

In their relation to the physical existence of man and animal life in general, there is this difference between them—the presence of light is only indirectly necessary ; the presence of heat is directly necessary. Different degrees of heat indeed are requisite for different species of animals : but if the heat to which any individual animal be exposed be much below that which is natural to the species, and be continued for a sufficient length of time, all the vital functions are eventually destroyed ; or, as in the case of the hibernation of particular species of animals, are at least partially suspended.

The degree of heat adapted to the human frame is so nicely adjusted to the bodily feelings of man, that, if we take a range of fifty degrees of Fahrenheit's thermometer as indicating the average extent of variation to which the body is exposed in this climate, it will be found that a difference of two or three degrees, above or below a given point, will generally be sufficient to create an uncomfortable sensation. The late Mr. Walker, whose experiments on the artificial production of cold are well known to the philosophical world, ascertained that the point of 62° or 63° of Fahrenheit is that, which, upon an average of many individuals, is in this climate the most congenial, as far as sensation is concerned, to the human body. But it is a merciful provision of nature, considering the numerous