below them, *first*, a layer of what we may consider real clouds, which appear comparatively dark, *as if* they were not self-luminous, but were seen only by the reflected light of the upper layer of bright ones; *secondly*, through other openings in this first layer, a second still darker layer, independent of the first, and probably still thousands of miles below that, and reached by some—but very little — light from above; and *thirdly*, through again other openings, what at present we must consider to be the body of the sun itself—at some vast and immeasurable depth still lower—and emitting so little light in comparison as to appear quite black, though that does not prevent its being in as vivid a state of fiery glare as a white-hot iron; when we remember what has been said of the lime light appearing black against the light of the sun's surface. And it is a fact, that when Venus, and Mercury pass across the sun, and are seen as round spots on it, they do really appear sensibly blacker than the blackest parts of the spots.

(40.) The sun then has an atmosphere, and in that atmosphere float at least three layers of something, that, for want of a better word, we must call clouds. The two nearest the body are not luminous. They cannot possibly be clouds of *watery* vapour, such as we have in our air, for water in a non-transparent state could not exist at that heat; but they may be what perhaps we might call smokes, that is to say, clouds in which the metals or their oxides and the earths exist in the same intermediate form that water does in our clouds. The third or upper layer of luminous clouds, or, as it is called,