

Kodaikanal Observatory.

BULLETIN No. LXXXV.

SUMMARY OF PROMINENCE OBSERVATIONS FOR THE FIRST HALF OF THE YEAR 1928

In pursuance of the programme of work adopted since 1st January 1923 under the auspices of the International Astronomical Union, all observatories taking spectroheliograms of the sun have been asked to co-operate with the Kodaikanal Observatory by supplying copies of their photographs on those days when the Kodaikanal records are imperfect or wanting. In response to our requirements for the first half of the year 1928, the Mount Wilson Observatory supplied prominence plates for 10 days and H α disc plates for 11 days; Mendon Observatory supplied K ϵ disc plates for 9 days and H α disc plates for 19 days; and the Pitch Hill Observatory (Mr Evershed's) at Ewhurst, Surrey, England, supplied 10 prominence plates and 5 H α disc plates.

When only incomplete or imperfect photographs for any day are available from more than one observatory, the best photograph is chosen as representing the solar activity of that day after weighting it according to its quality, and the remaining photographs are ignored.

The mean daily areas and numbers of prominences during the half-year are given below. The means are corrected for incomplete or imperfect observations, the total of 179 days for which plates were available being reduced to 167 $\frac{3}{4}$ effective days.

| | | | | | | | | Mean daily areas (square minutes). | Mean daily numbers |
|-------|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|-----------------------|
| North | ... | ... | ... | . | ... | ... | ... | 3.71 | 10.72 |
| South | ... | ... | ... | ... | ... | .. | .. | 3.45 | 8.72 |
| Total | | | | | | | | 7.16 | 19.44 |

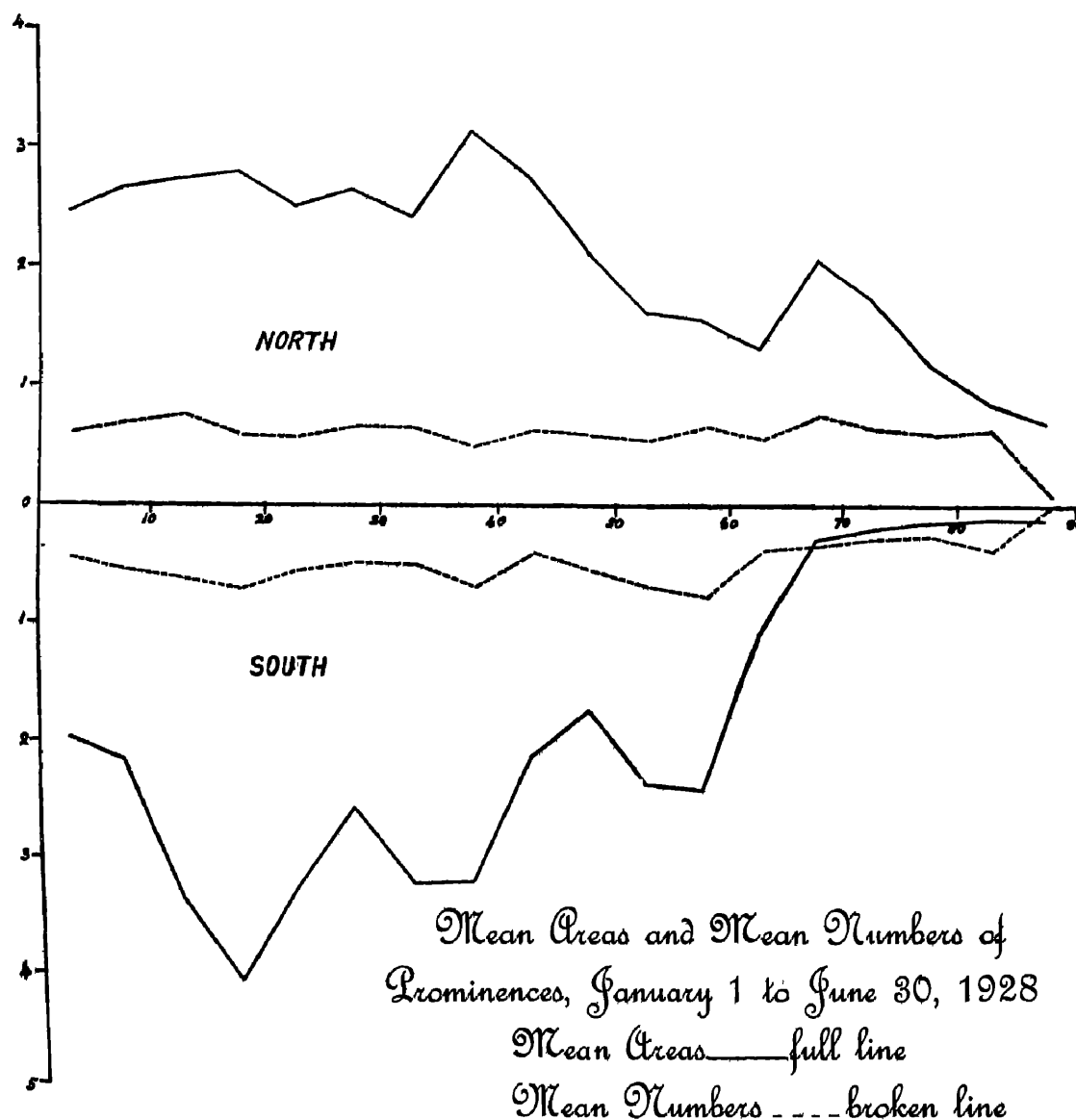
Compared with the previous half-year areas show an increase of 30 per cent and numbers an increase of only 2 per cent, and the predominance of activity in the northern hemisphere is maintained.

For comparison with bulletins issued prior to the co-operation of other observatories, the means based on Kodaikanal photographs alone are also given, 163 days of observation being counted as 158 effective days.

| | | | | | | | | Mean daily areas (square minutes). | Mean daily numbers. |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|------------------------|
| North (Kodaikanal photographs only) | .. | .. | ... | .. | ... | ... | ... | 3.80 | 10.83 |
| South (do.) | ... | ... | ... | ... | ... | ... | ... | 3.50 | 8.80 |
| Total | | | | | | | | 7.30 | 19.63 |

The distribution of prominences in latitude is represented in the following diagram, in which the full line gives the mean daily areas and the broken line the mean daily numbers for each zone of 5° of latitude. The

ordinates represent tenths of a square minute of arc for the full line and numbers for the broken line. The activity in high latitudes has subsided in the southern hemisphere. There are peaks near 40° and 70° in the northern hemisphere and near 20° , 35° and 55° in the southern. Prominence areas in the equatorial regions have exhibited a marked increase compared with the previous half-year.



The monthly, quarterly and half-yearly areas and numbers, and the mean height and mean extent of the prominences on photographs from all the co-operating observatories are given in Table I. The unit of area is 1 square minute of arc. The mean height is derived by adding together the greatest heights reached by individual prominences and dividing by the total number of prominences observed; the mean extent is derived by adding together the lengths of the base on the chromosphere of individual prominences and dividing by the total number of prominences.

TABLE I.—ABSTRACT FOR THE FIRST HALF OF 1928.

| Months. | Number of days (effective). | Areas | Numbers. | Daily Means | | Mean height. | Mean extent. |
|-----------------|-----------------------------|---------|----------|-------------|----------|--------------|--------------|
| | | | | Areas | Numbers. | | |
| 1928 | | | | | | " | ° |
| January | 27 | 157.7 | 489 | 5.8 | 18.1 | 39.1 | 5.00 |
| February | 26½ | 171.5 | 513 | 6.4 | 19.1 | 38.7 | 5.42 |
| March | 30 | 251.8 | 690 | 8.4 | 23.0 | 40.4 | 5.94 |
| April | 29½ | 229.2 | 628 | 7.7 | 21.1 | 42.0 | 7.59 |
| May | 31 | 259.2 | 550 | 8.4 | 17.7 | 41.2 | 9.80 |
| June | 23½ | 132.6 | 387 | 5.7 | 16.6 | 37.8 | 7.95 |
| First quarter | 83½ | 581.0 | 1,692 | 6.9 | 20.2 | 39.5 | 5.65 |
| Second quarter | 84 | 621.0 | 1,565 | 7.4 | 18.6 | 40.7 | 8.45 |
| First half-year | 167½ | 1,202.0 | 3,257 | 7.2 | 19.4 | 40.1 | 7.00 |

Distribution east and west of the Sun's axis.

During the half-year both areas and numbers showed an excess at the east limb compared with the west limb as will be seen from the following table :—

| 1928 January to June. | East. | West | Percentage East |
|--------------------------------------|-------|-------|-----------------|
| Total number observed | 1,644 | 1,614 | 50.5 |
| Total areas in square minutes | 623.7 | 578.3 | 51.9 |

Metallic prominences.

