

there; & a few more whom he knew.

after dinner, the weather being warm, we went into the garden, & drank tea under the shade of some apple-trees; only he, & my self. amidst other discourse, he told me, he was just in the same similitude, as when formerly, the notion of gravitation came into his mind. why sh. that apple always descend perpendicularly to the ground, thought he to himself; occasioned by the fall of an apple, as he sat in a contemplative mood. why sh. it not go sideways, or upwards? but constantly to the earths center? assuredly, the reason is, that the earth draws it. there must be a drawing power in matter. & the sum of the drawing power in the matter of the earth must be in the earths center, not in any side of the earth. therefore does this apple fall perpendicularly, or toward the center. if matter thus draws matter; it must be in proportion of its quantity. therefore the apple draws the earth, as well as the earth draws the apple.

& thus by degrees, he began to apply this property of gravitation to the motion of the earth, & of the heavenly bodies: to consider their distances, their magnitudes, their periodical revolutions: to find out, that this property, conjointly