...	3	24	325·97	−11·60	...

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

Group 3482.

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.
1894. d					°	°	°
Apr. 10·499	0	12	0	8	325·0	+14·4	+ 36·8
Means ...	...	...	0	8	325·0	+14·4	...

Group 3483.

A very small spot.

Apr. 11·459	2	8	1	6	322·2	− 1·9	+ 46·7
Means ...	...	...	1	6	322·2	− 1·9	...

Group 3484.

A very small spot.

Apr. 12·470	0	5	0	2	271·4	−16·4	+ 9·2
Means ...	...	...	0	2	271·4	−16·4	...

Group 3485.

A regular spot, *a*, followed by a stream of small spots, which vary much from day to day in number, size, and arrangement. *a* has become widely separated from the rest of the group by April 16, and diminishes in size afterwards. A second regular spot, *b*, has been formed by the coalescence of several small spots in the following part of the stream by April 21.

Apr. 12·470	13	73	20	115	189·9	−15·3	− 72·3
13·475	26	138	25	136	189·0	−15·6	− 59·9
14·199	47	246	38	197	187·9	−15·5	− 51·5
15·553	35	263	21	160	187·8	−15·1	− 33·7
16·198	59	350	35	201	185·4	−14·8	− 27·6
17·499	81	450	42	237	182·3	−15·1	− 13·5
18·182	73	317	38	162	181·7	−15·4	− 5·0
19·374	52	300	28	157	183·1	−15·0	+ 12·3
20·187	39	303	21	166	181·8	−15·0	+ 21·6
21·513	72	492	46	310	178·6	−14·3	+ 35·9
22·495	38	297	28	223	176·9	−13·9	+ 47·1
23·176	33	194	30	178	177·7	−14·4	+ 57·0
24·205	10	133	14	193	177·3	−14·8	+ 70·3
Means ...	...	...	30	187	183·03	−14·94	...

Group 3486.

A large regular spot, *a*, with a small companion on April 18, 20 and 25.

1894. d					°	°	°
Apr. 14·199	0	40	0	245	152·9	−13·2	− 86·5
15·553	31	217	42	295	152·5	−13·4	− 69·0
16·198	52	277	53	281	152·0	−12·8	− 61·0
17·499	70	395	48	271	152·6	−13·0	− 43·2
18·182	120	453	74	277	152·1	−13·1	− 34·6
19·374	112	536	60	287	152·1	−12·9	− 18·7
20·187	150	507	77	261	152·5	−13·3	− 7·7
21·513	114	545	59	281	152·5	−13·3	+ 9·8
22·495	97	508	53	279	152·8	−13·2	+ 23·0
23·176	115	466	69	277	152·7	−13·6	+ 32·0
24·205	98	350	70	250	152·5	−13·8	+ 45·5
25·484	43	265	44	270	151·9	−13·5	+ 61·6
26·493	25	129	47	241	152·1	−13·7	+ 75·1
Means ...	...	...	54	270	152·40	−13·29	...

Group 3487.

A small regular spot, *a*, with a small companion on April 17 and 18.

Apr. 15·553	5	11	7	15	151·3	− 6·3	− 70·2
16·198	8	13	8	14	150·7	− 6·0	− 62·3
17·499	8	41	6	29	150·7	− 6·7	− 45·1
18·182	6	27	3	16	150·7	− 6·4	− 36·0
19·374	0	16	0	8	151·1	− 5·3	− 19·7
Means ...	...	...	5	16	150·90	− 6·14	...

Group 3488.

A regular spot, *a*, on April 19, which is followed by several small spots on April 21 and the succeeding days. The group soon develops into a fine stream consisting of many spots. *b*, the spot next following *a* on April 22, becomes a regular spot, and is the largest spot in the group by April 23. The last spots in the stream have coalesced by April 24 to form a composite spot, *c*, which is often measured in two portions.

Apr. 19·374	15	74	56	268	87·6	−16·6	− 83·2
20·187	26	119	39	180	88·8	−17·2	− 71·4
21·513	38	207	32	179	88·8	−17·8	− 53·9
22·495	64	386	44	268	87·0	−17·6	− 42·8
23·176	278	940	174	593	85·6	−17·5	− 35·1
24·205	265	1452	149	805	85·1	−17·4	− 21·9
25·484	275	1891	143	976	84·8	−17·1	− 5·5
26·493	205	1533	107	795	85·1	−17·2	+ 8·1
27·477	261	1361	143	749	84·4	−17·2	+ 20·5
28·462	139	904	87	558	85·0	−17·1	+ 34·1
29·470	121	632	94	487	86·2	−17·0	+ 48·6
30·175	103	517	98	493	86·4	−17·1	+ 58·1

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

Group 3488—*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.
1894. d					°	°	°
May 1·276	60	231	100	386	86·8	−17·0	+ 73·1
2·313	0	25	0	59	78·5	−17·2	+ 78·7
Means ...	...	...	90	485	85·72	−17·21	...

Group 3489.

A few small irregular spots on April 20. The leader, *a*, alone remains on April 21 and 22. A great outburst has taken place by April 23, and the group consists of a long straight stream, with, on April 25, two regular spots, *a* and *b*, as the first and last. The group diminishes again after April 26, and *a* alone remains by April 30.

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.
Apr. 20·187	0	24	0	48	84·0	−29·4	− 76·2
21·513	2	13	2	12	88·9	−29·4	− 53·8
22·495	5	19	3	14	87·8	−29·0	− 42·0
23·176	82	272	55	183	85·2	−29·6	− 35·5
24·205	106	498	64	299	84·7	−30·1	− 22·3
25·484	85	394	47	219	86·9	−29·6	− 3·4
26·493	65	402	37	226	87·7	−28·8	+ 10·7
27·477	75	333	45	200	87·8	−28·7	+ 23·9
28·462	24	145	17	100	88·0	−28·6	+ 37·1
29·470	28	122	24	106	88·8	−29·0	+ 51·2
30·175	19	47	22	54	90·8	−29·1	+ 62·5
May 1·276	4	25	10	49	89·6	−29·1	+ 75·9
Means ...	...	...	27	126	87·52	−29·20	...

Group 3490.

A small nebulous 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.
Apr. 21·513	0	26	0	84	60·3	−18·8	− 82·4
22·495	11	39	14	53	60·9	−18·7	− 68·9
23·176	9	24	9	25	60·5	−18·3	− 60·2
24·205	4	26	3	19	60·8	−18·4	− 46·2
25·484	10	18	6	10	62·8	−18·7	− 27·5
26·493	0	21	0	11	63·3	−18·1	− 13·7
Means ...	...	...	5	34	61·43	−18·50	...

Group 3491.

One or two very small unstable 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.
Apr. 22·495	0	28	0	16	102·4	−10·5	− 27·4
23·176	3	14	2	8	103·6	−10·3	− 17·1
24·205	0	11	0	6	101·5	−10·6	− 5·5
25·484	0	42	0	22	104·2	−10·2	+ 13·9
Means ...	...	...	1	13	102·93	−10·40	...

Group 3492.

A large regular spot, *a*, with a few very small companions, April 25–28 and May 2.

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.
1894. d					°	°	°
Apr. 22·495	36	158	80	355	54·0	+11·9	− 75·8
23·176	56	266	75	358	54·2	+12·2	− 66·5
24·205	88	400	78	353	54·1	+12·4	− 52·9
25·484	104	559	67	362	54·6	+12·3	− 35·7
26·493	107	641	61	362	55·0	+12·1	− 22·0
27·477	106	657	56	348	54·9	+11·9	− 9·0
28·462	125	687	66	361	55·1	+12·0	+ 4·2
29·470	135	603	74	332	55·8	+12·1	+ 18·2
30·175	117	562	69	330	55·6	+12·1	+ 27·3
May 1·276	124	468	86	326	55·4	+11·6	+ 41·7
2·313	79	319	72	290	54·8	+12·0	+ 55·0
3·185	48	213	63	282	55·0	+11·7	+ 66·5
4·488	0	60	0	262	54·5	+10·4	+ 83·2
Means ...	...	...	65	332	54·85	+11·90	...

Group 3493.

A regular spot, *a*, with occasionally some companions. *a* diminishes from day to day.

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.
Apr. 22·495	8	62	26	194	51·8	+22·2	− 78·0
23·176	18	111	31	193	51·0	+23·6	− 69·7
24·205	39	114	41	122	50·0	+22·5	− 57·0
25·484	27	126	20	95	48·8	+22·5	− 41·5
26·493	16	67	10	43	48·2	+22·1	− 28·8
27·477	15	76	9	45	46·9	+22·4	− 17·0
28·462	8	40	5	23	47·8	+22·3	− 3·1
29·470	11	70	6	40	48·0	+23·9	+ 10·4
30·175	16	42	10	25	48·3	+23·6	+ 20·0
May 1·276	7	18	5	12	48·8	+22·9	+ 35·1
2·313	0	4	0	4	47·9	+22·3	+ 48·1
Means ...	...	...	15	72	48·86	+22·75	...

Group 3494.

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.
Apr. 25·484	0	3	0	2	36·5	+20·3	− 53·8
Means ...	...	...	0	2	36·5	+20·3	...

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

Group 3495.

A regular 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.
1894. d					°	°	°
Apr. 25·484	7	44	12	70	20·7	+15·6	−69·6
26·493	13	67	13	65	20·5	+15·5	−56·5
27·477	17	101	12	75	19·9	+15·7	−44·0
28·462	17	92	10	57	20·1	+15·7	−30·8
29·470	27	100	15	56	20·2	+15·9	−17·4
30·175	26	120	14	65	19·8	+15·6	− 8·5
May 1·276	23	94	12	50	19·1	+15·4	+ 5·4
2·313	21	60	12	34	18·3	+15·4	+18·5
3·185	14	36	9	22	18·5	+15·0	+30·0
Means ...	...	...	12	55	19·68	+15·53	...

Group 3496.

Two large irregular spots, *a* and *b*, with a third spot, *c*, *sp a*, and nearly connected with it. Other small spots are seen on April 29 and the succeeding days, the entire group then forming a fine stream. *b* is measured in two portions on April 30, and *a* on May 7.

Apr. 26·493	37	182	120	649	354·0	−27·3	−83·0
27·477	87	519	132	808	352·7	−26·9	−71·2
28·462	123	894	121	910	351·9	−26·8	−59·0
29·470	147	1109	113	847	352·1	−26·9	−45·5
30·175	237	1174	160	788	351·5	−26·6	−36·8
May 1·276	317	1332	185	779	351·4	−27·1	−22·3
2·313	259	1298	143	713	351·5	−26·8	− 8·3
3·185	260	1307	141	709	351·2	−26·6	+ 2·7
4·488	224	1197	128	689	351·2	−26·8	+19·9
5·508	128	858	84	589	351·4	−27·0	+33·6
6·495	76	598	62	483	352·8	−26·7	+48·0
7·465	60	439	63	473	352·2	−27·1	+60·2
8·309	36	221	60	366	352·6	−27·4	+71·9
Means ...	...	...	116	677	352·04	−26·92	...

Group 3497.

A small spot; not seen on April 30.

Apr. 28·462	0	21	0	13	23·7	+22·3	− 27·2
29·470	0	11	0	6	23·5	+22·8	− 14·1
30·175	0	0	0	0	...	...	...
May 1·276	2	4	1	3	22·7	+23·2	+ 9·0
Means ...	...	...	0	6	23·30	+22·77	...

Group 3498.

A few irregular unstable spots in a straggling stream. The largest spot, *a*, is in the centre of the group on April 29, but is the last spot on May 4. The original group has entirely disappeared by May 7, but a fresh outburst has occurred by that day, a little following the place of the first stream. The group on May 7 consists only of a few small faint spots, but these have greatly increased in number by May 9. On May 10 the group consists of a well-defined stream, of which the first and last spots, *b* and *c*, are the largest, and regular in shape.

1894. d					°	°	°
Apr. 29·470	13	57	27	131	320·0	− 4·6	− 77·6
30·175	23	81	33	116	318·7	− 4·4	− 69·6
May 1·276	45	134	39	114	319·2	− 4·6	− 54·5
2·313	29	111	19	72	319·7	− 4·6	− 40·1
3·185	32	131	18	74	322·1	− 4·0	− 26·4
4·488	31	111	16	55	323·5	− 3·9	− 7·8
5·508	16	63	8	31	324·0	− 4·4	+ 6·2
6·495	1	29	1	15	322·9	− 4·7	+ 18·1
7·465	0	25	0	14	314·7	− 5·5	+ 22·7
8·309	32	148	21	90	315·4	− 2·9	+ 34·7
9·517	38	246	30	193	315·2	− 2·0	+ 50·4
10·469	21	140	23	159	315·9	− 2·2	+ 63·7
11·172	7	31	10	45	312·8	− 1·6	+ 69·9
Means ...	...	...	19	85	318·78	− 3·80	...

Group 3499.

A pair of small spots on April 30. The following member of the pair is alone faintly seen on May 1.

Apr. 30·175	2	28	2	22	337·4	− 3·1	− 50·9
May 1·276	2	6	1	4	335·4	− 3·2	− 38·3
Means ...	...	...	2	13	336·40	− 3·15	...

Group 3500.

A small spot.

May 1·276	3	10	3	8	64·8	−17·9	+ 51·1
2·313	3	8	4	10	65·9	−17·6	+ 66·1
Means ...	...	...	4	9	65·35	−17·75	...

Group 3501.

A very small spot.

May 1·276	0	11	0	8	43·0	+31·3	+ 29·3
Means ...	...	...	0	8	43·0	+31·3	...

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

Group 3502.

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.
1894. d					°	°	°
May 1·276	4	9	3	7	325·3	−15·3	− 48·4
Means ...	...	...	3	7	325·3	−15·3	...

Group 3503.

A few spots, mostly unstable and very small, in a straggling stream.

May 1·276	8	37	11	50	306·6	+10·1	− 67·1
2·313	4	37	3	31	308·7	+ 9·9	− 51·1
3·185	10	41	6	28	309·2	+ 9·6	− 39·3
4·488	5	23	3	13	308·4	+ 9·4	− 22·9
5·508	2	29	1	15	309·5	+10·5	− 8·3
6·495	1	27	1	14	309·5	+10·1	+ 4·7
Means ...	...	...	4	25	308·65	+ 9·93	...

Group 3504.

A considerable, but very irregular group. *a*, the last spot on May 2, is the only regular member of the group and has broken up by May 9. For the rest the group is a widely straggling stream of irregular nebulous spots.

May 1·276	17	46	71	193	292·1	+17·8	− 81·6
2·313	49	351	81	577	289·7	+17·6	− 70·1
3·185	96	448	98	465	290·4	+17·5	− 58·1
4·488	113	458	79	326	290·7	+17·2	− 40·6
5·508	102	407	61	244	290·4	+17·2	− 27·4
6·495	41	292	23	162	290·8	+17·1	− 14·0
7·465	67	413	37	222	292·4	+17·3	+ 0·4
8·309	120	424	65	230	292·7	+17·5	+ 12·0
9·517	85	422	52	263	293·8	+17·8	+ 29·0
10·469	70	392	52	292	295·6	+17·6	+ 43·4
11·172	49	370	45	337	297·1	+17·0	+ 54·2
12·211	47	169	72	259	298·3	+16·2	+ 69·2
Means ...	...	...	61	298	292·83	−17·32	...

Group 3505.

Two small spots on May 2. Only one remains by May 3.

May 2·313	9	27	5	15	17·8	−17·0	+ 18·0
3·185	2	9	1	5	18·1	−17·8	+ 29·6
Means ...	...	...	3	10	17·95	−17·40	...

Group 3506.

Two small spots, *a* and *b*. A small spot is seen between them on May 5. *b* has disappeared by May 7, but a very small faint spot is seen S. of its place.

1894. d					°	°	°
May 3·185	3	40	4	46	290·4	+27·0	− 58·1
4·488	11	33	8	26	290·1	+27·2	− 41·2
5·508	20	91	14	60	290·2	+27·4	− 27·6
6·495	0	24	0	15	290·2	+27·8	− 14·6
7·465	0	16	0	9	290·4	+26·7	− 1·6
Means ...	...	...	5	31	290·26	+27·22	...

Group 3507.

A regular spot, *a*, sometimes divided by a bright bridge. The two components are measured separately on May 3. One or two very small companions are seen after May 6.

May 3·185	0	20	0	36	277·1	+20·2	−71·4
4·488	16	41	14	36	279·5	+19·3	−51·8
5·508	16	78	11	54	280·1	+19·7	−37·7
6·495	30	109	18	66	280·4	+19·6	−24·4
7·465	14	74	8	41	280·3	+19·4	−11·7
8·309	25	43	13	23	280·2	+19·8	− 0·5
9·517	5	31	3	17	279·0	+19·5	+14·2
Means ...	...	...	10	39	279·51	+19·64	...

Group 3508.

A large regular spot, *a*, on May 3. It decreases in size rapidly on the succeeding days. Two small companions are seen on May 6.

May 3·185	0	45	0	271	265·1	+20·4	−83·4
4·488	14	90	19	122	265·7	+19·9	−65·6
5·508	13	56	12	50	266·0	+19·4	−51·8
6·495	11	53	8	37	266·0	+19·6	−38·8
7·465	10	26	6	16	266·0	+18·9	−26·0
8·309	12	27	7	15	265·4	+19·1	−15·3
9·517	4	13	2	7	265·3	+19·2	+ 0·5
10·469	0	7	0	4	265·4	+20·9	+13·2
Means ...	...	...	7	65	265·68	+19·67	...

Group 3509.

Three very small faint spots in a close cluster *nf* Group 3496.

May 5·508	...	...	0	7	341·0	−20·1	+23·2
Means ...	...	...	0	7	341·0	−20·1	...

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

Group 3510.

Two small spots *p* Group 3504. They move away from each other.

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.
1894. d					°	°	°
May 5·508	17	42	9	23	305·8	+19·9	−12·0
6·495	0	12	0	7	305·0	+19·7	+ 0·2
Means ...	...	...	5	15	305·40	+19·80	...

Group 3511.

A very small spot.

May 6·495	0	10	0	5	293·7	+21·1	−11·1
Means ...	...	...	0	5	293·7	+21·1	...

Group 3512.

A very small spot on May 6. A number of small spots in a straggling stream on the succeeding days. *a*, the leader, alone remains by May 11.

May 6·495	0	7	0	4	278·8	− 6·5	−26·0
7·465	22	96	12	50	277·7	− 5·3	−14·3
8·309	29	108	15	55	278·2	− 5·5	− 2·5
9·517	20	120	10	63	280·0	− 5·5	+15·2
10·469	12	49	7	29	280·9	− 5·6	+28·7
11·172	8	18	5	12	283·7	− 5·8	+40·8
12·211	7	15	6	13	284·6	− 5·4	+55·5
Means ...	...	...	8	32	280·56	− 5·66	...

Group 3513.

A small regular spot, first seen near the West Limb.

May 9·517	5	14	4	13	315·2	+24·2	+50·4
10·469	0	12	0	16	316·4	+23·8	+64·2
Means ...	...	...	2	15	315·80	+24·00	...

Group 3514.

A very small spot.

May 9·517	0	12	0	7	300·0	+ 4·0	+35·2
Means ...	...	...	0	7	300·0	+ 4·0	...

Group 3515.

A small nebulous 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.
1894. d					°	°	°
May 9·517	0	17	0	9	279·1	+13·7	+14·3
Means ...	...	...	0	9	279·1	+13·7	...

Group 3516.

A nebulous spot, *a*, which diminishes from day to day. A very small companion is seen on May 10 and 15.

May 9·517	16	65	21	87	197·1	+ 6·1	− 67·7
10·469	12	92	11	83	197·1	+ 5·9	− 55·1
11·172	16	64	11	46	197·5	+ 6·7	− 45·4
12·211	19	72	11	43	197·6	+ 6·8	− 31·5
13·506	12	36	6	19	197·6	+ 6·3	− 14·4
14·542	6	25	3	13	197·3	+ 6·2	− 1·0
15·315	4	31	2	16	198·2	+ 6·9	+ 10·1
16·190	0	16	0	8	197·6	+ 5·6	+ 21·1
Means ...	...	...	8	39	197·50	+ 6·31	...

Group 3517.

A small spot.

May 11·172	0	4	0	3	203·0	−13·5	− 39·9
12·211	0	18	0	10	202·7	−13·1	− 26·4
Means ...	...	...	0	7	202·85	−13·30	...

Group 3518.

A very large complex, and irregular group. Many nuclei are scattered through the group, which undergoes continual change. The group on May 17 and 18 consists chiefly of two very large composite spots almost in union with each other. Some of the spots appear as notches on the limb on May 22.

May 11·172	18	129	19	133	181·6	−12·8	− 61·3
12·211	118	329	89	247	181·5	−13·1	− 47·6
13·506	182	772	109	460	181·5	−14·0	− 30·5
14·542	211	1495	114	806	181·2	−14·4	− 17·1
15·315	377	2044	194	1053	181·0	−14·5	− 7·1
16·190	281	1501	145	784	181·7	−15·0	+ 5·2
17·614	364	2492	204	1401	181·7	−14·8	+ 24·0
18·622	264	2404	174	1552	181·4	−14·8	+ 37·0
19·243	446	2286	333	1667	181·2	−15·0	+ 45·0
20·234	349	1968	338	1915	181·2	−14·6	+ 58·2
21·186	246	1305	358	1920	180·2	−15·9	+ 69·8
22·203	104	396	335	1270	178·1	−16·0	+ 81·1
Means ...	...	...	201	1101	181·03	−14·58	...

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

Group 3519.

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.
1894. d					°	°	°
May 12·211	11	29	10	26	175·7	+12·2	−53·4
Means ...	...	...	10	26	175·7	+12·2	...

Group 3520.

A very large irregular group, following Group 3518, and somewhat resembling it, but drawn out more after the character of a stream. The four principal spots, *a*, *b*, *c*, *d*, can be traced fairly well for some days, but after May 19 only *b* is distinguishable. The components of the group, as a rule, undergo continual change, coalescing with each other, and separating again. *a* is measured in two parts on May 15.

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 12·211	29	258	81	735	148·7	−11·8	−80·4
13·506	128	684	153	812	147·0	−12·5	−65·0
14·542	197	1092	159	882	147·2	−12·4	−51·1
15·315	315	1506	211	1020	146·2	−12·1	−41·9
16·190	299	1790	174	1044	146·5	−12·5	−30·0
17·614	276	1631	144	849	147·1	−12·4	−10·6
18·622	275	1657	142	850	147·9	−12·6	+ 3·5
19·243	402	1789	211	938	147·9	−12·4	+11·7
20·234	338	2090	193	1192	148·3	−13·4	+25·3
21·186	360	1850	236	1209	148·7	−13·7	+38·3
22·203	245	1072	210	911	149·7	−13·5	+52·7
23·335	118	563	157	736	149·1	−13·3	+67·1
24·413	26	185	120	786	151·1	−12·4	+83·4
Means ...	...	...	169	920	148·11	−12·69	...

Group 3521.

A very small spot, *a*, which increases rapidly up to May 15, and decreases after May 16. It is followed by a smaller spot, *b*, from May 14 to 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.
May 13·506	0	10	0	6	183·9	+18·1	−28·1
14·542	15	73	9	41	182·5	+19·1	−15·8
15·315	56	193	31	103	182·5	+19·3	− 5·6
16·190	47	152	25	82	182·7	+19·0	+ 6·2
17·614	14	49	9	30	183·0	+19·0	+25·3
18·622	11	37	7	26	182·6	+18·8	+38·2
19·243	4	19	4	15	182·9	+18·7	+46·7
20·234	0	16	0	16	182·1	+18·5	+59·1
Means ...	...	...	11	40	182·78	+18·81	...

Group 3522.

One or two small faint spots until May 17, by which date a considerable outburst has taken place. The group then consists of two large spots, *a* and *b*, at different latitudes, with a few small spots between them, the whole forming a stream inclined at a considerable angle to the equator.

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.
1894. d					°	°	°
May 14·542	7	30	4	16	204·6	−19·1	+ 6·3
15·315	6	38	3	21	205·9	−18·5	+17·8
16·190	0	9	0	5	208·0	−18·4	+31·5
17·614	54	251	40	189	204·2	−18·9	+46·5
18·622	61	314	63	323	203·9	−19·2	+59·5
19·243	47	165	67	244	205·8	−19·7	+74·0
20·234	3	21	8	48	199·9	−22·2	+76·9
Means ...	...	...	26	121	204·61	−19·43	...

Group 3523.

A small spot S. of Group 3522.

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 15·315	2	21	1	11	206·5	−14·4	+18·4
Means ...	...	...	1	11	206·5	−14·4	...

Group 3524.

A few small spots, irregularly arranged until May 18, when it forms a short curved stream of spots, of which the leader, *a*, is the largest. The group increases in size and lengthens out, the axis of the group being inclined at a considerable angle to the equator.

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 15·315	4	19	5	21	125·0	−13·6	−63·1
16·190	4	27	4	22	124·7	−14·5	−51·8
17·614	7	44	5	28	123·6	−14·5	−34·1
18·622	30	144	16	79	124·0	−15·1	−20·4
19·243	60	315	32	167	124·3	−15·1	−11·9
20·234	57	276	29	143	125·8	−15·5	+ 2·8
21·186	54	274	29	149	126·8	−16·0	+16·4
22·203	45	231	27	141	128·7	−16·2	+31·7
23·335	47	213	35	160	128·1	−15·8	+46·1
24·413	38	271	38	272	127·2	−14·7	+59·5
25·387	6	42	11	68	126·8	−14·1	+71·9
Means ...	...	...	22	114	125·91	−15·01	...

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

Group 3525.

A regular spot, *a*, which diminishes from day to day, and has broken up by May 22.

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.
1894. d					°	°	°
May 17·614	10	40	15	64	85·9	−17·0	− 71·8
18·622	22	98	21	96	86·3	−17·5	− 58·1
19·243	27	82	22	67	85·2	−16·8	− 51·0
20·234	16	76	10	50	85·1	−16·9	− 37·9
21·186	16	75	9	44	84·8	−17·1	− 25·6
22·203	11	57	6	30	84·7	−18·1	− 12·3
23·335	2	22	1	11	84·9	−18·4	+ 2·9
24·413	0	70	0	39	86·4	−18·1	+ 18·7
25·387	2	12	1	7	84·2	−17·5	+ 29·3
Means ...	...	...	9	45	85·28	−17·49	...

Group 3526.

A few very small spots, irregularly scattered.

May 18·622	12	48	7	27	120·6	+10·9	− 23·8
19·243	13	40	7	21	118·1	+10·3	− 18·1
Means ...	...	...	7	24	119·35	+10·60	...

Group 3527.

A small spot.

May 18·622	0	17	0	13	103·8	+17·1	− 40·6
Means ...	...	...	0	13	103·8	+17·1	...

Group 3528.

A regular spot, *a*, followed by a large and irregular but faint spot, generally in contact with it. This latter spot gradually breaks up, and *a* alone remains by May 27. A bright bridge has appeared in *a* by May 23, and has divided it completely into two by May 26.

