

ECLIPSE OF MARCH 30-31, 1885.

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Before giving my notes of the recent partial eclipse of the moon, I wish to refer to the total lunar eclipse of last October (not visible here). Reports from observers of that event nearly all agree in laying stress upon one particular characteristic, namely, the absence on that occasion of the usual faint coppery illumination (caused by the refraction of the sun's rays into the earth's shadow by our atmosphere), by which the moon continues conspicuously visible throughout the phase of totality. The darkened moon was also unusually dark, and was by some described as invisible.

In consideration of the above circumstances, the recent eclipse, although not total, was so nearly so that it was looked forward to with particular interest, and I determined to make the best of the opportunity, with special reference to the moon's appearance in shadow. Fortunately, the circumstances were most favourable, the moon being free from clouds throughout. I commenced observing shortly after midnight. The penumbra was then gradually creeping over the south-east limb, though more apparent to the naked eye than in the telescope. The ruggedness of this portion of the moon's surface was at this time distinctly visible even in the profile of the full orb (in the telescope, of course). At 0h. 48min, this ruggedness vanished on the approach of the shadow, and seven minutes later this portion of the outline itself was lost. As the shadow advanced, that part within the moon's outline, adjacent to the point of intersection, on each side appeared considerably lighter than the general shadow, gradually deepening into the shadow resting on the body of the moon. About 1h. 10min. about fifteen degrees of the moon's outline on each side was visible *within the shadow*. This increased, during the middle of the eclipse, to what I judged to be about twenty-five degrees, this portion of the edge appearing as a sharp faint rim of light, gradually fading away into the shadow. With the above exception, all within the shadow was *utterly obliterated*—lost in the dead slaty tint of the sky. I could not discover a single crater or feature after it was fairly within the shadow, although on other occasions, even while totally eclipsed, I have been able to distinguish clearly all the principal features of the moon. *There was not the slightest trace of the coppery tint discernible throughout this eclipse.*

The shadow advanced until at 2h. 20min. it bisected the crater Plato, remaining stationary until 2h. 23½min. At 2h. 25min. Plato had emerged from shadow, and the middle of the eclipse had passed.