

ments and the actions of the forces of which the rules are thus prescribed.

The relations and rules by which these occurrences are thus determined necessarily depend on measures of time and space, motion and force; on quantities which are subject to numerical measurement, and capable of being connected by mathematical properties. And thus all things are ordered by number and weight and measure. "God," as was said by the ancients, "works by geometry:" the legislation of the material universe is necessarily delivered in the language of mathematics; the stars in their courses are regulated by the properties of conic sections, and the winds depend on arithmetical and geometrical progressions of elasticity and pressure.

The constitution of the universe, so far as it can be clearly apprehended by our intellect, thus assumes a shape involving an assemblage of mathematical propositions: certain algebraical formulæ, and the knowledge when and how to apply them, constitute the last step of the physical science to which we can attain. The labour and the endowments of ages have been employed in bringing such science into the condition in which it now exists; and an exact and extensive discipline in mathematics, followed by a practical and profound study of the researches of natural philosophers, can alone put any one in possession of the knowledge concerning the course of the material world, which is at present open to man. The general impression, however, which arises from the view thus obtained of the universe, the results which we collect from the most careful scrutiny of its administration, may, we trust, be rendered intelligible without this technical and laborious study, and to do this is our present object.

It will be our business to show that the laws which really prevail in nature are, by their *form*, that is, by the nature of the connexion which they establish among the quantities and properties which they regulate, remarkably adapted to the office which is as-