

of his system of satellites, and the sun in the centre of the planetary system, the sun would have been a body like Jupiter, and the earth that is, without light and heat; and, consequently, he [Sir Isaac] knew no reason why there is only one body qualified to give light and heat to all the rest, but because the Author of the system thought it convenient, and because one was sufficient to warm and enlighten all the rest." "To warm and enlighten all the rest!" Newton recognises the hand of the Divine Designer in that peculiar collocation of matter through which the lamp and furnace of the system is placed in its centre, and the opaque objects to be warmed and heated arranged at certain distances around it. But why the application of light and heat to masses of dead matter? Light and heat, in a lesser or greater degree, are necessary to the existence of all organisms,—plant and animal,—but not to the existence of matter not organized. A lamp is necessary in a railway carriage that travels by night, if there be passengers within, but not in the least necessary to the carriage itself, if there be only the empty seats to shine upon. And if, of all the planets that not only revolve round the central lamp and furnace, but have also special lamps of their own, the earth be the only inhabited one, not only is the waste most enormous, but the argument of design, so profoundly deduced by Sir Isaac, must be pronounced to be of no force in more than thirty cases for one, *i. e.*, in the cases of all the supposed uninhabited planets in which there exists nothing capable of being benefited by being either lighted or warmed. Or, to avail ourselves of Sir David's happy illustration, the Creator of a solar system with many uninhabited planets, and only a single inhabited one, would resemble some "mighty autocrat who should establish a railway round the coasts of Europe and Asia, and place upon it an enormous train of first-class carriages, impelled year after year by tremendous steam-power, while there was a philoso-