

urements of degrees and pendulum experiments in different latitudes. Compression. The figure of the earth was known to Newton on theoretical grounds, and the force discovered, of the operation of which the laws of Kepler are a necessary consequence. The discovery of such a force, whose existence is developed in Newton's imperishable work *Principia*, was nearly simultaneous with the opening of new paths to mathematical discovery by the invention of the infinitesimal calculus—p. 331-352.

VIII. *Retrospect, Multiplicity, and intimate Connection existing among the Scientific Efforts of Modern Times.*—Retrospect of the principal momenta in the history of cosmical contemplation connected with great events. The multiplicity of the links of connection among the different branches of science in the present day increases the difficulty of separating and limiting the individual portions—Intellectual activity henceforth produces great results almost without any external incitement, and by its own internal power manifested in every direction. The history of the physical sciences gradually fuses into that of the idea of Universal Nature—p. 352-356.