May 18·622	26	184	53	372	68·6	− 5·1	− 75·8
19·243	36	296	50	415	67·0	− 4·6	− 69·2
20·234	74	480	66	431	67·1	− 4·2	− 55·9
21·186	93	638	64	443	67·0	− 4·0	− 43·4
22·203	124	743	72	431	67·6	− 4·2	− 29·4
23·335	115	526	60	274	67·7	− 3·9	− 14·3
24·413	83	538	41	268	68·7	− 3·6	+ 1·0

Group 3528—*continued.*

1894. d					°	°	°
May 25·387	53	278	27	174	68·8	− 3·3	+ 13·9
26·639	40	287	24	168	69·1	− 3·6	+ 30·8
27·553	27	100	18	68	69·4	− 3·5	+ 43·2
28·290	20	82	17	69	70·1	− 3·8	+ 53·6
29·510	0	18	0	26	69·8	− 3·5	+ 69·5
Means ...	...	...	41	262	68·41	− 3·94	...

Group 3529.

A large irregular spot, *a*, which has begun to break up by May 21. The group on May 22 forms a straight stream strongly inclined to the equator. It has completely broken up into a few scattered small spots by May 25. There has been a small fresh outburst in a higher latitude by May 27. The group lies *up* Group 3530, which it almost touches.

May 19·243	13	60	37	166	56·6	−14·3	− 79·6
20·234	22	104	28	130	57·1	−14·6	− 65·9
21·186	28	136	24	117	56·8	−14·9	− 53·6
22·203	37	104	25	70	57·4	−15·2	− 39·6
23·335	27	92	16	52	57·7	−15·1	− 24·3
24·413	21	94	11	49	58·1	−14·7	− 9·6
25·387	7	43	3	21	58·0	−15·2	+ 3·1
26·639	13	48	7	26	57·7	−14·9	+ 19·4
27·553	13	106	9	66	57·6	−17·2	+ 31·4
28·290	9	64	6	44	57·8	−16·8	+ 41·3
Means ...	...	...	17	74	57·48	−15·29	...

Group 3530.

A large regular spot, *a*, followed by one or two smaller spots. *a* is crossed by a bright bridge, and has divided into two spots, *b* and *c*, by May 22. *b* and *c* alone remain by May 21.

May 19·243	43	112	140	368	54·8	−18·7	− 81·4
20·234	78	319	117	480	53·0	−18·9	− 70·0
21·186	108	365	105	351	53·4	−19·5	− 57·0
22·203	94	723	68	366	53·0	−19·5	− 44·0
23·335	90	448	55	270	53·1	−20·0	− 28·9
24·413	77	508	43	277	52·9	−19·9	− 14·8
25·387	51	274	28	146	53·6	−20·1	− 1·3
26·639	59	272	32	149	53·4	−20·0	+ 15·1
27·553	48	274	29	164	53·5	−20·4	+ 27·3
28·290	45	203	30	135	53·4	−20·7	+ 36·9
29·510	33	128	28	112	53·5	−20·4	+ 53·2
30·472	17	92	22	119	53·7	−20·6	+ 66·1
31·481	8	46	26	130	53·5	−20·5	+ 79·3
Means ...	...	...	56	236	53·45	−19·94	...

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

Group 3531.

A number of spots, mostly small, in a straight stream, *n* Group 3524.

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.
1894. d					°	°	°
May 22·203	38	122	22	70	124·4	−10·4	+ 27·4
23·335	41	192	29	136	125·9	−10·0	+ 43·9
24·413	26	113	27	114	127·8	− 9·6	+ 60·1
25·387	2	7	3	13	128·6	− 9·3	+ 73·7
Means ...	...	...	20	83	126·68	− 9·83	...

Group 3532.

A regular spot.

May 22·203	5	11	15	39	15·3	− 3·0	− 81·7
23·335	16	62	19	76	15·8	− 3·0	− 66·2
24·413	23	109	19	88	15·6	− 3·4	− 52·1
25·387	26	122	17	78	16·0	− 3·5	− 38·9
26·639	18	110	9	59	16·8	− 3·6	− 21·5
27·553	15	111	8	56	16·9	− 3·3	− 9·3
28·290	16	74	8	37	17·2	− 3·5	+ 0·7
29·510	16	59	8	31	17·7	− 3·4	+ 17·4
30·472	10	52	6	30	18·1	− 3·5	+ 30·5
31·481	13	33	9	23	18·3	− 3·7	+ 44·1
June 1·593	3	13	3	13	18·4	− 3·9	+ 58·9
Means ...	...	...	11	48	16·92	− 3·44	...

Group 3533.

A very large regular spot, *a*, seen as a shallow notch on the limb on May 23, though it cannot be measured until May 24. Some small companions are seen near *a* on most days, and a small spot has separated off from *a* by May 31. *a* alone remains by June 2.

May 24·413	46	336	78	570	355·6	+12·4	− 72·1
25·387	79	496	81	505	355·2	+12·2	− 59·7
26·639	164	742	113	512	356·5	+11·7	− 41·8
27·553	202	886	119	527	356·8	+12·1	− 29·4
28·290	245	1004	134	548	357·3	+12·5	− 19·2
29·510	223	1122	115	577	357·4	+12·5	− 2·9
30·472	217	1034	113	541	357·6	+13·3	+ 10·0
31·481	198	937	111	524	357·6	+13·4	+ 23·4

Group 3533—*continued.*

1894. d					°	°	°
June 1·593	171	788	112	517	357·6	+13·5	+ 38·1
2·164	170	692	125	508	357·7	+12·9	+ 45·8
3·204	122	489	124	496	357·8	+12·5	+ 59·6
4·182	59	328	98	544	357·3	+12·6	+ 72·1
Means ...	...	...	110	531	357·03	+12·63	...

Group 3534.

A pair of very small spots.

May 24·413	0	8	0	4	63·0	− 8·9	− 4·7
Means ...	...	...	0	4	63·0	− 8·9	...

Group 3535.

A large irregular spot, *a*, *f* Group 3533. It diminishes from day to day and has broken up into a cluster of small spots by May 29.

May 24·413	4	39	14	127	346·9	+11·3	− 80·8
25·387	10	61	14	83	347·1	+11·4	− 67·8
26·639	19	93	16	75	347·4	+11·6	− 50·9
27·553	18	116	12	76	347·2	+11·8	− 39·0
28·290	30	110	18	65	347·1	+12·0	− 29·4
29·510	13	77	7	40	347·8	+11·6	− 12·5
30·472	7	39	4	20	348·9	+11·9	+ 1·3
31·481	0	12	0	6	349·3	+12·1	+ 15·1
June 1·593	0	46	0	27	347·9	+13·0	+ 28·4
Means ...	...	...	9	58	347·73	+11·86	...

Group 3536.

Two small spots *of* Group 3524. The group has considerably increased by May 26.

May 25·387	2	11	3	14	120·9	−20·2	+ 66·0
26·639	2	25	6	67	117·4	−20·2	+ 79·1
Means ...	...	...	5	41	119·15	−20·20	...

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

Group 3537.

A very large regular spot, *a*, with a few small irregular companions. *a* occasionally throws off 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.
1894. d					°	°	°
May 26·639	15	93	58	354	316·3	+14·2	−82·0
27·553	51	318	84	534	314·4	+14·7	−71·8
28·290	117	420	131	468	314·5	+15·1	−62·0
29·510	125	641	93	473	315·0	+14·6	−45·3
30·472	119	750	74	464	314·6	+15·1	−33·0
31·481	147	890	81	491	314·5	+14·6	−19·7
June 1·593	158	845	82	438	314·3	+15·0	− 5·2
2·164	195	1009	101	523	314·1	+15·0	+ 2·2
3·204	192	970	104	524	314·3	+14·9	+16·1
4·182	184	892	109	528	314·1	+15·2	+28·9
5·411	99	690	72	511	314·4	+15·7	+45·4
6·178	101	580	91	526	314·1	+15·1	+55·3
7·598	47	290	89	545	314·0	+15·1	+74·0
Means ...	...	...	90	491	314·51	+14·95	...

Group 3538.

A small regular spot, first seen near the West limb.

May 27·553	0	16	0	17	88·9	+10·3	+62·7
28·290	6	21	9	35	88·1	+11·4	+71·6
Means ...	...	...	5	26	88·50	+10·85	...

Group 3539.

A few small faint unstable spots, irregularly scattered.

May 27·553	0	20	0	11	31·9	−21·9	+ 5·7
28·290	9	25	5	14	30·0	−22·3	+13·5
29·510	11	41	7	27	33·5	−23·0	+33·2
30·472	0	24	0	19	32·7	−23·0	+45·1
31·481	0	12	0	11	30·2	−23·1	+56·0
Means ...	...	...	2	16	31·66	−22·66	...

Group 3540.

A few unstable spots, mostly small, irregularly scattered. Only one remains by May 31.

May 28·290	16	89	16	83	319·6	− 6·5	−56·9
29·510	27	96	17	63	321·4	− 6·8	−38·9
30·472	2	70	1	39	321·7	− 6·0	−25·9
31·481	0	27	0	14	319·0	− 6·0	−15·2

Group 3540—*continued.*

1894. d					°	°	°
June 1·593	5	24	2	12	319·4	− 6·1	− 0·1
2·164	0	14	0	7	319·9	− 6·4	+ 8·0
Means ...	...	...	6	36	320·17	− 6·30	...

Group 3541.

A small regular spot, *a*, with very small companions on May 30, June 1, and June 4. *a* moves forward in longitude after June 2.

May 29·510	11	45	11	47	298·7	− 3·9	−61·6
30·472	16	56	12	43	298·5	− 4·0	−49·1
31·481	16	49	10	30	298·6	− 4·1	−35·6
June 1·593	11	29	6	16	298·3	− 4·1	−21·2
2·164	14	36	7	19	298·7	− 3·6	−13·2
3·204	14	27	7	13	299·5	− 3·9	+ 1·3
4·182	8	47	4	25	299·4	− 3·4	+14·2
5·411	1	5	1	3	301·4	− 3·6	+32·4
Means ...	...	...	7	25	299·14	− 3·83	...

Group 3542.

A small regular spot.

May 29·510	5	18	7	25	292·4	+ 8·8	−67·9
30·472	2	16	2	14	292·8	+ 9·0	−54·8
Means ...	...	...	5	20	292·60	+ 8·90	...

Group 3543.

A small regular spot, *f* Group 3541.

May 29·510	0	6	0	9	289·3	− 2·5	−71·0
30·472	8	16	7	15	289·6	− 3·7	−58·0
31·481	7	24	5	17	290·2	− 3·6	−44·0
June 1·593	4	20	2	11	291·3	− 4·0	−28·2
2·164	8	23	4	12	291·4	− 3·9	−20·5
3·204	3	9	2	4	292·0	− 4·3	− 6·2
Means ...	...	...	3	11	290·63	− 3·67	...

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

Group 3544.

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.
1894. d					°	°	°
May 30·472	0	5	0	3	300·4	+16·2	−47·2
31·481	0	12	0	8	300·8	+16·4	−33·4
June 1·593	0	7	0	4	300·8	+16·3	−18·7
Means ...	...	...	0	5	300·67	+16·30	...

Group 3545.

A small regular 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 30·472	7	20	12	33	276·2	+14·7	−71·4
31·481	10	39	9	38	275·9	+14·4	−58·3
June 1·593	6	29	4	21	275·9	+14·5	−43·6
2·164	5	27	3	18	275·4	+15·1	−36·5
3·204	9	20	5	11	275·9	+14·9	−22·3
4·182	8	16	4	8	275·6	+15·3	−9·6
5·411	0	8	0	4	275·8	+15·2	+6·8
Means ...	...	...	5	19	275·81	+14·87	...

Group 3546.

A few spots, mostly small, in a straight stream. The leader, *a*, is the largest, and moves forward rapidly in longitude.

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 31·481	16	121	8	60	338·4	−1·2	+4·2
June 1·593	47	230	25	123	340·7	−0·9	+21·2
2·164	27	163	16	93	341·8	−0·8	+29·9
3·204	19	62	14	44	344·0	−0·7	+45·8
4·182	9	35	9	34	344·0	−0·6	+58·8
5·411	2	8	5	19	346·2	+0·5	+77·2
Means ...	...	...	13	62	342·52	−0·62	...

Group 3547.

A very small spot *n* of Group 3535.

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.
June 1·593	0	7	0	4	344·0	+14·2	+24·5
Means ...	...	...	0	4	344·0	+14·2	...

Group 3548.

A small faint nebulous spot between Groups 3537 and 3544. It has divided into two very small spots by June 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.
1894. d					°	°	°
June 1·593	0	17	0	9	307·3	+16·1	−12·2
2·164	0	34	0	18	307·4	+16·1	−4·5
3·204	0	9	0	4	307·8	+16·1	+9·6
Means ...	...	...	0	10	307·50	+16·10	...

Group 3549.

Two spots, *a* and *b*, with one or two small companions. *a* has moved forward by June 5, and has become a large regular spot. *b* has disappeared by the same date. *a* remains alone by June 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.
June 1·593	49	101	44	90	265·2	+14·5	−54·3
2·164	59	172	44	129	265·5	+15·3	−46·4
3·204	55	253	33	152	268·0	+15·6	−30·2
4·182	51	196	28	106	269·3	+16·2	−15·9
5·411	76	291	40	151	269·7	+16·5	+0·7
6·178	38	241	20	128	270·1	+16·2	+11·3
7·598	25	184	15	110	270·0	+16·0	+30·0
8·347	44	146	30	98	269·9	+15·6	+39·8
9·491	15	85	13	76	269·7	+16·2	+54·7
10·506	10	35	13	47	269·3	+15·9	+67·7
Means ...	...	...	28	109	268·67	+15·80	...

Group 3550.

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.
June 2·164	0	19	0	10	315·1	+10·8	+3·2
Means ...	...	...	0	10	315·1	+10·8	...

Group 3551.

A few very small unstable spots. The group is not seen on June 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.
June 2·164	5	18	3	10	297·4	−27·0	−14·5
3·204	0	0	0	0	...	...	...
4·182	3	37	3	23	299·9	−27·3	+14·7
5·411	6	15	4	10	299·3	−27·6	+30·3
Means ...	...	...	3	11	298·87	−27·30	...

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

Group 3552.

A small nebulous 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.
1894. d					°	°	°
June 3·204	0	23	0	12	284·9	+10·2	−13·3
Means ...	...	...	0	12	284·9	+10·2	...

Group 3553.

A number of spots, of which *a* and *b*, the first and last, are the largest, in a straight stream. *a* increases in size, and becomes a large regular spot, whilst the following spots diminish, and *a* alone remains by June 10.

June 3·204	55	209	31	119	270·2	− 5·2	− 28·0
4·182	74	292	38	151	272·0	− 5·1	− 13·2
5·411	66	245	34	123	274·2	− 5·4	+ 5·2
6·178	53	281	27	147	274·8	− 6·0	+ 16·0
7·598	39	234	25	149	276·6	− 6·7	+ 36·6
8·347	38	194	29	145	277·3	− 7·2	+ 47·2
9·491	16	136	17	144	276·7	− 6·8	+ 61·7
10·506	9	71	16	132	275·6	− 7·8	+ 74·0
Means ...	...	...	27	139	274·68	− 6·28	...

Group 3554.

A number of small faint spots irregularly distributed. The group tends to increase in size, and the following spots have coalesced to form a large irregular composite spot, *a*, by June 7. The preceding spots tend to die out after that date, whilst *a* becomes more regular.

June 4·182	13	42	17	54	218·2	−10·0	− 67·0
5·411	22	80	19	64	218·4	−11·1	− 50·6
6·178	22	145	15	96	217·8	−10·9	− 41·0
7·598	60	286	33	158	218·6	−12·0	− 21·4
8·347	81	426	43	223	218·6	−12·1	− 11·5
9·491	117	609	60	312	219·3	−11·9	+ 4·3
10·506	97	565	54	304	219·5	−12·1	+ 17·9
11·470	84	382	50	229	218·5	−12·4	+ 29·7
12·417	38	249	26	172	218·1	−13·0	+ 41·9
13·264	32	170	28	147	218·2	−13·7	+ 53·2
14·464	22	89	31	127	217·8	−13·3	+ 68·6
15·489	5	17	23	74	218·3	−12·8	+ 82·9
Means ...	...	...	33	163	218·44	−12·11	...

Group 3555.

A nebulous spot which diminishes from day to day.

1894. d					°	°	°
June 4·182	5	18	9	38	209·8	−18·8	− 75·4
5·411	7	22	8	23	209·4	−19·5	− 59·6
6·178	14	38	11	31	209·3	−19·2	− 49·5
7·598	13	38	8	23	209·4	−19·5	− 30·6
8·347	8	21	5	12	209·4	−19·5	− 20·7
9·491	8	17	4	9	209·9	−19·0	− 5·1
10·506	7	18	4	9	209·9	−19·3	+ 8·3
11·470	3	11	2	6	209·9	−18·8	+ 21·1
Means ...	...	...	6	19	209·63	−19·20	...

Group 3556.

A small spot.

June 5·411	2	17	1	9	289·0	+17·0	+ 20·0
Means ...	...	...	1	9	289·0	+17·0	...

Group 3557.

A few small unstable spots, *a* of Group 3549, irregularly arranged.

June 5·411	2	18	1	10	270·8	+21·1	+ 1·8
6·178	14	55	7	30	270·3	+20·2	+ 11·5
7·598	24	76	15	47	270·8	+20·3	+ 30·8
8·347	18	78	12	54	270·7	+19·6	+ 40·6
9·491	2	7	2	7	270·0	+19·7	+ 55·0
Means ...	...	...	7	30	270·52	+20·18	...

Group 3558.

A faint, ill-defined double spot, *a*, with two very small companions on June 5. The companions have all disappeared by June 8. A temporary outburst has occurred by June 9, a more lasting one by June 11, and the group increases in size up to June 13, when *a* is a large irregular composite spot.

June 5·411	6	54	9	74	200·2	+ 5·7	− 68·8
6·178	11	54	10	50	201·5	+ 6·1	− 57·3
7·598	18	68	12	45	198·4	+ 5·3	− 41·6
8·347	12	28	7	16	201·7	+ 6·5	− 28·4
9·491	18	61	9	33	198·1	+ 6·6	− 16·9

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

Group 3558—*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.
1894. a					°	°	°
June 10·506	4	28	2	15	201·9	+ 6·5	+ 0·3
11·470	22	116	11	59	196·8	+ 6·0	+ 8·0
12·417	32	160	17	88	200·8	+ 5·5	+ 24·6
13·264	44	228	28	141	201·8	+ 5·3	+ 36·8
14·464	19	141	16	118	202·0	+ 6·1	+ 52·8
15·489	8	59	11	75	202·4	+ 5·9	+ 67·0
16·242	2	13	5	28	202·1	+ 6·1	+ 76·5
Means ...	...	...	11	62	200·64	+ 5·97	...

Group 3559.

A large but unstable group. The two leading spots, *a* and *b*, are regular. *a* diminishes from day to day, and has disappeared by June 15. *b* remains a large regular spot throughout. The following spots are very unstable; sometimes, as on June 15, being united to form one compact nebulous spot; at others, as on June 16, having broken up to form an irregular and widely-divided group of nucleated spots.

June 5·411	14	81	44	264	188·2	−15·8	− 80·8
6·178	33	237	52	394	187·1	−15·6	− 71·7
7·598	87	551	78	488	186·3	−17·0	− 53·7
8·347	129	671	94	488	186·3	−16·9	− 43·8
9·491	176	963	104	583	185·5	−17·2	− 29·5
10·506	156	948	85	525	184·9	−17·7	− 16·7
11·470	112	806	59	423	185·2	−17·5	− 3·6
12·417	118	618	61	327	186·7	−17·0	+ 10·5
13·264	105	484	61	276	187·1	−16·9	+ 22·1
14·464	116	584	80	394	186·7	−17·5	+ 37·5
15·489	38	316	33	273	187·3	−16·3	+ 51·9
16·242	57	293	64	335	187·6	−17·7	+ 62·0
17·309	23	129	56	311	188·3	−17·7	+ 76·8
Means ...	...	...	67	391	186·71	−16·98	...

Group 3560.

A nebulous spot, *a*, *n* of Group 3559. A number of very small companions are seen near it on June 11.

June 6·178	0	14	0	44	177·8	−12·6	− 81·0
7·598	11	32	12	33	179·4	−13·5	− 60·6
8·347	9	36	7	29	179·7	−13·5	− 50·4
9·491	12	41	7	26	180·2	−13·3	− 34·8
10·506	9	20	5	11	180·4	−13·4	− 21·2
11·470	6	28	3	15	179·3	−13·0	− 9·5
12·417	1	6	1	3	181·4	−13·3	+ 5·2
Means ...	...	...	5	23	179·74	−13·23	...

Group 3561.

A very small spot.

1894. a					°	°	°
June 7·598	0	4	0	3	192·9	−11·3	− 47·1
Means ...	...	...	0	3	192·9	−11·3	...

Group 3562.

A wide pair of small irregular spots, *a* and *b*, on June 8. A few small spots connect them on the succeeding days. *b* diminishes and has broken up by June 12, but some of its components have re-united again as *c* by June 14. *a* alone remains by June 16.

June 8·347	1	35	2	49	161·8	−13·8	− 68·3
9·491	30	139	27	121	161·8	−14·9	− 53·2
10·506	41	172	26	114	162·9	−15·0	− 38·7
11·470	42	197	24	116	161·4	−15·0	− 27·4
12·417	20	118	11	62	163·1	−15·0	− 13·1
13·264	48	140	26	73	161·9	−15·4	− 3·1
14·464	45	128	25	68	161·6	−15·8	+ 12·4
15·489	14	73	8	44	161·7	−15·0	+ 26·3
16·242	1	7	1	4	162·6	−15·2	+ 37·0
Means ...	...	...	17	72	162·09	−15·01	...

Group 3563.

A small group of nebulous spots between Groups 3559 and 3560.

June 9·491	0	19	0	13	178·9	−15·9	− 36·1
10·506	4	33	2	18	179·5	−15·6	− 22·1
11·470	0	25	0	13	179·3	−16·1	− 9·5
12·417	0	17	0	9	180·6	−16·5	+ 4·4
13·264	0	7	0	4	179·9	−16·3	+ 14·9
Means ...	...	...	0	11	179·64	−16·08	...

Group 3564.

A very unstable group. A few small spots in an irregular stream on June 10. Two nebulous spots on June 12. A long curved stream of small faint spots on June 15.

June 9·491	4	26	5	34	147·1	+ 5·9	− 67·9
10·506	21	64	18	53	147·7	+ 6·2	− 53·9
11·470	34	103	24	70	146·3	+ 6·8	− 42·5
12·417	34	213	19	124	146·4	+ 6·6	− 29·8
13·264	36	145	18	76	147·5	+ 6·6	− 17·5
14·464	23	48	12	24	149·3	+ 6·0	+ 0·1
15·489	17	87	9	45	148·1	+ 6·7	+ 12·7
16·242	13	46	6	25	148·8	+ 6·6	+ 23·2
17·309	0	9	0	6	147·2	+ 6·9	+ 35·7
Means ...	...	...	12	51	147·60	+ 6·48	...

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

Group 3565.

A large regular spot, *a*, followed by a stream of small spots which undergo great variation. *a* moves forward in longitude and the following spots increase in size until June 18, when the group practically consists of one very large nebulous composite spot. *a* is however distinguishable from the rest of the group, being separated from it by a very narrow bright bridge, except on June 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.
1894. a					°	°	°
June 10·506	19	77	38	155	125·9	+ 9·4	−75·7
11·470	28	225	32	260	124·6	+ 8·7	−64·2
12·417	66	390	52	305	126·0	+ 8·4	−50·2
13·264	103	470	65	297	127·3	+ 8·7	−37·7
14·464	132	655	71	357	127·9	+ 8·5	−21·3
15·489	124	648	64	330	129·3	+ 8·6	− 6·1
16·242	130	700	68	355	130·1	+ 8·8	+ 4·5
17·309	179	855	94	454	129·7	+ 9·0	+18·2
18·372	324	2070	192	1215	127·3	+ 9·9	+29·9
19·391	393	2062	277	1460	127·9	+ 9·9	+44·0
20·273	342	1652	305	1477	128·1	+ 8·8	+55·9
21·426	143	1003	231	1570	128·4	+ 9·8	+71·3
22·232	47	381	156	1226	127·6	+ 9·1	+81·3
Means ...	...	...	127	728	127·70	+ 9·05	...

Group 3566.

One or two very small faint spots *n* of Group 3558. The group is measured as a single spot on both days.

June 11·470	0	3	0	2	194·3	+ 7·9	+ 5·5
12·417	0	6	0	3	194·0	+ 7·1	+ 17·8
Means ...	...	...	0	3	194·15	+ 7·50	...

Group 3567.

A very small spot *np* of Group 3559. It is not seen on June 13.

June 11·470	1	15	1	8	194·0	−12·2	+ 5·2
12·417	0	4	0	2	195·6	−12·5	+ 19·4
13·264	0	0	0	0	...	...	...
14·464	0	6	0	5	193·3	−10·9	+ 44·1
Means ...	...	...	0	4	194·30	−11·87	...

Group 3568.

A small spot *s* of Group 3560.

June 11·470	0	21	0	11	173·6	−15·5	− 15·2
Means ...	...	...	0	11	173·6	−15·5	...

Group 3569.

A very small spot.

1894. a					°	°	°
June 12·417	0	3	0	2	209·7	−14·6	+ 33·5
Means ...	...	...	0	2	209·7	−14·6	...

Group 3570.

Two very small faint spots on June 12. These have disappeared by June 13, and two small spots have appeared *s* of their place. The group increases in size, and consists on June 15 of two principal spots, *a* and *b*, united by a stream of spots mostly very small. *a* is a large regular spot; *b* is much smaller than *a* and is irregular. *a* and *b* alone remain by June 19.

June 12·417	0	11	0	6	157·6	− 6·4	− 18·6
13·264	2	24	0	12	155·9	− 3·3	− 9·1
14·464	36	92	18	47	157·9	− 4·0	+ 8·7
15·489	81	527	45	291	158·4	− 4·3	+ 23·0
16·242	95	543	56	326	158·4	− 4·1	+ 32·8
17·309	76	457	56	340	159·2	− 5·0	+ 47·7
18·372	47	277	51	306	160·0	− 4·8	+ 62·6
19·391	18	107	38	226	159·9	− 5·5	+ 76·0
Means ...	...	...	33	194	158·41	− 4·68	...

Group 3571.

A very small spot.

June 12·417	0	8	0	5	148·5	−15·3	− 27·7
Means ...	...	...	0	5	148·5	−15·3	...

Group 3572.

A small spot.

June 12·417	0	6	0	9	107·3	−19·9	− 68·9
Means ...	...	...	0	9	107·3	−19·9	...

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

Group 3573.

