

facts and difficulties as it is the peculiar business of theory to explain. Now it may be truly said, that in scarcely any one instance are the answers, which Aristotle gives to his questions, of any value. For the most part, indeed, he propounds his answer with a degree of hesitation or vacillation which of itself shows the absence of all scientific distinctness of thought; and the opinions so offered never appear to involve any settled or general principle.

We may take, as examples of this, the problems of the simplest kind, where the principles lay nearest at hand—the mechanical ones. “Why,” he asks,¹ “do small forces move great weights by means of a lever, when they have thus to move the lever added to the weight? Is it,” he suggests, “because a greater radius moves faster?” “Why does a small wedge split great weights?” Is it because the wedge is composed of two opposite levers?” “Why,² when a man rises from a chair, does he bend his leg and his body to acute angles with his thigh? Is it because a right angle is connected with equality and rest?” “Why³ can a man throw a stone further with a sling than with his hand? Is it that when he throws with his hand he moves the stone from rest, but when he uses the sling he throws it already in motion?” “Why,⁴ if a circle be thrown on the ground, does it first describe a straight line and then a spiral, as it falls? Is it that the air first presses equally on the two sides and supports it, and afterwards presses on one side more?” “Why⁵ is it difficult to distinguish a musical note from the octave above? Is it that proportion stands in the place of equality?” It must be allowed that these are very vague and worthless surmises; for even if we were, as some commentators have done, to interpret some of them so as to agree with sound philosophy, we should still be unable to point out, in this author’s works, any clear or permanent apprehension of the general principles which such an interpretation implies.

Thus the Aristotelian physics cannot be considered as otherwise than a complete failure. It collected no general laws from facts; and consequently, when it tried to explain facts, it had no principles which were of any avail.

The same may be said of the physical speculations of the other schools of philosophy. They arrived at no doctrines from which they could deduce, by sound reasoning, such facts as they saw; though they

¹ Mech. Prob. 4.

² Ib. 18.

³ Ib. 81.

⁴ Ib. 13.

⁵ Περὶ Ἀψυχᾶ. 11.

⁶ Περὶ Ἀρμον. 14.