

the size of the sphere; but it is not adopted to *prove* this law the evidence of which, as will be stated subsequently, rests on different grounds. It proves, however, that the motion of the sphere was accelerated by a *personal effort* consciously exercised. Now, the *inertia* may be defined to be the quality which, under the given circumstances, necessitated the effort employed to accelerate its motion. Hence we may draw the noteworthy conclusion that *the reality of inertia as a quality* pertaining to bodies is recognisable by a sense of personal effort." ("Tran. Vict. Inst.," vol. xi., p. 202)

NOTE C.

WILL THE ONLY SOURCE OF FORCE.

The Rev. J. P. Kirkman, F. R. S., in his admirable work entitled "Philosophy Without Assumptions," has laid down the following propositions:

A. The only force which is directly given, and immediately known to me, is my own will force, and all my knowledge of other forces acting in the cosmos is mediate and found by logical inference.

B. My will-force is my only force-finder—that is, the only power that can find with demonstration—so that I can show you how to find.

C. In every train of reasoned thought about any force or forces found in action in the cosmos, the fundamental proposition out of which all my other propositions flow, and on the certainty of which their truth to me depends, is this: In finding force *I will in act, and I know that I will*, so that if all the steps of the reasoning be written down without omission in their order, this proposition must stand written at the head of all. *In first finding force in this inquiry, I willed in act, and knew that I willed.*

NOTE D.

ATOMS AND CHANCE

I sing of Atoms, whose creative brain
With eddy impulse built new Drury Lane;
Not to the labours of subservient man,
To no young Wyatt appertains the plan;