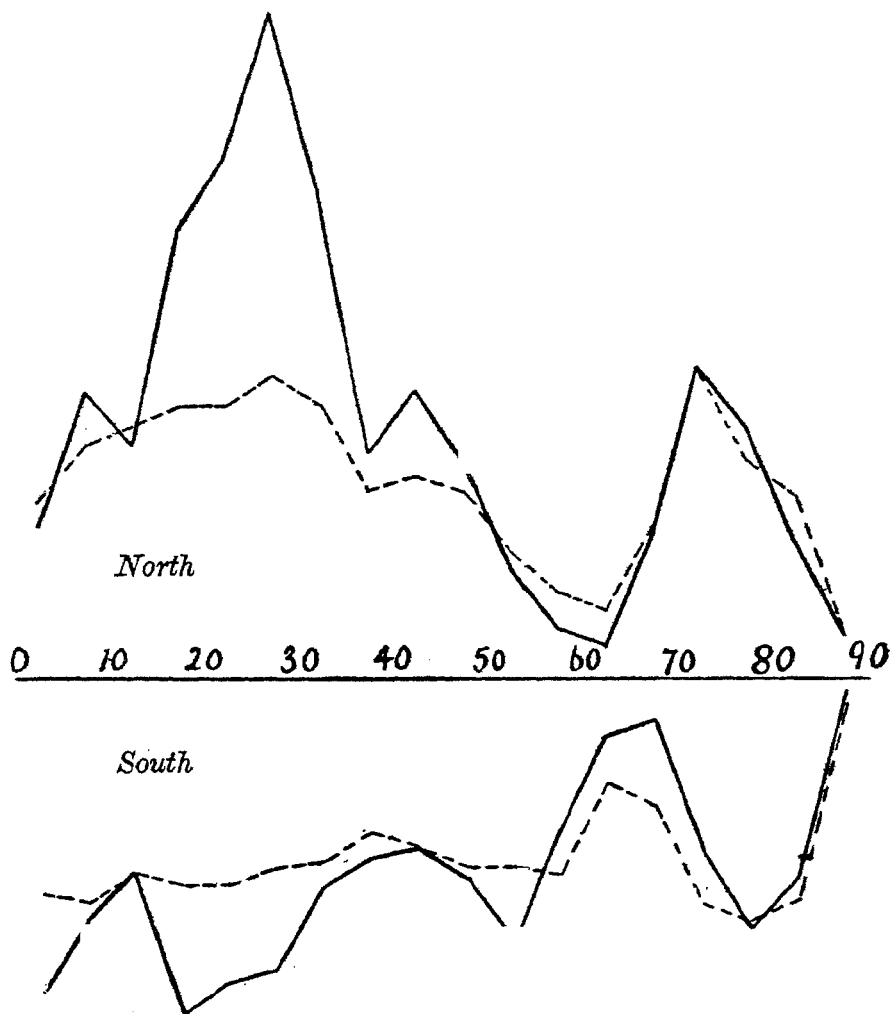


Distribution of Prominences in Latitude in the Year 1906, from observations made at Kodaikánal on 156 days in the first half of the year, and 105 days in the second half. By J. Evershed.

The distribution of prominences in latitude for each half of the year 1906 is represented in the diagrams by two curves. The



Distribution of prominences in latitude—1906 January 1 to June 30.

Broken line = mean numbers
 Continuous line = mean activity } for each 5 degrees.

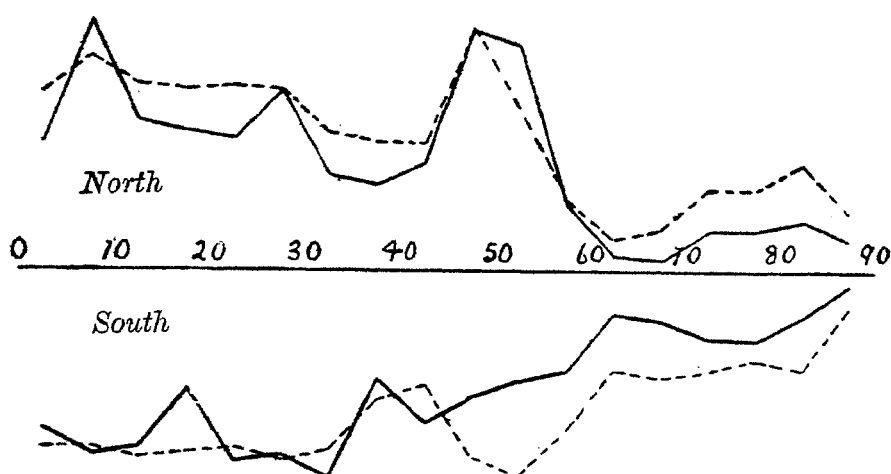
broken line gives the mean numbers of prominences observed in each zone of 5° from the equator to the poles. The continuous line gives the mean "activity" for the same zones. The activity is obtained by taking account of the height and extent of each prominence, the unit adopted being a prominence of $1''$ in extent and $10''$ in height.

The average size of the prominences in each zone is indicated by the difference of the ordinates of the two curves: thus, at latitudes where the continuous line rises above the broken line in the northern hemisphere (or falls below it in the southern), the prominences were larger than the average for the whole year, and at the crossing points they were of average size.

General Remarks.

The distribution curve for the first half of the year has the same form as that of the previous year, with a maximum in the zone 25° - 30° , and a well-defined zone of activity in high latitudes.

On both sides of the equator there is a very pronounced minimum of activity in the zones 55° - 65° .



Distribution of prominences in latitude—1906 July 1 to December 31.

Broken line = mean numbers
 Continuous line = mean activity } for each 5 degrees.

About the end of June a considerable change took place in the distribution, and in the second half of the year the curve takes a very different form. There is also a great falling off in activity in both hemispheres.

The year as a whole is interesting, as showing the culminating point in the prominence period, when the high-latitude zones of activity finally envelope the poles. This took place last at about the epoch 1894.7. At that time, as in the past year, the zones of maximum activity were at latitudes 25° - 30° on both sides of the equator, and during the past 12 years these regions of greatest activity have been slowly advancing towards the poles. In the years 1896 to 1901 they remained practically stationary between 45° and 55° , but since that date the advance polewards has been at the average rate of 5° per annum. New maxima appeared

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between latitudes 20° and 30° in 1902, and the shifting of the old maxima towards the poles appears to be correlated with the development of these.

An interesting feature in these high-latitude prominences is the narrow limits of latitude within which at any one time the zone is defined, and the tendency to form extended chains of prominences all approximately in the same latitude, but often exceeding 100° in longitude. When this occurs one may get an apparently stationary prominence, remaining at the same position angle for 10 or 14 days, after which it appears on the opposite side of the pole for another series of days.