A large spot, *a*, with two nuclei. It has begun to divide by June 14, but the components are not measured separately as *b* and *c* until June 16. *b* remains a regular spot. *c* diminishes and has died out by June 21. Small companions are occasionally seen near the principal 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.
1894. d					°	°	°
June 12·417	22	180	44	358	100·8	+ 9·9	− 75·4
13·264	49	286	55	322	101·6	+10·5	− 63·4
14·464	74	419	56	317	101·5	+10·1	− 47·7
15·489	83	444	51	273	101·8	+10·5	− 33·6
16·242	66	416	37	230	102·4	+10·4	− 23·2
17·309	90	452	46	231	103·0	+10·5	− 8·5
18·372	90	441	46	226	103·1	+10·6	+ 5·7
19·391	51	336	39	181	103·6	+ 9·6	+ 19·7
20·273	48	257	29	153	104·2	+ 9·8	+ 32·0
21·426	33	176	25	134	105·0	+10·2	+ 47·9
22·232	35	133	33	126	104·7	+ 9·4	+ 58·4
23·452	10	56	18	104	104·5	+ 9·6	+ 74·4
Means ...	...	...	40	221	103·02	+10·09	...

Group 3574.

A few very small spots in an irregular group *f* Group 3559. The group increases in size very rapidly, especially after June 16, and by June 17 a large spot, *a*, has formed in the *sf* part of the group. A further development, but to the *n*, has taken place by June 18.

June 13·264	0	14	0	7	172·4	−19·5	+ 7·4
14·464	12	62	7	36	173·2	−18·8	+ 24·0
15·489	12	134	8	92	173·4	−18·3	+ 38·0
16·242	32	116	25	90	173·0	−18·5	+ 47·4
17·309	115	412	135	490	174·4	−19·7	+ 62·9
18·372	75	372	198	964	175·1	−18·7	+ 77·7
Means ...	...	...	62	280	173·58	−18·92	...

Group 3575.

A very large spot, *a*, followed by a number of unstable spots in an irregular stream. The nucleus of *a* has divided into two portions by June 23. *a* is seen as a very shallow notch on the limb on June 26, but is not measurable on that day.

June 14·464	85	530	153	1015	75·3	−15·3	− 73·9
15·489	132	1105	137	1180	75·1	−14·9	− 60·3
16·242	246	1372	198	1118	75·1	−14·9	− 50·5
17·309	325	1699	208	1103	74·9	−14·5	− 36·6
18·372	374	1941	213	1101	75·4	−14·6	− 22·0
19·391	474	2406	252	1281	74·8	−14·5	− 9·1
20·273	484	2262	252	1152	75·4	−14·7	+ 3·2

Group 3575—*continued.*

1894. d					°	°	°
June 21·426	437	1985	245	1103	75·4	−14·7	+ 18·3
22·232	325	1614	197	967	75·6	−14·4	+ 29·3
23·452	241	1263	182	951	75·4	−14·2	+ 45·3
24·512	138	768	149	831	77·0	−13·4	+ 60·9
25·488	64	397	119	734	76·4	−12·8	+ 73·2
Means ...	...	...	192	1045	75·48	−14·41	...

Group 3576.

A very small spot on June 15. A few very small spots irregularly scattered on June 16.

June 15·489	0	13	0	6	134·6	−10·8	− 0·8
16·242	7	64	3	33	131·4	−13·3	+ 5·8
Means ...	...	...	2	20	133·00	−12·05	...

Group 3577.

A very variable group. A very small spot on June 15, which is not seen on June 17. A fresh outburst has taken place by June 18, and the group consists of a number of small spots in a short stream. The two principal spots, *a* and *b*, have greatly increased in size by June 19, and are large and regular. They break up and diminish after June 20, and *a* has disappeared by June 22.

June 15·489	6	13	3	7	117·6	− 8·8	− 17·8
16·242	0	4	0	2	118·0	− 8·7	− 7·6
17·309	0	0	0	0	...	...	...
18·372	51	132	29	72	116·8	−11·3	+ 19·4
19·391	87	443	55	277	117·2	−11·5	+ 33·3
20·273	60	323	44	238	117·5	−12·4	+ 45·3
21·426	34	108	36	114	117·0	−12·2	+ 59·9
22·232	7	25	10	35	115·1	−13·4	+ 68·8
Means ...	...	...	22	93	117·03	−11·19	...

Group 3578.

A regular spot, *a*. A small companion is also seen on June 18.

June 17·309	7	21	7	23	173·9	+10·1	+62·4
18·372	0	12	0	24	174·0	+10·8	+76·6
Means ...	...	...	4	24	173·95	+10·45	...

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

Group 3579.

A very variable group. On June 18 three very small spots, the last of which is *a*. The group has greatly increased in size by June 19, and a double spot, *b*, has broken out preceding *a*, which is now large. The components of *b* have united by June 20. *a* and *b* are united by a stream of smaller 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.
1894. d					°	°	°
June 18·372	2	26	1	14	108·0	−20·3	+ 10·6
19·391	122	445	74	269	109·3	−20·2	+ 25·4
20·273	116	591	80	407	109·7	−21·7	+ 37·5
21·426	93	312	85	480	110·1	−21·1	+ 53·0
22·232	67	378	83	474	110·0	−21·8	+ 63·7
23·452	11	103	22	276	107·7	−20·4	+ 77·6
Means ...	...	...	58	320	109·13	− 20·92	...

Group 3580.

A nebulous group of small spots *nf* of Group 3565.

June 19·391	0	53	0	33	118·3	+18·1	+ 34·4
Means ...	...	...	0	33	118·3	+18·1	...

Group 3581.

A large regular spot, *a*, with occasionally some small companions.

June 19·391	11	84	51	405	359·7	+12·1	− 84·2
20·273	45	199	79	347	358·9	+12·7	− 73·3
21·426	75	350	72	338	358·9	+12·5	− 58·2
22·232	76	412	56	305	359·6	+12·8	− 46·7
23·452	106	506	63	301	359·5	+12·5	− 30·6
24·512	121	657	65	350	359·7	+12·9	− 16·4
25·488	122	642	62	328	359·3	+12·8	− 3·9
26·454	116	682	61	354	359·4	+13·2	+ 9·0
27·389	114	588	63	322	359·9	+12·9	+ 21·8
28·396	102	505	64	316	0·3	+12·9	+ 35·5
29·424	67	423	51	323	0·0	+12·9	+ 48·9
30·444	45	290	48	311	359·8	+12·8	+ 62·2
July 1·472	24	151	50	309	0·2	+12·7	+ 76·2
Means ...	...	...	61	331	359·63	+12·75	...

Group 3582.

A very small spot.

June 20·273	2	8	1	4	84·8	+18·6	+ 12·6
Means ...	...	...	1	4	84·8	+18·6	...

Group 3583.

A diminishing nebulous spot, *a*, with a very small companion on June 22 and 27.

1894. d					°	°	°
June 21·426	15	58	21	84	347·2	− 1·5	− 69·9
22·232	14	78	14	75	347·5	− 1·3	− 58·8
23·452	24	125	16	84	348·1	− 1·6	− 42·0
24·512	24	136	14	77	348·2	− 1·5	− 27·9
25·488	27	141	14	73	347·8	− 1·6	− 15·4
26·454	34	134	17	68	347·9	− 1·1	− 2·5
27·389	25	104	13	53	348·7	− 1·2	+ 10·6
28·396	12	40	6	22	349·4	− 1·1	+ 24·6
29·424	10	29	6	19	349·2	− 0·4	+ 38·1
30·444	4	19	3	16	349·1	− 0·6	+ 51·5
Means ...	...	...	12	57	348·31	− 1·19	...

Group 3584.

A few very small spots irregularly arranged.

June 23·452	0	21	0	11	32·0	− 9·7	+ 1·9
24·512	5	34	3	18	33·7	−10·3	+ 17·6
25·488	7	36	4	21	32·9	− 9·5	+ 29·7
26·454	0	39	0	27	31·6	−10·1	+ 41·2
Means ...	...	...	2	19	32·55	− 9·90	...

Group 3585.

A large irregular spot, *a*, with occasionally one or two very small companions. Small spots also, from time to time, break off from *a*, which diminishes rapidly after June 25.

June 23·452	11	53	20	99	315·8	+16·5	− 74·3
24·512	23	144	24	148	315·9	+16·5	− 60·2
25·488	19	215	15	164	315·3	+16·2	− 47·9
26·454	24	100	15	63	315·2	+16·6	− 35·2
27·389	21	98	12	54	315·9	+16·7	− 22·2
28·396	28	146	14	79	316·7	+16·5	− 8·1
29·424	22	95	11	49	316·0	+16·6	+ 4·9
30·444	0	21	0	12	315·6	+15·6	+ 18·0
July 1·472	0	15	0	9	315·4	+16·1	+ 31·4
2·497	0	10	0	6	316·2	+15·2	+ 45·8
3·627	4	9	4	10	316·1	+17·1	+ 60·6
4·424	0	10	0	15	316·3	+16·5	+ 71·4
Means ...	...	...	10	59	315·87	+16·34	...

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

Group 3586.

A nebulous spot, *a*, followed by a stream of small spots. *a* has divided into two spots by June 28, but they are not measured separately as *b* and *c* until June 29.

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.
1894. d					°	°	°
June 23·452	0	24	0	99	306·9	+ 8·8	− 83·2
24·512	13	90	18	128	306·5	+ 8·9	− 69·6
25·488	12	142	11	134	305·3	+ 8·7	− 57·9
26·454	29	162	21	115	305·7	+ 9·4	− 44·7
27·389	42	146	25	87	306·8	+ 9·1	− 31·3
28·396	30	91	16	48	307·2	+ 9·4	− 17·6
29·424	12	52	6	27	306·7	+ 9·5	− 4·4
30·444	1	21	1	11	306·4	+ 9·4	+ 8·8
Means ...	...	...	12	81	306·44	+ 9·15	...

Group 3587.

A very small spot.

June 24·512	0	8	0	7	327·2	+10·1	− 48·9
Means ...	...	...	0	7	327·2	+10·1	...

Group 3588.

A pair of very small spots.

June 26·454	0	13	0	7	345·8	+12·6	− 4·6
Means ...	...	...	0	7	345·8	+12·6	...

Group 3589.

A pair of small spots, *a* and *b*, on June 27. Only *b* is seen on June 28.

June 27·389	3	29	1	16	350·9	+12·2	+ 12·8
28·396	0	24	0	13	350·1	+12·2	+ 25·3
Means ...	...	...	1	15	350·50	+12·20	...

Group 3590.

A small faint spot on June 27. The group has greatly increased by the succeeding day, when it consists of a regular spot, *a*, followed by a short broad stream of spots, mostly small. The group has increased still further by June 29, after which it rapidly diminishes, and dies out when still two days from the West limb.

1894. d					°	°	°
June 27·389	0	19	0	10	323·1	−12·3	− 15·0
28·396	72	366	37	191	324·4	−12·6	− 0·4
29·424	78	573	41	304	324·1	−12·6	+ 13·0
30·444	66	390	39	227	324·9	−12·0	+ 27·3
July 1·472	29	197	19	136	325·2	−12·0	+ 41·2
2·497	13	66	13	61	326·0	−11·6	+ 55·6
Means ...	...	...	25	155	324·62	−12·18	...

Group 3591.

A small faint spot *n* of Group 3585.

June 28·396	0	19	0	10	315·5	+20·2	− 9·3
29·424	0	15	0	8	316·3	+20·8	+ 5·2
30·444	0	27	0	15	316·8	+19·7	+ 19·2
Means ...	...	...	0	11	316·20	+20·23	...

Group 3592.

A few small and very unstable spots.

June 29·424	17	70	11	45	275·1	−11·6	− 36·0
30·444	7	36	4	20	274·6	−11·2	− 23·0
July 1·472	0	34	0	18	273·0	−11·5	− 11·0
2·497	0	41	0	21	274·1	−11·9	+ 3·7
3·627	5	15	3	8	275·8	−12·5	+ 20·3
4·424	0	12	0	7	274·5	−11·9	+ 29·6
5·424	0	6	0	5	278·0	−12·4	+ 46·3
6·423	0	19	0	20	278·1	−11·9	+ 59·6
Means ...	...	...	2	18	275·40	−11·86	...

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

Group 3593.

A few small unstable spots, usually forming a short 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.
1894. d					°	°	°
June 29·424	0	30	0	34	247·2	+ 0·8	− 63·9
30·444	4	28	3	21	249·3	+ 1·1	− 48·3
July 1·472	23	81	14	49	249·2	+ 1·5	− 34·8
2·497	4	100	2	54	248·3	+ 2·1	− 22·1
3·627	27	116	14	59	249·0	+ 2·1	− 6·5
4·424	22	100	11	50	248·1	+ 1·7	+ 3·2
5·424	5	27	7	31	249·4	+ 1·2	+ 17·7
6·423	0	31	0	19	250·4	+ 1·3	+ 31·9
7·422	0	12	0	9	253·4	+ 0·2	+ 48·1
Means ...	...	...	6	36	249·37	+ 1·33	...

Group 3594.

A very small spot.

June 30·444	0	5	0	5	358·3	+16·0	+ 60·7
Means ...	...	...	0	5	358·3	+16·0	...

Group 3595.

Two small spots.

July 1·472	2	29	1	17	309·1	+26·7	+ 25·1
Means ...	...	...	1	17	309·1	+26·7	...

Group 3596.

A very small spot *nf* of Group 3592 on July 1. A second similar spot has formed before it by July 2.

July 1·472	0	10	0	5	270·4	− 4·9	− 13·6
2·497	8	30	4	15	271·9	− 5·4	+ 1·5
Means ...	...	...	2	10	271·15	− 5·15	...

Group 3597.

A very small spot on July 1. A pair of small spots, *a* and *b*, on the succeeding days. These move apart in longitude, and other spots form between them, so that the group becomes a long straight stream. *a* diminishes in latitude from July 2 to July 5, producing the effect of a slight partial direct rotation of the axis of the group.

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.
1894. d					°	°	°
July 1·472	0	5	0	4	230·5	+21·5	− 53·5
2·497	16	55	10	36	231·4	+19·7	− 39·0
3·627	83	200	47	114	231·3	+19·4	− 24·2
4·424	35	222	19	117	232·1	+18·8	− 12·8
5·424	42	191	22	99	231·7	+18·4	0·0
6·423	10	114	5	61	233·3	+18·0	+ 14·8
7·422	13	73	8	45	234·0	+17·9	+ 28·7
8·507	2	43	2	31	234·7	+19·3	+ 43·7
9·642	0	10	0	10	237·5	+16·8	+ 61·6
Means ...	...	...	13	57	232·94	+18·87	...

Group 3598.

A regular spot, *a*, followed by a short irregular stream of small spots until July 5. *a* moves forward in longitude.

July 1·472	11	70	14	94	215·9	+ 6·4	− 68·1
2·497	26	174	22	151	215·4	+ 6·2	− 55·0
3·627	42	144	27	94	216·2	+ 6·6	− 39·3
4·424	24	168	14	96	216·8	+ 6·8	− 28·1
5·424	23	153	12	80	218·4	+ 7·6	− 13·3
6·423	19	130	10	65	218·8	+ 7·8	+ 0·3
7·422	19	87	10	45	219·2	+ 7·7	+ 13·9
8·507	19	78	11	45	219·9	+ 7·8	+ 28·9
9·642	17	44	12	30	219·6	+ 7·5	+ 43·7
10·321	7	36	6	30	220·4	+ 7·3	+ 53·5
Means ...	...	...	14	73	218·06	+ 7·17	...

Group 3599.

A large regular spot, *a*, followed by a straight stream of small spots. The latter increase in number and area, and the last spot, *b*, has become a large regular spot by July 7. The spots between *a* and *b* diminish after the group has passed the central meridian, and have all disappeared by July 13. *b* is seen as a notch on the limb but cannot be measured on July 15.

July 2·497	0	36	0	193	185·1	+11·2	− 85·3
3·627	29	141	42	199	186·0	+11·8	− 69·5
4·424	36	210	34	198	187·0	+12·3	− 57·9
5·424	79	453	59	332	185·5	+12·0	− 46·2
6·423	108	630	65	379	185·6	+12·3	− 32·9

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

Group 3599—*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.
					°	°	°
1894. a July 7·422	150	882	80	476	185·0	+12·2	−20·3
8·507	181	840	93	429	185·2	+12·4	−5·8
9·642	134	774	69	398	185·4	+12·2	+9·5
10·321	147	655	79	350	185·5	+12·2	+18·6
11·427	98	560	60	341	185·8	+12·3	+33·5
12·421	72	364	54	273	186·4	+12·3	+47·3
13·422	33	225	33	232	187·0	+12·5	+61·1
14·500	19	129	35	236	186·4	+12·4	+74·8
Means ...	...	...	54	310	185·84	+12·16	...

Group 3600.

A very small spot.

July 3·627	0	5	0	3	277·3	−7·6	+21·8
Means ...	...	...	0	3	277·3	−7·6	...

Group 3601.

A pair of very small spots.

July 3·627	3	20	2	10	261·4	−2·2	+5·9
Means ...	...	...	2	10	261·4	−2·2	...

Group 3602.

A very small spot *nf* Group 3597.

July 3·627	0	7	0	4	229·5	+23·2	−26·0
Means ...	...	...	0	4	229·5	+23·2	...

Group 3603.

A small regular spot, *a*, with occasionally one or two 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.
					°	°	°
1894. a July 3·627	7	33	9	41	190·7	−14·0	−64·8
4·424	7	29	7	26	191·2	−13·1	−53·7
5·424	6	29	4	20	190·4	−13·6	−41·3
6·423	4	12	2	7	191·5	−13·4	−27·0
7·422	5	34	3	19	190·4	−13·8	−14·9
8·507	4	22	2	11	192·3	−13·9	+1·3
9·642	1	20	1	11	192·0	−14·1	+16·1
Means ...	...	...	4	19	191·21	−13·70	...

Group 3604.

A group of spots consisting chiefly of two large regular spots, *a* and *c*, with a much smaller regular spot, *b*, between them. A few smaller spots are also seen from time to time. *b* has disappeared by July 8, *a* by July 10, and *c* remains alone by July 13.

July 3·627	16	130	37	344	178·3	−19·2	−77·2
4·424	61	357	113	622	173·9	−18·9	−71·0
5·424	77	520	81	550	173·3	−18·9	−58·4
6·423	78	575	61	459	172·0	−18·7	−46·5
7·422	100	680	67	455	170·9	−19·4	−34·4
8·507	125	692	74	409	170·3	−19·3	−20·7
9·642	130	618	72	341	168·2	−19·2	−7·7
10·321	117	563	64	308	167·7	−19·5	+0·8
11·427	91	547	52	313	167·3	−19·2	+15·0
12·421	77	429	48	268	167·3	−18·9	+28·2
13·422	45	348	33	257	167·0	−18·6	+41·1
14·500	34	238	33	232	167·0	−18·6	+55·4
15·208	33	156	44	209	167·1	−19·2	+64·9
16·325	9	58	27	182	166·1	−18·6	+78·7
Means ...	...	...	58	354	169·74	−19·01	...

Group 3605.

An irregular spot, *a*, *sf* Group 3604. *c*, a very small companion, is seen on July 7. After that date the group is a cluster of very small unstable spots.

July 4·424	0	15	0	43	167·5	−25·1	−77·4
5·424	5	24	6	32	168·0	−24·7	−63·7
6·423	0	43	0	39	167·9	−24·4	−50·6
7·422	0	56	0	40	167·9	−24·7	−37·4
8·507	6	21	4	13	167·9	−24·5	−23·1
9·642	0	24	0	14	166·8	−24·9	−9·1
10·321	0	23	0	13	167·1	−25·7	+0·2
11·427	0	8	0	5	167·8	−24·2	+15·5
Means ...	...	...	1	25	167·61	−24·78	...

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

Group 3606.

A small faint spot on July 5. The group increases in size and complexity.

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.
1894. d					°	°	°
July 5·424	0	12	0	8	201·3	−16·0	− 30·4
6·423	6	36	3	20	202·8	−15·5	− 15·7
7·422	41	203	21	107	203·1	−15·2	− 2·2
8·507	86	357	47	196	204·4	−15·2	+ 13·4
9·642	52	309	32	186	203·8	−15·3	+ 27·9
10·321	53	255	36	173	204·9	−15·4	+ 38·0
11·427	17	102	15	94	206·5	−14·7	+ 54·2
12·421	5	44	8	62	206·3	−14·8	+ 67·2
13·422	0	16	0	54	206·0	−14·5	+ 80·1
Means ...	...	...	18	100	204·34	−15·18	...

Group 3607.

A faint spot which has greatly diminished by July 6.

July 5·424	0	15	0	39	152·4	+ 9·2	− 79·3
6·423	0	7	0	9	151·3	+ 9·3	− 67·2
7·422	0	12	0	10	151·3	+ 8·9	− 54·0
8·507	2	13	1	8	150·8	+ 8·4	− 40·2
Means ...	...	...	0	17	151·45	+ 8·95	...

Group 3608.

A very small spot.

July 6·423	0	15	0	8	198·1	+ 8·7	− 20·4
Means ...	...	...	0	8	198·1	+ 8·7	...

Group 3609.

A very small spot.

July 6·423	0	7	0	4	194·6	−16·7	− 23·9
Means ...	...	...	0	4	194·6	−16·7	...

Group 3610.

A stream at right angles to the equator, consisting chiefly of two large spots, *a* and *b*, with several small faint companions. *a*, the more northern spot, has broken up into a number of small spots by July 12. These appear to unite again later, and have mostly coalesced with *b* by July 16.

1894. d					°	°	°
July 6·423	16	112	60	417	135·6	+ 9·9	− 82·9
7·422	43	326	60	456	135·8	+ 9·2	− 69·5
8·507	106	658	95	585	135·5	+ 9·4	− 55·5
9·642	115	710	76	463	136·1	+ 9·6	− 39·8
10·321	169	743	101	438	135·8	+ 9·6	− 31·1
11·427	147	648	75	343	136·0	+ 9·0	− 16·3
12·421	95	614	48	310	136·3	+ 8·9	− 2·8
13·422	133	822	61	423	137·0	+ 8·6	+ 11·1
14·500	169	1052	94	587	137·5	+ 9·0	+ 25·9
15·208	194	929	119	571	137·9	+ 8·5	+ 35·7
16·325	136	671	107	524	138·0	+ 9·1	+ 50·6
17·573	73	480	91	599	137·7	+ 9·4	+ 66·8
18·527	39	157	98	394	137·5	+ 8·6	+ 79·2
Means ...	...	...	83	470	136·67	+ 9·14	...

Group 3611.

A very small spot.

July 7·422	0	12	0	7	182·8	−13·1	−22·5
Means ...	...	...	0	7	182·8	−13·1	...

Group 3612.

A small spot.

July 7·422	0	7	0	9	139·5	+17·6	−65·8
Means ...	...	...	0	9	139·5	+17·6	...

Group 3613.

A group following Group 3610, and consisting of a large regular spot, *a*, surrounded by a number of small companions.

July 7·422	10	46	28	135	124·7	+ 9·9	− 80·6
8·507	28	180	35	228	124·0	+ 9·6	− 67·0
9·642	36	310	29	247	124·6	+ 9·8	− 51·3
10·321	47	331	32	225	124·5	+10·0	− 42·4
11·427	51	326	30	188	124·0	+ 9·8	− 28·3
12·421	59	349	31	183	123·9	+ 9·8	− 15·2

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

Group 3613—*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.
1894. d					°	°	°
July 13·422	37	318	19	160	123·4	+ 9·6	− 2·5
14·500	49	337	25	173	123·7	+ 9·3	+ 12·1
15·208	61	227	33	123	124·3	+ 10·0	+ 22·1
16·325	32	124	20	77	124·2	+ 10·3	+ 36·8
17·573	16	107	13	88	123·9	+ 10·6	+ 53·0
18·527	7	23	8	27	123·6	+ 10·6	+ 65·3
Means ...	...	...	25	155	124·07	+ 9·94	...

Group 3614.

A few faint spots, mostly very small, *s* Group 3599. The last spot, *a*, is the most stable.

July 8·507	2	26	1	13	179·9	+ 5·6	− 11·1
9·642	6	48	3	24	180·8	+ 5·7	+ 4·9
10·321	9	56	5	29	179·4	+ 5·3	+ 12·5
11·427	0	11	0	6	181·2	+ 4·8	+ 28·9
12·421	0	25	0	17	180·3	+ 4·7	+ 41·2
Means ...	...	...	2	18	180·32	+ 5·22	...

Group 3615.

A small spot *f* Group 3613.

July 8·507	0	8	0	28	109·3	+ 9·4	− 81·7
9·642	1	13	1	16	110·1	+ 9·9	− 65·8
10·321	2	15	2	13	110·2	+ 10·2	− 56·7
11·427	5	9	4	6	109·8	+ 10·1	− 42·5
12·421	2	8	1	5	110·0	+ 10·1	− 29·1
Means ...	...	...	2	14	109·88	+ 9·94	...

Group 3616.

A large regular spot, *a*, which diminishes very rapidly. A very small companion is seen on July 13.

July 10·321	6	30	14	77	89·3	− 10·9	− 77·6
11·427	13	102	16	122	88·7	− 11·2	− 63·6
12·421	23	100	19	82	89·0	− 11·0	− 50·1
13·422	14	117	10	76	89·1	− 10·9	− 36·8
14·500	16	55	9	31	89·3	− 10·5	− 22·3
15·208	3	15	2	8	88·9	− 10·8	− 13·3
Means ...	...	...	12	66	89·05	− 10·88	...

Group 3617.

A very small spot.

1894. d					°	°	°
July 11·427	0	4	1	3	195·0	− 5·8	+ 42·7
Means ...	...	...	1	3	195·0	− 5·8	...

Group 3618.

A small spot.

July 11·427	2	17	1	11	184·9	− 14·6	+ 32·6
Means ...	...	...	1	11	184·9	− 14·6	...

Group 3619.

A very small spot.

July 11·427	0	12	0	6	156·7	+ 9·8	+ 4·4
Means ...	...	...	0	6	156·7	+ 9·8	...

Group 3620.

A small spot.

July 11·427	0	17	0	9	145·4	+ 12·2	− 6·9
Means ...	...	...	0	9	145·4	+ 12·2	...

Group 3621.

Two small spots, *a* and *b*, on July 11 and 12. *a* alone is seen on July 13.

July 11·427	10	47	5	25	139·7	+ 18·3	− 12·6
12·421	6	40	3	22	139·5	+ 18·1	+ 0·4
13·422	0	6	0	3	142·6	+ 17·8	+ 16·7
Means ...	...	...	3	17	140·60	+ 18·07	...

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

Group 3622.

A number of spots, mostly very small, in an irregular group on July 11. The group has expanded by July 12 into a short broad stream, of which *a*, a large regular spot, is the leader.

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.
1894. d					°	°	°
July 11·427	14	84	8	45	136·4	− 9·6	− 15·9
12·421	108	413	57	215	136·9	−10·2	− 2·2
13·422	111	682	59	363	137·3	−10·1	+ 11·4
14·500	113	673	65	391	138·1	−10·0	+ 26·5
15·208	123	655	79	423	138·3	−10·6	+ 36·1
16·325	72	387	60	320	138·2	−10·7	+ 50·8
17·573	21	215	31	306	139·0	−10·3	+ 68·1
18·527	5	41	20	168	140·3	−10·8	+ 82·0
Means ...	...	...	47	279	138·06	−10·29	...

