## ON LIGHT.

which catch and reflect a small portion of it, as when in a thick fog the bull's-eye of a lanthorn seems to throw out a broad diverging luminous cone, consisting in reality of the whole illuminated portion of the fog. The moon is seen in virtue of the sun's light thrown upon it. Where the moon is not we see nothing, though we are very sure that when in the course of its revolution it shall arrive in the place we are looking at, we shall see it, and that if our eyes could be transferred to the moon's place, wherever it may be in the firmament (if not eclipsed), we should from it see the sun. There then, at all times, is the light of the sun, but not visible as a thing. It exists as an agency. What is true of the sun is no doubt equally so of a star; so that when we look out on a dark night, though we are sure that all space is continually being crossed in every direction by the lines of its communication, along all which it is active; and in particular, that all the dark space immediately around us (outside of the earth's shadow) is, so to speak, flooded with the sun's light, we yet perceive only darkness, except where our line of vision encounters a star.

(7.) What then is LIGHT? or, in other words, what is the nature of that communication by which not only information is conveyed to our intellectual and perceptive being; but chemical and various other changes are operated even on inorganic matter by processes originating as it would seem in sources situate in the most distant regions of space (for, be it observed, it has been clearly proved that the light of the stars does produce photographic effects powerful enough to imprint

224