Fifty-two metallic prominences were observed during the half-year. Their details are given below :—

TABLE II.—LIST OF METALLIC PROMINENCES OBSERVED AT KODAIKANAL, JANUARY TO JUNE 1928.

| Date. | Hour L.S.T. | Base. | Latitude. | | Limb | Height. | Lines |
|-----------|----------------|-------|-----------|--------|------|---------|---|
| | | | North | South. | | | |
| 1928. | h. m. | ° | ° | ° | | " | |
| January 3 | 9 20 | 3 | 11.5 | | W | 15 | 4924.1, 5016, 5018.6, b ₄ , b ₃ , b ₂ , b ₁ , 5276.0, 5316.8, 5363.0, D ₂ , D ₁ , 6677, 7065. |
| 9 | 9 2 | 4 | | 18 | W | 25 | 4924.1, 5016, b ₄ , b ₃ , b ₂ , b ₁ , 5276.0, 5316.8, 5363.0, D ₂ , D ₁ , 6677, 7065. |
| 10 | 10 17 | 3 | | 18.5 | W | 30 | 4924.1, 5018.6, b ₄ , b ₃ , b ₂ , b ₁ , 5234.8, 5316.8, 5363.0, D ₂ , D ₁ |
| 14 | 10 25 | 1 | 6.5 | | W | 20 | 4924.1, 5018.6, b ₄ , b ₃ , b ₂ , b ₁ , 5234.8, 5276.2, 5361.8, 5337.0, 5363.0, D ₂ , D ₁ |
| 16 | 9 30 | 10 | 16 | | E | 25 | 4924.1, 5018.6, 5198.0, 5233.2, 5269.8, 5276.0, 5283.7, 5316.8, 5328.0, 5371.7, D ₂ , D ₁ , 6677, 7065. |

| Date. | Hour I.S.T | Base. | Latitude | | Limb. | Height. | Lines |
|------------|---------------|-------|----------|--------|-------|---------|---|
| | | | North | South. | | | |
| 1928. | H. M. | ° | ° | ° | | " | |
| January 18 | 9 30 | 4 | 5 | | W | 10 | 4924 1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5233·0, 5270·6, 5316·8, D ₂ , D ₁ , 6677, 7065. |
| 19 | 10 24 | 1 | | 10·5 | W | 10 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 23 | 9 48 | 3 | | 21·5 | W | 10 | 4924 1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5269·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| February 1 | 11 7 | 6 | 3 | | W | 15 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5208·8, 5270·7, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. Form seen in most lines. |
| 9 | 9 59 | | 13 | | E | 5 | 4924 1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065 |
| 12 | 9 15 | 4 | 16 | | E | 20 | 4924 1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. Form seen in many lines. |
| 14 | 9 33 | 2 | 21 | | E | 5 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5276·2, 5316·8, D ₂ , D ₁ , 6677, 7065. |
| 15 | 9 50 | 1 | 15·5 | | E | 5 | 4924 1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 19 | 9 5 | 3 | | 16·5 | E | 10 | 4924 1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 21 | 9 33 | 3 | | 34 | E | 35 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5316·8, D ₂ , D ₁ . |
| 25 | 10 10 | 1 | 15·5 | | W | 5 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ . |
| 26 | 9 15 | 2 | | 7 | E | 15 | 4924 1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. Displacement seen in many of the lines. |
| 27 | 8 47 | 4 | | 22 | W | 15 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 29 | 9 37 | 4 | | 12 | E | 5 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, 5363·0, D ₂ , D ₁ . |
| March 4 | 9 30 | 2 | | 6 | W | 5 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·0, 5316·8, D ₂ , D ₁ , 6677, 7065. |
| 7 | 8 34 | 3 | | 13·5 | W | 20 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 7065. |
| 8 | 8 47 | 2 | | 18 | W | 20 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5276·2, 5316·8, D ₂ , D ₁ . |
| 9 | 9 0 | | | 16 | E | 10 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. Displacement seen in D's and b's also |
| 10 | 8 24 | 1 | 19·5 | | E | 10 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5276·2, 5316·8, D ₂ , D ₁ , 6677. |
| 11 | 8 44 | 2 | 21 | | E | 15 | 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5316·8, D ₂ , D ₁ . |
| 13 | 9 4 | 2 | 11 | | E | 10 | 4924 1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 14 | 8 44 | 3 | 6·5 | | W | 10 | 4924 1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 20 | 8 33 | 2 | 17 | | W | 5 | b ₄ , b ₃ , b ₂ , b ₁ , 5316·8, D ₂ , D ₁ . |
| 23 | 9 13 | 4 | | 10 | E | 10 | 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5316·8, D ₂ , D ₁ , 6677, 7065. |
| 24 | 9 56 | 1 | 11·5 | | W | 5 | b ₄ , b ₃ , b ₂ , b ₁ , D ₂ , D ₁ . Faintly reversed. |
| 25 | 9 0 | 2 | | 15 | W | 10 | 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5276·2, 5316·8, D ₂ , D ₁ . |
| 26 | 8 55 | 2 | 11 | | W | 20 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5227·3, 5266·8, 5269·9, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ . |
| 28 | 9 10 | 5 | 9·5 | | E | 15 | 4924·1, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5197·4, 5208·7, 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 7065. |
| April 2 | 8 42 | 2 | | 13 | E | 10 | 4924 1, 5016, 1518·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5269·8, 5263·6, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ , 6677, 7065. |
| 6 | 8 56 | 2 | | 13 | W | 10 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5270, 5276·2, 5316·8, 5063·0, D ₂ , D ₁ , 6677, 7065. |
| 11 | 10 0 | | | 19 | W | 5 | 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , D ₂ , D ₁ , 6677. |
| 12 | 9 40 | 2 | 25 | | W | | b ₄ , b ₃ , b ₂ , b ₁ , D ₂ , D ₁ , 6677 |
| 22 | 9 22 | 3 | 11·5 | | W | 15 | 4924·1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ . Form seen in b's and D's. |
| 27 | 9 30 | 2 | 9 | | E | 10 | 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5316·8, D ₂ , D ₁ , 6677, 7065. |
| May 6 | 8 33 | 3 | 15·5 | | E | 20 | 4924 1, 5016, 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5234·8, 5276·2, 5316·8, 5363·0, D ₂ , D ₁ . |
| 7 | 8 33 | 2 | 16 | | E | 15 | 5018·6, b ₄ , b ₃ , b ₂ , b ₁ , 5276·2, 5316·8, 5363·0, D ₂ , D ₁ . |

| Date | Hour I S T. | Base. | Latitude | | Limb. | Height | Lines |
|--------|----------------|-------|----------|--------|-------|--------|--|
| | | | North | South. | | | |
| 1928 | II M. | ° | ° | ° | | " | |
| May 12 | 10 2 | 4 | | 12 | W | 15 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5316 8, 5276 2, D ₂ , D ₁ , 6677, 7065 |
| 13 | 9 0 | 4 | | 16 | W | 15 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, 5363 0, D ₂ , D ₁ , 6677, 7065 |
| 13 | 9 25 | 3 | | 12.5 | E | 10 | 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5676 2, 5316 8, D ₂ , D ₁ , 6677 |
| 14 | 8 32 | 9 | | 14.5 | W | 10 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, 5363 0, D ₂ , D ₁ , 6677, 7065 |
| 15 | 8 32 | 4 | | 13 | W | 10 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, 5363 0, D ₂ , D ₁ , 6677, 7065 |
| 21 | 8 50 | 3 | 14.5 | | E | 10 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, 5363 0, D ₂ , D ₁ , 6677, 7065 |
| 26 | 8 50 | 5 | | 13.5 | E | 15 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, 5363 0, D ₂ , D ₁ , 6677, 7065 |
| 27 | 8 48 | 5 | | 10.5 | E | 15 | 4924 1, 5016, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, 5363 0, D ₂ , D ₁ , 6677, 7065 |
| June 3 | 9 45 | 5 | 11.5 | | W | 20 | 4924 1, 5018 6, b ₄ , b ₃ , b ₂ , b ₁ , 5234 8, 5276 2, 5316 8, D ₂ , D ₁ , 6677, 7065 |
| 23 | 12 0 | 4 | 19 | | E | | 4924 1, 5018 6, 5234 9, 5269 8, 5266 2, 5284 2, 5316 8, 5328 2, 5363 0, 5371 7 |
| 27 | 10 5 | 8 | 32 | | E | | b ₄ , b ₃ , b ₂ , b ₁ , D ₂ , D ₁ |

The distribution of the metallic prominences was as follows:—

| | 1°—10° | 11°—20° | 21°—30° | 31°—40° | Mean latitude. | Extreme latitudes. |
|-------|--------|---------|---------|---------|----------------|--------------------|
| North | 6 | 17 | 3 | 1 | 14° 2 | 3° and 32° |
| South | 3 | 19 | 2 | 1 | 15° 0 | 6° and 34° |

Twenty-five were on the east limb and 27 on the west limb.

Displacements of the hydrogen lines.

Particulars of the displacements observed in the chromosphere and prominences are given in the following table.—

TABLE III.—DISPLACEMENTS OF HYDROGEN LINES.

| Date. | Hour I S T | Latitude. | | Limb. | Displacement | | | Remarks. |
|-----------|---------------|-----------|-------|-------|--------------|--------|-----------|-----------------------------------|
| | | North | South | | Red. | Violet | Both ways | |
| 1928. | H. M. | ° | ° | | A. | A. | A. | |
| January 1 | 9 32 | 54 | | E | 0.5 | | | At base. |
| 1 | 9 35 | 6 | | E | 0.5 | | | Do |
| 1 | 9 16 | 30 | | W | 0.5 | | | At top |
| 2 | 9 21 | 87 | " | E | | 0.5 | | |
| 2 | 9 15 | 5 | | E | 1 | | | At base |
| 2 | 9 26 | | 44 | E | Slight | | | At top. |
| 3 | 9 30 | | 16 | E | 1 | 0.5 | | To red at base, to violet at top. |

