

when their surface is strongly heated by the sun's rays, and evaporation results from the continuance of the heat. The mirage assumes the appearance of a sheet of water, often exhibiting the reflected or inverted images of distant objects. In Egypt and in the neighbouring sandy plains, where the mirage is very common, the illusion is at times so perfect, that travellers can hardly be convinced of the non-existence of what they imagine they see.* The phenomena are quite explicable on well known optical principles.†

Nearly allied to the mirage, is the appearance termed *Fata Morgana*, which is occasionally witnessed in the Straits of Messina. There are many similar phenomena, all of them owing to the refraction of light by media of various densities.

The next class of phenomena to be noticed, are those produced upon light by crystals of ice floating in the atmosphere; or by visible vapour. The angular forms of the crystals of ice, by determining the rays of light in different directions, give origin to various eccentric *halos*; which, by their united intensities, particularly where they cross one another, occasionally produce conspicuous masses of light, denomi-

* See Clarke's Travels.

† See Wollaston, Philosophical Transactions, 1800, p. 239.