

DISTORTED SOLAR HALOS.*

By A. F. HUNTER.

THERE is a class of halos which I have not seen described in scientific publications, although if any account of them exists I may easily have overlooked it, so vast is the field of literature on the subject.

On March 25th, 1899, at 10.30 a.m., I saw a solar halo at Barrie, Ont., consisting of a primary circle around the sun, but the sun was not at its centre, i.e., it was excentric (Fig. 1). On measuring the parts with a long-armed compass, I found that the instrument confirmed what my unaided eye had detected. The inner edge of the top part of the circle was $21\frac{1}{2}$ degrees from the sun's upper edge, and the inner edge of the lowest part of the circle was 23 degrees from the sun's lower edge,—a difference of about three times the sun's width.

This eccentricity is not difficult to understand, and as the observer of a phenomenon has the first right to speculate on its causes, I will offer an explanation of it. With a common glass

* A portion of a paper on Halos, read at the meeting of the Society in Toronto, November 6th, 1917.