| Date. | Hour I.S.T. | Latitude. | | Limb. | Displacement | | | Remarks. |
|-----------|----------------|-----------|-------|-------|--------------|---------|------------|--------------------------------------|
| | | North. | South | | Red. | Violet. | Both ways. | |
| 1928 | H. M. | ° | ° | | A. | A. | A. | |
| January 3 | 9 20 | 9 | | W | 1 | | | At top |
| 3 | 9 14 | 18 | | W | | 1 | | At base |
| 3 | 9 12 | 30 | | W | 0.5 | | | |
| 4 | 9 0 | | 53 | E | | 0.5 | | At top. |
| 4 | 8 50 | 16 | | W | 0.5 | | | Do. |
| 8 | 11 23 | | 17 | W | 1 | | | Do. |
| 9 | 8 58 | 48 | | E | | 0.5 | | At base. |
| 9 | 9 2 | | 19 | W | | 0.5 | | Do. |
| 9 | 9 2 | | 16 | W | 1 | | | At top. |
| 10 | 10 17 | | 19 | W | 1 | | | Do. |
| 11 | 10 57 | | 13 | E | 1 | | | Do. |
| 11 | 10 46 | 31 | | W | | 0.5 | | Do. |
| 14 | 11 0 | 82.5 | | E | 0.5 | | | At base. |
| 14 | 10 41 | | 8 | W | 1 | | | At top |
| 14 | 10 19 | 7 | | W | Slight | | | Do. |
| 15 | 9 9 | 83.5 | | E | Slight | | | |
| 15 | 9 12 | 15 | | E | 2.5 | | | To red at top ; to violet at base. |
| 15 | 9 58 | | 46 | E | Slight | | | At base |
| 15 | 9 48 | | 4 | W | | 0.5 | | Do. |
| 15 | 9 34 | 4 | | W | 1 | | | At top. |
| 15 | 9 22 | 53 | | W | Slight | | | |
| 16 | 9 6 | 34 | | E | | Slight | | |
| 16 | 9 30 | 23 | | E | | 2 | | At top |
| 16 | 9 30 | 17 | | E | 2 | 1.5 | | To red at base, to violet at top. |
| 16 | 9 30 | 16 | | E | | | 1 | |
| 16 | 9 40 | 14 | | E | 3 | | | At base. |
| 16 | 9 30 | 13 | | E | | 1 | | Do. |
| 16 | 9 12 | | 17 | E | 1 | | | Do. |
| 16 | 8 14 | | 27 | E | | | 1 | Do. |
| 17 | 11 18 | | 76.5 | W | | 1 | | At top. |
| 17 | 11 28 | | 18 | W | | 3 | | Do. |
| 18 | 9 30 | 4 | | W | 1.5 | | | Do. |
| 18 | 9 30 | 7 | | W | 1 | | | To red at top ; to violet at base. |
| 19 | 10 0 | 30 | | E | | 0.5 | | At top. |
| 19 | 9 52 | 5.5 | | E | | 0.5 | | Do. |
| 19 | 9 47 | | 37 | E | | 1 | | Do. |
| 19 | 9 47 | | 41 | E | | Slight | | Do. |
| 19 | 10 19 | | 14 | W | 3 | | | Do. |
| 19 | 10 19 | | 9 | W | | | 1 | Do. |
| 19 | 10 19 | | 10 | W | | | | At base. |
| 19 | 10 19 | | 7 | W | | 1 | | Do. |
| 20 | 9 18 | 26 | | E | 1 | | | At top. |
| 20 | 9 39 | 7 | | E | 0.5 | | | At base. |
| 20 | 9 27 | 47 | | W | 0.5 | | | At top. |
| 21 | 10 24 | 8 | | E | 1 | | | At base. |
| 21 | 10 34 | | 4 | E | | 1.5 | | At top. |
| 21 | 10 37 | | 14 | E | Slight | | | Do. |
| 21 | 10 37 | | 30 | E | 1 | | | At base. |
| 21 | 10 40 | | 67.5 | E | | 1 | | At top |
| 21 | 10 19 | | 15 | W | | | | Do. |
| 21 | 10 5 | 30 | | W | Slight | | | Do. |
| 23 | 9 14 | 39 | | E | Slight | | | Do. |
| 23 | 9 35 | | 20 | E | 3 | 1.5 | | To red at base, to violet at top. |
| 24 | 9 12 | | 17 | E | 3 | | | At base. |
| 24 | 9 12 | | 17 | E | 1.5 | 1 | | At middle. |
| 24 | 9 16 | | 35 | E | Slight. | | | At base |
| 24 | 9 27 | 24 | | W | 1 | | | Do. |
| 25 | 8 59 | 67.5 | | E | 1 | | | At top. |
| 25 | 9 17 | 12 | | E | | 0.5 | | At base. |
| 25 | 9 22 | | 10 | E | 5 | | | Do. |
| 25 | 9 22 | | 16 | E | 5 | 1 | | To red at top ; to violet at middle. |
| 25 | 9 6 | 13 | | W | 1 | | | At top. |
| 26 | 9 43 | 42.5 | | E | | Slight | | Do. |
| 26 | 9 28 | | 9 | E | 4 | | | Do. |
| 26 | 9 28 | | 14 | E | 1 | | | Do. |
| 26 | 9 58 | 6 | | W | 2 | | | Do. |
| 27 | 9 26 | 18 | | E | 1 | | | Do. |
| 27 | 9 31 | 68.5 | | W | Slight | | | |

| Date | Hour I S T. | | Latitude | | Limb. | Displacement | | | Remarks |
|----------|----------------|-------|----------|--------|-------|--------------|--------|-----------|---|
| | | | North | South. | | Red | Violet | Both ways | |
| 1928 | II | M | ° | ° | | A. | A | A | |
| January | 30 | 9 28 | 46.5 | | E | 0.5 | | | At top |
| | 30 | 9 32 | 21 | | W | Slight | | | At base |
| | 31 | 9 25 | 36.5 | | E | Slight | | | At top |
| | 31 | 9 21 | 10 | | E | | 1 | | At base. |
| | 31 | 9 58 | | 19 | E | 0.5 | | | At top |
| | 31 | 9 55 | | 61 | E | 0.5 | | | Do |
| | 31 | 10 14 | 2 | | W | | 1 | | At base |
| | 31 | 9 20 | 4 | | W | 1 | | | |
| | 31 | 10 10 | 6.5 | | W | 3 | | | At top |
| | 31 | 10 14 | 8 | | W | | 1 | | At base |
| February | 1 | 10 56 | | 18 | E | | 0.5 | | |
| | 1 | 11 7 | 3 | | W | 2 | 1 | | To red at top, to violet at base |
| | 1 | 11 7 | 8 | | W | 2 | | | At top. |
| | 5 | 8 55 | 50.5 | | E | Slight | | | Do |
| | 5 | 8 59 | 21 | | W | 1 | 0.5 | | To red at top, to violet at base |
| | 7 | 9 7 | 18 | | E | 1.5 | | | At top |
| | 7 | 10 15 | | 18 | W | 1 | | | Do |
| | 7 | 9 12 | | 12 | W | | 1 | | At base |
| | 9 | 10 19 | 25 | | E | 1 | | | At top. |
| | 9 | 10 19 | 20 | | E | | Slight | | Do |
| | 9 | 9 59 | 13 | | E | | | 1 | Do |
| | 9 | 10 30 | | 26 | W | | 1 | | Over whole prominence |
| | 10 | 11 9 | | 38.5 | W | 1 | | | At top. |
| | 11 | 10 0 | | 78.5 | W | 1 | | | In chromosphere |
| | 11 | 9 32 | | 17 | W | 0.5 | | | Do |
| | 12 | 9 2 | 78.5 | | E | | 0.5 | | At base |
| | 12 | 9 0 | 73 | | E | 1 | | | At top |
| | 12 | 9 29 | 43.5 | | E | 0.5 | | | At base |
| | 12 | 9 15 | 21 | | E | 0.5 | 1 | | To red at base, to violet at top |
| | 12 | 9 22 | 18 | | E | | 0.5 | | At base |
| | 12 | 9 31 | | 14.5 | E | 1 | | | At base, the displacement extends through 5° along the base |
| | 12 | 9 28 | | 38.5 | W | | 0.5 | | At base |
| | 12 | 9 25 | | 22 | W | 0.5 | | | At top |
| | 12 | 9 6 | 24 | | W | 1 | | | Do |
| | 13 | 9 10 | 28 | | E | | 0.5 | | At base |
| | 13 | 9 7 | 18 | | E | 1 | 0.5 | | To red at top, to violet at base |
| | 13 | 9 12 | 33 | | W | 0.5 | | | At top |
| | 13 | 9 14 | 66 | | W | Slight | | | |
| | 14 | 9 15 | 22 | | E | 1 | 2.5 | | To red at top, to violet at base |
| | 14 | 9 33 | 21 | | E | 2 | | | At top |
| | 16 | 9 37 | 6.5 | | E | | 1 | | On a floating prominence |
| | 16 | 10 7 | 81.5 | | W | 1 | | | At top. |
| | 17 | 9 34 | 7 | | E | | 1 | | Do |
| | 17 | 9 32 | | 14 | E | | 1 | | Do |
| | 17 | 9 29 | | 16.5 | E | | 1 | | Do |
| | 17 | 9 41 | | 44.5 | E | 0.5 | | | At base |
| | 18 | 9 55 | | 18.5 | E | 2.5 | 2 | | Over the whole prominence |
| | 18 | 10 1 | | 12 | E | | 1 | | At top, the displacement extends through 4° |
| | 18 | 10 1 | | 15 | E | | 2 | | At top |
| | 18 | 10 9 | | 18.5 | E | | 5 | | At top of floating cloud. |
| | 19 | 9 16 | 23 | | E | 0.5 | | | At base |
| | 19 | 9 6 | | 7 | E | 1 | | | At top |
| | 19 | 9 5 | | 18 | E | 1 | | | At base |
| | 19 | 8 58 | 27 | | W | | 0.5 | | At top |
| | 20 | 9 2 | 59 | | E | 1 | | | At base |
| | 20 | 9 54 | | 2 | E | 1 | | | Do |
| | 20 | 9 12 | | 48.5 | E | 0.5 | | | Do |
| | 21 | 9 8 | 32.5 | | E | 1 | | | Do |
| | 21 | 9 26 | | 12 | E | 1 | 1 | | At top |
| | 21 | 9 31 | | 34 | E | 2 | | | The displaced portion is detached and the displacement extends 3° on it |
| | 21 | 9 19 | | 26 | W | 0.5 | | | At top |
| | 21 | 9 14 | 48.5 | | W | | Slight | | |
| | 21 | 9 12 | 78.5 | | W | | Slight | | |

