## CHAPTER II.

## OF THE INERTIA AND ACTIVITY OF MATTER.

To form a notion of what is termed the inertia or inactivity of matter; let us imagine a portion of it, as, for example, a ball of lead A, detached from all other matter, and existing absolutely uninfluenced in space. Such a mass of matter, if supposed to be at rest, must obviously remain so, for it cannot move itself; on the other hand, if it be supposed to be in motion, it must continue in motion; for it cannot be conceived to be able to stop itself, any more than it could be conceived to be able to set itself in motion: in short, a mass of matter under such circumstances of isolation, must be considered as perfectly passive and unable to change its state, whatever that may happen to be, whether of motion or of rest. Now let us suppose another portion of matter, as, for example, another ball of lead B, exactly of the same size as A, placed in free space at any moderate distance from A, and away from all other influences; what will happen? General experience teaches us, that under these circumstances, the two balls will mutually approach each other with an equal, but accele-