

inductions of the kind described in the last section have already led to laws of a certain generality admitting of mathematical expression. Such a case, for instance, is the elliptic motion of a planet, which is a general proposition including the statement of an infinite number of particular *places*, in which the laws of its motion allow it to be some time or other found, and for which, of course, the law of force must be so assumed as to account.

(212.) With regard to the first process of the three above enumerated, it is in fact an induction of the kind described in § 185.; and all the remarks we there made on that kind of induction apply to it in this stage. The direct assumption of a particular hypothesis has been occasionally practised very successfully. As examples, we may mention Coulomb's and Poisson's theories of electricity and magnetism, in both which, phenomena of a very complicated and interesting nature are referred to the actions of attractive and repulsive forces, following a law similar in its expression to the law of gravitation. But the difficulty and labor, which, in the greater theories, always attend the pursuit of a fundamental law into its remote consequences, effectually precludes this method from being commonly resorted to as a means of discovery, unless we have some good reason, from analogy or otherwise, for believing that the attempt will prove successful, or have been first led by partial inductions to particular laws which naturally point it out for trial.

(213.) In this case, the law assumes all the characters of a general phenomenon resulting from an induction of particulars, but not yet verified by comparison with *all* the particulars, nor extended to all that it is capable of including. (See § 171.) It is the verification of such inductions which constitutes theory in its largest sense, and which embraces an estimation of the influence of all such circumstances as may modify the effect of the cause whose laws of action we have arrived at and would verify. To return to our example: particular inductions drawn from the motions of the several