

to get rid of the difficulty by merely denouncing the new tenets as inconsistent with religious belief, and by visiting the promulgators of them with severity such as the state of opinions and institutions may allow. The prosecutors of Galileo are still up to the scorn and aversion of mankind: although, as we have seen, they did not act till it seemed that their position compelled them to do so, and then proceeded with all the gentleness and moderation which were compatible with judicial forms.

*Sect. 5.—The Heliocentric Theory confirmed on Physical considerations.—(Prelude to Kepler's Astronomical Discoveries.)*

By physical views, I mean, as I have already said, those which depend on the causes of the motions of matter, as, for instance, the consideration of the nature and laws of the force by which bodies fall downwards. Such considerations were necessarily and immediately brought under notice by the examination of the Copernican theory; but the loose and inaccurate notions which prevailed respecting the nature and laws of force, prevented, for some time, all distinct reasoning on this subject, and gave truth little advantage over error. The formation of a new Science, the Science of Motion and its Causes, was requisite, before the heliocentric system could have justice done it with regard to this part of the subject.

This discussion was at first carried on, as was to be expected, in terms of the received, that is, the Aristotelian doctrines. Thus, Copernicus says that terrestrial things appear to be at rest when they have a motion according to nature, that is, a circular motion; and ascend or descend when they have, in addition to this, a rectilinear motion by which they endeavor to get into their own place. But his disciples soon began to question the Aristotelian dogmas, and to seek for sounder views by the use of their own reason. "The great argument against this system," says Mæstlin, "is that heavy bodies are said to move to the centre of the universe, and light bodies from the centre. But I would ask, where do we get this experience of heavy and light bodies? and how is our knowledge on these subjects extended so far that we can reason with certainty concerning the centre of the whole universe? Is not the only residence and home of all the things which are heavy and light to us, the earth and the air which surrounds it? and what is the earth and the ambient air, with respect to the immensity of the universe? It is a point, a punctule, or something, if there be any thing, still less. As our light and heavy bodies tend to