

## ART. III.—NOTE ON PECULIAR AURORÆ. BY PROF. J. G. MACGREGOR, D. SC.

Two auroræ which I observed during the past summer exhibited a peculiarity of form sufficiently interesting to warrant my drawing the attention of the members of this Society to it.

The first was observed at Halifax on the 31st July. It had the form of a bow stretching across the sky from the east to the west point of the horizon and through a point a few degrees south of the zenith. The bow was about five degrees in width. No rayed structure could be traced in it, and its light during the greater part of its duration was very nearly uniform throughout, the whole luminous area, except at the edges of the bow, where the luminosity diminished rapidly outwards. The bow was visible from 10 to 10.30 o'clock, p.m. Towards the end of that time the east and west ends grew more faint, and the diminution of luminosity gradually extended from the ends towards the zenith. In about 15 minutes from the time at which this diminution began the bow had entirely vanished. The sky was quite clear and there were no clouds. I was unable to determine the spectrum of the bow.

The second aurora mentioned above I observed at New Glasgow, N. S., on the evening of September 5th. It had the form of a bow of the same width as the other, stretching from a point about  $30^\circ$  north of west to a point about  $30^\circ$  north of east through the zenith. It had at first a slightly marked rayed structure in the direction of its length, but this structure gradually vanished, and rays then appeared crossing the bow so as to make angles of about  $45^\circ$  with the direction of its length. It lasted also from about 10 to 11.30 o'clock, when it faded away, the ends fading first, and the portions near the zenith widening before disappearing. One of Hilger's larger pocket spectroscopes shewed that its spectrum consisted of two lines in the green, one bright, the other faint, and at times invisible. The sky was clear. No auroral lines were seen in the spectrum when the instrument was directed to other parts of the sky than that occupied by the bow.