| Date. | Hour I.S.T | Latitude. | | Limb. | Displacement. | | | Remarks. |
|----------|---------------|-----------|--------|-------|---------------|---------|------------|------------------------------------|
| | | North. | South. | | Red. | Violet. | Both ways. | |
| 1928. | H. M. | ° | ° | | A. | A. | A. | |
| February | 22 | 9 30 | 60 | E | | Slight | | At base. |
| | 22 | 10 27 | | E | 1 | | | Do. |
| | 22 | 10 33 | 17.5 | E | Shght | 2 | | At top. |
| | 22 | 9 56 | 36.5 | W | Shght | | | Do. |
| | 23 | 9 53 | 9 | E | | 1 | | Do. |
| | 23 | 9 51 | | E | | 1 | | |
| | 23 | 9 45 | | E | 1 | | | At top. |
| | 24 | 9 7 | 23 | W | 0.5 | | | Do. |
| | 24 | 9 1 | 82.5 | W | | Slight | | |
| | 25 | 10 20 | 18 | W | 1 | | | At top. |
| | 25 | 10 10 | 15.5 | W | 3 | | | Do. |
| | 25 | 9 50 | 18 | W | | 2 | | At base. |
| | 26 | 9 20 | 1 | E | | 1 | | At top. |
| | 26 | 9 15 | | E | 1 | 1.5 | | To red at base ; to violet at top. |
| | 26 | 10 2 | 7 | E | 6 | 4 | | To red at top ; to violet at base. |
| | 26 | 9 50 | | W | | 0.5 | | At top. |
| | 26 | 10 3 | 8 | W | 2 | | | Do. |
| | 26 | 10 0 | 17 | W | | 2 | | |
| | 27 | 9 6 | 76 | E | | Slight | | |
| | 27 | 8 47 | | W | 2 | 2.5 | | To red at base ; to violet at top. |
| | | | | | | | | (Ghost seen 6-A to red. |
| | 27 | 9 14 | 12 | W | 0.5 | | | At top. |
| | 28 | 9 17 | 51.5 | E | 0.5 | Slight | | To red at top ; to violet at base. |
| | 28 | 9 15 | 39.5 | E | | Slight | | At base. |
| | 28 | 9 28 | 25 | W | 2 | 2.5 | | To red at top ; to violet at base. |
| | 28 | 9 22 | 1 | W | 0.5 | | | At top. |
| | 29 | 9 50 | 26 | W | 1 | | | Do. |
| March | 1 | 9 49 | 52.5 | E | | 0.5 | | At top. |
| | 1 | 9 36 | | E | | Slight | | At base. |
| | 1 | 9 55 | 29 | W | 1 | | | At top. |
| | 1 | 10 28 | 17 | W | 1 | | | Do. |
| | 1 | 10 30 | 24 | W | | Slight | | At base. |
| | 1 | 10 33 | 82.5 | W | 1 | | | At top. |
| | 3 | 9 40 | | E | 0.5 | | | Do. |
| | 3 | 10 4 | 31 | W | 1 | | | Do. |
| | 4 | 8 42 | 78.5 | E | | Slight | | At base. |
| | 4 | 8 46 | 73.5 | E | Slight | | | |
| | 4 | 8 38 | 44.5 | E | | Slight | | |
| | 4 | 9 3 | 20 | E | 0.5 | | | At base. |
| | 4 | 1 36 | 18 | E | 0.5 | | | |
| | 4 | 8 35 | | E | | 0.5 | | |
| | 4 | 9 6 | 40.5 | E | | 1 | | At base. |
| | 4 | 8 52 | 54.5 | E | | 0.5 | | At top. |
| | 4 | 9 22 | 5 | W | 1 | | | Do. |
| | 4 | 8 56 | 5 | W | | 1 | | At base. |
| | 4 | 8 44 | 75.5 | W | 0.5 | | | At top. |
| | 5 | 8 55 | 6 | E | 1 | 1.5 | | To red at base ; to violet at top. |
| | 5 | 9 18 | 10 | E | 1 | | | At base. |
| | 5 | 9 5 | 21 | W | 0.5 | | | At top. |
| | 5 | 9 12 | 6 | W | | 0.5 | | At base. |
| | 5 | 8 57 | 3 | W | 1 | | | At top. |
| | 6 | 8 36 | 1 | E | 2 | | | At base. |
| | 6 | 8 38 | 11 | E | | 0.5 | | At top. |
| | 6 | 8 33 | 37.5 | W | 1 | | | Do. |
| | 6 | 8 28 | 11 | W | 1 | | | Do. |
| | 6 | 8 48 | 5 | W | 1 | | | Do. |
| | 6 | 8 23 | 13 | W | 0.5 | | | Do. |
| | 6 | 8 23 | 18 | W | | Slight | | |
| | 7 | 8 19 | 29 | E | Slight | | | |
| | 7 | 8 45 | | E | | 1 | | At base. |
| | 7 | 8 34 | 33.5 | W | 1 | | | At top. |
| | 7 | 8 28 | 12 | W | | Slight | | |
| | 7 | 8 26 | 7 | W | | 1 | | At base. |
| | 7 | 8 22 | 66 | W | | Slight | | |
| | 8 | 8 39 | 79.5 | E | | 0.5 | | Do. |

| Date. | Hour I S T. | Latitude. | | Limb. | Displacement. | | | Remarks |
|-------|----------------|-----------|--------|-------|---------------|---------|-----------|------------------------------------|
| | | North | South. | | Red | Violet. | Both ways | |
| 1928. | II. M. | ° | ° | | A. | A | A | |
| March | 8 | 8 34 | 8 | E | 1 | | | At base |
| | 8 | 9 2 | 53 5 | E | | 1 | | At top |
| | 8 | 9 14 | 37 5 | W | 1 5 | | | Do. |
| | 8 | 8 45 | 7 | W | | 0 5 | | |
| | 8 | 8 43 | 40 5 | W | | Slight | | |
| | 8 | 8 41 | 74 | W | | Slight | | |
| | 9 | 9 20 | 19 | E | 0 5 | | | At base. |
| | 9 | 9 5 | 10 | E | | 1 | | At top. |
| | 9 | 9 25 | | E | 0 5 | | | At base |
| | 9 | 9 0 | 16 | E | 1 | 1 5 | | To red at base , to violet at top. |
| | 9 | 9 27 | 23 | E | 1 | | | At base |
| | 9 | 9 17 | 66 | E | | Slight | | |
| | 9 | 9 14 | 82 | W | | Slight | | No prominence. |
| | 9 | 9 12 | 73 5 | W | 0 5 | | | At top |
| | 9 | 8 50 | 11 | W | 1 | | | Do. |
| | 9 | 8 47 | 21 | W | Slight | | | |
| | 9 | 8 44 | 83 | W | | Slight | | |
| | 10 | 8 26 | 35 5 | E | | Slight | | |
| | 10 | 8 24 | 19 5 | E | 1 | 0 5 | | To red at top , to violet at base. |
| | 10 | 8 33 | | W | 1 | | | At top |
| | 10 | 8 53 | 11 5 | W | | 0 5 | | At base. |
| | 11 | 8 38 | 37 5 | E | | Slight | | |
| | 11 | 8 44 | 21 | E | | 0 5 | | At top. |
| | 11 | 9 3 | 4 | E | | 1 | | Do |
| | 11 | 8 40 | 3 | W | | Slight | | |
| | 12 | 8 33 | 77 | E | 0 5 | | | |
| | 12 | 8 30 | 24 | E | | 0 5 | | |
| | 12 | 9 5 | | E | 0 5 | | | At base |
| | 12 | 9 9 | 12 | E | 0 5 | | | Do. |
| | 12 | 9 8 | 21 | W | 0 5 | | | At top. |
| | 12 | 8 36 | 65 | W | 0 5 | | | Do. |
| | 13 | 8 44 | 72 5 | E | 0 5 | | | Do. |
| | 13 | 8 40 | 62 5 | E | | 0 5 | | No prominence |
| | 13 | 8 38 | 30 | E | 0 5 | | | At top |
| | 13 | 9 4 | 11 | E | 1 5 | 1 | | To red at base , to violet at top. |
| | 13 | 9 30 | 8 | E | | 2 5 | | At top. |
| | 13 | 9 32 | 19 | E | 2 | | | At base. |
| | 13 | 8 46 | 77 | W | | Slight | | |
| | 14 | 8 33 | 20 | E | 1 | | | At base |
| | 14 | 8 31 | 10 | E | 1 5 | 1 | | To red at top , to violet at base. |
| | 14 | 8 44 | 7 | W | 1 5 | 0 5 | | Do do |
| | 15 | 8 43 | 67 | E | | Slight | | At base |
| | 15 | 8 53 | 12 | E | | 1 | | At top |
| | 15 | 8 45 | 30 | E | 1 | | | At base |
| | 15 | 9 4 | 34 5 | E | | 1 5 | | At top. |
| | 15 | 8 51 | 7 | W | 1 | | | Do |
| | 15 | 8 51 | 4 | W | | 0 5 | | At base. |
| | 15 | 8 44 | 63 | W | | Slight | | Do |
| | 16 | 8 48 | 74 5 | E | | Slight | | |
| | 16 | 8 40 | 21 | E | 1 | | | At top. |
| | 16 | 9 10 | 21 | E | | 1 | | Do |
| | 16 | 9 0 | 10 | E | | | 1 | |
| | 16 | 8 54 | 10 | W | 1 | 0 5 | | To red at top , to violet at base. |
| | 16 | 8 52 | 12 | W | 2 5 | 1 5 | | Do do |
| | 17 | 9 32 | 69 | E | 0 5 | | | At top. |
| | 17 | 8 50 | 35 5 | E | 0 5 | | | Do. |
| | 17 | 10 10 | 2 | E | | 0 5 | | Do. |
| | 17 | 10 12 | 9 | E | | 1 | | Do |
| | 17 | 9 57 | 10 5 | W | 2 5 | 2 | | To red at top , to violet at base |
| | 17 | 9 52 | 1 | W | 1 | | | At top |
| | 17 | 9 50 | 16 | W | 1 5 | 0 5 | | To red at top , to violet at base |
| | 18 | 8 42 | 35 5 | E | | 2 | | At base. |
| | 18 | 8 57 | 35 5 | E | 1 | | | Do. |
| | 18 | 8 54 | 7 | E | | 0 5 | | At top. |
| | 18 | 8 50 | 17 | E | | 1 | | Do |
| | 18 | 9 18 | 38 5 | E | 0 5 | | | At base. |
| | 18 | 9 20 | 83 | E | Slight | | | Do |