Group 3623.

A number of spots, mostly very small. Some of these have coalesced on July 18 to form an irregular composite spot.

July 11·427	6	40	5	34	102·6	−18·9	− 49·7
12·421	22	145	14	100	102·6	−18·6	− 36·5
13·422	17	136	11	81	102·3	−19·1	− 23·6
14·500	2	85	1	47	102·8	−18·1	− 8·8
Means ...	...	...	8	66	102·58	−18·6?	...

Group 3624.

A fine group, the major axis of which is perpendicular to the equator on July 11. The group consists of two large spots, *a* and *b*, and a number of small unstable companions.

July 11·427	65	259	146	575	76·7	−12·5	− 75·6
12·421	123	677	144	813	76·4	−11·9	− 62·7
13·422	164	1003	134	816	76·7	−12·3	− 49·2
14·500	209	1006	132	639	77·1	−11·8	− 34·5
15·208	234	992	137	580	76·0	−12·2	− 26·2
16·325	257	1085	138	576	76·2	−12·1	− 11·2
17·573	227	1121	121	588	76·4	−12·3	+ 5·5
18·527	220	953	122	525	76·8	−12·0	+ 18·5
19·394	167	897	103	551	77·3	−12·1	+ 30·4
20·176	154	700	106	488	77·0	−12·5	+ 40·5
21·503	77	465	78	470	77·0	−12·1	+ 58·0
22·515	23	250	35	433	76·9	−12·2	+ 71·4
23·166	11	50	31	136	74·6	−14·6	+ 77·7
Means ...	...	...	110	553	76·55	−12·35	...

Group 3625.

A very small spot.

1894. d					°	°	°
July 11·427	0	3	0	5	77·5	+15·5	− 74·8
Means ...	...	...	0	5	77·5	+15·5	...

Group 3626.

A very small spot on July 12. A wide pair of very small spots on July 13.

July 12·421	0	4	0	2	126·5	−12·7	−12·6
13·422	0	21	0	12	123·0	−11·1	− 2·9
Means ...	...	...	0	7	124·75	−11·90	...

Group 3627.

A very small spot.

July 12·421	0	4	0	2	124·3	−15·1	− 14·8
Means ...	...	...	0	2	124·3	−15·1	...

Group 3628.

A few spots, mostly very small, irregularly scattered *sf* Group 3624. *a*, the last spot on July 12, is the largest. It has become the leader by July 16, through the disappearance of the preceding spots, and the formation of fresh spots following it.

July 12·421	17	67	31	123	66·3	−11·6	− 72·8
13·422	15	64	16	65	67·1	−12·4	− 58·8
14·500	15	68	11	49	67·8	−12·2	− 43·8
15·208	18	75	11	49	66·9	−12·2	− 35·3
16·325	15	52	8	29	66·6	−12·8	− 20·8
17·573	7	54	4	29	67·6	−12·5	− 3·3
18·527	1	74	1	38	65·1	−11·7	+ 6·8
19·394	3	86	2	47	63·7	−12·4	+ 16·8
20·176	2	25	1	14	64·6	−11·5	+ 28·1
21·503	0	18	0	13	63·1	−11·0	+ 44·1
Means ...	...	...	9	46	65·88	−12·03	...

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

Group 3629.

A large regular spot, *a*, which undergoes considerable change. A number of small spots arranged in a spiral form proceed from the *f* side of *a* on July 15, but have disappeared again by July 21.

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.
1894. d					°	°	°
July 12·421	0	23	0	111	54·6	+ 8·5	− 84·5
13·422	8	62	13	92	55·2	+ 8·1	− 70·7
14·500	17	118	15	104	56·0	+ 8·0	− 55·6
15·208	32	154	23	114	55·2	+ 8·0	− 47·0
16·325	78	410	45	242	55·5	+ 7·6	− 31·9
17·573	97	560	50	291	56·3	+ 7·1	− 14·6
18·527	101	842	51	422	56·4	+ 7·1	− 1·9
19·394	148	800	75	411	56·8	+ 7·2	+ 9·9
20·176	104	559	55	299	57·3	+ 6·9	+ 20·8
21·503	77	440	50	282	57·2	+ 7·4	+ 38·2
22·515	66	373	53	301	57·2	+ 7·3	+ 51·7
23·166	49	281	51	288	58·0	+ 7·1	+ 61·1
24·224	24	140	45	262	58·0	+ 7·5	+ 75·1
Means ...	...	...	40	248	56·44	+ 7·52	...

Group 3630.

A considerable irregular stream of spots which undergo constant change.

July 12·421	0	15	0	150	52·8	−10·6	− 86·3
13·422	21	114	40	231	51·4	−10·1	− 74·5
14·500	46	273	50	286	51·7	−10·0	− 59·9
15·208	93	357	77	295	51·4	−10·2	− 50·8
16·325	68	308	43	196	52·1	−10·3	− 35·3
17·573	92	553	51	301	53·6	−10·5	− 17·3
18·527	121	720	62	376	53·6	−10·9	− 4·7
19·394	131	756	69	400	53·6	−11·0	+ 6·7
20·176	110	542	60	298	53·7	−11·2	+ 17·2
21·503	92	341	61	217	53·5	−11·0	+ 34·5
22·515	75	251	60	201	54·0	−10·9	+ 48·5
23·166	33	155	32	151	53·6	−11·8	+ 56·7
24·224	0	16	0	25	52·1	−11·5	+ 69·2
Means ...	...	...	47	241	52·85	−10·77	...

Group 3631.

A very small spot.

July 13·422	0	8	0	4	123·2	+23·3	− 2·7
Means ...	...	...	0	4	123·2	+23·3	...

Group 3632.

A small spot.

1894. d					°	°	°
July 13·422	0	4	0	9	50·6	−15·9	− 75·3
14·500	2	15	3	16	50·9	−16·1	− 60·7
15·208	2	16	2	14	50·1	−16·7	− 52·1
16·325	5	11	4	7	50·7	−16·4	− 36·7
17·573	0	5	0	3	51·2	−16·6	− 19·7
Means ...	...	...	2	10	50·70	−16·34	...

Group 3633.

One or two very small unstable spots. The group is not seen on July 15.

July 14·500	0	5	0	7	40·0	+13·4	− 71·6
15·208	0	0	0	0	...	...	...
16·325	0	28	0	22	38·2	+13·7	− 49·2
17·573	0	5	0	3	38·5	+14·2	− 32·4
Means ...	...	...	0	8	38·90	+13·77	

Group 3634.

A large spot, first seen close to the West limb.

July 16·325	3	32	10	102	164·9	−25·7	+ 77·5
Means ...	...	...	10	102	164·9	−25·7	...

Group 3635.

A few small unstable spots, *af* Group 3630, irregularly arranged. The group is not seen on July 22.

July 16·325	3	12	3	9	41·4	−16·5	− 46·0
17·573	3	17	2	11	43·7	−16·1	− 27·2
18·527	0	22	0	37	43·4	−16·0	− 14·9
19·394	7	59	4	32	43·0	−16·7	− 3·9
20·176	0	14	0	7	44·5	−16·6	+ 8·0
21·503	0	15	0	9	42·8	−15·8	+ 23·8
22·515	0	0	0	0	...	...	...
23·166	0	6	0	4	43·3	−17·2	+ 46·4
24·224	3	9	3	9	42·9	−16·3	+ 60·0
Means ...	...	...	1	13	43·13	−16·40	...

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

Group 3636.

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.
1894. d					°	°	°
July 16·325	0	5	0	8	22·8	−30·6	− 64·6
17·573	0	4	0	4	24·4	−30·7	− 46·5
Means ...	...	...	0	6	23·60	−30·65	...

Group 3637.

An irregular stream, consisting of two large regular spots, *a* and *b*, and a few small companions. *a* moves backward in longitude, approaching *b*.

July 17·573	36	220	60	358	358·2	+12·6	− 72·7
18·527	80	391	82	392	357·9	+12·6	− 60·4
19·394	97	596	75	461	357·5	+12·5	− 49·4
20·176	113	542	73	351	357·3	+12·8	− 39·2
21·503	109	618	59	336	357·6	+13·0	− 21·4
22·515	101	592	52	303	357·8	+12·7	− 7·7
23·166	122	504	62	256	358·1	+12·9	+ 1·2
24·224	94	504	49	262	357·9	+13·0	+ 15·0
25·418	69	478	40	278	357·1	+12·8	+ 30·0
26·543	64	354	46	253	357·8	+13·0	+ 45·5
27·494	25	195	23	182	357·6	+12·6	+ 57·9
28·222	20	148	25	188	357·4	+12·6	+ 67·4
29·476	8	37	26	127	356·4	+12·1	+ 82·5
Means ...	...	...	52	288	357·58	+12·71	...

Group 3638.

A large double spot, sometimes measured as one spot, *a*, sometimes as two separate spots, *b* and *c*. A small companion is occasionally seen.

July 17·573	5	51	26	271	345·1	+14·4	− 85·8
18·527	43	199	70	325	345·5	+14·4	− 72·8
19·394	66	368	70	392	344·6	+14·5	− 62·3
20·176	89	403	71	326	344·7	+14·7	− 51·8
21·503	99	584	61	360	344·7	+14·5	− 34·3
22·515	113	644	61	350	344·3	+14·4	− 21·2
23·166	108	454	55	235	344·9	+14·2	− 12·0
24·224	101	478	51	241	345·0	+14·1	+ 2·1
25·418	61	428	33	228	344·0	+13·8	+ 16·9
26·543	58	309	35	186	344·7	+14·1	+ 32·4
27·494	18	110	13	78	344·5	+13·7	+ 44·8
28·222	20	86	16	74	344·5	+13·6	+ 54·5
29·476	11	51	16	74	344·5	+13·2	+ 70·6
30·221	0	39	0	48	344·1	+14·0	+ 80·5
Means ...	...	...	41	228	344·65	+14·12	...

Group 3639.

A very small spot on July 18. A second very small spot is seen preceding it on July 19.

1894. d					°	°	°
July 18·527	0	4	0	2	59·9	−16·0	+ 1·6
19·394	0	21	0	11	60·8	−16·9	+ 13·9
Means ...	...	...	0	7	60·35	−16·45	...

Group 3640.

A small spot on July 20. A considerable stream, of which *a*, the leader, is a large regular spot, has formed by July 21. The following spots of the stream have disappeared by July 27, leaving *a* alone. *a* is seen as a notch on the limb on July 31, but is not measurable.

July 20·176	0	5	0	10	320·5	−10·1	− 76·0
21·503	53	312	50	288	323·7	− 9·1	− 55·3
22·515	102	583	71	400	324·9	− 8·9	− 40·6
23·166	126	514	75	311	325·3	− 8·9	− 31·6
24·224	103	514	55	275	326·8	− 9·3	− 16·1
25·418	79	549	41	284	328·2	− 9·1	+ 1·1
26·543	74	460	40	252	330·2	− 8·5	+ 17·9
27·494	74	503	45	308	331·5	− 8·5	+ 31·8
28·222	64	351	45	243	331·6	− 8·2	+ 41·6
29·476	46	268	46	268	332·5	− 8·1	+ 58·6
30·221	35	166	50	239	332·1	− 7·4	+ 68·5
Means ...	...	...	47	262	327·94	− 8·74	...

Group 3641.

A very small spot.

July 21·503	0	12	0	7	38·5	+14·0	+ 19·5
Means ...	...	...	0	7	38·5	+14·0	...

Group 3642.

A large regular spot, *a*, with occasionally some small companions.

July 21·503	19	99	40	204	302·2	+18·1	− 76·8
22·515	39	236	43	263	301·9	+17·8	− 63·6
23·166	65	304	57	268	301·8	+18·5	− 55·1
24·224	67	314	46	212	301·4	+18·4	− 41·5
25·418	80	527	46	300	301·0	+18·0	− 26·1
26·543	99	465	52	244	300·6	+18·4	− 11·7
27·494	97	541	50	279	300·7	+18·4	+ 1·0

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

Group 3642—*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.
1893. d					°	°	°
July 28·222	78	379	41	199	300·7	+18·4	+ 10·7
29·476	81	405	47	233	301·4	+18·1	+ 27·5
30·221	68	375	43	239	300·6	+18·6	+ 37·0
31·609	64	286	56	248	299·9	+18·7	+ 54·6
Aug. 1·692	33	164	44	221	299·9	+18·6	+ 68·9
2·617	21	87	58	246	300·0	+19·0	+ 81·3
Means ...	...	...	48	243	300·93	+18·38	...

Group 3643.

One or two very small unstable spots.

July 22·515	0	7	0	4	352·7	−20·9	− 12·8
23·166	8	39	4	22	351·9	−21·3	− 5·0
24·224	5	35	3	20	354·9	−20·8	+ 12·0
Means ...	...	...	2	15	353·17	−21·00	...

Group 3644.

A few faint unstable spots, mostly very small, irregularly scattered.

July 23·166	0	5	0	6	290·8	+ 9·2	− 66·1
24·224	5	25	5	21	290·5	+ 7·6	− 52·4
25·418	4	84	3	52	292·0	+ 7·2	− 35·1
26·543	7	76	4	39	294·7	+ 5·7	− 17·6
Means ...	...	...	3	30	292·00	+ 7·43	...

Group 3645.

A large regular spot, *a*, with occasionally one or two small companions.

July 23·166	12	65	29	153	282·3	−21·7	− 74·6
24·224	36	185	44	232	280·9	−22·1	− 62·0
25·418	39	339	32	277	281·2	−21·9	− 45·9
26·543	69	353	46	234	281·6	−21·8	− 30·7
27·494	74	365	44	219	281·5	−21·7	− 18·2
28·222	50	277	29	159	280·9	−21·8	− 9·1
29·476	56	258	32	148	281·4	−21·9	+ 7·5
30·221	41	229	25	135	280·6	−21·2	+ 17·0
31·609	39	202	27	141	280·0	−21·4	+ 34·7
Aug. 1·692	28	149	24	131	279·6	−21·9	+ 48·6
2·617	21	109	25	132	279·5	−21·8	+ 60·8
3·438	27	80	55	164	279·7	−22·5	+ 71·9
Means ...	...	...	34	177	280·77	−21·81	...

Group 3646.

A small spot on July 24, which has greatly diminished by July 25.

1894. d					°	°	°
July 24·224	0	19	0	27	272·1	+12·8	− 70·8
25·418	0	4	0	3	271·4	+12·6	− 55·7
Means ...	...	...	0	15	271·75	+12·70	...

Group 3647.

A very small spot.

July 26·543	0	15	0	7	317·4	−17·6	+ 5·1
Means ...	...	...	0	7	317·4	−17·6	...

Group 3648.

A few scattered small spots.

July 26·543	4	38	2	20	302·8	− 5·8	− 9·5
27·494	0	31	0	16	303·6	− 7·5	+ 3·9
28·222	4	17	3	10	303·4	− 5·4	+ 13·4
Means ...	...	...	2	15	303·27	− 6·23	...

Group 3649.

A very small spot.

July 27·494	2	13	2	8	274·4	−22·3	− 25·3
28·222	0	6	0	3	273·9	−22·6	− 16·1
Means ...	...	...	1	6	274·15	−22·45	...

Group 3650.

A very small spot.

July 29·476	0	8	0	5	307·4	+22·8	+ 33·5
Means ...	...	...	0	5	307·4	+22·8	...

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

Group 3651.

A few small unstable spots, irregularly arranged. The group is not seen on July 31.

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.
1894. d					°	°	°
July 29·476	7	35	6	30	222·5	−11·0	− 51·4
30·221	0	20	0	14	222·6	−10·8	− 41·0
31·609	0	0	0	0	...	...	...
Aug. 1·692	0	7	0	4	223·7	−12·7	− 7·3
Means ...	...	...	2	12	222·93	−11·50	...

Group 3652.

A very large irregular and scattered group. The leading spot, *a*, is at first large, but has disappeared by August 7. *b*, the largest spot in the centre of the group, is a large irregular composite spot. The spots *sf b* are at first small and scattered, but tend to coalesce, and two of them, *c* and *d*, have become large by August 7 and 8 respectively.

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.
July 29·476	10	47	31	147	192·0	+12·1	− 81·9
30·221	36	262	68	493	188·2	+10·9	− 75·4
31·609	184	779	179	765	185·4	+ 9·7	− 59·9
Aug. 1·692	258	1328	191	973	184·2	+ 9·6	− 46·8
2·617	157	1252	98	770	183·8	+10·0	− 34·9
3·438	170	1380	92	758	184·2	+10·7	− 23·6
4·513	204	1187	105	609	184·2	+10·3	− 9·5
5·547	140	971	71	490	184·4	+10·7	+ 4·4
6·258	148	789	76	406	184·2	+10·9	+ 13·7
7·544	142	987	81	577	183·3	+10·3	+ 31·0
8·242	278	1061	178	678	183·3	+ 9·4	+ 39·0
9·305	156	931	127	760	182·8	+ 9·4	+ 52·5
10·609	66	435	90	593	182·3	+ 9·9	+ 69·2
11·479	28	164	84	490	182·8	+10·4	+ 81·3
Means ...	...	...	105	608	184·65	+10·31	...

Group 3653.

A few unstable spots, mostly very small, irregularly scattered. The group is not seen on July 31.

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.
July 30·221	0	12	0	10	212·3	−11·7	− 51·3
31·609	0	0	0	0	...	...	...
Aug. 1·692	5	27	2	15	212·2	−12·1	− 18·8
2·617	18	50	10	26	216·8	−12·1	− 1·9
3·438	12	60	7	33	216·5	−12·3	+ 8·7
4·513	2	13	1	7	217·6	−13·0	+ 23·9
Means ...	...	...	3	15	215·08	−12·24	...

Group 3654.

A regular spot, *a*, which diminishes in longitude and area. A few small spots form in advance of *a* on August 1 and the succeeding days but have all disappeared by August 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.
1894. d					°	°	°
July 31·609	0	19	0	85	164·3	−19·0	− 81·0
Aug. 1·692	15	97	23	146	164·2	−19·1	− 66·8
2·617	19	85	18	84	163·9	−19·3	− 54·8
3·438	38	174	30	137	164·0	−19·4	− 43·8
4·513	28	86	18	56	163·7	−19·6	− 30·0
5·547	0	53	0	31	162·8	−20·3	− 17·2
6·258	2	17	1	10	161·5	−20·3	− 9·0
Means ...	...	...	13	78	163·49	−19·57	...

Group 3655.

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.
Aug. 1·692	0	5	0	13	151·7	+16·6	− 79·3
Means ...	...	...	0	13	151·7	+16·6	...

Group 3656.

A regular spot, *a*, which diminishes in longitude and area. A few small spots are seen preceding *a* on August 2 and 3, and others following it on August 8 and 9. The group is not seen on August 10, but *a* appears to have revived again by August 11.

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. 2·617	4	38	9	85	143·7	−14·9	− 75·0
3·438	21	85	28	112	142·5	−14·0	− 65·3
4·513	12	59	11	55	140·4	−15·7	− 53·3
5·547	15	59	11	43	139·7	−15·7	− 40·3
6·258	15	47	10	29	139·8	−15·4	− 30·7
7·544	8	29	5	16	139·6	−15·5	− 12·7
8·242	13	41	7	22	138·7	−16·0	− 5·6
9·305	4	24	2	13	138·4	−15·3	+ 8·1
10·609	0	0	0	0	...	...	...
11·479	0	14	0	10	138·8	−16·0	+ 37·3
Means ...	...	...	8	39	140·18	−15·39	...

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

Group 3657.

A large regular spot, *a*, closely followed on some days by a chain of spots mostly very small.

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.
1894. d					°	°	°
Aug. 2·617	15	77	28	148	142·8	+18·4	−75·9
3·438	27	159	32	186	142·5	+18·4	−65·3
4·513	42	327	33	257	143·7	+18·2	−50·0
5·547	71	365	45	230	144·3	+18·1	−35·7
6·258	71	338	40	194	144·3	+18·2	−26·2
7·544	57	326	29	167	146·2	+18·2	−6·1
8·242	65	286	33	146	146·2	+18·5	+1·9
9·305	43	181	23	96	146·6	+18·6	+16·3
10·609	37	178	23	108	145·9	+18·4	+32·8
11·479	37	184	26	130	145·9	+17·8	+44·4
12·381	18	77	16	70	146·6	+17·1	+57·0
13·609	6	45	10	73	146·7	+17·4	+73·3
14·385	0	7	0	26	147·2	+15·3	+84·1
Means ...	...	...	26	141	145·30	+17·89	...

Group 3658.

A spot, *a*, which rapidly diminishes in area. A very small companion is seen on August 5.

Aug. 2·617	10	41	20	86	141·6	+7·9	−77·1
3·438	10	56	13	69	141·0	+7·6	−66·8
4·513	15	38	12	31	141·0	+7·1	−52·7
5·547	10	21	6	13	141·4	+6·8	−38·6
6·258	2	11	1	6	141·3	+7·1	−29·2
Means ...	...	...	10	41	141·26	+7·30	...

Group 3659.

A few small spots irregularly scattered, *s* Group 3652.

Aug. 4·513	30	98	16	49	184·4	+3·3	−9·3
5·547	7	62	4	31	183·3	+3·3	+3·3
6·258	2	26	1	13	182·5	+3·8	+12·0
Means ...	...	...	7	31	183·40	+3·47	...

Group 3660.

A few small spots irregularly scattered, *np* of the position of Group 3654.

1894. d					°	°	°
Aug. 7·544	14	125	8	71	167·5	−17·6	+15·2
8·242	20	58	12	35	168·1	−18·5	+23·8
9·305	1	5	1	4	169·8	−16·5	+39·5
Means ...	...	...	7	37	168·47	−17·53	...

Group 3661.

Two small spots on August 7. On August 8 two small dark spots, *a* and *b*, are seen connected by a double stream of spots. *a* and *b* increase in size and have become large spots with well-defined umbræ by August 9. The connecting spots have all died out by August 13.

Aug. 7·544	5	23	3	12	146·1	−10·9	−6·2
8·242	62	213	31	112	145·6	−13·7	+1·3
9·305	137	738	77	412	147·1	−13·0	+16·8
10·609	143	803	93	512	146·5	−12·8	+33·4
11·479	86	594	64	453	147·0	−12·8	+45·5
12·381	43	403	42	409	147·4	−13·0	+57·8
13·609	13	154	24	302	146·5	−12·8	+73·1
14·385	0	21	0	66	141·9	−13·6	+78·8
Means ...	...	...	42	285	146·01	−12·83	...

Group 3662.

A large regular spot, *a*, with a very small companion on August 16.

Aug. 7·544	20	69	33	112	82·0	−11·5	−70·3
8·242	21	92	25	107	81·7	−11·4	−62·6
9·305	28	145	23	116	82·0	−11·3	−48·3
10·609	31	171	19	105	82·4	−11·3	−30·7
11·479	33	180	18	100	82·4	−11·4	−19·1
12·381	43	212	23	112	82·0	−11·6	−7·6
13·609	19	213	10	113	82·8	−11·0	+9·4
14·385	33	156	18	88	82·6	−11·1	+19·5
15·453	22	120	14	76	82·8	−11·4	+33·8
16·483	16	104	13	82	82·6	−12·1	+47·4
17·400	10	51	11	55	83·3	−11·3	+60·0
18·406	4	15	8	28	83·0	−11·3	+73·0
Means ...	...	...	18	91	82·47	−11·39	...

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

Group 3663.

A large regular 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.
1894. d					°	°	°
Aug. 7·544	0	20	0	78	71·7	−14·1	− 80·6
8·242	12	63	23	115	72·3	−14·1	− 72·0
9·305	19	119	19	125	71·8	−14·1	− 58·5
10·609	20	146	15	105	72·0	−14·3	− 41·1
11·479	30	164	19	101	71·8	−14·3	− 29·7
12·381	33	163	19	92	71·3	−14·4	− 18·3
13·609	30	160	16	86	71·6	−14·2	− 1·8
14·385	31	162	17	87	71·2	−14·1	+ 8·1
15·453	24	147	14	86	70·9	−15·0	+ 21·9
16·483	28	153	19	103	70·5	−15·6	+ 35·3
17·400	15	87	12	71	70·8	−15·3	+ 47·5
18·406	12	44	14	50	70·5	−15·4	+ 60·5
19·299	4	29	8	54	69·9	−15·5	+ 71·8
Means ...	...	...	15	89	71·25	−14·65	...

Group 3664.

A small spot, *a*, with a very small companion on August 8. The group is not seen on August 12 and 13, but *a* has revived by August 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.
Aug. 8·242	9	34	12	46	79·6	−20·7	− 64·7
9·305	4	22	4	20	79·9	−20·4	− 50·4
10·609	6	20	4	14	81·3	−20·5	− 31·8
11·479	6	16	4	10	81·4	−20·8	− 20·1
12·381	0	0	0	0	...	...	...
13·609	0	0	0	0	...	...	...
14·385	0	5	0	3	80·1	−20·8	+ 17·0
Means ...	...	...	3	13	80·46	−20·64	...

Group 3665.

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.
Aug. 8·242	3	10	5	17	75·8	−23·8	− 68·5
9·305	3	13	3	13	75·4	−24·2	− 54·9
Means ...	...	...	4	15	75·60	−24·00	...

Group 3666.

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.
1894. d					°	°	°
Aug. 10·609	6	23	4	16	151·0	−16·6	+ 37·9
11·479	4	12	3	11	152·0	−17·1	+ 50·5
Means ...	...	..	4	14	151·50	−16·85	...

Group 3667.

A pair of small spots, *a* and *b*.

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. 10·609	7	31	5	21	79·9	−16·1	− 33·2
11·479	5	20	3	12	79·9	−16·3	− 21·6
Means ...	...	...	4	17	79·90	−16·20	...

Group 3668.

A very large fine irregular group. During the greater part of its passage across the disk it consists of one very large irregular composite spot, which has to be arbitrarily subdivided for the purposes of measurement. It breaks up into several separate and distinct spots as it approaches the West limb.

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. 11·479	46	401	98	844	24·8	+ 5·6	− 76·7
12·381	103	803	122	943	24·3	+ 5·7	− 65·3
13·609	206	1554	154	1164	25·0	+ 6·5	− 48·4
14·385	483	2447	307	1556	25·4	+ 6·5	− 37·7
15·453	551	3016	303	1654	25·2	+ 6·5	− 23·8
16·483	612	3741	312	1910	25·8	+ 6·2	− 9·4
17·400	618	3364	310	1695	25·9	+ 6·5	+ 2·6
18·406	526	2954	277	1554	27·1	+ 6·5	+ 17·1
19·299	411	2344	238	1346	27·7	+ 6·3	+ 29·6
20·398	333	1773	231	1239	28·4	+ 6·9	+ 44·8
21·378	254	1251	243	1199	29·7	+ 6·7	+ 59·0
22·412	101	572	161	922	29·5	+ 7·2	+ 72·5
23·327	0	64	0	172	24·7	+ 5·5	+ 79·8
Means ...	...	...	212	1246	26·42	+ 6·35	...

Group 3669.

A few very small spots, *f* Group 3661. Only *a*, the leader, which has increased in size, remains by August 13.

