

sensitive apparatus. In the centre of the retina is the yellow spot which is the most sensitive part of the organ, and here the rods and cones are packed in greatest abundance. From the retina, slightly to the left of the yellow spot, the optic nerve proceeds to the brain. The only property, apparently, of the retina, and of the optic nerve, is that of receiving and transmitting to the brain, the impression of external objects. These organs have been cut and pricked without causing any pain to the animals submitted to those experiments, but it is generally supposed that irritation of the optic nerve causes the sensation of light. Behind the cornea is found the iris, an annular opaque diaphragm, which constitutes the colored part of the eye. It is perforated by an aperture called the pupil, which varies in shape in the different species of animals. The iris is composed of a large number of muscular fibres, which are so arranged, that one set of these fibres effects when necessary its contraction, while another dilates the pupil.

It now remains to describe the transparent media that occupy the interior of the eye-globe, and through which the rays of light must pass before they reach the retina, and form on it the images of external objects. Immediately behind the cornea is the aqueous humour, which fills the anterior, and posterior chambers, that lie between the cornea and the lens. As its name implies, it is very nearly pure water, with a mere trace of albumen and chloride of sodium. Opposite and behind the pupil, lies the crystalline lens. In form, this is a double convex lens with surfaces of unequal curvature, the posterior being the most convex. It is enclosed in a transparent membrane called its capsule. A microscopic examination of the substance, or body of the lens, reveals a structure of wonderful beauty. Its whole mass is composed of extremely minute, elongated, ribbon-like structures, commonly called the fibres of the lens. These fibres are arranged side by side in lamellae; they are so placed as to give to the anterior and posterior surfaces, the appearance of a central star with meridian lines. Towards the centre, the lens gradually increases in density, and at the same time, in refracting power. To the anterior surface of the capsule, near its margin, is fixed a firm transparent membrane known as the suspensory ligament.