| Date. | Hour I.S.T. | | Latitude. | | Limb. | Displacement. | | | Remarks. |
|-------|----------------|-------|-----------|--------|-------|---------------|---------|------------|---|
| | | | North. | South. | | Red. | Violet. | Both ways. | |
| 1928. | H. | M | ° | ° | | A. | A. | A. | |
| March | 18 | 9 4 | | 22 | W | 1 | | | At top. |
| | 18 | 9 4 | | 18 | W | 1 | | | Do. |
| | 19 | 9 45 | | 38.5 | E | 1 | | | At base |
| | 19 | 8 48 | | 38.5 | W | | 0.5 | | |
| | 19 | 11 0 | | 22 | W | | 1.5 | | At base. |
| | 19 | 11 0 | | 20 | W | 2.5 | | | At top. |
| | 19 | 8 42 | | 14 | W | 1 | | | Do. |
| | 19 | 8 42 | | 10 | W | | 0.5 | | At base. |
| | 19 | 8 31 | 82.5 | | W | | Slight | | |
| | 20 | 8 30 | 66 | | E | Slight | | | |
| | 20 | 8 26 | 9 | | E | | 0.5 | | |
| | 20 | 8 58 | | 10 | E | | 1 | | At top. |
| | 20 | 9 0 | | 37.5 | E | 0.5 | | | At base. |
| | 20 | 9 0 | | 40.5 | E | | 1 | | At top. |
| | 20 | 8 48 | | 76 | W | | 0.5 | | At base. |
| | 20 | 8 42 | | 22 | W | 0.5 | | | At top. |
| | 20 | 8 38 | 17 | | W | 1 | | | Do. |
| | 21 | 9 8 | 11.5 | | E | | Slight | | At base, extends through 3°. |
| | 21 | 9 4 | | 36.5 | E | | 1 | | At top. |
| | 21 | 8 56 | | 66 | W | 1 | | | At base. |
| | 22 | 8 52 | 67 | | E | | Slight | | |
| | 22 | 8 50 | 58.5 | | E | | Slight | | |
| | 22 | 8 48 | 30 | | E | 2 | | | At top, extends through 4° from 28° to 32°. |
| | 22 | 8 45 | 13 | | E | 0.5 | | | At top. |
| | 22 | 9 32 | | 34.5 | E | 1 | | | At base. |
| | 22 | 9 19 | | 39.5 | W | | 0.5 | | Do. |
| | 22 | 9 16 | | 17 | W | | Slight | | |
| | 23 | 9 10 | 5 | | E | | 1 | | At top. |
| | 23 | 9 13 | | 12 | E | 1 | | | At base. |
| | 23 | 9 15 | | 19 | E | 2 | 1.5 | | To red at base ; to violet at top. |
| | 23 | 9 16 | | 23 | E | | 1.5 | | At top. |
| | 23 | 9 3 | | 24 | W | | Slight | | |
| | 23 | 8 54 | 50.5 | | W | | Slight | | |
| | 24 | 9 40 | | 14.5 | E | | | Slight | At top, extends through 1°. |
| | 24 | 9 55 | 12 | | W | | 1 | | At top. |
| | 25 | 8 39 | 78 | | E | | 0.5 | | At base. |
| | 25 | 9 6 | | 7 | E | | 0.5 | | At top. |
| | 25 | 9 2 | | 67 | W | | 1 | | Do. |
| | 25 | 8 56 | | 21 | W | 1 | | | Do. |
| | 25 | 9 0 | | 18 | W | | 0.5 | | At base. |
| | 25 | 8 54 | | 12 | W | 1 | | | At top. |
| | 25 | 8 48 | 6 | | W | 1 | | | Do. |
| | 25 | 8 42 | 54.5 | | W | Slight | | | Do. |
| | 26 | 8 44 | 67 | | E | Slight | | | |
| | 26 | 8 40 | 43.5 | | E | | 0.5 | | At base. |
| | 26 | 8 37 | 20 | | E | 1 | | | At top. |
| | 26 | 9 3 | | 32.5 | W | 1 | | | Do. |
| | 26 | 8 55 | 10 | | W | 3 | | | Do. |
| | 26 | 8 55 | 12 | | W | | 2.5 | | At base. |
| | 26 | 8 55 | 16 | | W | 1 | | | At top. |
| | 27 | 8 44 | 72.5 | | E | 1.5 | 1 | | To red at top ; to violet at base. |
| | 27 | 9 57 | 54.5 | | E | Slight | | | |
| | 27 | 8 41 | 49.5 | | E | | 1 | | At base. |
| | 27 | 9 53 | 30 | | E | Slight | | | At top. |
| | 27 | 10 13 | 23 | | E | 1 | | | At base. |
| | 27 | 9 48 | 7 | | E | | 0.5 | | Do. |
| | 27 | 9 48 | 4 | | E | 0.5 | | | At top. |
| | 27 | 9 6 | | 69 | W | 1 | | | |
| | 27 | 9 2 | | 36.5 | W | 1 | | | |
| | 27 | 10 9 | Equator. | | W | | Slight | | |
| | 27 | 10 6 | 26 | | W | | Slight | | |
| | 28 | 9 8 | 9 | | E | | 1 | | At base. |
| | 28 | 9 8 | 7 | | E | | 1 | | Do. |
| | 28 | 9 8 | 6 | | E | 3 | | | Do. |

| Date. | Hour I S T | | Latitude | | Limb | Displacement. | | | Remarks |
|-------|---------------|-------|----------|-------|------|---------------|--------|-----------|---|
| | | | North | South | | Red. | Violet | Both ways | |
| 1928 | h. | m. | ° | ° | | A. | A. | A. | |
| March | 29 | 8 59 | 9 | | E | | 0.5 | | At base |
| | 31 | 9 21 | | 37.5 | W | | 1 | | In chromosphere |
| April | 1 | 9 12 | 16 | | E | Slight | | | At top |
| | 1 | 9 33 | | 30 | E | 1.5 | | | Do |
| | 2 | 8 27 | 31.5 | | E | | Slight | | At base. |
| | 2 | 8 42 | | 13 | E | 1.5 | | | To red at base, to violet at top |
| | 2 | 8 42 | | 18 | E | | 1 | | At top |
| | 2 | 8 34 | | 62.5 | W | Slight | | | |
| | 2 | 8 32 | 77.5 | | W | | Slight | | |
| | 3 | 8 58 | 14 | | E | 1 | | | At top. |
| | 3 | 9 44 | | 16 | E | 1 | 1 | | To red at top, to violet at base. |
| | 3 | 9 13 | 66 | | W | 1.5 | | | At top |
| | 4 | 9 12 | 17 | | E | 1 | | | Do. |
| | 4 | 9 44 | | 12 | E | | 1 | | At base. |
| | 4 | 11 19 | | 24 | W | 4 | | | Do |
| | 4 | 9 32 | | 23 | W | | 1.5 | | At base, the displacement extends through 2° from 22° to 24° |
| | 4 | 11 8 | | 21 | W | | 2 | | At top |
| | 4 | 11 23 | | 19 | W | | 2 | | Do. |
| | 4 | 9 25 | 25 | | W | 1.5 | | | |
| | 5 | 8 36 | 60.5 | | E | | Slight | | |
| | 5 | 8 58 | 31 | | E | 1 | | | At base. |
| | 5 | 9 2 | | 13 | E | | 1 | | At top |
| | 5 | 8 36 | | 25.5 | W | 1 | 1 | | To red at top, to violet at base, the displacement extends through 1° from 25° to 26° |
| | 5 | 8 44 | 25 | | W | 0.5 | | | At top. |
| | 5 | 8 39 | 43.5 | | W | 1.5 | | | Do |
| | 6 | 8 28 | 33 | | E | Slight | | | |
| | 6 | 8 28 | 12 | | E | 1 | | | At top |
| | 6 | 8 56 | | 13 | W | 1 | 1.5 | | To red at top; to violet at base. |
| | 6 | 8 58 | | 13 | W | 3 | 3.5 | | Do |
| | 6 | 9 15 | | 10 | W | 1 | | | At top. |
| | 6 | 8 36 | 34 | | W | 0.5 | | | Do |
| | 7 | 8 48 | 19 | | E | 1.5 | | | Do. |
| | 7 | 9 15 | | 13 | E | | 1 | | Do |
| | 7 | 9 15 | | 17 | E | 2.5 | | | To red at base, to violet at top. |
| | 7 | 9 1 | 3 | | W | | Slight | | |
| | 7 | 8 51 | 78.5 | | W | | Slight | | |
| | 8 | 8 45 | 14 | | E | | 1.5 | | At base. |
| | 8 | 8 41 | 11 | | E | 1.5 | | | At top |
| | 9 | 9 55 | | 3 | E | | 0.5 | | At base. |
| | 9 | 9 53 | | 8 | E | | 1 | | At top |
| | 10 | 9 23 | 14 | | E | 2.5 | 1.5 | | To red at top, to violet at base. |
| | 10 | 9 27 | | 7 | E | | 3.5 | | At base |
| | 10 | 8 46 | | 7 | E | | 2 | | Do |
| | 10 | 9 27 | | 9 | E | 3 | | | Do |
| | 10 | 9 30 | | 24 | W | 0.5 | | | At top. |
| | 10 | 9 11 | 7 | | W | 1.5 | | | Do |
| | 10 | 9 0 | 12 | | W | 1.5 | | | Do |
| | 10 | 9 3 | 17 | | W | | 1 | | At base. |
| | 10 | 9 3 | 25 | | W | 1 | | | At top. |
| | 11 | 9 48 | 79.5 | | E | 0.5 | | | Do |
| | 11 | 10 5 | 22 | | E | 0.5 | | | At base. |
| | 11 | 10 0 | | 19 | W | 1 | 0.5 | | To red at top, to violet at base |
| | 11 | 8 53 | | 7 | W | 1 | | | At base |
| | 11 | 8 53 | | 4 | W | 0.5 | | | At top |
| | 11 | 9 50 | 35 | | W | 0.5 | | | Do. |
| | 12 | 9 17 | 71 | | E | 0.5 | | | Do |
| | 12 | 9 15 | 57.5 | | E | Slight | | | Do |
| | 12 | 9 10 | 10 | | E | | 0.5 | | At base |
| | 12 | 10 2 | | 30 | E | 1.5 | | | At top. |
| | 12 | 10 5 | | 53.5 | E | Slight | | | At base |
| | 12 | 9 55 | | 66 | W | 1 | | | At top. |