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. 12·381	3	28	2	20	132·7	−11·1	+ 43·1
13·609	8	27	10	32	136·9	−10·9	+ 63·5
14·385	5	12	11	25	137·6	−10·8	+ 74·5
Means ...	...	...	8	26	135·73	−10·93	...

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

Group 3670.

A few very small unstable 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.
1894. d					°	°	°
Aug. 13·609	0	27	0	16	44·5	−13·2	− 28·9
14·385	5	15	2	9	45·6	−13·1	− 17·5
Means ...	...	...	1	13	45·05	−13·15	...

Group 3671.

A few very small unstable and variable spots.

Aug. 14·385	0	7	0	6	15·6	−27·3	− 47·5
15·453	0	8	0	6	13·4	−27·7	− 35·6
16·483	7	71	5	46	13·1	−27·9	− 22·1
17·400	0	21	0	13	15·1	−27·3	− 8·2
Means ...	...	...	1	18	14·30	−27·55	...

Group 3672.

A small variable spot, *a*, with a very small companion on August 17.

Aug. 14·385	0	28	0	68	348·3	−19·6	− 74·8
15·453	5	20	7	25	347·2	−19·7	− 61·8
16·483	12	55	10	47	347·0	−19·5	− 48·2
17·400	15	35	10	24	347·0	−19·3	− 36·3
18·406	11	24	7	15	346·9	−19·3	− 23·1
19·299	11	33	6	19	346·7	−19·5	− 11·4
20·398	10	24	7	13	346·9	−19·3	+ 3·3
21·378	18	27	10	16	347·3	−19·5	+ 16·6
Means ...	...	...	7	28	347·16	−19·46	...

Group 3673.

A small spot.

Aug. 15·453	2	14	2	11	355·6	+12·1	− 53·4
Means ...	...	...	2	11	355·6	+12·1	...

Group 3674.

A regular spot, *a*, which steadily diminishes in size. It is very small on August 24, and has a number of very small scattered companions.

1894. d					°	°	°
Aug. 15·453	8	43	16	80	335·2	− 5·3	− 73·8
16·483	16	93	17	97	334·9	− 5·7	− 60·3
17·400	19	116	14	89	335·4	− 5·7	− 47·9
18·406	24	150	15	94	335·7	− 5·6	− 34·3
19·299	31	154	17	85	335·8	− 5·8	− 22·3
20·398	29	162	15	83	336·3	− 5·8	− 7·3
21·378	26	107	13	56	337·0	− 5·7	+ 6·3
22·412	22	66	12	36	337·7	− 6·2	+ 20·7
23·327	8	29	5	18	337·5	− 6·8	+ 32·6
24·195	2	24	2	18	338·7	− 5·8	+ 45·3
Means ...	...	...	13	66	336·42	− 5·84	...

Group 3675.

Two or three small unstable and variable spots.

Aug. 16·483	0	4	0	8	324·2	−25·9	−71·0
17·400	4	36	5	50	320·9	−26·4	−62·4
18·406	10	24	9	22	322·3	−26·8	−47·7
19·299	4	13	3	10	323·6	−26·8	−34·5
20·398	0	25	0	17	321·0	−26·7	−22·6
21·378	0	9	0	6	318·9	−27·6	−11·8
Means ...	...	...	3	19	321·82	−26·70	...

Group 3676.

A small faint spot, *p* Group 3668.

Aug. 17·400	6	17	3	9	41·8	+ 5·7	+ 18·5
Means ...	...	...	3	9	41·8	+ 5·7	...

Group 3677.

Three very small spots.

Aug. 17·400	6	22	3	12	38·3	−17·9	+ 15·0
Means ...	...	...	3	12	38·3	−17·9	...

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

Group 3678.

A small spot, *a*, with one or more very small followers.

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.
1894. d					°	°	°
Aug. 17·400	0	10	0	50	301·1	−12·2	− 82·2
18·406	6	26	9	41	300·8	−11·6	− 69·2
19·299	9	30	8	29	300·6	−12·1	− 57·5
20·398	8	29	6	21	299·7	−12·5	− 43·9
21·378	7	18	4	11	301·0	−12·2	− 29·7
22·412	5	13	3	7	302·2	−12·1	− 14·8
Means ...	...	...	5	27	300·90	−12·12	...

Group 3679.

A large regular spot, *a*, with a very small companion on August 20. *a* diminishes steadily from day to day.

Aug. 17·400	6	50	27	220	297·9	+17·6	− 85·4
18·406	18	67	26	99	298·5	+17·7	− 71·5
19·299	22	83	22	80	298·3	+18·0	− 59·8
20·398	19	106	14	76	297·7	+17·8	− 45·9
21·378	23	89	14	54	298·5	+18·3	− 32·2
22·412	10	33	6	18	298·0	+17·8	− 19·0
23·327	9	24	5	13	297·5	+17·7	− 7·4
24·195	7	17	4	9	297·6	+18·0	+ 4·2
25·243	4	18	2	10	297·3	+17·8	+ 17·7
Means ...	...	...	13	64	297·92	+17·86	...

Group 3680.

A very small spot near the position of Group 3670 when last seen.

Aug. 18·406	2	9	1	6	43·9	−11·8	+ 33·9
Means ...	...	...	1	6	43·9	−11·8	...

Group 3681.

A very small spot near the West limb in the place occupied on August 17 by Group 3676.

Aug. 20·398	1	5	1	5	41·7	+ 5·2	+58·1
Means ...	...	...	1	5	41·7	+ 5·2	...

Group 3682.

A small spot.

1894. d					°	°	°
Aug. 20·398	0	6	0	4	19·1	−17·6	+ 35·5
21·378	7	16	6	14	21·0	−18·2	+ 50·3
22·412	0	6	0	9	21·3	−17·6	+ 64·3
Means ...	...	...	2	9	20·47	−17·80	...

Group 3683.

A small spot on August 20. A few small spots in an irregular stream on the succeeding days.

Aug. 20·398	4	17	2	8	349·8	+ 7·1	+ 6·2
21·378	37	95	20	50	350·2	+ 6·8	+ 19·5
22·412	10	38	6	23	351·4	+ 6·8	+ 34·4
Means ...	...	...	9	27	350·47	+ 6·90	...

Group 3684.

A very small spot.

Aug. 21·378	0	2	0	2	291·7	−16·5	− 39·0
Means ...	...	...	0	2	291·7	−16·5	...

Group 3685.

A small spot.

Aug. 22·412	5	16	5	14	8·0	−16·1	+ 51·0
Means ...	...	...	5	14	8·0	−16·1	...

Group 3686.

A very small spot, *a*, on August 26. A pair of small spots, *a* and *b*, on August 27. *b* has considerably increased in size by August 28.

Aug. 26·445	2	6	2	5	317·1	+15·2	+ 53·3
27·341	11	51	12	57	316·3	+14·8	+ 64·4
28·506	8	51	16	115	315·1	+14·9	+ 78·6
Means ...	...	...	10	59	316·17	+14·97	...

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

Group 3687.

A number of small spots in a straight stream. *a*, the leader, is the largest. The group increases in size up to August 28, but diminishes afterwards, and *a* alone remains by September 2.

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.
1894. d					°	°	°
Aug. 26·445	34	84	27	66	213·9	− 5·0	− 49·9
27·341	52	203	33	132	214·6	− 5·4	− 37·3
28·506	52	262	29	145	215·5	− 5·8	− 21·0
29·381	47	157	24	81	216·0	− 5·9	− 9·0
30·400	29	99	15	51	216·6	− 6·6	+ 5·1
31·467	17	80	10	43	216·4	− 6·2	+ 19·0
Sept. 1·419	20	75	12	46	216·5	− 6·6	+ 31·7
2·508	12	47	9	35	216·4	− 6·6	+ 45·9
3·229	9	22	8	20	216·7	− 6·7	+ 55·8
4·688	2	13	5	29	217·2	− 7·6	+ 75·5
Means ...	...	...	17	65	215·98	− 6·24	...

Group 3688.

A very small spot.

Aug. 26·445	0	4	0	5	197·6	+ 8·8	− 66·2
Means ...	...	...	0	5	197·6	+ 8·8	...

Group 3689.

A large regular spot, *a*. It diminishes in size after August 29, and is followed after September 1 by a compact cluster of small irregular spots.

Aug. 26·445	6	23	24	87	179·9	+ 8·6	− 83·9
27·341	18	60	27	90	180·7	+ 8·8	− 71·2
28·506	20	102	17	90	180·8	+ 9·4	− 55·7
29·381	23	165	16	114	181·1	+ 9·5	− 43·9
30·400	24	150	14	88	180·5	+ 9·6	− 31·0
31·467	25	142	13	75	180·6	+ 9·9	− 16·8
Sept. 1·419	31	143	16	72	180·4	+ 9·7	− 4·4
2·508	35	301	18	151	178·5	+ 10·4	+ 8·0
3·229	55	259	29	137	178·7	+ 10·1	+ 17·8
4·688	8	49	5	31	179·3	+ 9·5	+ 37·6
Means ...	...	...	18	94	180·05	+ 9·55	...

Group 3690.

A very small spot.

1894. d					°	°	°
Aug. 28·506	0	12	0	7	214·9	− 10·3	− 21·6
Means ...	...	...	0	7	214·9	− 10·3	...

Group 3691.

A disturbed area in which very small unstable spots appear and disappear.

Aug. 28·506	0	18	0	10	202·6	+ 5·0	− 33·9
29·381	2	11	1	6	202·6	+ 5·1	− 22·4
30·400	6	50	3	26	198·6	+ 7·4	− 12·9
31·467	0	55	0	28	201·0	+ 10·3	+ 3·6
Sept. 1·419	2	69	1	37	203·4	+ 8·5	+ 18·6
Means ...	...	...	1	21	201·64	+ 7·26	...

Group 3692.

A stream composed of two principal spots, *a* and *b*, united by a number of small spots. *a* is not seen after September 5.

Aug. 28·506	8	34	8	34	176·4	+ 13·7	− 60·1
29·381	24	99	18	76	176·1	+ 13·7	− 48·9
30·400	65	359	40	224	175·6	+ 13·8	− 35·9
31·467	75	451	41	245	176·4	+ 13·8	− 21·0
Sept. 1·419	92	522	48	266	176·3	+ 14·1	− 8·5
2·508	72	425	36	214	175·2	+ 14·1	+ 4·7
3·229	84	330	44	173	174·9	+ 14·1	+ 14·0
4·688	27	169	16	101	172·5	+ 13·9	+ 30·8
5·470	22	95	15	63	173·1	+ 14·2	+ 41·8
6·605	9	43	8	40	173·1	+ 14·6	+ 56·7
7·205	8	47	9	55	173·6	+ 15·0	+ 65·2
Means ...	...	...	26	136	174·84	+ 14·09	...

Group 3693.

A very small spot.

Aug. 30·400	0	5	0	3	200·6	+ 20·9	− 10·9
Means ...	...	...	0	3	200·6	+ 20·9	...

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

Group 3694.

A few 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.
1894. d					°	°	°
Aug. 30·400	3	11	5	19	140·9	−11·5	− 70·6
31·467	0	16	0	15	142·0	−11·0	− 55·4
Sept. 1·419	1	20	1	15	140·0	−10·3	− 44·8
2·508	0	24	0	15	137·6	−10·7	− 32·9
3·229	0	11	0	6	137·7	−10·2	− 23·2
4·688	0	0	0	0	...	...	...
5·470	22	72	12	39	142·1	−11·0	+ 10·8
6·605	9	41	5	24	141·7	−11·0	+ 25·3
Means ...	...	...	3	17	140·29	−10·81	...

Group 3695.

A very small spot.

Sept. 1·419	0	10	0	5	166·6	+ 5·1	− 18·2
Means ...	...	...	0	5	166·6	+ 5·1	...

Group 3696.

A very small spot.

Sept. 1·419	0	6	0	7	122·6	−17·1	− 62·2
Means ...	...	...	0	7	122·6	−17·1	...

Group 3697.

A number of ill-defined unstable spots, mostly small. The group on September 7 consists of two straight streams of very small spots, at right angles to each other. Only two or three very small spots in the following part of the group remain by September 8.

Sept. 3·229	9	38	8	38	104·6	−14·8	− 56·3
4·688	33	144	22	99	105·1	−15·1	− 36·6
5·470	39	152	24	92	105·7	−15·0	− 25·6
6·605	0	112	0	63	106·7	−14·9	− 9·7
7·205	19	96	10	53	105·6	−15·4	− 2·8
8·460	7	30	4	17	104·0	−16·4	+ 12·1
9·240	6	58	4	35	104·2	−17·2	+ 22·7
10·435	2	19	1	14	104·4	−16·8	+ 38·6
11·624	2	5	2	5	105·6	−15·7	+ 55·5
12·426	0	2	0	3	105·0	−15·9	+ 65·5
Means ...	...	...	8	42	105·09	−15·72	...

Group 3698.

Two small spots.

1894. d					°	°	°
Sept. 4·688	0	19	0	21	205·0	+21·0	+ 63·3
Means ...	...	...	0	21	205·0	+21·0	...

Group 3699.

A few very small spots.

Sept. 4·688	6	27	6	26	84·1	+30·0	− 57·6
5·470	6	22	5	16	84·5	+30·2	− 46·8
6·605	0	19	0	12	83·9	+30·5	− 32·5
7·205	15	35	9	21	84·0	+30·6	− 24·4
8·460	0	30	0	17	84·3	+30·1	− 7·6
9·240	0	9	0	5	86·7	+29·9	+ 5·2
10·435	0	27	0	15	84·5	+30·5	+ 18·7
11·624	1	8	1	5	86·6	+29·5	+ 36·5
Means ...	...	...	3	15	84·83	+30·16	...

Group 3700.

An irregular spot, *a*, with a small companion on September 7. *a* has broken up by September 11 into a number of very small spots.

Sept. 5·470	8	41	19	93	55·3	− 7·7	− 76·0
6·605	18	54	19	58	55·8	− 7·9	− 60·6
7·205	14	72	13	65	54·3	− 7·8	− 54·1
8·460	11	57	7	37	56·2	− 7·6	− 35·7
9·240	18	64	10	37	56·7	− 7·6	− 24·8
10·435	14	78	7	41	57·4	− 8·0	− 8·4
11·624	34	127	17	65	57·4	− 7·7	+ 7·3
12·426	50	130	28	71	57·5	− 8·2	+ 18·0
13·616	0	37	0	24	59·6	− 8·7	+ 35·8
14·230	0	4	0	3	60·5	− 8·4	+ 44·9
Means ...	...	...	12	49	57·07	− 7·96	...

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

Group 3701.

A long intricate and irregular stream of spots. The individual members of the group undergo frequent change, and only the last spot, *a*, can be identified for any length of time. *a* is regular at first, but has become irregular, and has partly coalesced with neighbouring spots by September 15.

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.
1894. d					°	°	°
Sept. 6·605	22	126	53	311	40·5	−14·3	− 75·9
7·205	40	244	62	384	40·0	−14·2	− 68·4
8·460	125	553	108	487	41·3	−14·9	− 50·6
9·240	93	719	67	515	41·2	−14·9	− 40·3
10·435	147	887	89	532	40·5	−15·0	− 25·3
11·624	186	895	100	494	39·7	−15·2	− 10·4
12·426	261	1053	142	571	40·5	−15·3	+ 1·0
13·616	107	1010	61	571	39·9	−15·3	+ 16·1
14·230	116	633	71	383	41·1	−15·3	+ 25·5
15·219	120	766	85	546	41·9	−15·4	+ 39·3
16·476	76	444	73	422	39·6	−15·7	+ 53·6
17·187	41	244	57	333	41·7	−15·7	+ 65·1
18·598	0	10	0	35	37·4	−14·8	+ 79·4
Means ...	...	...	74	430	40·42	−15·08	...

Group 3702.

A large regular spot, *a*, with a very small companion on September 13.

Sept. 6·605	19	143	34	252	41·6	+15·6	− 74·8
7·205	31	212	39	263	41·2	+15·8	− 67·2
8·460	69	363	54	283	41·5	+15·8	− 50·4
9·240	107	449	70	294	41·6	+16·0	− 39·9
10·435	124	515	68	278	41·7	+16·0	− 24·1
11·624	124	552	63	281	41·9	+16·1	− 8·2
12·426	97	564	49	285	42·1	+16·1	+ 2·6
13·616	105	535	56	285	42·4	+16·0	+ 18·6
14·230	106	464	60	262	42·9	+16·2	+ 27·3
15·219	92	399	60	261	42·3	+15·9	+ 39·7
16·476	68	248	61	220	42·5	+16·8	+ 56·5
17·187	54	208	63	244	42·3	+16·0	+ 65·7
18·598	17	83	67	317	42·2	+16·4	+ 84·2
Means ...	...	...	54	263	42·00	+16·05	...

Group 3703.

A single spot, *a*, which diminishes from day to day. Several very small companions are seen on September 12 and 13.

Sept. 6·605	5	24	13	60	37·2	+ 5·6	− 79·2
7·205	8	35	13	56	36·5	+ 5·6	− 71·9
8·460	10	49	9	43	36·7	+ 5·6	− 55·2
9·240	6	47	5	33	36·8	+ 5·8	− 44·7
10·435	14	28	8	16	37·0	+ 5·4	− 28·8
11·624	5	10	2	5	36·9	+ 5·1	− 13·2
12·426	3	50	2	25	35·4	+ 5·7	− 4·1
13·616	0	14	0	7	37·5	+ 6·0	+ 13·7
Means ...	...	...	7	34	36·75	+ 5·60	...

Group 3704.

A regular spot. *a*. with occasionally some small companions.

1894. d					°	°	°
Sept. 6·605	8	46	26	146	34·5	+ 9·5	− 81·9
7·205	16	88	28	160	33·5	+ 9·6	− 74·9
8·460	33	177	31	164	34·1	+ 9·5	− 57·8
9·240	37	218	27	159	34·2	+ 9·5	− 47·3
10·435	40	237	23	138	34·5	+ 9·2	− 31·3
11·624	47	192	24	99	34·5	+ 8·9	− 15·6
12·426	31	94	15	47	35·0	+ 8·8	− 4·5
13·616	13	42	7	22	35·8	+ 8·8	+ 12·0
14·230	2	18	1	9	36·3	+ 8·8	+ 20·7
Means ...	...	...	20	105	34·71	+ 9·18	...

Group 3705.

A small single spot, *a*. A very small companion is seen on September 10. *a* is not seen after this date. and the group consists of two or three very small companions.

Sept. 7·205	2	12	6	34	26·4	+20·1	− 82·0
8·460	5	27	6	32	25·8	+20·0	− 66·1
9·240	10	21	9	19	25·4	+20·3	− 56·1
10·435	1	14	1	10	26·1	+19·7	− 39·7
11·624	6	28	3	15	28·3	+20·0	− 21·8
12·426	0	14	0	7	27·2	+20·5	− 12·3
Means ...	...	...	4	20	26·53	+20·10	...

Group 3706.

A few small spots in a straight stream. The group is first seen near the West limb.

Sept. 8·460	14	59	16	64	155·4	+12·0	+ 63·5
9·240	7	32	14	59	156·6	+10·7	+ 75·1
Means ...	...	...	15	62	156·00	+11·35	...

Group 3707.

A pair of very faint small spots, *a* and *b*, on September 8. The group has greatly increased by September 10, and forms an irregular stream, of which *a* and *b* are the first and last. The group then diminishes again, and only *b* remains by September 13.

Sept. 8·460	4	19	2	12	53·1	+19·2	− 38·8
9·240	1	19	1	11	52·8	+19·1	− 28·7
10·435	39	125	20	64	53·5	+18·7	− 12·3
11·624	36	188	19	96	52·5	+19·5	+ 2·4
12·426	36	136	19	71	52·6	+20·0	+ 13·1
13·616	7	31	4	18	51·6	+21·2	+ 27·8
14·230	6	15	4	10	52·5	+21·6	+ 36·9
15·219	1	7	1	5	52·1	+21·2	+ 49·5
Means ...	...	...	9	36	52·59	+20·06	...

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 3708. A few small spots irregularly arranged *n* of Group 3701.							
1894. d					°	°	°
Sept. 8·460	12	67	10	54	43·0	−10·1	−48·9
9·240	7	52	5	35	42·6	−10·3	−38·9
10·435	0	12	0	7	44·4	−9·8	−21·4
Means ...	...	...	5	32	43·33	−10·07	...
Group 3709. A small spot.							
Sept. 8·460	2	14	6	34	16·3	−12·3	−75·6
9·240	5	15	6	20	16·5	−12·0	−65·0
10·435	7	27	6	23	16·0	−12·5	−49·8
11·624	14	26	9	17	16·2	−12·6	−33·9
12·426	6	13	4	8	16·5	−12·7	−23·0
Means ...	...	...	6	20	16·30	−12·42	...
Group 3710. One or two small spots, first seen near the West limb.							
Sept. 10·435	15	34	10	23	106·6	−3·9	+40·8
11·624	10	22	9	20	105·5	−3·1	+55·4
12·426	2	16	3	22	106·0	−3·9	+66·5
Means ...	...	...	7	22	106·03	−3·63	...
Group 3711. A small spot.							
Sept. 10·435	0	10	0	9	8·3	+12·0	−57·5
Means ...	...	...	0	9	8·3	+12·0	...
Group 3712. Two small spots seen near the West limb.							
Sept. 11·624	6	16	5	12	91·7	+17·7	+41·6
Means ...	...	...	5	12	91·7	+17·7	...
Group 3713. A very small spot.							
1894. d					°	°	°
Sept. 11·624	0	12	0	7	28·3	+5·6	−21·8
Means ...	...	...	0	7	28·3	+5·6	...
Group 3714. A small spot.							
Sept. 11·624	0	9	0	12	343·1	−5·7	−67·0
Means ...	...	...	0	12	343·1	−5·7	...
Group 3715. A number of very small spots, near the West limb, irregularly arranged.							
Sept. 12·426	14	46	9	32	78·7	−11·3	+39·2
Means ...	...	...	9	32	78·7	−11·3	...
Group 3716. A single spot on September 12 and 13. It has broken up into a cluster of irregular nebulous spots by September 14.							
Sept. 12·426	5	16	9	30	327·4	−10·1	−72·1
13·616	3	11	3	11	327·5	−10·6	−56·3
14·230	14	59	11	46	326·9	−9·8	−48·7
15·219	41	159	27	105	326·0	−10·7	−36·6
16·476	23	144	13	79	328·4	−10·3	−17·6
17·187	12	56	7	30	329·1	−11·6	−7·5
18·598	3	54	2	29	330·0	−11·3	+12·0
19·495	0	12	0	7	329·6	−11·0	+23·4
Means ...	...	...	9	42	328·11	−10·68	...

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

Group 3717.

A regular spot, *a*, with occasionally some 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.
1894. d					°	°	°
Sept. 13·616	0	21	0	79	301·3	+ 0·2	− 82·5
14·230	24	80	44	143	301·7	+ 0·8	− 73·9
15·219	29	121	30	127	301·4	+ 0·6	− 61·2
16·476	39	133	27	93	302·0	+ 1·3	− 44·0
17·187	35	166	22	102	302·1	+ 0·6	− 34·5
18·598	32	194	17	101	302·6	+ 1·0	− 15·4
19·495	33	166	16	83	303·0	+ 0·9	− 3·2
20·214	26	128	13	65	302·9	+ 0·7	+ 6·3
21·174	22	107	12	57	303·6	+ 0·9	+ 19·6
22·149	35	114	21	69	304·1	+ 0·9	+ 33·0
23·589	14	79	12	65	305·0	+ 1·2	+ 52·8
24·319	9	34	9	37	304·8	+ 0·9	+ 62·3
25·205	4	18	8	33	305·1	+ 0·9	+ 74·3
Means ...	...	...	18	81	303·05	+ 0·84	...

Group 3718.

Several small faint spots in an irregular cluster.

Sept. 15·219	13	72	7	39	343·8	− 7·9	− 18·8
16·476	20	86	10	44	345·0	− 6·6	− 10·0
17·187	2	21	1	11	344·8	− 7·5	+ 8·2
Means ...	...	...	6	31	344·53	− 7·33	...

Group 3719.

A nebulous spot, which rapidly diminishes in size.

Sept. 15·219	6	59	8	92	291·7	+ 0·2	− 70·9
16·476	2	19	2	16	292·7	+ 1·1	− 53·3
17·187	0	9	0	6	293·3	+ 0·1	− 43·3
Means ...	...	...	3	38	292·57	+ 0·47	...

Group 3720.

A number of spots, mostly small, in a short stream. *a* and *b*, the first and last spots, are the largest. The group rapidly increases in size up to September 19, and diminishes again almost as quickly after that date. The individual spots of the group undergo much change. *a* is measured in two parts on September 18, and *b* on September 20 and 21.

Sept. 16·476	9	26	5	17	310·5	− 7·8	− 35·4
17·187	37	121	22	70	311·3	− 8·5	− 25·3
18·598	81	447	42	233	312·0	− 8·4	− 6·0
19·495	89	533	47	279	312·8	− 8·4	+ 6·6

Group 3720—*continued.*

1894. d					°	°	°
Sept. 20·214	76	420	41	227	313·3	− 8·3	+ 16·7
21·174	55	256	33	153	313·8	− 7·9	+ 29·8
22·149	52	166	37	118	314·1	− 7·5	+ 43·0
23·589	11	71	13	84	315·9	− 7·1	+ 63·7
24·319	0	24	0	45	315·8	− 7·5	+ 73·3
Means ...	...	...	27	136	313·29	− 7·93	...

Group 3721.

A regular spot, *a*, with occasionally some small followers.

Sept. 19·495	11	62	19	101	232·6	+ 19·6	− 73·6
20·214	31	103	35	117	232·0	+ 20·8	− 64·6
21·174	25	100	20	77	234·7	+ 20·0	− 49·3
22·149	29	107	18	67	234·6	+ 19·6	− 36·5
23·589	24	130	13	70	234·2	+ 19·2	− 18·0
24·319	20	132	10	69	234·4	+ 19·0	− 8·1
25·205	31	101	16	52	234·5	+ 18·7	+ 3·7
26·304	22	56	12	30	234·3	+ 18·7	+ 18·0
27·429	8	17	5	11	234·6	+ 18·6	+ 33·1
28·396	1	10	1	8	235·2	+ 18·4	+ 46·4
29·397	2	11	2	11	233·9	+ 20·3	+ 58·4
Means ...	...	...	14	56	234·09	+ 19·35	...

Group 3722.

Two very small spots, *a* and *b*. Other small spots accompany them on September 23, 25 and 26.

Sept. 22·149	6	19	6	16	216·8	+ 3·4	− 54·3
23·589	0	24	0	15	217·5	+ 3·5	− 34·7
24·319	6	25	3	14	217·1	+ 3·5	− 25·4
25·205	16	87	8	46	216·8	+ 2·7	− 14·0
26·304	10	59	5	30	218·0	+ 2·7	+ 1·7
27·429	0	12	0	7	219·1	+ 3·0	+ 17·6
Means ...	...	...	4	21	217·55	+ 3·13	...

Group 3723.

A small spot, *a*, with a small companion on September 24 and 25.

