## VISION.

dwell in the muddy banks of rivers, as the Cacilia, and Murana caca, or blind eel, the eyes are quite rudimental, and often nearly imperceptible; and in the Gastrobranchus, De Blainville states that it is impossible, even by the most careful dissection, to discover the least trace of eyes.

Reptiles, being destined to reside in air as well as in water, have eyes accommodated to these variable circumstances. By the protrusion of the cornea, and the addition of an aqueous humour, they approach nearer to the spherical form than the eyes of fishes; and the lens has a smaller refractive power, because the principal refraction is now performed by the cornea. Rudiments of eye-lids are met with in the Salamander, but they are not of sufficient extent to cover the whole surface of the eyes. In some serpents, the integuments pass over the globe of the eye, forming a transparent conjunctiva, or external cornea, behind which the eye-ball has free motion. This membrane is shed, along with the cuticle, every time that the serpent is moulting; and at these cpochs, while the cornea is preparing to detach itself, air insinuates itself underneath the external membrane, and renders it opaque; so that until this operation is completed, and an entire separation effected, the serpent is rendered blind. Serpents have no proper eyelids; but the cornca is covered by a transparent integument, which does not adhere to it,\* Lizards have usually a single perforated eye-lid, which, when closed by its orbicular muscle, exhibits merely a horizontal slit. There is also a small internal fold, forming the rudiment of a third eye-lid. The Chameleon has remarkably projecting eyes, to which the light is admitted through a very minute perforation in

\* It was the general opinion, until very lately, that serpents are unprovided with any lacrymal apparatus; but a small lacrymal passage has been recently discovered by Cloquet, leading from the space in the inner corner of the eye, between the transparent integument and the cornea. This lacrymal canal opens into the nasal cavity in venomous snakes, and into the mouth in those that are not venomous.

351