stick so closely together that they are not at liberty to obey the laws of gravitation individually, but rally, as it were, round a common centre, upon which the force of attraction may be considered to act for the general behoof. This common centre, or point, is scientifically called the *centre of gravity*. This point in bodies always seeks the lowest level, in the same manner that water seeks the lowest level.

The centre of gravity in round, square, or other regular shaped bodies, of uniform density in all their parts, is the centre of these bodies. When a body is shaped irregularly, or when there are two or more bodies connected, the centre of gravity is the point about which they will balance each other. The disposition which the centre of gravity in bodies has to seek the lowest level is the cause of the tumbling or overturning of bodies. Unless the base be made sufficiently broad to prop up the bodies, their heaviest part will fall over. Heavily and highly-loaded coaches and carts frequently overturn from the raising of their centre of gravity too high, and from the base or wheels of the vehicle not being wide enough to support them when any jar occurs. In the various natural structures displayed in the animal and vegetable kingdoms, the centre of gravity is always so situated as to produce a just balance and harmony of parts.

Another of the laws of matter relates to its movements. Rest and motion are equally natural to matter, and both alike result from certain circumstances. Thus, for instance, if a cricket-ball be allowed to lie upon the ground, it naturally remains at rest. If it be put into motion, it is natural for it to continue in that motion, in a straight line, until stopped by some resisting force. In the case of a cricket-ball driven by a bat, the air, which is another, though rarer kind of matter, presents a certain amount of resisting force. It encounters another obstruction in the friction or rubbing of its body on the ground; this obstruction being the greater in proportion to the roughness or unevenness of the ground. When at length as much force has been exerted in stopping it as was exerted in setting it in motion, it comes to a pause. Being ourselves placed in circumstances where the forces just described are constantly operating, we cannot well conceive that it is equally natural for a piece of matter to remain in motion as to remain at rest, for, on account of those forces, we always see motion sooner or later brought to a stop. But when we conceive a mass of solid matter set in motion through a space entirely free of all resisting forces, we readily perceive how natural it is for it to continue in motion, seeing that,