

Say ye who best can tell, ye happy few,
 Who saw him in the softest lights of life,
 All unwithheld, indulging to his friends
 The vast unborrowed treasures of his mind,
 Oh, speak the wondrous man! how mild, how calm,
 How greatly humble, how divinely good,
 How firm established on eternal truth!
 Fervent in doing well, with every nerve
 Still pressing on, forgetful of the past,
 And panting for perfection; far above
 Those little cares and visionary joys
 That so perplex the fond impassioned heart
 Of ever-cheated, ever-trusting man.

[2d Ed.] [In the first edition of the *Principia*, published in 1687, Newton showed that the nature of all the then known inequalities of the moon, and in some cases, their quantities, might be deduced from the principles which he laid down: but the determination of the amount and law of most of the inequalities was deferred to a more favorable opportunity, when he might be furnished with better astronomical observations. Such observations as he needed for this purpose had been made by Flamsteed, and for these he applied, representing how much value their use would add to the observations. "If," he says, in 1694, "you publish them without such a theory to recommend them, they will only be thrown into the heap of the observations of former astronomers, till somebody shall arise that by perfecting the theory of the moon shall discover your observations to be exacter than the rest; but when that shall be, God knows: I fear, not in your lifetime, if I should die before it is done. For I find this theory so very intricate, and the theory of gravity so necessary to it, that I am satisfied it will never be perfected but by somebody who understands the theory of gravity as well, or better than I do." He obtained from Flamsteed the lunar observations for which he applied, and by using these he framed the Theory of the Moon which is given as his in David Gregory's *Astronomiæ Elementa*.²⁷ He also obtained from Flamsteed the diameters of the planets as observed at various times, and the greatest elongation of Jupiter's Satellites, both of which, Flamsteed says, he made use of in his *Principia*.

Newton, in his letters to Flamsteed in 1694 and 5, acknowledges this service.²⁸

²⁷ In the Preface to a *Treatise on Dynamics*, Part i., published in 1836, I have endeavored to show that Newton's modes of determining several of the lunar inequalities admitted of an accuracy not very inferior to the modern analytical methods.

²⁸ The quarrel on the subject of the publication of Flamsteed's Observations took