to require a very powerful comet to separate even that much from the body of the sun ; but if we reflect on the prodigious velocity of comets in their perihelion, a velocity so much the greater as they approach nearer the sun ; if, besides, we pay attention to the density, fixity, and solidity of the matter of which they must be composed, to suffer without being destroyed, the inconceivable heat they endure ; and consider the bright and solid light which shines through their dark and immense atmospheres, which surround, and must obscure them, it cannot be doubted that the comets are composed of extremely solid and dense matters, and that they contain a great quantity of matter in a small compass ; that consequently a comet of no extraordinary bulk may have sufficient weight and velocity to displace the sun, and give a projectile motion to a quantity of matter, equal to the 650th part of the mass of this luminary. This perfectly agrees with what is known concerning the density of planets, which always decreases as their distance from the sun is increased, they having less heat to support; so that Saturn is less dense than Jupiter, and Jupiter much less than the earth; therefore if the density of the planets be, as Newton asserts, proportionable to the quantity