

retina will be inverted. We may satisfy ourselves of this by direct observation. The eye of the white rabbit being destitute of the black pigment of the choroid, is quite transparent. Take the eye, soon after the death of the animal, and arrange it in one end of a tube, so that the cornea will face outwards; then if we look in at the other end of the tube, we may see objects to which it is directed exactly pictured upon the retina, but in a reversed position.

79. The mechanical structure of the eye may be perfectly imitated by art. Indeed, the camera obscura is an instrument constructed on the very same plan. By it, external objects are pictured upon a screen, placed at the bottom of the instrument, behind a magnifying lens. The screen represents the retina; the dark walls of the instrument represent the choroid; and the cornea, the crystalline lens and the vitreous humor combined, are represented by the magnifying lens. But there is this important difference, that the eye has the power of changing its form, and of adapting itself so as to discern with equal precision very remote, as well as very near, objects.

80. By means of muscles which are attached to the ball, the eyes may be rolled in every direction, so as to view objects on all sides, without moving the head. The eyes are usually protected by lids, which are two in the mammals, and generally furnished with a range of hairs at their edges, called *eye-lashes*. Birds have a third lid, which is vertical; this is also found in most of the reptiles and a few mammals. In fishes, the lids are wanting, or immovable.

81. The eye constructed as above described is called a *simple eye*, and belongs more especially to the vertebrate animals. In man, it arrives at its highest perfection. In him, the eye also performs a more exalted office than mere vision. It is a mirror, in which the inner man is reflected. His passions, his joys, and his sorrows, his inmost self, are