

capable of being *reflected* like light, (to be presently noticed,) and, indeed, obeys altogether somewhat similar laws. Those surfaces, however, that reflect light most perfectly, are not equally adapted to the reflection of heat. Metals in general, and particularly when highly polished, are the best reflectors of heat; while glass, which reflects light most perfectly, reflects comparatively little heat; thus tin-plate reflects about eight times as much heat as a glass mirror. The radiation of heat is much influenced by the nature and state of the surfaces of bodies. Thus a surface coated with lamp-black, radiates eight or nine times as much heat, as a polished surface of tin or silver; and in general, polished surfaces, particularly of metal, radiate much less than other surfaces. As might be expected, this difference of radiating power exerts great influence in the cooling of bodies; thus warm water retains its heat much longer in a bright tin vessel, than in the same vessel coated with linen, paint, or particularly lamp-black. Radiant heat is *absorbed* with different facilities by different surfaces. The absorbing power of surfaces seems, indeed, to vary directly as their radiating power; and inversely as their reflecting power. That is to say, surfaces receive heat by radiation, nearly with the same degree of facility as they give it off; while those that reflect most, of course, must absorb least; a surface