PART III.

OF THE SUBDIVISION OF PHYSICS INTO DISTINCT BRANCHES, AND THEIR MUTUAL RELATIONS.

CHAPTER I.

OF THE PHENOMENA OF FORCE, AND OF THE CONSTITUTION OF NATURAL BODIES.

(232.) NATURAL HISTORY may be considered in two very different lights: either, 1st, as a collection of facts and objects presented by nature, from the examination, analysis, and combination of which we acquire whatever knowledge we are capable of attaining both of the order of nature, and of the agents she employs for producing her ends, and from which, therefore, all sciences arise; or, 2dly, as an assemblage of phenomena to be explained; of effects to be deduced from causes; and of materials prepared to our hands, for the application of our principles to useful purposes. Natural history, therefore, considered in the one or the other of these points of view, is either the beginning or the end of physical science. As it offers to us, in a confused and interwoven mass, the elements of all our knowledge, our business is to disentangle, to arrange, and to present them in a separate and distinct state; and to this end we are called upon to resolve the important but complicated problem,—Given the effect, or assemblage of effects, to find the causes. The principles on which this inquiry relies are those which constitute the relation of cause and effect, as it exists with reference to our minds; and their rules and mode of application have been attempted to be sketched out (though in far less detail than the intrinsic interest of the subject, both in a logical and practical point of view, would demand) in the foregoing pages. It remains now to bring together, in