| Date. | Hour I S.T | | Latitude. | | Limb. | Displacement. | | | Remarks |
|-------|---------------|-------|-----------|-------|-------|---------------|--------|-----------|--|
| | | | North | South | | Red | Violet | Both ways | |
| 1928. | II | M. | ° | ° | | A | A | A. | |
| April | 22 | 8 44 | 36 | | W | | Slight | | At base. |
| | 23 | 9 32 | 8 | | E | 1 | | | Do |
| | 23 | 10 3 | | 8 | E | 1 | | | Do |
| | 23 | 10 3 | | 11 | E | | 1.5 | | At top |
| | 23 | 8 3 | 6 | | W | 1 | | | Do |
| | 23 | 9 22 | 14 | | W | 1.5 | 1 | | To red at top, to violet at base. |
| | 23 | 9 20 | 29 | | W | | Slight | | |
| | 24 | 8 55 | 73.5 | | E | 1.5 | | | At top |
| | 24 | 8 45 | 17 | | E | 1 | | | Do |
| | 24 | 9 25 | | 4 | E | Slight | | | At base. |
| | 24 | 9 25 | | 6 | E | | Slight | | Do. |
| | 24 | 9 29 | | 15 | E | 0.5 | | | At top |
| | 24 | 9 29 | | 17 | E | 1 | | | Do |
| | 24 | 9 17 | | 58.5 | W | | Slight | | At base |
| | 24 | 9 17 | | 56.5 | W | Slight | | | At top |
| | 24 | 9 13 | | 38 | W | | 1 | | At base |
| | 24 | 9 13 | | 34 | W | 0.5 | | | Do |
| | 24 | 9 3 | 34 | | W | | 0.5 | | Do |
| | 24 | 9 2 | 42 | | W | 0.5 | | | Do. |
| | 25 | 10 25 | 42 | | E | Slight | | | Do. |
| | 25 | 8 55 | 13 | | E | 0.5 | | | |
| | 25 | 9 26 | 6 | | E | | 0.5 | | At base |
| | 25 | 9 22 | | 2 | E | 2.5 | | | At top |
| | 25 | 9 22 | | 5 | E | 2 | | | At top, extends over 2° from 4° to 6° |
| | 25 | 9 22 | | 6 | E | | 2 | | At top, extends over 2° from 5° to 7° |
| | 25 | 9 22 | | 10 | E | | 1.5 | | At base |
| | 25 | 9 10 | | 15 | E | 2 | | | At top |
| | 26 | 10 11 | 62.5 | | E | Slight | | | |
| | 26 | 9 50 | 23.5 | | E | 1 | | | At top, extends over 1° from 23° to 24° |
| | 26 | 9 50 | 26.5 | | E | | 1 | | At top, extends over 1° from 26° to 27° |
| | 26 | 9 34 | 18 | | E | 2 | | | In chromosphere |
| | 26 | 9 46 | 13 | | E | | 2.5 | | At top |
| | 26 | 9 30 | | 21 | E | 2 | | | Throughout height |
| | 26 | 9 23 | | 38 | E | | Slight | | At top |
| | 27 | 8 56 | 23 | | E | | 1 | | Do |
| | 27 | 8 54 | 3 | | E | 1 | | | At base. |
| | 27 | 9 20 | 9 | | E | 1 | 1.5 | | To red at base, to violet at top |
| | 27 | 9 4 | | 6 | W | | 2 | | At base |
| | 27 | 9 0 | 65.5 | | W | | Slight | | |
| | 28 | 10 0 | 7 | | E | | Slight | | At top |
| | 28 | 9 35 | | 62.5 | W | | 1 | | At base |
| | 29 | 8 51 | | 7 | E | 1 | | | At top |
| | 29 | 9 2 | | 10 | E | | 2.5 | | At base. |
| | 29 | 8 50 | | 12 | E | | 0.5 | | Do |
| | 29 | 8 57 | | 16 | E | 0.5 | | | At top |
| | 29 | 9 3 | | 18 | W | 1 | | | Do |
| | 29 | 8 56 | 17 | | W | 1 | | | Do |
| | 29 | 8 55 | 43 | | W | Slight | | | Do |
| | 29 | 9 8 | 79.5 | | W | | | 0.5 | |
| | 29 | 8 54 | 85.5 | | W | | 0.5 | | At base |
| | 30 | 8 44 | 5 | | E | 1.5 | 3 | | To red at base, to violet at top |
| | 30 | 8 48 | | 11 | E | | 1 | | At top |
| | 30 | 9 11 | | 16 | E | | 3 | | Do |
| | 30 | 9 7 | | 20 | E | 2.5 | 4 | | To red at base, to violet at top. |
| | 30 | 8 35 | | 74.5 | W | 1 | | | At top. |
| | 30 | 8 32 | | 17 | W | 1.5 | | | Do |
| | 30 | 9 0 | | 14 | W | | 1 | | At base. |
| | 30 | 8 27 | 49 | | W | | Slight | | |
| May | 1 | 10 19 | 19 | | E | | 1 | | At base |
| | 1 | 9 6 | | 10 | E | 2.5 | | | At top. |
| | 1 | 9 6 | | 14 | E | 2 | | | At top, extends over 2° from 13° to 15° |
| | 1 | 10 56 | | 14 | E | 3 | 1 | | To red at top, to violet at base ; extends over 2° from 13° to 15° |
| | 1 | 9 6 | | 16 | E | | 3.5 | | At base. |
| | 1 | 10 56 | | 16 | E | | 1.5 | | Do. |

| Date. | Hour I.S.T. | Latitude. | | Limb. | Displacement. | | | Remarks. |
|-------|----------------|-----------|--------|-------|---------------|---------|------------|---|
| | | North. | South. | | Red. | Violet. | Both ways. | |
| 1928. | H. M. | ° | ° | | A. | A. | A. | |
| May | 1 | 10 40 | 20 | W | | 0.5 | | At base. |
| | 1 | 10 40 | 15 | W | 0.5 | | | At top. |
| | 2 | 9 57 | 13 | E | | 1.5 | | Do. |
| | 2 | 9 14 | 13 | E | 2.5 | | | At base. |
| | 2 | 9 20 | 12.5 | W | 0.5 | | | At top. |
| | 3 | 9 14 | 5 | E | Slight | | | At base. |
| | 3 | 8 42 | 10 | E | 1 | | | Do. |
| | 3 | 9 43 | 16 | E | Slight | | | Do. |
| | 3 | 8 50 | 19 | W | Slight | | | |
| | 3 | 9 35 | 6 | W | Slight | | | At base. |
| | 3 | 9 34 | 16.5 | W | | 1.5 | | At top, extends over 1° from 16° to 17°. |
| | 3 | 9 34 | 20 | W | 2 | | | At top, extends over 2° from 19° to 21°. |
| | 4 | 9 5 | 26 | E | 0.5 | | | At top. |
| | 4 | 9 39 | 16.5 | E | | 1 | | At top, extends over 3° from 15° to 18°. |
| | 4 | 9 13 | | E | 1 | | | At base. |
| | 4 | 9 18 | 12 | E | 1 | | | Do. |
| | 4 | 9 18 | 28 | E | 1.5 | | | At base, extends over 6° from 32° to 38°. |
| | 4 | 9 18 | 35 | E | | | | At top. |
| | 4 | 9 29 | 29 | W | | Slight | | At base. |
| | 4 | 9 11 | 7 | W | 1 | | | At top. |
| | 4 | 9 9 | 43 | W | 1 | | | Do. |
| | 5 | 10 18 | 16 | E | | 1 | | Do. |
| | 5 | 10 18 | 13 | E | 0.5 | | | |
| | 5 | 9 30 | 6 | E | | 2 | | At the middle of the prominence. |
| | 5 | 9 30 | 3 | E | | 1 | | At top. |
| | 5 | 9 59 | 5 | W | | 1 | | Do. |
| | 5 | 9 48 | 77.5 | W | | 1 | | Do. |
| | 6 | 8 28 | 29 | E | | 1 | | Do. |
| | 6 | 8 33 | 18 | E | | 1 | | Do. |
| | 6 | 8 33 | 14 | E | 1 | | | At base. |
| | 6 | 8 45 | 5 | E | | 1 | | At top. |
| | 6 | 9 10 | 16 | E | 0.5 | | | At base. |
| | 6 | 9 12 | 53 | E | 0.5 | | | Do. |
| | 6 | 9 40 | 11 | W | 0.5 | | | At top. |
| | 7 | 8 33 | 16 | E | 1.5 | 0.5 | | To red at base ; to violet at top. |
| | 7 | 8 50 | 12 | E | | 0.5 | | At top. |
| | 7 | 8 40 | 15 | W | 0.5 | | | Do. |
| | 9 | 10 7 | 20 | E | | 1 | | Do. |
| | 9 | 10 45 | 42 | E | | Slight | | At base. |
| | 9 | 10 3 | 35 | W | 1 | | | At top. |
| | 9 | 9 52 | 7 | W | 1.5 | | | Do. |
| | 9 | 9 52 | 8 | W | | 1 | | At base. |
| | 9 | 9 52 | 9 | W | 1 | | | Do. |
| | 9 | 9 50 | 23 | W | | Slight | | Do. |
| | 9 | 9 47 | 68 | W | | | | Do. |
| | 10 | 9 25 | 19 | E | Slight | | | At top. |
| | 10 | 9 14 | 1 | W | Slight | | | At base. |
| | 10 | 9 14 | 6 | W | 0.5 | | | |
| | 10 | 9 14 | 8 | W | 1 | 1 | | Both at top. |
| | 10 | 9 14 | 9 | W | 1 | | | At top. |
| | 10 | 9 14 | 9 | W | Slight | | | Do. |
| | 10 | 9 5 | 49 | W | Slight | | | Do. |
| | 11 | 8 25 | 84 | E | | Slight | | |
| | 11 | 8 22 | 10 | E | | 0.5 | | At top. |
| | 11 | 8 34 | 7 | E | Slight | | | At base. |
| | 11 | 8 36 | 10 | W | | 1 | | Do. |
| | 11 | 8 36 | 7 | W | 1 | | | At top. |
| | 11 | 8 28 | 87 | W | 0.5 | | | Do. |
| | 12 | 10 2 | 12 | W | 3.5 | 2.5 | | To red at top ; to violet at base. |
| | 12 | 9 48 | 11 | W | | 1 | | At base. |
| | 13 | 8 37 | 22 | E | | 0.5 | | Do. |
| | 13 | 8 35 | 15 | E | Slight | | | At top. |
| | 13 | 9 25 | | E | 1 | 0.5 | | To red at base ; to violet at top. |
| | 13 | 9 0 | 13 | W | 1 | | | At top. |
| | 13 | 9 0 | 20 | W | | | | At top. |
| | 13 | 9 0 | 16 | W | | 2.5 | | Do. |
| | 13 | 9 0 | 14 | W | 3 | | | At base. |
| | 13 | 8 48 | 12 | W | | | 0.5 | |

