

## CHAPTER III.

*Mutual Adaptation in the Laws of Nature.*

To ascertain such laws of nature as we have been describing, is the peculiar business of science. It is only with regard to a very small portion of the appearances of the universe, that science, in any strict application of the term, exists. In very few departments of research have men been able to trace a multitude of known facts to causes which appear to be the ultimate material causes, or to discern the laws which seem to be the most general laws. Yet, in one or two instances, they have done this, or something approaching to this; and most especially in the instance of that part of nature, which it is the object of this treatise more peculiarly to consider.

The apparent motions of the sun, moon, and stars have been more completely reduced to their causes and laws than any other class of phenomena. Astronomy, the science which treats of these, is already a wonderful example of the degree of such knowledge which man may attain. The forms of its most important laws may be conceived to be certainly known; and hundreds of observers in all parts of the world are daily employed in determining, with additional accuracy, the arbitrary magnitudes which these laws involve.

The inquiries in which the mutual effects of heat, moisture, air, and the like elements are treated of, including, among other subjects, all that we know of the causes of the weather (meteorology) is a far more imperfect science than astronomy. Yet, with regard to these agents, a great number of laws of nature have been discovered, though, undoubtedly, a far greater number remain still unknown.