That part of the Moon's edge which was not projected upon the Sun's disk again became perceptible, especially during the egress.*

A group of Sun-spots was visible, though some minutes distant from the edge of the Sun, where the largest red, hook-formed projection was developed. On the opposite side, not far from the feeble eastern projection, there was also a Sun-spot near the edge. It is scarcely possible that these funnel-shaped depressions can have furnished the material constituting the red gaseous exhalations, on account of the distance above mentioned; but as the whole surface of the Sun appears to be covered with pores, perhaps the most probable conjecture is, that the same emanation of vapor and gas, which, rising from the body of the Sun, forms the funnels,† pours through these, which appear to us as Sun-spots

* This outline of the Moon, clearly perceived by four observers during the total eclipse of the Sun on the 8th of July, 1842, was never previously described as having been seen during similar eclipses. The possibility of seeing an exterior outline appears to depend upon the light which is given by the third outermost envelope of the Sun and the ring of light (corona). "La Lune se projette *en partie* sur l'atmosphère du Soleil. Dans la portion de la lunette où l'image de la Lune se forme, il n'y a que la lumière provenant de l'atmosphère terrestre. La Lune ne fournit rien de sensible, et, semblable à un écran, elle arrête tout ce qui provient de plus loin et lui correspond. En dehors de cette image, et précisément à partir de son bord, le champ est éclairé *à la fois* par la lumière de l'atmosphère terrestre et par la *lumière de l'atmosphère solaire*. Supposons que ces deux lumières réunies forment un total plus fort de $\frac{1}{60}$ que la lumière atmosphérique terrestre, et, dès ce moment, le bord de la Lune sera visible. Ce genre de vision peut prendre le nom de *vision negative;* c'est en effet par une *moindre intensité* de la portion du champ de la lunette où existe l'image de la Lune, que le *contour* de cette image est aperçu. Si l'image était *plus intense* que le reste du champ, la vision serait positive."—Arago, *Annuaire du Bureau des Longitudes*, p. 384. "The Moon is projected *partially* upon the atmosphere of the Sun. In that portion of the telescope where the image of the Moon is formed, no other light enters except that of the terrestrial atmosphere. The Moon gives no sensible light, and, like a screen, it stops all that which comes from beyond and corresponds with it. Outside the image, and immediately round its edge, the field is lighted *simultaneously* by the light of the terrestrial atmosphere and by *that of the solar atmosphere*. If we suppose that these two lights collectively are $\frac{1}{60}$ stronger than the light of the terrestrial atmosphere, the Moon's edge will be directly visible. This kind of vision may be designated a *negative vision*, for it is, in fact, by the *less intensity* of that portion of the field of the telescope in which is the image of the Moon, that the outline of this image is perceptible. If this image were more intense than the remaining part of the field, the vision would be positive." (Compare also, on this subject, *Cosmos*, vol. iii., p. 56, note *.)

† *Cosmos*, vol. iv., p. 63–67.