

went the same changes of appearance, at the same time, in the dark and in the light.

So far, therefore, as the direct agency of light is concerned in the development, growth, nutrition, and coloration of animals, the results of these experiments closely correspond with those already recorded in my Paper.—*Phil. Mag.* s. 4. vol. xviii, p. 143.

For the Journal of the Franklin Institute.

Observations on the Eclipse of July 17th, 1860.

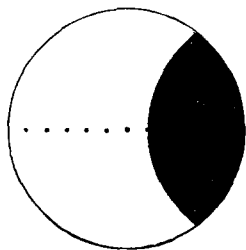
The following observations of the eclipse of the sun, July 17, 1860, were made at Germantown, Penna. Lat. of observatory, $40^{\circ} 1' 39''$, Long. $5^{\circ} 0' 41.9''$.

The instrument used was a good refractor, and the time is that shown by an astronomical clock regulated by a transit instrument.

The morning was clear, and in every respect favorable to observation.

| | | | |
|------------------------|-----------------|------------------|--------------|
| Time of first contact, | $19^h 5^m 00^s$ | Thermom. in sun, | 96° |
| Greatest obscuration, | 20 4 18.5 | “ “ | 89 |
| End of eclipse, | 21 3 37 | “ “ | 106.5 |

The mean height of the thermometer in the sun during the eclipse, was 101.25° , which point, it is fair to suppose, it would have reached at 20 h. 4 m. 18.5 s. under ordinary circumstances, and therefore that a modification of temperature of 12.25° was produced by the interception of the sun's rays at the middle of the eclipse.



The figure, which is taken from a drawing of the image thrown upon the ground glass of a camera obscura at the time of greatest obscuration, shows five digits eclipsed.

N. B. It may not be amiss in this connexion to make some allusion to the very extraordinary atmospheric phenomenon of Friday evening, the 20th inst.

About $9\frac{1}{2}$ o'clock, P. M., a luminous body nearly the size of the full moon when setting, appeared in the western heavens, at an elevation of about 25° , shedding a brilliant light upon all terrestrial objects. It moved with moderate velocity in a north-easterly direction, preserving its parallelism with the horizon almost throughout its course, upon reaching the centre of which it divided, without any perceptible report however, into several lesser bodies, following each other at short intervals, gradually diminishing and leaving sparks in their train, until lost in the east in one single bright star, about the diameter of the planet Mars, as it now appears.

It is not a little remarkable that, notwithstanding the large number of persons who witnessed this phenomenon, singular coincidence prevailed in their impressions with regard to its magnitude, velocity, duration, &c.: thus contradicting the common assertion that no two men see the same thing alike.

W.