Sept. 22·149	2	22	3	35	203·2	− 17·4	− 67·9
23·589	7	25	6	21	204·5	− 16·6	− 47·7
24·319	6	24	4	17	203·7	− 16·1	− 38·8
25·205	2	18	1	11	203·4	− 15·8	− 27·4
Means ...	...	...	4	21	203·70	− 16·48	...

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

Group 3724.

A single spot, which steadily diminishes from day to day.

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.
1894. d					°	°	°
Sept. 23·589	8	33	19	76	174·4	+ 3·7	− 77·8
24·319	17	59	21	77	174·9	+ 4·2	− 67·6
25·205	14	68	13	60	174·9	+ 4·0	− 55·9
26·304	33	76	22	51	175·1	+ 4·1	− 41·2
27·429	6	22	3	13	175·2	+ 4·4	− 26·3
28·396	4	10	2	5	175·7	+ 4·4	− 13·1
Means ...	...	...	13	47	175·03	+ 4·13	...

Group 3725.

A small nebulous spot, *a*, followed by a large regular spot, *b*. *a* has disappeared by October 2. One or two small companions are occasionally seen.

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. 27·429	17	69	60	240	119·1	+10·2	− 82·4
28·396	30	161	40	218	119·7	+10·7	− 69·1
29·397	50	239	44	211	119·3	+10·1	− 56·2
30·496	39	313	25	208	119·4	+10·2	− 41·6
Oct. 1·445	48	260	27	148	119·1	+10·3	− 29·4
2·408	56	302	29	158	119·2	+10·6	− 16·6
3·205	59	267	30	134	119·0	+10·5	− 6·2
4·197	55	265	28	134	119·2	+10·4	+ 7·1
5·473	50	236	27	129	119·4	+10·3	+ 24·1
6·244	46	251	28	153	119·4	+10·3	+ 34·3
7·161	57	198	41	143	119·4	+10·0	+ 46·4
8·205	26	137	26	135	119·2	+10·0	+ 60·0
9·180	0	76	0	125	119·5	+10·2	+ 73·1
Means ...	...	...	31	164	119·30	+10·29	...

Group 3726.

A number of spots, mostly small, in a straight stream, suddenly appearing near the West limb. The two principal spots, *a* and *b*, alone remain by September 30.

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. 28·396	47	236	32	153	223·3	−11·3	+ 34·5
29·397	63	275	50	222	224·3	−11·0	+ 48·8
30·496	19	121	24	155	225·9	−11·1	+ 64·9
Oct. 1·445	4	43	12	121	226·6	−11·1	+ 78·1
Means ...	...	...	30	163	225·03	−11·13	...

Group 3727.

A few small unstable spots in a straight stream, *n* of the place of Group 3724. The group is not seen on October 2.

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.
1894. d					°	°	°
Sept. 29·397	4	12	2	6	176·6	+ 8·4	+ 1·1
30·496	11	88	6	45	177·5	+ 8·6	+ 16·5
Oct. 1·445	6	24	4	15	178·8	+ 8·0	+ 30·3
2·408	0	0	0	0	...	...	...
3·205	2	15	2	12	177·7	+ 6·8	+ 52·5
4·197	0	10	0	12	178·1	+ 6·5	+ 66·0
Means ...	...	...	2	15	177·74	+ 7·66	...

Group 3728.

A number of spots in a long irregular stream. The group diminishes rapidly after October 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.
Sept. 29·397	16	193	36	470	99·4	−13·5	− 76·1
30·496	19	279	18	261	98·0	−14·1	− 63·0
Oct. 1·445	45	287	39	253	96·9	−14·3	− 51·6
2·408	90	513	62	360	96·6	−14·2	− 39·2
3·205	60	354	37	216	97·0	−14·2	− 28·2
4·197	38	244	21	135	96·2	−14·4	− 15·9
5·473	4	93	2	51	96·5	−14·2	+ 1·2
6·244	0	20	0	10	92·1	−14·5	+ 7·0
7·161	0	6	0	3	92·7	−12·0	+ 19·7
Means ...	...	...	24	195	96·16	−13·93	...

Group 3729.

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. 30·496	0	16	0	8	161·6	+ 6·3	+ 0·6
Means ...	...	...	0	8	161·6	+ 6·3	...

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

Group 3730.

A regular spot. *a*, *u* of Group 3728. Other spots form near *a*, which diminishes after October 4. and the group has become two short straight streams of small spots by October 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.
1894. d					°	°	°
Sept. 30·496	8	40	13	65	90·3	− 9·3	− 70·7
Oct. 1·445	12	74	12	73	90·7	− 9·3	− 57·8
2·408	19	130	14	97	90·6	− 9·5	− 45·2
3·205	32	112	20	71	90·0	− 9·3	− 35·2
4·197	46	204	25	113	91·2	− 9·3	− 20·9
5·473	35	197	18	103	90·4	− 8·1	− 4·9
6·244	16	127	14	66	90·9	− 7·7	+ 5·8
7·161	5	45	3	24	92·4	− 8·7	+ 19·4
Means ...	...	...	15	77	90·81	− 8·90	...

Group 3731.

A very fine and complicated group. The leader. *a*. is large and regular and moves forward in longitude. The last spot, *b*, is very large and irregular. and moves south in latitude. The group between *a* and *b* is a very broad and complicated stream. made up largely of small streams of curved and spiral form.

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.
Oct. 2·408	68	392	157	870	60·6	−11·4	− 75·2
3·205	193	1155	272	1620	58·2	−11·9	− 67·0
4·197	296	1984	270	1803	58·4	−12·3	− 53·7
5·473	396	3753	266	2511	58·4	−12·5	− 36·9
6·244	510	4123	299	2456	58·4	−12·2	− 26·7
7·161	754	3779	415	2071	59·3	−12·4	− 13·7
8·205	635	3289	337	1739	60·3	−12·1	+ 1·1
9·180	541	2772	297	1520	60·7	−11·9	+ 14·3
10·273	509	2118	311	1301	62·0	−11·9	+ 30·0
11·317	360	1391	264	1037	61·8	−12·5	+ 43·6
12·592	173	765	179	841	61·7	−12·6	+ 60·3
13·424	100	397	182	730	62·6	−12·2	+ 72·2
14·226	48	163	115	391	55·6	−15·6	+ 75·8
Means ...	...	...	259	1453	59·85	−12·42	...

Group 3732.

A large regular spot. *a*. with occasionally some 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.
Oct. 2·408	4	19	11	51	55·2	+14·7	− 80·6
3·205	21	106	29	146	55·5	+14·3	− 69·7
4·197	50	241	44	211	56·0	+14·0	− 56·1
5·473	64	323	41	208	56·2	+13·8	− 39·1
6·244	75	332	43	192	56·2	+13·7	− 28·9

Group 3732—*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.
1894. d					°	°	°
Oct. 7·161	80	334	42	176	56·1	+13·4	− 16·9
8·205	72	361	36	182	56·0	+13·2	− 3·2
9·180	81	348	41	177	56·3	+13·0	+ 9·9
10·273	77	319	43	177	56·6	+12·7	+ 24·6
11·317	68	279	44	180	56·6	+12·5	+ 38·4
12·592	26	203	23	178	57·0	+12·4	+ 55·6
13·424	21	146	25	176	56·4	+12·9	+ 66·0
14·226	22	92	47	199	57·3	+12·4	+ 77·5
Means ...	...	...	36	173	56·26	+13·31	...

Group 3733.

One or 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.
Oct. 3·205	0	16	0	15	67·6	+ 8·9	− 57·6
4·197	0	6	0	4	67·3	+ 8·9	− 44·8
Means ...	...	...	0	10	67·45	+ 8·90	...

Group 3734.

A large regular spot, *a*, with occasionally some 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.
Oct. 3·205	2	44	8	167	41·0	+18·4	− 84·2
4·197	11	129	16	182	41·8	+19·0	− 70·3
5·473	32	178	27	148	41·9	+18·6	− 53·4
6·244	60	230	42	161	41·3	+18·7	− 43·8
7·161	57	291	34	175	41·4	+18·7	− 31·6
8·205	61	312	33	167	41·1	+18·6	− 18·1
9·180	62	338	32	174	41·2	+18·6	− 5·2
10·273	65	305	34	158	41·0	+18·3	+ 9·0
11·317	50	234	28	131	40·6	+17·9	+ 22·4
12·592	42	181	27	118	40·6	+17·2	+ 39·2
13·424	36	179	29	142	40·6	+17·2	+ 50·2
14·226	13	111	13	114	41·0	+16·8	+ 61·2
15·439	10	49	20	97	40·0	+16·6	+ 76·2
Means ...	...	...	26	149	41·04	+18·05	...

Group 3735.

A small irregular spot. *a*, with a very small companion on October 5.

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.
Oct. 4·197	7	32	8	36	47·5	+15·5	− 64·6
5·473	9	28	7	21	48·2	+15·5	− 47·1
6·244	0	24	0	15	48·4	+15·9	− 36·7
7·161	5	20	3	11	48·7	+16·0	− 24·3
Means ...	...	...	5	21	48·20	+15·73	...

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

Group 3736.

A few very small spots in an irregular cluster.

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.
1894. d					°	°	°
Oct. 4·197	0	6	0	11	40·3	−12·8	− 71·8
5·473	0	6	0	6	39·4	−13·0	− 55·9
6·244	0	6	0	5	37·2	−13·4	− 47·9
7·161	0	7	0	4	38·8	−13·5	− 34·2
8·205	0	13	0	7	38·8	−13·1	− 20·4
Means ...	...	...	0	7	38·90	−13·16	...

Group 3737.

A few small spots in an irregular cluster.

Oct. 6·244	0	54	0	42	34·6	+ 6·7	− 50·5
Means ...	...	...	0	42	34·6	+ 6·7	...

Group 3738.

A regular spot, *a*, which diminishes from day to day, and which is followed by a stream of irregular spots in close succession.

Oct. 6·244	26	143	33	177	18·3	+ 9·9	− 66·8
7·161	79	419	67	348	19·7	+ 9·8	− 53·3
8·205	98	523	65	339	19·9	+ 9·8	− 39·3
9·180	128	558	72	313	20·2	+10·0	− 26·2
10·273	221	750	114	385	20·0	+ 9·9	− 12·0
11·317	190	856	96	434	20·0	+ 9·9	+ 1·8
12·592	160	951	85	502	20·1	+10·0	+ 18·7
13·424	170	830	97	489	20·9	+10·1	+ 30·5
14·226	104	639	69	427	20·9	+ 9·8	+ 41·1
15·439	86	398	81	366	20·9	+ 9·7	+ 57·1
16·198	43	259	55	306	19·2	+ 9·3	+ 65·4
17·294	0	7	0	13	15·7	+ 9·5	+ 76·3
Means ...	...	...	70	342	19·65	+ 9·81	...

Group 3739.

One or two small unstable spots, not seen on October 10 and 12.

Oct. 8·205	6	32	3	18	44·0	−16·0	− 15·2
9·180	4	25	2	14	43·8	−15·9	− 2·6
10·273	0	0	0	0	...	...	...
11·317	0	24	0	15	45·4	−16·8	+ 27·2
12·592	0	0	0	0	...	...	...
13·424	0	20	0	20	46·9	−17·8	+ 56·5
14·226	2	12	4	18	46·7	−18·8	+ 66·9
Means ...	...	...	1	12	45·36	−17·06	...

Group 3740.

A few small spots irregularly arranged on October 10. Only one small faint spot remains on October 11.

1894. d					°	°	°
Oct. 10·273	10	68	5	37	34·4	−16·3	+ 2·4
11·317	3	29	2	16	34·4	−16·3	+ 16·2
Means ...	...	...	4	27	34·40	−16·30	...

Group 3741.

Some faint unstable spots. The group is not seen on October 11.

Oct. 10·273	0	4	0	4	334·5	− 5·8	− 57·5
11·317	0	0	0	0	...	...	...
12·592	10	44	6	26	334·7	− 6·4	− 26·7
13·424	12	87	6	47	333·6	− 7·5	− 16·8
14·226	2	10	1	5	332·3	− 7·4	− 7·5
Means ...	...	...	3	16	333·78	− 6·78	...

Group 3742.

A small spot.

Oct. 11·317	0	7	0	11	310·5	−24·8	− 67·7
Means ...	...	...	0	11	310·5	−24·8	...

Group 3743.

A very small spot.

Oct. 12·592	0	3	0	2	41·3	−12·9	+ 39·9
Means ...	...	...	0	2	41·3	−12·9	...

Group 3744.

A few spots, mostly small, in a straight stream. The principal spots are *a*, the leader on October 13, and *b*, the largest spot. *b* is in the centre of the group.

Oct. 12·592	20	117	11	61	352·4	+22·1	− 9·0
13·424	70	239	37	126	352·4	+22·5	+ 2·0
14·226	23	141	13	76	353·3	+22·7	+ 13·5
15·439	24	67	14	40	353·4	+22·4	+ 29·6
16·198	10	46	6	31	353·3	+22·1	+ 39·5
Means ...	...	...	16	67	352·96	+22·36	...

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

Group 3745.

A stream of spots, forming to the west of the central meridian, and rapidly increasing in size until October 15, after which it diminishes again. *a* and *b*, the first and last spots, are the largest. *b* has a large retrograde motion in longitude.

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.
1894. d					°	°	°
Oct. 13·424	27	98	16	57	13·1	−15·7	+ 22·7
14·226	90	374	58	241	12·5	−15·8	+ 32·7
15·439	82	459	68	382	12·4	−15·9	+ 48·6
16·198	52	323	55	337	11·8	−16·5	+ 58·0
17·294	16	131	29	225	9·7	−17·0	+ 70·3
18·209	0	22	0	71	6·3	−17·5	+ 79·0
Means ...	...	...	38	219	10·97	−16·40	...

Group 3746.

A very small spot.

Oct. 15·439	3	9	2	6	352·5	−19·6	+ 28·7
Means ...	...	...	2	6	352·5	−19·6	...

Group 3747.

A few very small unstable spots irregularly arranged. The group is not seen on October 16, and only one spot is seen on October 17.

Oct. 15·439	4	29	2	15	302·2	+ 1·3	− 21·6
16·198	0	0	0	0	...	...	...
17·294	0	7	0	3	300·8	+ 1·6	+ 1·4
Means ...	...	...	1	6	301·50	+ 1·45	...

Group 3748.

A cluster of very small spots.

Oct. 18·209	1	11	1	8	335·3	− 6·5	+ 48·0
19·256	1	10	1	12	338·0	− 5·7	+ 64·5
20·187	0	2	0	5	338·6	− 6·0	+ 77·4
Means ...	...	...	1	8	337·30	− 6·07	...

Group 3749.

A small spot.

1894. d					°	°	°
Oct. 18·209	5	16	3	10	316·4	+20·3	+ 29·1
19·256	0	6	0	5	316·0	+21·2	+ 42·5
Means ...	...	...	2	8	316·20	+20·75	...

Group 3750.

A few small spots. The group tends to increase when near the West limb.

Oct. 18·209	5	20	3	10	304·8	+12·1	+ 17·5
19·256	0	15	0	9	307·5	+12·0	+ 34·0
20·187	0	20	0	15	307·6	+11·2	+ 46·4
21·473	6	28	6	28	305·2	+12·7	+ 60·9
22·311	4	31	9	59	308·9	+12·3	+ 75·7
Means ...	...	...	4	24	306·80	+12·06	...

Group 3751.

A few small spots irregularly arranged.

Oct. 18·209	0	17	0	9	303·5	− 5·2	+ 16·2
19·256	0	17	0	10	306·1	− 5·4	+ 32·6
20·187	3	49	2	35	305·2	− 5·4	+ 44·0
21·473	10	27	10	30	306·4	− 5·0	+ 62·1
Means ...	...	...	3	21	305·30	− 5·25	...

Group 3752.

A small spot.

Oct. 18·209	3	11	3	11	227·8	−10·7	− 59·5
19·256	0	6	0	5	228·8	−11·1	− 44·7
Means ...	...	...	2	8	228·30	−10·90	...

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 3753. A very small spot.							
1894. d Oct. 18·209	0	4	0	5	° 222·4	° − 3·5	° − 64·9
Means ...	...	...	0	5	222·4	− 3·5	...
Group 3754. A number of very unstable spots in an irregular variable stream.							
Oct. 18·209	9	38	16	72	211·9	+ 9·2	− 75·4
19·256	18	96	19	104	210·6	+ 10·1	− 62·9
20·187	66	218	51	171	210·0	+ 10·3	− 51·2
21·473	63	271	37	186	211·4	+ 10·1	− 32·9
22·311	43	148	23	81	211·3	+ 10·2	− 21·9
23·316	17	153	9	77	212·2	+ 10·2	− 7·8
24·238	20	67	10	34	212·6	+ 9·6	+ 4·8
25·462	4	50	2	26	211·3	+ 8·8	+ 19·6
26·380	0	6	0	4	214·1	+ 9·5	+ 34·6
27·264	0	21	0	15	211·9	+ 9·1	+ 44·0
Means ...	...	...	17	77	211·73	+ 9·71	...
Group 3755. A very small spot.							
Oct. 19·256	1	4	1	2	298·5	+ 12·0	+ 25·0
Means ...	...	...	1	2	298·5	+ 12·0	...
Group 3756. A regular spot, *a*, with occasionally a small companion. *a* has a well marked forward motion in longitude, and a downward motion in latitude.							
Oct. 19·256	13	97	26	196	199·9	− 15·2	− 73·6
20·187	29	144	33	166	199·5	− 14·9	− 61·7
21·473	39	181	29	134	201·2	− 15·0	− 43·1
22·311	39	187	25	118	201·1	− 15·0	− 32·1
23·316	43	194	24	109	201·3	− 14·9	− 18·7
24·238	42	188	23	100	201·3	− 14·9	− 6·5
25·462	38	189	21	101	201·9	− 14·6	+ 10·2
26·380	28	177	16	101	201·8	− 14·1	+ 22·3
27·264	32	140	21	90	202·1	− 13·9	+ 34·2
28·612	17	101	15	87	201·8	− 13·5	+ 51·7
29·433	12	60	14	72	202·4	− 13·2	+ 63·1
30·216	5	39	11	78	203·1	− 13·3	+ 74·2
Means ...	...	...	22	113	201·45	− 14·38	...
Group 3757. A single spot which diminishes in area.							
1894. d Oct. 19·256	2	25	4	44	° 199·1	° + 18·8	° − 74·4
20·187	17	48	19	51	198·7	+ 18·6	− 62·5
21·473	10	38	7	28	198·8	+ 18·7	− 45·5
22·311	8	18	5	11	198·4	+ 18·6	− 34·8
23·316	4	21	2	11	198·1	+ 18·6	− 21·9
Means ...	...	...	7	29	198·62	+ 18·66	...
Group 3758. A cluster of very small spots *sp* Group 3751.							
Oct. 20·187	8	36	7	30	313·1	− 9·4	+ 51·9
Means ...	...	...	7	30	313·1	− 9·4	...
Group 3759. A very small spot, *a*, on October 21. *a* has increased considerably by the succeeding day, and is followed by a number of small unstable spots in a long stream. The following spots have all disappeared by October 26, but have reappeared by the following day. *a* is not seen on October 29.							
Oct. 21·473	0	6	0	4	199·6	+ 4·7	− 44·7
22·311	25	101	15	60	199·5	+ 4·8	− 33·7
23·316	51	169	28	89	200·2	+ 4·6	− 19·8
24·238	9	55	5	29	201·9	+ 4·5	− 5·9
25·462	10	52	5	26	204·1	+ 4·3	+ 12·4
26·380	7	17	4	10	208·2	+ 4·4	+ 28·7
27·264	13	58	8	36	203·0	+ 5·1	+ 35·1
28·612	12	53	10	45	204·0	+ 4·9	+ 53·9
29·433	0	4	0	5	203·2	+ 5·0	+ 63·9
Means ...	...	...	8	34	202·63	+ 4·70	...
Group 3760. A few very small unstable spots irregularly scattered. The group is not seen on October 25.							
Oct. 21·473	0	7	0	7	190·0	− 18·0	− 54·3
22·311	4	20	4	14	192·2	− 17·8	− 41·0
23·316	14	39	10	23	193·7	− 17·8	− 26·3
24·238	3	14	2	8	191·8	− 18·0	− 16·0
25·462	0	0	0	0	...	...	...
26·380	2	13	1	7	193·1	− 17·6	+ 13·6
27·264	0	9	0	5	192·0	− 18·4	+ 24·1
Means ...	...	...	2	9	192·13	− 17·93	...

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 3761. A number of unstable spots, mostly small, in an irregular stream.							
1894. d					°	°	°
Oct. 21·473	7	33	10	49	175·5	− 9·3	− 68·8
22·311	25	56	24	55	175·1	− 8·8	− 58·1
23·316	14	78	10	57	175·9	− 9·4	− 44·1
24·238	10	40	7	25	174·6	− 9·3	− 33·2
25·462	29	155	15	84	174·9	−10·2	− 16·8
26·380	43	152	23	79	174·7	−10·3	− 4·8
27·264	18	90	10	47	176·4	−10·3	+ 8·5
28·612	0	6	0	4	177·8	−10·1	+ 27·7
Means ...	...	...	12	50	175·61	− 9·71	...
Group 3762. A small spot.							
Oct. 22·311	0	13	0	7	227·4	+17·7	− 5·8
Means ...	...	...	0	7	227·4	+17·7	...
Group 3763. A few very small faint spots irregularly scattered.							
Oct. 24·238	1	20	1	11	221·5	+ 8·7	+ 13·7
Means ...	...	...	1	11	221·5	+ 8·7	...
Group 3764. A few very small spots irregularly scattered.							
Oct. 25·462	2	29	1	18	161·6	−10·4	− 30·1
26·380	8	38	4	22	159·4	−12·7	− 20·1
Means ...	...	...	3	20	160·50	−11·55	...
Group 3765. A very small spot.							
1894. d					°	°	°
Oct. 25·462	5	16	4	13	142·0	−12·2	−49·7
26·380	0	10	0	7	143·0	−12·5	−36·5
Means ...	...	...	2	10	142·50	−12·35	...
Group 3766. A very small spot.							
Oct. 27·264	0	2	0	3	236·3	+11·5	+ 68·4
Means ...	...	...	0	3	236·3	+11·5	...
Group 3767. A few unstable spots, mostly very small, in an irregular and variable stream. *a*, the leader on October 28, is the largest.							
Oct. 27·264	0	10	0	4	175·4	+ 4·1	+ 7·5
28·612	29	136	15	76	176·5	+ 3·9	+ 26·4
29·433	14	45	8	29	177·1	+ 4·0	+ 37·8
30·216	0	11	0	9	178·0	+ 3·7	+ 49·1
Means ...	...	...	6	30	176·75	+ 3·93	...
Group 3768. A small spot with a very small companion.							
Oct. 27·264	8	42	4	22	155·2	− 4·3	− 12·7
Means ...	...	...	4	22	155·2	− 4·3	...
Group 3769. A very small spot.							
Oct. 28·612	0	6	0	4	178·8	− 7·9	+ 28·7
Means ...	...	...	0	4	178·8	− 7·9	...

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

Group 3770.

A large regular spot, *a*, followed until November 2 by a stream 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.
1894. a					°	°	°
Oct. 28·612	28	187	51	423	72·2	+13·6	−77·9
29·433	53	267	61	304	75·2	+13·8	−64·1
30·216	80	359	67	297	76·4	+14·0	−52·5
31·212	91	406	58	265	76·7	+13·7	−39·1
Nov. 1·531	79	390	43	213	78·5	+13·8	−20·0
2·321	96	417	49	214	78·6	+14·3	− 9·4
3·494	66	446	34	230	78·4	+14·3	+ 5·8
4·411	72	375	38	198	77·9	+14·0	+17·4
5·228	48	240	28	139	78·3	+14·0	+28·6
6·412	38	242	27	169	78·1	+14·0	+44·0
7·306	26	172	24	157	78·5	+13·8	+56·2
8·412	16	107	23	157	77·9	+13·7	+70·2
9·214	0	43	0	147	79·1	+13·8	+82·0
Means ...	...	...	39	224	77·37	+13·91	...

Group 3771.

A small spot, *a*, followed from October 29 to 31 by several very small faint spots scattered over a wide area. The group is not seen on November 1, but *a* has reappeared by November 2.

Oct. 28·612	0	15	0	26	77·8	− 7·0	−72·3
29·433	11	52	15	75	71·3	− 8·7	−68·0
30·216	4	51	4	46	74·8	− 7·6	−54·1
31·212	2	39	2	27	73·5	− 7·4	−42·3
Nov. 1·531	0	0	0	0	...	...	...
2·321	0	6	0	3	76·8	− 6·1	−11·2
3·494	0	30	0	15	77·6	− 7·3	+ 5·0
4·411	0	14	0	7	78·2	− 8·1	+17·7
Means ...	...	...	3	25	75·71	− 7·46	...

Group 3772.

A small spot.

Oct. 29·433	0	20	0	12	162·6	−12·4	+23·3
Means ...	...	...	0	12	162·6	−12·4	...

Group 3773.

A very small spot.

					°	°	°
1894. a Oct. 29·433	0	2	0	1	156·8	− 4·2	+17·5
Means ...	...	...	0	1	156·8	− 4·2	...

Group 3774.

A pair of spots, *a* and *b*. Both are very small on October 29, but increase greatly until October 31, after which they diminish again, and *b* has disappeared by November 2. *a* moves forward in longitude.

Oct. 29·433	5	15	3	8	124·9	+15·5	−14·4
30·216	26	149	13	76	125·2	+15·7	− 3·7
31·212	60	294	31	152	126·4	+15·4	+10·6
Nov. 1·531	24	70	14	42	127·5	+15·4	+29·0
2·321	5	23	3	15	129·4	+15·0	+41·4
Means ...	...	...	13	59	126·68	+15·40	...

Group 3775.

A small spot *nf* of Group 3770.

Oct. 29·433	0	6	0	11	64·8	+17·1	−74·5
Means ...	...	...	0	11	64·8	+17·1	...

Group 3776.

A regular spot, which diminishes in size from day to day.

Oct. 29·433	0	24	0	116	54·5	+11·9	−84·8
30·216	9	43	16	79	54·2	+12·2	−74·7
31·212	15	75	16	79	53·7	+12·1	−62·1
Nov. 1·531	19	78	13	55	54·2	+12·3	−44·3
2·321	22	80	13	48	54·5	+12·6	−33·5
3·494	16	78	9	42	54·5	+12·3	−18·1
4·411	22	42	11	21	54·6	+12·0	− 5·9
5·228	10	63	5	32	54·8	+11·8	+ 5·1
6·412	14	34	8	18	54·6	+11·5	+20·5
7·306	5	24	3	14	54·6	+11·3	+32·3
8·412	0	8	0	6	54·6	+11·7	+46·9
Means ...	...	...	9	46	54·44	+11·97	...

