

SECTION II.

OF THE SPECIAL SENSES.

1. *Of Sight.*

69. Sight is the sense by which light is perceived, and by means of which the outlines, dimensions, relative position, color and brilliancy of objects are discerned. Some of these properties may be also ascertained, though in a less perfect manner, by the sense of touch. We may obtain an idea of the size and shape of an object, by handling it; but the properties that have a relation to light, such as color and brilliancy, and also the form and size of bodies that are beyond our reach, can be recognized by sight only.

70. The EYE is the organ of vision. The number, structure, and position of the eyes in the body is considerably varied in the different classes. But whatever may be their position, these organs in all the higher animals are in connection with particular nerves, called the *optic nerves*, (Fig. 13, *a*.) In the vertebrates, these are the second pair of the cerebral nerves, and arise directly from the middle mass of the brain, (Fig. 21, *b*.) which, in the embryo, is the most considerable of all.

71. Throughout the whole series of vertebrate animals the eyes are only two in number, and occupy bony cavities of the skull, called the *orbits*. The organ is a globe or hollow sphere formed by three principal membranes, enclosed one within the other, and filled with transparent matter. Figure 13 represents a vertical section

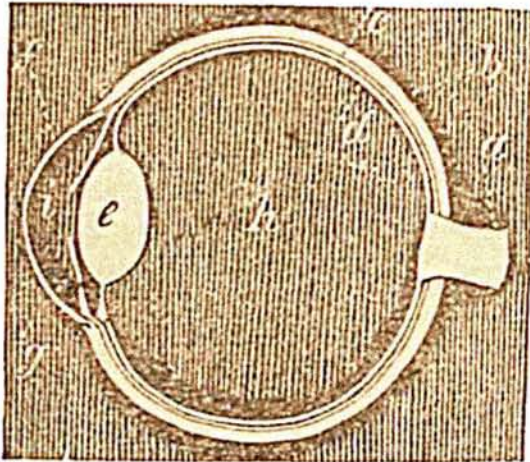


Fig 13.