(21.) It is to this power of "scattering" the incident light in all directions, then, that surfaces owe their visibility, and that by its aid we are enabled to trace the course of a ray of light itself *as if* it were a visible thing. Thus a sunbeam passing through a small hole and received on smoke is *seen*, and on a white screen moved rapidly to and fro behind it, appears as a straight luminous line or beam, by the momentary persistence of the sensation caused in the eye at every successive point of its motion; and so, after reflexion or refraction, may its subsequent course be rendered matter of ocular inspection. A pleasing and elegant experiment is to hold a common reading-glass (or even a spectacle-glass) in the sun, and to move rapidly to and fro behind it a white paper, when the course of the refracted light, *converging* from all parts of the glass to the "focus," will be seen in the air as a solid luminous cone, having the glass for its base and the focus for its apex.

(22.) The reflexion of light, whether "regular" or "scattered," is, except under very peculiar circumstances to be presently noticed, only partial; so that the reflected image of an object is seen fainter and less luminous than the object itself directly viewed. This is perceptible in an ordinary looking-glass; yet more so when the reflecting surface is still water, or unsilvered glass. The *most reflective* substances are the white metals—such as silver, speculum-metal, steel, or quicksilver: transparent or semi-transparent bodies being much inferior in respect of this quality. If the substance on which the light falls be of the kind called opake, the