| Date | Hour I S T | | Latitude. | | Lamb | Displacement | | | Remarks. |
|-------|---------------|-------|-----------|-------|------|--------------|--------|-----------|--|
| | | | North | South | | Red | Violet | Both ways | |
| 1928. | II | M | ° | ° | | A. | A. | A. | |
| May | 13 | 9 5 | | 4 | W | | 1 | | At top, extends over 6° from 1° to 7°. |
| | 13 | 8 42 | 28 | | W | 1 | | | At top |
| | 14 | 9 5 | 64 | | E | | Slight | | At base |
| | 14 | 8 45 | 14 | | E | Slight | | | Do |
| | 14 | 8 41 | | 8 | E | 1 | | | Do |
| | 14 | 8 32 | | 18.5 | W | 3.5 | 4 | | To red at base, to violet at top, extends over 1° from 18° to 19° |
| | 14 | 8 32 | | 18 | W | 1 | | | At top |
| | 14 | 8 32 | | 15 | W | 1 | | | At top, extends over 2° from 14° to 16° |
| | 14 | 8 32 | | 11 | W | 1 | 0.5 | | To red at top, to violet at base. |
| | 15 | 8 50 | 17 | | E | | 0.5 | | At top |
| | 15 | 8 50 | 9 | | E | 0.5 | | | At base. |
| | 15 | 8 55 | | 13 | E | 0.5 | | | Do |
| | 15 | 9 18 | | 20 | W | 3 | 7 | | To red at top, to violet at base |
| | 15 | 9 18 | | 18 | W | 1.5 | | | At top. |
| | 15 | 9 18 | | 12 | W | 1 | | | At base |
| | 15 | 8 38 | 67 | | W | 0.5 | | | At top. |
| | 16 | 8 55 | 81.5 | | E | | Slight | | |
| | 16 | 10 5 | 31 | | E | Slight | | | At base |
| | 16 | 8 47 | | 21 | W | 4 | 1 | | To red at top, to violet at base |
| | 16 | 9 20 | 30 | | W | | 0.5 | | At base |
| | 17 | 8 44 | 14 | | E | Slight | | | At top |
| | 17 | 8 54 | | 24 | E | Slight | | | At base. |
| | 18 | 8 52 | 10 | | E | Slight | 0.5 | | Both at base |
| | 18 | 9 28 | | 71 | W | 1 | | | At top |
| | 18 | 9 15 | | 18 | W | 1 | | | Do. |
| | 18 | 9 11 | 4 | | W | 1 | | | Do |
| | 18 | 9 10 | 14 | | W | 1 | | | Do |
| | 18 | 9 5 | 56 | | W | Slight | | | Do |
| | 19 | 8 58 | 19 | | E | 0.5 | | | At base |
| | 19 | 8 53 | | 82 | W | | 1 | | Do |
| | 19 | 8 51 | | 31 | W | | Slight | | Do |
| | 19 | 8 49 | 14 | | W | 1 | 0.5 | | To red at top; to violet at base. |
| | 19 | 8 39 | 45 | | W | Slight | | | At top |
| | 20 | 10 17 | 15 | | E | | 0.5 | | |
| | 20 | 10 34 | | 48 | E | 0.5 | | | At top. |
| | 20 | 10 32 | | 83.5 | W | | Slight | | |
| | 20 | 10 25 | | 17 | W | 0.5 | 0.5 | | To red at top; to violet at base. |
| | 20 | 11 1 | | 1 | W | 0.5 | | | At top |
| | 20 | 10 22 | 5 | | W | 1 | | | Do |
| | 20 | 10 20 | 14 | | W | 1 | | | Do |
| | 21 | 8 50 | 14 | | E | 2 | 1 | | To red at base, to violet at top. |
| | 21 | 8 45 | 9 | | E | 1 | | | At base |
| | 21 | 8 42 | | 2 | E | 0.5 | | | |
| | 21 | 8 25 | | 9 | E | 1 | | | At base |
| | 21 | 8 40 | | 13 | E | | 1 | | At top. |
| | 21 | 8 36 | | 84.5 | W | Slight | | | Do |
| | 21 | 8 33 | | 62 | W | | Slight | | At base |
| | 21 | 8 30 | | 9 | W | 0.5 | | | At top |
| | 22 | 8 47 | 31 | | E | Slight | | | At base |
| | 22 | 8 50 | | 41 | E | 0.5 | | | Do |
| | 22 | 8 32 | 40 | | W | 1 | | | At top |
| | 23 | 8 34 | 26 | | E | | 0.5 | | Do |
| | 23 | 8 50 | 43 | | W | 0.5 | | | Do. |
| | 24 | 8 52 | | 15 | E | Slight | | | |
| | 24 | 9 0 | | 40 | E | | 1 | | At top |
| | 25 | 8 37 | 59 | | E | | Slight | | |
| | 25 | 7 59 | 7 | | E | | 0.5 | | At base |
| | 25 | 8 33 | | 11 | E | 1 | | | Do |
| | 25 | 8 31 | | 18 | E | Slight | | | Do. |
| | 25 | 8 25 | | 84 | W | 0.5 | | | |
| | 26 | 8 12 | 46 | | E | | Slight | | |
| | 26 | 8 27 | 28 | | E | Slight | | | At top |
| | 26 | 8 50 | | 12 | E | 2 | 2.5 | | To red at base; to violet at top. |
| | 26 | 8 50 | | 19 | E | 6 | | | At top. |

