

is surrounded by an extensive envelope of heated air and smoke which becomes luminous throughout. Probably no single meteor ever yet investigated was a solid mass as large as ten feet in diameter."

It may be pointed out, however, that these meteors were not intensely white as most fire-balls are, and so the effect of irradiation would not be so pronounced. Taking the diameter, as seen from Toronto, to have been $\frac{1}{13}$ of the moon's diameter, or 2' of arc, this would give a diameter of 123 feet; while half the diameter of the moon as seen at Mill Bridge would correspond to a diameter of over 3000 feet. This latter value is probably a decided over-estimate, but I am inclined to think the largest bodies to have been at least 100 feet in diameter.

A rough approximation can also be made of the length of the tail of the largest meteor. At Centreton (see Figure 6) it appeared to be about 23° long, which would correspond to an actual length of 39 miles. Other estimates lead to an estimate of about this order, but all these values are liable to considerable error.

OTHER METEORS SEEN WITHIN A FEW HOURS OF THE GREAT DISPLAY

During the course of the present investigation the writer was greatly surprised and interested to learn that several other bright meteors were seen within a few hours of the great display. Extracts from letters received regarding these are given at the end of this account.

Mr. F. W. O. Werry, B.A., of Saranac Lake, N.Y., (W. Long. $74^\circ 10'$, N. Lat. $44^\circ 20'$) states that between 7.30 and 7.45, p.m. (February 9) he saw a shooting star begin about 10° higher up than Venus and move rapidly along a horizontal line (or nearly so) for about 30° towards the north. In a few minutes another meteor, starting in the same region, shot across the same part of the heavens, but its path was only about half as long.

Mr. J. G. Beatty, a student in Mathematics in the University of Toronto, living at Brampton, reports that at about 8.20 p.m., while watching Venus in the west, he saw a bright meteor