

of the rays of light^t. But, in alluding to the phenomenon of the rainbow, he briefly states some of the circumstances under which it appears; without attempting to account for the mode in which the effect is produced^u.

Lucretius supposes *heat* to be a material substance, because it excites a specific sensation in animal bodies^x: and, notwithstanding the obvious alliance between *heat* and light, which is observable in many common phenomena and operations, he conjectures, what has been most unexpectedly ascertained by the experiments of the late Dr. Herschel, that there are rays of heat emitted from the sun, which are distinct from the rays of light emitted from the same source^y.

In speaking of the natural sources of heat, he observes, that it is generally produced by rapid motion; and gives as an instance the heating and even the liquefaction of a leaden bullet, which has been projected through the air with great force and rapidity^z. He also notices friction as a source of heat; instancing the fire which is produced by the mutual attrition of branches of trees^a. In speaking of compression, as another source of heat, he not only gives the more obvious and probable illustration of lightning, *expressed* or forced out from a condensed

^t Lib. IV. 319—324, and 438—444.

^u Lib. VI. 524—526. ^x Lib. I. 299—304.

^y Lib. V. 609—612. ^z Lib. VI. 176, 177, and 305—307.

^a Lib. V. 1095—1099.