| Date. | Hour I.S.T. | Latitude. | | Limb. | Displacement. | | | Remarks. |
|-------|----------------|-----------|-------|-------|---------------|---------|------------|------------------------------------|
| | | North | South | | Red. | Violet. | Both ways. | |
| 1928 | H M. | ° | ° | | A. | A. | A. | |
| May | 26 | 8 35 | 25 | E | Slight | | | At base. |
| | 27 | 8 48 | 10 | E | 1.5 | 2 | | To red at base ; to violet at top. |
| | 27 | 8 48 | 18 | E | 6 | 2 | | To red at top ; to violet at base. |
| | 28 | 9 34 | 10 | E | Slight | | | At base. |
| | 28 | 9 24 | 16 | E | | 2 | | At top. |
| | 28 | 9 27 | 24 | E | | 1 | | Do. |
| | 29 | 8 35 | 79 | E | | Slight | | At base. |
| | 29 | 8 40 | 17 | E | | 1 | | At top. |
| | 29 | 8 46 | 22 | E | 1 | | | At base. |
| | 29 | 8 27 | 54 | W | | Slight | | Do. |
| | 29 | 8 20 | 23 | W | 1 | 0.5 | | To red at top ; to violet at base. |
| | 29 | 8 33 | 87 | W | Slight | | | At base. |
| | 30 | 8 14 | 16 | E | | 1 | | At top. |
| | 30 | 8 11 | 32 | W | | Slight | | At base. |
| | 30 | 8 7 | 13 | W | | Slight | | |
| | 31 | 8 19 | 34 | E | | Slight | | |
| | 31 | 8 28 | 18 | E | | Slight | | |
| | 31 | 8 24 | 40 | W | 0.5 | | | |
| June | 1 | 11 5 | 12 | W | 0.5 | | | |
| | 2 | 8 20 | 14 | E | 1 | 4 | | To red at base ; to violet at top. |
| | 2 | 8 35 | 4 | W | 0.5 | | | At top. |
| | 2 | 8 16 | 7 | W | | Slight | | At base. |
| | 2 | 8 16 | 9 | W | 0.5 | | | At top. |
| | 2 | 8 14 | 74 | W | 0.5 | | | Do. |
| | 3 | 9 28 | 11 | W | 1.5 | 2 | | To red at top ; to violet at base. |
| | 3 | 9 48 | 13 | W | 3 | | | At top. |
| | 13 | 11 12 | 20 | E | | 1 | | Do. |
| | 13 | 11 5 | 64 | W | 0.5 | | | Do. |
| | 13 | 11 2 | 19 | W | Slight | | | |
| | 17 | 8 42 | 24 | E | 1 | | | At top. |
| | 17 | 8 42 | 23 | E | | 0.5 | | At base. |
| | 17 | 8 47 | 14 | E | | 1 | | Do. |
| | 18 | 9 12 | 34 | E | 1.5 | | | At top. |
| | 18 | 9 12 | 26 | E | | 1 | | At base. |
| | 18 | 9 22 | 48 | E | 0.5 | | | Do. |
| | 19 | 8 53 | 66 | E | Slight | | | At top. |
| | 19 | 9 6 | 14 | E | Slight | | | At base. |
| | 20 | 9 33 | 42 | W | 0.5 | | | At top. |
| | 20 | 9 30 | 20 | W | 1 | | | Do. |
| | 20 | 9 27 | 14 | W | Slight | | | Do. |
| | 22 | 11 36 | 17 | E | Slight | | | Do. |
| | 22 | 11 40 | 9 | E | | 3 | | Do. |
| | 22 | 11 40 | 12 | E | 1 | | | Do. |
| | 22 | 11 45 | 16 | E | 1 | | | At base. |
| | 23 | 11 56 | 22 | E | 2 | | | Do. |
| | 23 | 11 56 | 20 | E | 4 | | | |
| | 23 | 11 56 | 17 | E | | | 0.5 | |
| | 23 | 11 48 | 6 | E | | Slight | | At top. |
| | 23 | 11 35 | 29 | E | | | 3 | |
| | 23 | 11 27 | 64 | E | 1 | | | At base. |
| | 23 | 12 39 | 9 | W | 1 | Slight | | To violet at top. |
| | 24 | 8 46 | 13 | E | 1 | | | At base. |
| | 24 | 9 6 | 17 | W | 0.5 | | | At top. |
| | 24 | 9 8 | 7 | W | 3 | | | Do. |
| | 24 | 9 5 | 35 | W | | 0.5 | | At base. |
| | 27 | 10 5 | 32 | E | 1 | 1.5 | | To red at top. |
| | 28 | 9 40 | 11 | E | | 1 | | At base. |
| | 28 | 9 40 | 9 | E | 1.5 | | | At top. |
| | 28 | 9 29 | 60 | W | 0.5 | | | Do. |
| | 28 | 9 26 | 21 | W | Slight | | | At base. |
| | 28 | 9 26 | 15 | W | Slight | | | At top. |
| | 29 | 9 23 | 21.5 | W | 1 | | | Do. |
| | 29 | 9 17 | 20 | W | 1 | | | Do. |
| | 30 | 9 40 | 16 | E | | Slight | | Do. |

The total number of displacements was 786 as against 252 in the previous half-year and their distribution was as follows :—

| Latitude | North | South |
|------------------|-------|-------|
| Equator | 1 | .. |
| 1°—30° | 264 | 295 |
| 31°—60° | 80 | 62 |
| 61°—90° | 59 | 25 |
| | <hr/> | <hr/> |
| Total ... | 1 403 | 382 |
| | <hr/> | <hr/> |
| East limb | ... | 434 |
| West limb | .. | 352 |
| | <hr/> | <hr/> |
| Total ... | ... | 786 |
| | <hr/> | <hr/> |

Four hundred and thirty-eight displacements were towards the red, 338 towards the violet and 10 both ways simultaneously.

Reversals and displacements on the Sun's disc.

Five hundred and eighty-six bright reversals of the $H\alpha$ line, 541 dark reversals of D_s line and 253 displacements of the $H\alpha$ line were observed during the half-year. Their distribution is given below .—

| | North | South. | East. | West: |
|--------------------------------------|-------|--------|-------|-------|
| Bright reversals of $H\alpha$ | 269 | 317 | 313 | 273 |
| Dark reversals of D_s | 247 | 294 | 294 | 247 |
| Displacements of $H\alpha$. .. | 120 | 133 | 160 | 93 |

One hundred and eighty-four displacements were towards the red, 67 towards the violet and 2 both ways simultaneously.

Prominences projected on the disc as absorption markings.

Photographs of the Sun's disc in $H\alpha$ light were available from Kodaikanal and the co-operating observatories for a total of 181 days, which were counted as $174\frac{3}{4}$ effective days. The mean daily areas of $H\alpha$ absorption markings (corrected for foreshortening) in millionths of the Sun's visible hemisphere and their mean daily numbers are given below .—

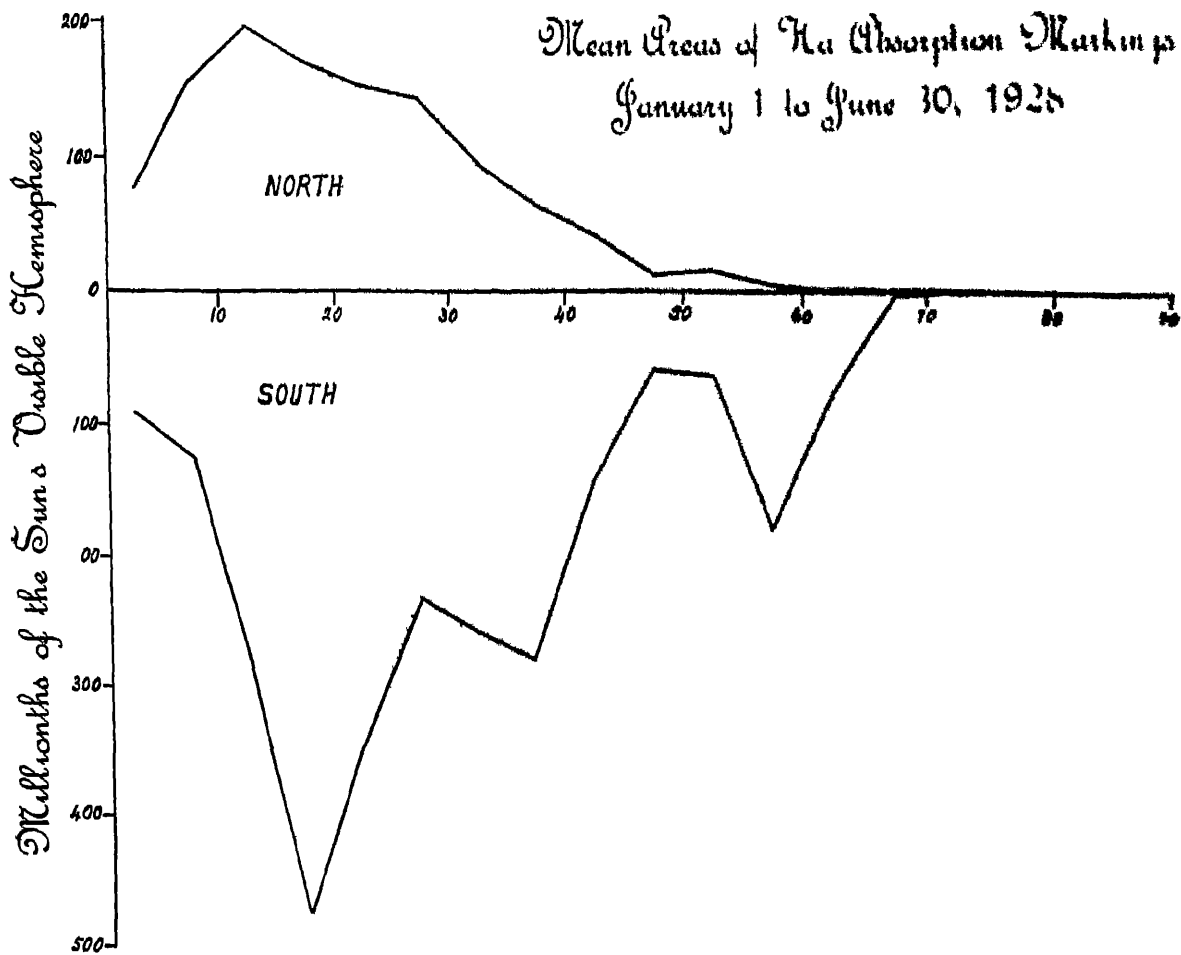
| | Mean daily areas. | Mean daily numbers |
|--------------|-------------------|--------------------|
| North | 1,132 | 11.2 |
| South | 2,608 | 18.4 |
| | <hr/> | <hr/> |
| Total .. | 3,740 | 2.96 |
| | <hr/> | <hr/> |

The above totals show an increase of about 8 per cent in areas and an increase of 3 per cent in numbers compared with the previous half-year. There is a decrease in the northern hemisphere which is more than counterbalanced by the increase in the southern and resulting in a considerable preponderance of activity in the southern hemisphere in contrast to the northern preponderance of prominences at the limb.

For comparison with bulletins issued prior to the completion of the observations the following are the Kodaikanal photographs alone are also given 163 days of observations made on 17th to 15th

| | Area | Number |
|-------------------------------------|------|--------|
| North (Kodaikanal photographs only) | 110 | 113 |
| South (do do) | | 11 |
| Total | 313 | 124 |

The distribution of the mean daily areas in latitude is shown in the following diagram. The maximum of activity still persists within the zone 10 to 20 and there is a peak of activity near the equator in the southern hemisphere



There is an excess of activity in the western hemisphere both in areas and numbers, the percentage east being 49.03 for areas and 48.23 for numbers

Thanks are due to the co-operating observatories for the photographs supplied by them.

THE OBSERVATORY KODAIKANAL
7th March 1920

T ROYDS,
Director Kodaikanal and Madras Observatories