

of a body on light might become ; but the characters afforded by the use of polarized light as an instrument of experimental inquiry are so marked and intimate, that they may almost be said to have furnished us with a kind of intellectual sense, by which we are enabled to scrutinize the internal arrangement of those wonderful structures which Nature builds up by her refined and invisible architecture, with a delicacy eluding our conception, yet with a symmetry and beauty which we are never weary of admiring. In this point of view the science of optics has rendered to mineralogy and crystallography services not less important than to astronomy by the invention of the telescope, or to natural history by that of the microscope ; while the relations which have been discovered to exist between the optical properties of bodies and their crystalline forms, and even their chemical habitudes, have afforded numerous and beautiful instances of general laws concluded from laborious and painful induction, and curiously exemplifying the simplicity of nature as it emerges slowly from an entangled mass of particulars in which, at first, neither order nor connection can be traced.

---

### CHAP. III.

#### OF COSMICAL PHENOMENA.

##### *Astronomy and Celestial Mechanics.*

(293.) ASTRONOMY, as has been observed in the former part of this discourse, as a science of observation, had made considerable progress among the ancients ; indeed, it was the only branch of physical science which could be regarded as having been cultivated by them with any degree of assiduity or real success. The Chaldean and Egyptian records had furnished materials from which