producing this excentric halo had their longer axes situated in a horizontal plane. It is only within a limited range that this rule can be true for the ordinary prism. And when the sun had an intermediate altitude in the sky, as it had at 10.30 a.m. on the abovementioned date, it was within the range in which the phenomenon could occur.

This conclusion agrees very well with what we are already familiar in nature. From seeing the horizontal wisps that are often projected from the tops of thunder clouds or from cirrus clouds, we know that there are lines of strong forces in the higher air driving snow particles in horizontal directions. Indeed, the name "cirrus" itself is the Latin word for a curl, especially a curl of hair, an expresses the wispy character of such clouds driven horizontally. Accordingly, the only explanation that will suffice is that the snow particles were arranged horizontally by lines of electro-magnetic forces.

Two days later, March 27th, 1899, also at 10.30 a.m., I observed a solar circle 23½ degrees from the sun's upper edge, and 22½ degrees from its lower edge. This was almost the reverse of the halo first seen. In this later example, the snow crystals must have had their longer axes ranged in the vertical plane, i.e., inclined toward the sun.

ELLIPTIC OR CIRCUMSCRIBED HALOS.

On May 31st, 1904, at a point some 15 miles northwest of Barrie, I observed a halo of the sun consisting of an ordinary first circle surrounded by an ellipse, which had likewise the sun for its centre (Fig. 2). The sheet of haze producing this halo was thin at first, but it covered the entire sky and seemed to be at a very high altitude. As time went on, the haze continued to thicken, and seemed to come into lower strata of the air. But no definite *forms* of clouds were to be seen at any time, not even after the haze had become too thick for the halo to be seen. The atmospheric disturbance appeared to be of a wide-reaching nature. I was in the open air during the whole time the halo was visible, and