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 3777. A large regular spot.							
1894. d					°	°	°
Oct. 30·216	3	42	8	100	50·0	+ 8·4	−78·9
31·212	23	111	28	135	49·8	+ 8·1	−66·0
Nov. 1·531	31	193	23	144	50·6	+ 7·8	−47·9
2·321	54	259	34	163	50·7	+ 8·0	−37·3
3·494	60	315	33	172	50·8	+ 7·6	−21·8
4·411	54	260	27	131	51·3	+ 7·1	− 9·2
5·228	37	242	18	122	52·0	+ 7·1	+ 2·3
6·412	43	252	23	132	52·2	+ 7·1	+18·1
7·306	56	196	33	115	52·5	+ 7·1	+30·2
8·412	24	149	17	105	52·4	+ 7·1	+44·7
9·214	29	134	26	119	52·4	+ 6·7	+55·3
10·398	20	69	29	100	51·7	+ 6·7	+70·2
Means ...	...	...	25	128	51·37	+ 7·40	...
Group 3778. A small regular spot on October 31. It has greatly decreased by the succeeding day.							
Oct. 31·212	13	43	7	22	116·6	−11·1	+ 0·8
Nov. 1·531	2	9	1	5	118·2	−10·5	+ 19·7
Means ...	...	...	4	14	117·40	−10·80	...
Group 3779. A very small spot.							
Nov. 2·321	0	11	0	6	76·5	−11·5	− 11·5
Means ...	...	...	0	6	76·5	−11·5	...
Group 3780. A very small spot *s* of Group 3770.							
Nov. 2·321	1	6	1	3	75·8	+ 9·8	− 12·2
3·494	0	2	0	1	77·7	+ 8·4	+ 5·1
Means ...	...	...	1	2	76·75	+ 9·10	...
Group 3781. Several unstable spots, mostly small, in an irregular stream. The group increases rapidly up to November 4, and diminishes as quickly afterwards.							
1894. d					°	°	°
Nov. 2·321	4	28	8	52	13·1	−16·7	− 74·9
3·494	18	97	18	95	16·0	−14·3	− 56·6
4·411	18	218	13	161	16·8	−15·2	− 43·7
5·228	27	156	17	99	16·4	−15·1	− 33·3
6·412	7	17	4	9	15·9	−15·1	− 18·2
Means ...	...	...	12	83	15·64	−15·28	...
Group 3782. A small spot.							
Nov. 3·494	0	40	0	21	67·6	−14·5	− 5·0
Means ...	...	...	0	21	67·6	−14·5	...
Group 3783. Several unstable spots, mostly small. On November 6 it forms a long straggling stream, but it diminishes rapidly on the succeeding days.							
Nov. 3·494	0	24	0	14	40·6	+11·8	− 32·0
4·411	0	68	0	35	44·8	+10·0	− 15·7
5·228	0	38	0	19	40·1	+12·5	− 9·6
6·412	56	176	29	92	42·1	+11·7	+ 8·0
7·306	10	88	6	48	44·2	+10·6	+ 21·9
8·412	11	37	7	22	43·0	+12·2	+ 35·3
9·214	3	11	2	8	43·7	+13·0	+ 46·6
10·398	0	11	0	12	43·2	+12·9	+ 61·7
Means ...	...	...	6	31	42·71	+11·84	...
Group 3784. A small spot.							
Nov. 3·494	0	7	0	11	4·9	−20·3	− 67·7
4·411	0	10	0	9	7·2	−20·1	− 53·3
Means ...	...	...	0	10	6·05	−20·20	...

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

Group 3785.

A disturbed area in which small unstable spots are occasionally seen. No spots are seen on November 5 and 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.
					°	°	°
1894. d Nov. 3·494	2	11	3	17	3·9	−15·1	− 68·7
4·411	0	10	0	9	5·2	−15·3	− 55·3
5·228	0	0	0	0	...	...	...
6·412	0	20	0	12	3·7	−16·4	− 30·4
7·306	0	0	0	0	...	...	...
8·412	2	24	1	13	2·4	−15·3	− 5·3
Means ...	...	...	2	9	3·80	−15·53	...

Group 3786.

A large irregular spot, *a*, followed by a few small companions. *a* has divided into two parts by November 7, which are measured separately as *b* and *c* on November 9. Both diminish, *b* the more rapidly. Only *c* remains by November 14.

Nov. 3·494	10	52	53	277	348·4	− 4·8	− 84·2
4·411	22	120	36	196	348·8	− 4·8	− 71·7
5·228	53	253	57	269	348·5	− 5·0	− 61·2
6·412	77	287	55	206	349·0	− 5·0	− 45·1
7·306	57	244	35	151	348·6	− 4·8	− 33·7
8·412	56	248	30	132	349·2	− 4·9	− 18·5
9·214	57	243	30	125	349·4	− 4·9	− 7·7
10·398	38	214	19	110	350·0	− 5·3	+ 8·5
11·433	29	114	16	63	350·6	− 5·4	+ 22·7
12·220	19	79	12	49	350·6	− 5·2	+ 33·1
13·408	6	39	5	29	350·3	− 4·9	+ 48·4
14·198	0	8	0	8	351·3	− 4·8	+ 59·9
Means ...	...	...	29	135	349·56	− 4·98	...

Group 3787.

A cluster of very small spots *s* of Group 3770.

Nov. 5·228	0	28	0	16	73·8	+ 9·1	+ 24·1
Means ...	...	...	0	16	73·8	+ 9·1	...

Group 3788.

A pair of very small spots.

Nov. 6·412	4	14	2	9	71·3	−17·7	+ 37·2
Means ...	...	...	2	9	71·3	−17·7	...

Group 3789.

A group forming on the central meridian. On November 7, it forms a long curved stream. *a*, the last spot, is a large regular spot, and has a retrograde motion in longitude, and moves away from the equator in latitude. *b*, the leader, is also regular, but rapidly diminishes in size, and has disappeared by November 11. It moves forward in longitude.

					°	°	°
1894. d Nov. 6·412	21	94	11	50	27·3	−10·8	− 6·8
7·306	110	443	57	231	27·6	−11·3	+ 5·3
8·412	152	830	86	468	30·0	−11·3	+ 22·3
9·214	156	602	98	376	29·6	−11·6	+ 32·5
10·398	101	464	81	358	29·0	−11·5	+ 47·5
11·433	16	148	15	148	26·2	−12·2	+ 58·3
12·220	16	68	21	87	23·3	−13·1	+ 65·8
Means ...	...	...	53	245	27·57	−11·69	...

Group 3790.

A small spot *s* of Group 3770.

Nov. 8·412	2	9	3	13	77·7	+ 8·6	+ 70·0
Means ...	...	...	3	13	77·7	+ 8·6	...

Group 3791.

A very small spot near the position of Group 3784.

Nov. 8·412	0	6	0	3	9·0	−20·4	+ 1·3
Means ...	...	...	0	3	9·0	−20·4	...

Group 3792.

A few small spots in an irregular stream. *a* is the leading spot.

Nov. 8·412	5	26	7	47	294·4	− 5·7	− 73·3
9·214	9	63	9	73	293·5	− 5·6	− 63·6
10·398	11	63	8	46	296·2	− 5·6	− 45·3
11·433	2	35	1	21	296·2	− 5·9	− 31·7
12·220	2	15	1	8	298·5	− 4·4	− 19·0
13·408	0	37	0	19	296·3	− 5·6	− 5·6
Means ...	...	...	4	36	295·85	− 5·47	...

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

Group 3793.

A pair of very small spots, *a* and *b*, on November 9. *a* and *b* move apart and increase in size on the succeeding days, and new spots form between them, and the group becomes a straight stream. *a* is measured in two parts on November 13 and 14, and *b* on November 11. The group diminishes after November 14, only *a* and *b* remaining after that 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.
1894. d					°	°	°
Nov. 9·214	2	14	1	9	338·7	−21·3	− 18·4
10·398	30	88	17	49	340·0	−21·3	− 1·5
11·433	64	332	36	190	341·4	−22·0	+ 13·5
12·220	74	420	44	254	339·8	−21·9	+ 22·3
13·408	60	328	44	238	341·7	−21·9	+ 39·8
14·198	55	293	49	255	341·4	−21·9	+ 50·0
15·602	17	88	29	143	342·6	−21·3	+ 69·6
16·460	4	17	8	36	336·0	−21·4	+ 74·4
Means ...	...	...	29	147	340·20	−21·63	...

Group 3794.

A very small spot.

Nov. 10·398	2	9	1	5	313·1	+ 8·9	− 28·4
Means ...	...	...	1	5	313·1	+ 8·9	...

Group 3795.

A regular spot, *a*, followed by a stream of small spots. *a* increases in size up to November 14, and then suddenly diminishes.

Nov. 10·398	11	32	9	26	289·2	+11·9	− 52·3
11·433	23	134	14	90	287·8	+11·6	− 40·1
12·220	42	174	25	102	288·2	+12·2	− 29·3
13·408	26	225	14	117	291·1	+11·7	− 10·8
14·198	43	270	22	137	291·2	+11·7	− 0·2
15·602	16	81	8	43	292·3	+11·4	+ 19·3
16·460	18	44	11	26	292·8	+11·4	+ 31·2
17·396	5	21	4	15	293·5	+11·1	+ 44·2
18·520	2	9	2	9	295·9	+11·5	+ 61·4
Means ...	...	...	12	63	291·33	+11·61	...

Group 3796.

Three small spots *f* Group 3786.

Nov. 12·220	6	43	3	25	343·8	− 5·2	+ 26·3
Means ...	...	...	3	25	343·8	− 5·2	...

Group 3797.

An isolated spot which slowly 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.
1894. d					°	°	°
Nov. 12·220	4	24	10	56	239·5	+ 9·8	− 78·0
13·408	8	58	8	59	241·3	+ 9·2	− 60·6
14·198	22	71	18	55	241·2	+ 9·3	− 50·2
15·602	15	87	9	51	241·9	+ 8·7	− 31·1
16·460	11	67	6	36	241·9	+ 8·9	− 19·7
17·396	13	36	7	18	242·2	+ 8·6	− 7·1
18·520	13	31	7	16	242·5	+ 8·5	+ 8·0
19·538	14	33	8	18	242·7	+ 8·7	+ 21·6
20·396	7	22	4	13	243·0	+ 8·7	+ 33·3
21·308	6	25	5	18	243·7	+ 9·3	+ 46·0
Means ...	...	...	8	34	241·99	+ 8·97	...

Group 3798.

A very small spot *sp* Group 3793.

Nov. 13·408	0	10	0	7	348·4	− 9·6	+ 46·5
14·198	0	8	0	8	346·3	−10·7	+ 54·9
Means ...	...	...	0	8	347·35	−10·15	...

Group 3799.

A large regular spot, *a*, followed by a few very small spots in a short stream. The entire group diminishes steadily in size after November 15, and *a* remains alone by November 20.

Nov. 14·198	7	46	15	95	215·4	+ 2·9	− 76·0
15·602	30	165	26	145	217·7	+ 1·8	− 55·3
16·460	36	176	25	122	218·2	+ 2·0	− 43·4
17·396	34	218	19	126	219·4	+ 1·8	− 29·9
18·520	33	196	17	102	219·9	+ 2·1	− 14·6
19·538	26	157	13	78	220·8	+ 2·3	− 0·3
20·396	25	107	13	55	221·4	+ 2·7	+ 11·7
21·308	25	105	14	58	221·7	+ 3·6	+ 24·0
22·214	21	79	13	49	221·6	+ 3·7	+ 35·9
23·529	6	30	5	26	222·6	+ 4·3	+ 54·2
Means ...	...	...	16	86	219·87	+ 2·72	...

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 3800. A small spot, *a*, with a very small companion on November 18 and 19. The group follows Group 3799.							
1894. d					°	°	°
Nov. 15·602	3	9	3	10	209·5	+ 4·7	− 63·5
16·460	7	9	6	7	208·8	+ 5·1	− 52·8
17·396	4	18	3	12	208·4	+ 5·1	− 40·9
18·520	2	15	1	8	209·9	+ 4·6	− 24·6
19·538	0	12	0	6	210·4	+ 4·1	− 10·7
Means ...	...	...	3	9	209·40	+ 4·72	...
Group 3801. A very small spot, *a*, on November 17. By the succeeding day the group has developed into a stream of spots, of which *a*, now double and much increased in size, is the leader, and another double spot, *b*, the last. *a* and *b* both become regular spots later. The group diminishes steadily after November 19, and *a* remains alone by November 23.							
Nov. 17·396	0	9	0	6	207·7	−13·1	− 41·6
18·520	49	184	29	109	207·7	−14·2	− 26·8
19·538	76	319	42	172	208·0	−14·6	− 13·1
20·396	31	206	16	108	209·8	−14·5	+ 0·1
21·308	29	150	16	80	210·9	−14·0	+ 13·2
22·214	25	148	14	84	211·0	−14·2	+ 25·3
23·529	8	59	6	44	213·8	−13·0	+ 45·4
24·443	4	38	4	36	213·9	−12·7	+ 57·5
25·507	4	22	6	35	213·4	−12·6	+ 71·0
Means ...	...	...	15	75	210·69	−13·66	...
Group 3802. A very small spot.							
Nov. 18·520	0	4	0	2	202·6	+ 9·8	− 31·9
Means ...	...	...	0	2	202·6	+ 9·8	...
Group 3803. A pair of small spots.							
Nov. 19·538	6	22	8	30	154·7	−12·7	− 66·4
Means ...	...	...	8	30	154·7	−12·7	...
Group 3804. A large regular spot, *a*, followed by a number of small spots in a straggling stream. *a* remains alone by November 28.							
1894. d					°	°	°
Nov. 20·396	13	86	26	170	134·1	+ 7·3	− 75·6
21·308	33	174	38	203	133·0	+ 8·0	− 64·7
22·214	40	207	33	178	131·4	+ 8·7	− 54·3
23·529	21	163	13	102	132·7	+ 8·7	− 35·7
24·443	42	248	23	139	132·1	+ 8·7	− 24·3
25·507	20	212	10	110	133·0	+ 8·9	− 9·4
26·223	54	237	28	121	132·4	+ 9·1	− 0·5
27·189	47	238	25	123	133·0	+ 8·5	+ 12·8
28·203	32	146	18	84	135·4	+ 8·6	+ 28·6
29·195	26	122	17	82	136·0	+ 8·6	+ 42·3
30·513	9	36	9	35	135·9	+ 8·8	+ 59·5
Dec. 1·527	0	10	0	16	135·3	+ 9·2	+ 71·2
Means ...	...	...	20	114	133·69	+ 8·59	...
Group 3805. A pair of very small spots.							
Nov. 21·308	1	19	1	12	225·7	−19·1	+ 28·0
Means ...	...	...	1	12	225·7	−19·1	...
Group 3806. A very small spot.							
Nov. 21·308	0	9	0	5	218·6	−10·8	+ 20·9
Means ...	...	...	0	5	218·6	−10·8	...
Group 3807. A group suddenly forming near the central meridian as a short stream of small spots. The group rapidly increases in size on November 22 and 23, when it consists of a large regular spot, *a*, followed by a number of irregular spots in a broad stream. A nebulous spot closely following *a* is measured with it on November 22.							
Nov. 21·308	14	70	7	38	186·2	−19·8	− 11·5
22·214	215	711	115	386	186·5	−19·9	+ 0·8
23·529	117	951	67	548	187·7	−19·6	+ 19·3
24·443	126	830	79	527	187·8	−19·4	+ 31·4
25·507	103	691	81	535	188·2	−19·5	+ 45·8
26·223	106	525	99	494	187·8	−19·5	+ 54·9
27·189	37	342	59	508	188·7	−19·8	+ 68·5
28·203	5	41	14	108	184·8	−21·9	+ 78·0
Means ...	...	...	65	393	187·21	−19·93	...

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

Group 3808.

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.
					°	°	°
1894. d Nov. 21·308	2	11	2	10	142·3	−11·0	−55·4
Means ...	...	...	2	10	142·3	−11·0	...

Group 3809.

A small spot.

Nov. 23·529	4	20	2	11	147·8	−10·3	−20·6
24·443	4	18	2	9	149·7	− 9·9	− 6·7
Means ...	...	...	2	10	148·75	−10·10	...

Group 3810.

A small spot.

Nov. 23·529	2	16	2	10	138·7	−15·5	−29·7
Means ..	...	...	2	10	138·7	−15·5	...

Group 3811.

A few small spots in a short stream. Only one very small spot remains by November 26.

Nov. 24·443	10	52	5	27	166·0	−10·8	+ 9·6
25·507	4	46	2	26	165·7	−10·7	+ 23·3
26·223	0	6	0	4	165·5	−10·6	+ 32·6
Means ...	...	...	2	19	165·73	−10·70	...

Group 3812.

A few unstable spots in an irregular straggling stream. The group has undergone a great development by December 5, and contains two large irregular spots with several smaller companions. It has undergone a further increase by the succeeding day.

Nov. 26·223	5	42	6	42	72·8	+12·8	− 60·1
27·189	12	76	9	56	73·4	+11·5	− 46·8
28·203	17	150	10	91	74·4	+12·1	− 32·4
29·195	19	87	10	47	74·9	+12·4	− 18·8
30·513	8	119	4	60	76·2	+12·1	− 0·2

Group 3812—*continued.*

					°	°	°
1894. d Dec. 1·527	12	146	7	77	77·3	+11·1	+ 13·2
2·248	18	102	10	57	78·5	+11·3	+ 25·0
3·617	9	34	6	23	80·1	+11·6	+ 42·4
4·211	8	92	7	73	78·9	+ 9·0	+ 51·3
5·189	94	457	100	493	76·7	+ 8·3	+ 62·0
6·244	91	423	244	1043	79·1	+ 8·6	+ 78·2
Means ...	...	...	38	187	76·57	+10·98	...

Group 3813.

A small spot with, on November 27, a very small companion. The latter is not seen on the succeeding day.

Nov. 27·189	2	32	1	19	150·5	− 6·3	+ 30·3
28·203	0	11	0	8	152·1	− 6·7	+ 45·3
Means ...	...	...	1	14	151·30	− 6·50	...

Group 3814.

A few spots, mostly very small, in a short stream. *a* and *b* are the first and last spots. *b* remains alone on December 1.

Nov. 27·189	6	63	3	33	113·2	−14·5	− 7·0
28·203	16	106	9	54	114·5	−14·2	+ 7·7
29·195	8	86	5	48	114·7	−14·0	+ 21·0
30·513	8	59	5	38	112·9	−14·0	+ 36·5
Dec. 1·527	2	20	2	15	112·2	−13·6	+ 48·1
Means ...	...	...	5	38	113·50	−14·06	...

Group 3815.

A few small unstable spots in a straight stream. The group increases rapidly after passing the central meridian on November 29, and by December 2 has become a fine straight stream, the leader of which is a large regular spot, *a*. The axis of the stream is inclined at a considerable angle to the equator.

Nov. 27·189	7	32	4	20	89·9	+23·8	− 30·3
28·203	6	49	4	28	91·0	+23·5	− 15·8
29·195	0	11	0	6	93·8	+22·8	+ 0·1
30·513	10	45	5	25	90·7	+22·8	+ 14·3
Dec. 1·527	50	288	31	175	89·5	+24·4	+ 25·4
2·248	75	402	51	276	90·6	+24·2	+ 37·1
3·617	64	300	57	276	91·9	+23·2	+ 54·2
4·211	33	446	38	535	91·0	+23·0	+ 63·4
5·189	0	247	0	499	89·0	+23·6	+ 74·3
6·244	0	6	0	34	84·9	+27·2	+ 84·0
Means ...	...	...	19	187	90·23	+23·85	...

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

Group 3816.

Three large irregular spots on November 30. The group soon becomes a straight stream, of which the first spot, *a*, is large and regular, and the last spot, *b*, is also regular. The following portion of the group diminishes steadily, and on December 9 and 11, *a* alone is seen.

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.
1894. d					°	°	°
Nov. 29·195	0	64	0	219	12·8	−17·9	− 80·9
30·513	70	605	99	820	9·4	−17·8	− 67·0
Dec. 1·527	86	579	81	534	9·1	−18·2	− 55·0
2·248	110	731	83	547	8·6	−18·1	− 44·9
3·617	118	730	70	437	9·8	−18·5	− 27·9
4·211	84	620	47	341	10·9	−18·6	− 16·7
5·189	117	649	63	344	10·5	−18·2	− 4·2
6·244	96	564	51	304	10·5	−18·3	+ 9·6
7·482	42	348	25	204	11·0	−18·6	+ 26·4
8·179	63	370	40	240	10·8	−18·7	+ 35·4
9·233	39	212	32	172	11·1	−18·7	+ 49·6
10·212	18	109	21	124	11·2	−18·7	+ 62·6
11·505	4	17	11	46	10·9	−18·8	+ 79·3
Means ...	...	...	48	333	10·51	−18·39	...

Group 3817.

A very small spot on November 30, *np* Group 3816. The group rapidly increases in size on the three succeeding days, and becomes a considerable stream, *a* and *b*, the first and last spots, being the largest. *b* is much larger than *a* to begin with, but rapidly diminishes, and *a* remains alone by December 9.

Nov. 30·513	0	11	0	8	30·2	−14·5	− 46·2
Dec. 1·527	47	203	29	126	29·8	−13·9	− 34·3
2·248	103	493	59	281	29·5	−14·1	− 24·0
3·617	146	731	78	380	30·7	−14·1	− 7·0
4·211	108	641	55	331	31·1	−13·9	+ 3·5
5·189	124	487	67	264	31·3	−13·8	+ 16·6
6·244	91	314	55	191	33·2	−13·8	+ 32·3
7·482	15	170	11	135	33·9	−13·9	+ 49·3
8·179	32	182	31	179	33·8	−14·1	+ 58·4
9·233	16	94	27	158	33·8	−13·6	+ 72·3
10·212	0	25	0	118	32·6	−13·5	+ 84·0
Means ...	...	...	37	197	31·81	−13·93	...

Group 3818.

A number of unstable spots, mostly small, *f* Group 3816. The principal spot, *a*, a somewhat small regular spot, is on most days the leader. The axis of the group is often inclined at a large angle to the equator.

1894. d					°	°	°
Dec. 1·527	11	55	16	83	355·2	−19·2	− 68·9
2·248	34	130	35	133	354·8	−18·9	− 58·7
3·617	36	170	26	126	353·8	−19·8	− 43·9
4·211	18	185	11	117	354·0	−20·0	− 33·6
5·189	41	180	24	103	354·1	−19·8	− 20·6
6·244	27	95	14	51	355·4	−18·9	− 5·5
7·482	8	51	4	28	356·2	−20·0	+ 11·6
8·179	23	153	12	87	353·0	−20·1	+ 17·6
9·233	53	276	33	173	353·7	−19·7	+ 32·2
10·212	35	166	26	127	354·5	−19·3	+ 45·9
11·505	11	55	13	66	355·9	−18·8	+ 64·3
12·264	0	13	0	26	356·5	−18·9	+ 74·9
Means ...	...	...	18	93	354·76	−19·45	...

Group 3819.

A very small spot.

Dec. 2·248	0	13	0	8	89·3	− 4·7	+ 35·8
3·617	2	8	2	7	90·5	− 4·8	+ 52·8
Means ...	...	...	1	8	89·90	− 4·75	...

Group 3820.

Several spots, mostly irregular and variable, in a straight stream. The leader, *a*, is measured in two parts on December 4, 5 and 6.

Dec. 2·248	0	11	0	8	8·1	+10·8	− 45·4
3·617	48	116	27	66	10·4	+ 9·1	− 27·3
4·211	39	216	21	114	9·9	+ 8·8	− 17·7
5·189	71	267	36	136	11·5	+ 8·3	− 3·2
6·244	96	359	49	186	11·2	+ 8·7	+ 10·3
7·482	25	267	15	154	13·5	+ 7·9	+ 28·9
8·179	53	258	33	164	12·9	+ 8·4	+ 37·5
9·233	20	151	17	122	11·1	+ 8·8	+ 49·6
10·212	10	42	12	51	13·6	+ 8·6	+ 65·0
Means ...	...	...	23	111	11·36	+ 8·82	...

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

Group 3821.

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.
1894. d					°	°	°
Dec. 3·617	2	9	1	5	71·1	+ 1·4	+ 33·4
4·211	0	16	0	11	70·5	11·4	+ 42·9
Means ...	...	...	1	8	70·80	+ 11·40	...

Group 3822.

Several irregular spots in a straight stream. The spots tend to break up and scatter, and *a* and *b*, the principal spots, and the first and last on December 3, have completely broken up by December 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.
Dec. 3·617	12	52	25	109	321·7	− 4·1	− 76·0
4·211	20	139	25	174	321·1	− 4·4	− 66·5
5·189	74	387	65	337	320·0	− 4·4	− 54·7
6·244	81	380	52	248	321·1	− 4·4	− 39·8
7·482	3	180	2	98	321·9	− 4·8	− 22·7
8·179	17	125	10	65	320·8	− 4·7	− 14·6
9·233	11	92	6	47	317·1	− 4·1	− 4·4
10·212	7	39	4	19	317·3	− 4·1	+ 8·7
Means ...	...	...	24	137	320·13	− 4·38	...

Group 3823.

A regular spot, *a*, with occasionally some 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.
Dec. 5·189	4	21	9	44	298·5	+ 1·1	− 76·2
6·244	15	45	16	48	299·0	+ 1·7	− 61·9
7·482	7	38	5	27	299·2	+ 1·3	− 45·4
8·179	18	78	11	48	297·9	+ 2·6	− 37·5
9·233	17	77	9	42	298·6	+ 2·5	− 22·9
10·212	13	25	7	12	299·8	+ 1·5	− 8·8
11·505	14	42	7	21	299·7	+ 0·8	+ 8·1
12·264	14	21	7	11	300·5	+ 1·6	+ 18·9
13·409	6	18	4	11	300·9	+ 1·3	+ 34·4
14·211	4	14	3	10	301·2	+ 1·6	+ 45·3
15·431	0	22	0	23	301·6	+ 1·1	+ 61·8
Means ...	...	...	7	27	299·72	+ 1·55	...

Group 3824.

A small faint spot, first seen near the West limb. A second spot is seen near the first on December 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.
Dec. 6·244	0	6	0	5	54·9	+ 9·0	+ 54·0
7·482	0	9	0	11	51·2	+ 11·6	+ 66·6
8·179	0	13	0	28	51·9	+ 12·2	+ 76·5
Means ...	...	...	0	15	52·67	+ 10·93	...

Group 3825.

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.
1894. d					°	°	°
Dec. 8·179	4	35	2	18	332·1	+ 12·5	− 3·3
Means ...	...	...	2	18	332·1	+ 12·5	...

Group 3826.

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.
Dec. 10·212	2	6	1	4	338·5	+ 12·2	+ 29·9
11·505	0	4	0	3	335·7	+ 12·6	+ 44·1
Means ...	...	...	1	4	337·10	+ 12·40	...

Group 3827.

