

visible through the color. Clouds again covered the sun at sunrise and all day (18th) until 5 p.m., during which period the transit may have occurred, as from 5 p.m. until sunset no dark nor even translucent object crossed the sun's disk. At about 10.30 p.m. to-day (18th) a display of aurora occurred and was visible here; but as this is about the usual time of the day for the maximum auroral action, I do not consider it as directly evidence of the comet's action as the colored illumination in the morning. Yet I believe the auroræ that have been common for a week past have been due to the proximity of Halley's Comet to the earth.

*May 19.*—There was complete absence of any glow in the zenith such as I observed yesterday morning at 4 a.m.

*May 20.*—Clouds in the evening obscured the western sky making any observation impossible.

*May 21.*—At 8.40 p.m. I obtained a sight of Halley's Comet in the western sky for the first time. Its position is about 2 degrees east of Procyon and about 25 degrees from the horizon where the sun set. As the sun is now 15 degrees beyond the horizon, (an hour having elapsed since sunset), the comet is, therefore, 40 degrees from the sun, and has travelled approximately 53 degrees since the 17th at 4.25 a.m. Making some allowance for atmospheric refraction near the horizon, such as might enter into the measurements I have made, this estimate appears to afford a second proof that the transit of the comet across the sun or near it occurred during the part of the 18th while the sun was beclouded. To-night (the 21st) the head of the comet is large but very foggy in appearance the same as on the mornings of the 16th and 17th, but the tail is not conspicuous owing to thin clouds and moonlight. There is a greater coma around the nucleus than when I first saw the comet on April 28, and the tail seems to spread out more fan-like than before it crossed the sun, but is shorter, apparently. By about 9.30 p.m. clouds obscured it.

*May 22.*—Cloudy evening.