

hardly said to exist, till its nature and laws became a matter of experimental inquiry to Bacon and Galileo Mersenne and Wallis; and of mathematical investigation to Newton, and his illustrious successors, Lagrange and Euler. From that time its progress, as a branch both of mathematical and experimental science, has been constant and accelerated. A curious and beautiful method of observation, due to Chladni, consists in the happy device of strewing sand over the surfaces of bodies in a state of sonorous vibration, and marking the figures it assumes. This has made their motions susceptible of ocular examination, and has been lately much improved on, and varied in its application, by M. Savart, to whom we also owe a succession of instructive researches on every point connected with the subject of sound, which may rank among the finest specimens of modern experimental inquiry. But the subject is far from being exhausted; and, indeed, there are few branches of physics which promise at once so much amusing interest and such important consequences, in its bearings on other subjects, and especially, through the medium of strong analogies, on that of light.

### *Light and Vision.*

(373.) The nature of light has always been involved in considerable doubt and mystery. The ancients could scarcely be said to have any opinion on the subject, unless, indeed, it could be considered such to affirm that distant bodies could not be put into communication without an intermedium; and that, therefore, there must be *something* between the eye and the thing seen. What that something is, however, they could only form crude and vague conjectures. One supposed that the eyes themselves emit rays or emanations of some unknown kind, by which distant objects are as it were felt; a singularly unfortunate idea, since it gives no reason why objects should not be equally well seen in the dark—no account, in short, of the part performed by *light* in vision. Others imagined that all visible objects are constantly throw-