A number of small spots irregularly scattered, which have formed suddenly near the central meridian on December 10. The group has greatly increased by the succeeding day, and has become a fine complex stream, of which the first spot, *a*, is large and regular. The last spot on December 13, *b*, is a large nebulous irregular 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.
Dec. 10·212	34	109	18	58	308·0	− 19·4	− 0·6
11·505	165	788	88	428	307·8	− 19·4	+ 16·2
12·264	226	1047	135	622	308·6	− 19·2	+ 27·0
13·409	300	1510	214	1071	308·4	− 19·2	+ 41·9
14·211	146	1162	129	1015	308·8	− 19·0	+ 52·9
15·431	109	627	155	888	308·2	− 19·0	+ 68·4
16·290	21	275	41	850	309·2	− 19·0	+ 80·7
Means ...	...	...	111	705	308·43	− 19·17	...

Group 3828.

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.
Dec. 12·264	0	5	0	3	263·9	+ 8·0	− 17·7
Means ...	...	...	0	3	263·9	+ 8·0	...

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

Group 3829.

A number of spots, mostly large and nebulous, in a broad straight stream. The leader, *a*, is at first large and regular, but later diminishes, and becomes irregular. It moves slowly forward in longitude until December 21, but quickly after that 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.
1894. d					°	°	°
Dec. 15·431	22	242	35	440	165·9	−14·5	−73·9
16·290	75	693	87	830	163·8	−14·1	−64·7
17·214	218	1337	182	1120	164·2	−14·1	−52·1
18·209	272	1645	177	1078	165·0	−14·4	−38·2
19·474	300	1965	167	1081	165·9	−14·7	−20·7
20·462	293	2146	152	1112	166·7	−14·9	−6·9
21·209	288	2029	148	1047	167·3	−14·8	+3·6
22·435	220	1250	122	685	168·3	−15·2	+20·7
23·472	119	915	76	582	170·7	−15·1	+36·3
24·267	87	559	69	421	170·5	−14·5	+47·1
25·287	58	340	64	380	173·2	−14·5	+63·2
26·217	49	249	100	505	173·6	−14·5	+75·9
Means ...	...	...	115	773	167·93	−14·61	...

Group 3830.

A regular spot, *a*. A smaller spot, *b*, *nf a*, is seen December 17–20, and a third and increasing spot, *c*, *sf a*, December 18–26. A few very small companions make up with *a* and *c* an irregular stream on December 24.

Dec. 16·290	0	19	0	78	144·9	−16·6	−83·6
17·214	17	62	25	97	145·2	−15·6	−71·1
18·209	22	136	21	136	144·3	−16·0	−58·9
19·474	23	139	16	97	144·7	−17·4	−41·9
20·462	35	180	21	108	144·2	−17·6	−29·4
21·209	41	216	23	121	143·8	−18·0	−19·9
22·435	39	207	20	107	144·4	−18·0	−3·2
23·472	35	218	19	115	143·7	−18·3	+9·3
24·267	30	166	17	91	142·5	−18·2	+19·1
25·287	32	122	20	77	142·7	−18·9	+32·7
26·217	17	72	13	55	144·7	−18·6	+47·0
Means ...	...	...	18	98	144·10	−17·56	...

Group 3831.

A few small spots in an irregular stream. *a* and *b*, the first and last spots, are the most stable. *a* remains alone on December 21.

Dec. 18·209	20	130	10	67	196·5	+6·3	−6·7
19·474	10	77	5	39	198·9	+5·4	+12·3
20·462	7	61	4	35	199·3	+5·6	+25·7
21·209	0	11	0	7	202·2	+3·8	+38·5
Means ...	...	...	5	37	199·23	+5·28	...

Group 3832.

A small spot, *a*, with generally a small unstable companion. *a* is measured in two parts on December 24.

1894. d					°	°	°
Dec. 20·462	0	10	0	10	114·7	−11·9	−58·9
21·209	0	19	0	14	114·2	−12·6	−49·5
22·435	7	35	4	21	115·7	−12·5	−31·9
23·472	11	38	6	20	117·5	−12·3	−16·9
24·267	12	59	6	30	117·3	−12·1	−6·1
25·287	0	7	0	4	117·8	−12·4	+7·8
26·217	0	24	0	14	117·9	−12·5	+20·2
Means ...	...	...	2	16	116·44	−12·33	...

Group 3833.

A very close pair, measured as a single spot, *a*, until December 27, when the two components have separated somewhat, and are measured separately as *b* and *c*. *b* diminishes and has disappeared by December 29.

Dec. 21·209	0	21	0	81	81·6	+8·7	−82·1
22·435	15	92	18	112	82·5	+7·9	−65·1
23·472	29	174	24	142	82·9	+8·3	−51·5
24·267	24	134	17	92	81·9	+8·8	−41·5
25·287	33	110	19	63	82·0	+9·4	−28·0
26·217	32	117	17	62	82·2	+8·4	−15·5
27·473	28	102	14	52	83·0	+8·1	+1·8
28·467	15	53	8	28	83·2	+8·3	+15·1
29·459	7	33	4	20	83·3	+8·8	+28·3
30·234	7	21	5	14	83·7	+8·6	+38·9
Means ...	...	...	13	67	82·63	+8·53	...

Group 3834.

A very small spot.

Dec. 23·472	0	6	0	3	135·9	+12·4	+1·5
Means ...	...	...	0	3	135·9	+12·4	...

Group 3835.

A few spots, mostly small, in a sparse stream. The spots are unstable with the exception of the leader, *a*, which alone remains by December 27.

Dec. 23·472	0	9	0	13	65·1	+7·9	−69·3
24·267	9	94	10	97	63·2	+8·7	−60·2
25·287	27	162	19	120	64·1	+8·7	−45·9
26·217	21	149	12	89	66·8	+8·5	−30·9
27·473	10	43	5	22	70·0	+8·4	−11·2
28·467	0	23	0	12	70·7	+8·6	+2·6
Means ...	...	...	8	59	66·65	+8·47	...

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

Group 3836.

A somewhat ill-defined spot, *a*, with a very small companion on January 1.

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.
1894. d					°	°	°
Dec. 25·287	0	30	0	77	30·9	−14·8	−79·1
26·217	14	68	17	83	32·0	−14·6	−65·7
27·473	6	40	5	31	32·2	−15·1	−49·0
28·467	20	59	13	37	31·7	−15·1	−36·4
29·459	15	55	8	31	31·8	−15·2	−23·2
30·234	0	43	0	22	31·3	−15·0	−13·5
31·210	8	24	4	12	31·7	−15·1	−0·3
1895.							
Jan. 1·194	0	13	0	7	31·6	−15·3	+12·6
2·187	0	19	0	11	31·7	−15·1	+25·8
Means ...	...	...	5	35	31·66	−15·03	...

Group 3837.

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.
1894.							
Dec. 26·217	0	9	0	4	99·6	−8·5	+1·9
Means ...	...	...	0	4	99·6	−8·5	...

Group 3838.

Three very small spots on December 26. The group increases rapidly up to December 28, when it forms an irregular stream of nebulous spots. The spots are unstable with the exception of *a*, the leader on December 27, and tend to form in front of the group and disappear at the rear.

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.
1894.							
Dec. 26·217	3	23	2	15	63·1	+14·6	−34·6
27·473	33	223	18	122	63·2	+13·9	−18·0
28·467	75	396	40	207	63·9	+13·9	−4·2
29·459	48	351	25	186	64·2	+13·6	+9·2
30·234	34	173	19	97	65·2	+13·6	+20·4
31·210	13	49	8	32	66·7	+12·8	+34·7
1895.							
Jan. 1·194	0	10	0	8	68·1	+12·8	+49·1
Means ...	...	...	16	95	64·91	+13·60	...

Group 3839.

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.
1894.							
Dec. 27·473	3	18	3	20	19·7	+15·5	−61·5
Means ...	...	...	3	20	19·7	+15·5	...

Group 3840.

A small spot, with a very small companion on December 28.

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.
1894. d					°	°	°
Dec. 28·467	0	67	0	35	73·4	−20·2	+5·3
29·459	0	9	0	5	73·6	−19·5	+18·6
Means ...	...	...	0	20	73·50	−19·85	...

Group 3841.

Two small spots, *a* and *b*, on December 28. The two spots separate on the succeeding days, and other spots, mostly very small, form between them, forming on December 29 an oval ring. *b* alone remains by December 31.

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.
1894.							
Dec. 28·467	13	41	6	21	65·1	+3·1	−3·0
29·459	42	191	22	99	65·3	+3·8	+10·3
30·234	24	124	13	68	65·4	+3·6	+20·6
31·210	10	35	6	21	64·5	+3·1	+32·5
Means ...	...	...	12	52	65·08	+3·40	...

Group 3842.

A large spot, *a*, with double nucleus, sometimes attended by small companions. It has broken up by January 4, principally into two spots, *b* and *c*, which diminish 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.
1894.							
Dec. 28·467	9	80	34	305	346·7	+16·7	−81·4
29·459	31	167	46	253	346·2	+16·7	−68·8
30·234	59	289	64	317	344·4	+17·5	−60·4
31·210	51	372	41	292	344·8	+17·4	−47·2
1895.							
Jan. 1·194	49	379	32	244	344·8	+17·1	−34·2
2·187	67	475	39	275	344·6	+17·2	−21·3
3·225	75	456	41	248	344·1	+17·2	−8·1
4·208	44	299	23	161	344·9	+17·1	+5·6
5·242	50	255	29	146	345·6	+17·3	+20·0
6·253	38	142	25	93	346·0	+17·2	+33·7
7	No	photo	graph.				
8·472	5	48	6	60	347·0	+16·4	+63·9
Means ...	...	...	35	218	345·37	+17·07	...

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

Group 3843.

A few very faint, small, and unstable spots irregularly arranged.

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.
					°	°	°
1894. d Dec. 31·210	0	12	0	7	56·5	+14·9	+ 24·5
1895. Jan. 1·194	8	37	5	25	56·4	+14·3	+ 37·4
2·187	0	42	0	34	57·7	+14·2	+ 51·8
Means ...	...	...	2	22	56·87	+14·47	...

Group 3844.

Three small spots.

1894. Dec. 31·210	5	38	3	25	355·3	−19·1	− 36·7
Means ...	...	...	3	25	355·3	−19·1	...

Group 3845.

A small faint spot, with a very small companion on December 31 and January 2.

1894. Dec. 31·210	5	20	5	20	332·0	+ 5·5	− 60·0
1895. Jan. 1·194	0	12	0	9	334·3	+ 4·8	− 44·7
2·187	2	22	1	13	332·7	+ 5·4	− 33·2
3·225	0	15	0	8	334·6	+ 4·8	− 17·6
Means ...	...	...	2	13	333·40	+ 5·13	...

Group 3846.

A composite spot, *a*, which speedily becomes large, but diminishes after January 2. It is followed by a few small spots on January 2, but these greatly increase in number, and the group becomes a very complicated and irregular stream. *a* has disappeared by January 7, but the succeeding day a new large spot, *b*, has appeared 4° South of its place, and has become the leader of the group, then a sparse stream, by January 9.

					°	°	°
1894. d Dec. 31·210	0	8	0	20	314·7	+12·1	− 77·3
1895. Jan. 1·194	17	76	22	94	314·3	+12·3	− 64·7
2·187	39	242	34	208	313·6	+13·1	− 52·3
3·225	39	253	26	172	312·9	+12·6	− 39·3
4·208	49	299	28	173	313·1	+11·2	− 26·2
5·242	93	378	50	212	313·5	+11·5	− 12·1
6·253	80	585	41	305	312·6	+11·1	+ 0·3
7	No	photo	graph.				
8·472	51	375	31	224	313·4	+ 9·6	+ 30·3
9·220	44	172	31	118	313·8	+ 9·7	+ 40·6
10·255	18	197	16	178	314·0	+10·2	+ 54·5
11·478	2	51	3	78	313·2	+10·3	+ 69·7
Means ...	...	...	26	162	313·55	+11·25	...

Group 3847.

A very large spot, *a*, generally with some small companions.

1894. Dec. 31·210	31	148	101	485	310·2	−18·0	−81·8
1895. Jan. 1·194	45	349	66	507	309·2	−17·6	−69·8
2·187	89	533	85	508	308·3	−17·2	−57·6
3·225	126	716	91	519	307·5	−17·3	−44·7
4·208	98	718	59	435	307·8	−17·3	−31·5
5·242	115	688	63	376	307·1	−17·5	−18·5
6·253	107	607	55	314	307·2	−17·4	− 5·1
7	No	photo	graph.				
8·472	83	418	47	237	307·5	−17·3	+24·4
9·220	88	405	55	251	307·2	−17·4	+34·0
10·255	68	307	52	232	307·2	−17·7	+47·7
11·478	36	195	39	211	306·0	−17·9	+62·5
12·419	13	122	24	233	306·8	−17·7	+75·6
Means ...	...	...	61	359	307·67	−17·53	...

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

1894.

TOTAL PROJECTED AREAS of SUN SPOTS and FACULÆ for EACH DAY in the Year 1894.

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.
1894 Jan.	d 1	...	...	...
	2·4	297	2309	1478
	3·2	453	2296	2014
	4·2	335	1799	1781
	5·5	207	1270	1829
	6·2	250	1119	1314
	7·3	173	848	1283
	8·2	179	794	1574
	9·2	162	971	1150
	10·2	184	895	1935
	11·5	192	1336	1881
	12·5	250	1727	1517
	13·5	243	1749	680
	14·2	518	2532	993
	15·4	658	4015	978
	16·2	899	4555	1394
	17·2	1089	4960	1908
	18·2	764	5021	912
	19·5	586	3996	369
	20·5	483	3535	1066
	21·2	487	3251	1066
	22·2	504	2697	2256
	23·2	491	2393	912
	24·2	580	2356	2374
	25·4	475	2159	2173
	26·5	260	1549	467
	27·5	229	1297	0
	28·5	160	1118	502
	29·5	104	838	1716
	30·5	59	415	305
	31·2	92	467	1182
Feb.	1·5	40	350	515
	2·2	179	789	769
	3·5	200	1127	536
	4·4	203	1366	723
	5·3	311	1427	1203
	6·2	209	1483	1449
	7·2	320	1774	2386
	8·5	207	1469	1762
	9·5	158	831	1004
	10·2	200	1117	391
	11·2	199	983	844
	12·5	223	1240	1981
	13·5	260	1410	1803
	14·3	239	1098	1675
	15·2	203	1244	1487
	16·2	291	1652	2241
	17·2	619	2347	3526
	18·5	475	2928	1111
	19·4	609	3690	1829
	20·5	554	3878	2831

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 Feb.	d 21·4	634	4371	2463
	22·5	613	4161	2224
	23·2	747	3415	1000
	24·5	627	3706	1066
	25·2	538	3129	2252
	26·2	440	2514	2434
	27·5	267	1648	2616
	28·2	229	1126	1877
March	1·2	183	898	1479
	2·5	74	387	1634
	3·5	22	175	1685
	4·5	10	74	606
	5·5	43	215	1399
	6·5	113	482	1470
	7·5	151	774	1472
	8·3	214	749	988
	9·3	189	784	518
	10·2	281	1102	605
	11·5	259	1724	858
	12·5	198	1336	0
	13·5	220	1278	122
	14·5	283	1514	1528
	15·2	215	1044	1302
	16·4	94	653	1548
	17·4	94	412	1518
	18·5	21	189	1351
	19·3	39	137	1106
	20·2	16	193	1346
	21·4	83	544	1298
	22·2	164	730	927
	23·5	154	994	667
	24·3	180	894	485
	25·5	164	953	1188
	26·5	136	762	1199
	27·5	162	800	1252
	28·5	135	813	1872
	29·5	189	1170	1814
	30·4	366	1932	2472
	31·4	553	2721	1692
April	1·2	730	3608	963
	2·2	802	3772	2297
	3·5	616	4014	1328
	4·5	564	3469	1457
	5·5	382	2651	711
	6·3	484	2230	3361
	7·2	322	1934	3515
	8·3	480	1933	2008
	9·5	340	2149	962
	10·5	255	2219	1274
	11·5	361	2045	1186

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 April	d 12·5	183	1709	2331
	13·5	247	1215	1121
	14·2	155	1153	2740
	15·6	159	923	1481
	16·2	149	930	1593
	17·5	159	886	1286
	18·2	200	797	768
	19·4	179	926	555
	20·2	214	953	966
	21·5	226	1283	936
	22·5	258	1498	1203
	23·2	594	2289	2692
	24·2	611	2984	1598
	25·5	551	3342	1918
	26·5	469	3042	1148
	27·5	560	3047	1255
	28·5	436	2783	720
	29·5	482	2704	1501
	30·2	541	2571	4142
May	1·3	617	2424	3066
	2·3	453	2240	2481
	3·2	465	2289	3278
	4·5	414	2015	2277
	5·5	313	1637	430
	6·5	160	1159	1190
	7·5	172	1089	1105
	8·3	254	972	1913
	9·5	172	940	1213
	10·5	115	694	2568
	11·2	97	616	2862
	12·2	231	889	3870
	13·5	322	1502	858
	14·5	437	2716	925
	15·3	764	3852	582
	16·2	632	3494	246
	17·6	725	4507	204
	18·6	700	4903	745
	19·2	1091	5165	2593
	20·2	939	5351	2643
	21·2	904	4643	3030
	22·2	703	3236	2762
	23·3	456	2118	2267
	24·4	345	2270	3729
	25·4	238	1405	3916
	26·6	331	1671	1042
	27·6	374	1947	1344
	28·3	511	2091	2391
	29·5	463	2251	1904
	30·5	405	2172	1404
	31·5	415	2202	1332

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 June	d 1·6	454	2156	759
	2·2	483	2206	1541
	3·2	469	2071	1446
	4·2	414	1903	1350
	5·4	303	1534	1812
	6·2	286	1645	2791
	7·6	324	1763	1649
	8·3	341	1636	2763
	9·5	397	2101	1582
	10·5	375	2030	1407
	11·5	332	1931	1055
	12·4	331	1989	719
	13·3	419	1966	1201
	14·5	566	2754	2286
	15·5	521	3437	2725
	16·2	648	3575	3323
	17·3	814	4035	1910
	18·4	964	5271	1687
	19·4	1157	5935	1360
	20·3	1998	5293	2297
	21·4	831	4202	1838
	22·2	570	3021	2283
	23·5	403	2150	1500
	24·5	324	1837	793
	25·5	252	1573	2302
	26·5	203	1130	1299
	27·4	205	984	1504
	28·4	244	1193	529
	29·4	206	1286	1121
	30·4	126	837	1312
July	1·5	89	592	1604
	2·5	65	511	2588
	3·6	218	819	2048
	4·4	186	1122	4223
	5·4	235	1431	1889
	6·4	240	1731	2090
	7·4	382	2430	3323
	8·5	562	2938	1727
	9·6	493	2881	1470
	10·3	557	2706	2835
	11·4	517	2796	4203
	12·4	610	3322	3197
	13·4	598	3945	4866
	14·5	691	4053	2637
	15·2	792	3576	2683
	16·3	679	3184	2442
	17·6	578	3393	3101
	18·5	617	3426	2309
	19·4	620	3583	2336
	20·2	572	2790	1361
	21·5	528	2905	2136
	22·5	519	2937	2704

TOTAL PROJECTED AREAS of SUN SPOTS and FACULÆ—*concluded.*

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 July	d 23·2	534	2376	1997
	24·2	439	2239	1560
	25·4	333	2410	1000
	26·5	375	2068	417
	27·5	290	1759	212
	28·2	237	1264	1368
	29·5	217	1109	1828
	30·2	180	1104	1866
	31·6	287	1286	1059
Aug.	1·7	338	1778	1787
	2·6	263	1739	1434
	3·4	305	1993	2178
	4·5	333	1808	1301
	5·5	243	1532	569
	6·3	240	1228	937
	7·5	247	1580	368
	8·2	484	1859	3349
	9·3	395	2178	2981
	10·6	318	1808	1542
	11·5	274	1750	1651
	12·4	244	1684	2028
	13·6	283	2180	476
	14·4	557	2860	936
	15·5	613	3368	1651
	16·5	692	4421	1485
	17·4	699	3809	2053
	18·4	614	3312	1195
	19·3	494	2685	892
	20·4	405	2148	1269
	21·4	371	1613	2325
	22·4	154	744	1726
	23·3	17	118	966
	24·2	9	42	983
	25·2	4	18	749
	26·4	43	118	2553
	27·3	81	314	1793
	28·5	88	479	2054
	29·4	95	433	1599
	30·4	127	675	1956
	31·5	117	743	520

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 Sept.	d 1·4	145	846	942
	2·5	118	797	502
	3·2	156	659	1301
	4·7	76	422	1413
	5·5	97	383	2489
	6·6	90	608	1437
	7·2	152	842	2317
	8·5	293	1444	2724
	9·2	299	1703	2000
	10·4	404	2013	1411
	11·6	471	2091	1282
	12·4	506	2135	1761
	13·6	236	1702	350
	14·2	270	1272	1232
	15·2	301	1582	3130
	16·5	237	1102	1846
	17·2	182	825	1991
	18·6	133	788	989
	19·5	133	773	569
	20·2	133	651	644
	21·2	102	463	1529
	22·1	124	428	2783
	23·6	65	361	2030
	24·3	56	299	1364
	25·2	68	292	2178
	26·3	65	191	827
	27·4	32	121	1234
	28·4	82	417	1051
	29·4	136	730	1640
	30·5	97	858	1632
Oct.	1·4	116	689	1887
	2·4	238	1356	1370
	3·2	369	2070	1807
	4·2	502	3120	2465
	5·5	590	4815	2470
	6·2	734	5311	3686
	7·2	1037	5097	1851
	8·2	899	4667	2709
	9·2	815	4117	2850
	10·3	883	3564	2027
	11·3	671	2820	1481
	12·6	431	2263	3492

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 Oct.	d 13·4	436	1996	2409
	14·2	304	1541	2995
	15·4	209	1011	1919
	16·2	105	628	1953
	17·3	16	144	1584
	18·2	24	138	2198
	19·3	36	278	2009
	20·2	123	517	2404
	21·5	135	592	1296
	22·3	148	574	2685
	23·3	144	654	2268
	24·2	85	385	1096
	25·5	88	489	633
	26·4	88	413	1010
	27·3	72	372	2546
	28·6	86	504	2457
	29·4	95	496	2427
	30·2	127	696	4320
	31·2	204	968	561
Nov.	1·5	155	740	1930
	2·3	182	830	3888
	3·5	172	1102	1850
	4·4	188	1117	1020
	5·2	176	1020	1071
	6·4	259	1135	925
	7·3	265	1167	2741
	8·4	269	1444	1542
	9·2	255	1110	1860
	10·4	213	949	1388
	11·4	133	764	517
	12·2	165	823	903
	13·4	100	697	1234
	14·2	128	695	2322
	15·6	81	428	851
	16·5	76	312	933
	17·4	56	301	672
	18·5	99	439	915
	19·5	121	544	619
	20·4	76	421	786
	21·3	110	562	1969

Greenwich Civil Time.		Projected Area.		
		Umbræ.	Whole Spots.	Faculæ.
1894 Nov.	d 22·2	301	1145	2761
	23·5	159	1239	0
	24·4	185	1185	1040
	25·5	131	970	1332
	26·2	165	809	1493
	27·2	112	783	2338
	28·2	77	502	1338
	29·2	52	370	2434
	30·5	105	874	1653
Dec.	1·5	207	1300	1431
	2·2	339	1881	1864
	3·6	435	2150	1916
	4·2	310	2356	2709
	5·2	524	2695	3561
	6·2	496	2191	2110
	7·5	99	1064	0
	8·2	209	1213	2103
	9·2	157	901	3133
	10·2	119	520	2076
	11·5	194	905	762
	12·3	240	1087	1278
	13·4	306	1528	676
	14·2	150	1177	2008
	15·4	131	891	690
	16·3	96	987	1480
	17·2	235	1398	1353
	18·2	314	1911	2008
	19·5	333	2181	0
	20·5	335	2397	0
	21·2	329	2296	1310
	22·4	281	1584	1162
	23·5	194	1360	1364
	24·3	163	1011	4589
	25·3	149	771	1736
	26·2	135	712	3525
	27·5	80	427	497
	28·5	131	719	744
	29·5	142	807	1000
	30·2	124	650	1805
	31·2	124	705	1655

MEAN AREAS of SUN SPOTS and FACULÆ, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DÛN, INDIA, and in MAURITIUS, for each ROTATION of the SUN, from 1893 December 16 to 1895 January 2.

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 1873–1893 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.
538	1893	December	16·75 d	25	529	2785	1932	390	2119	2186
539	1894	January	13·09	27	383	2174	1133	268	1553	1274
540		February	9·43	28	319	1794	1692	234	1329	1874
541		March	8·76	27	256	1390	1212	167	933	1297
542		April	5·06	27	356	1949	1705	272	1518	1919
543		May	2·31	28	456	2417	1942	355	1870	2115
544		May	29·53	27	515	2681	1745	380	2034	1988
545		June	25·73	27	420	2315	2353	299	1695	2626
546		July	22·94	27	372	2093	1453	259	1477	1628
547		August	19·16	28	201	1022	1560	142	736	1774
548		September	15·42	27	331	1785	1867	230	1266	2110
549		October	12·70	27	155	776	1990	120	617	2371
550		November	9·00	28	186	1018	1534	136	773	1698
551		December	6·31	27	188	1164	1613	140	902	1834

MEAN AREAS of SUN SPOTS, and FACULÆ, as measured on PHOTOGRAPHS taken at the ROYAL OBSERVATORY, GREENWICH, at DEHRA DÛN, INDIA, and in MAURITIUS, for the YEAR 1894.

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
1894	364	317	1728	1666	231	1282	1877

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 1893 December 16 to 1895 January 2.

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			°		°	°	°
538	1893 Dec. 16·75	25	585	13·85	1534	10·74	− 3·95	11·60
539	1894 Jan. 13·09	27	490	9·96	1063	11·71	− 4·87	11·15
540	Feb. 9·43	28	236	12·73	1094	26·40	− 19·47	23·98
541	Mar. 8·76	27	790	14·55	142	9·85	+ 10·83	13·83
542	Apr. 5·06	27	685	16·44	833	19·50	− 3·29	18·12
543	May 2·31	28	419	14·80	1451	14·66	− 8·06	14·69
544	May 29·53	27	955	11·59	1080	14·27	− 2·14	13·01
545	June 25·73	27	885	10·94	810	13·51	− 0·74	12·17
546	July 22·94	27	1052	10·29	425	14·33	+ 3·21	11·45
547	Aug. 19·16	28	465	10·73	271	12·94	+ 2·02	11·54
548	Sept. 15·42	27	405	12·06	862	12·08	− 4·36	12·07
549	Oct. 12·70	27	344	11·74	273	12·04	+ 1·21	11·87
550	Nov. 9·00	28	290	11·80	483	16·17	− 5·69	14·53
551	Dec. 6·31	27	183	12·00	719	16·28	− 10·54	15·41

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 1894.

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.		
			°		°	°	°
1894	364	543	12·31	739	15·56	− 3·75	14·18

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 :—

$$-0^\circ\cdot05 \times \frac{\text{Mean Area N.} - \text{Mean Area S.}}{\text{Mean Area N.} + \text{Mean Area S.}}$$

These corrections have been applied in computing the Mean Heliographic Latitudes and Mean distance from the Equator given in the above Tables for 1894, and in corresponding Tables for the years 1886 to 1893.