object. From the ciliary surface also proceed numerous slender threads, which suspend and support behind the pupil and iris the beautiful crystalline lens upon which the ciliary muscle acts. Loss of transparency in this lens constitutes what is called cataract. The remainder of the cavity of the eye is filled by a transparent jelly-like substance, the vitreous.

The cornea, the aqueous, and crystalline lens, and the vitreous, constitute the refractive media of the eye. Anything which obscures their transparency—*e.g.*, an escape of blood or exudations into the eye—prevents the light from an object looked at from arriving at the back of the eye with sufficient clearness to give a well-defined stimulus to the nerve of sight. The optic nerve, entering the back of the orbit from the brain, pierces the outer fibrous (sclerotic) and the middle vascular (choroid) coat of the eye, and expands to form the retina or sensitive light-perceiving membrane, which lines the greater part of the interior of the eye as a wallpaper lines a room.

The Refraction of the Eye.

It is the duty of the cornea, aqueous, lens, and vitreous to focus the incoming lights into a well-defined picture or photograph on the sensory surface of the retina, whence an impression is conducted by the optic nerve to the hinder part of the brain, where we interpret what we see. (This part of the brain is really the real eye, for without it we can realise no visual picture.)

Eyes are not all of the same shape and moulding. Some, like Kodak cameras, focus distant objects without any effort or change of focus—eumetropia. Some are under the standard pattern, and have to make an effort to focus anything, whether far or near, or use convex spectacles—hypermetropia. Others exceed the standard pattern for distance, define distant objects badly unless they employ concave spectacles, but see nearer objects more readily—myopia.

Again, the front of a well-formed eye should be like the surface of a well-made marble, spherical in outline, but not infrequently the surface is unequally curved, so as to be more like the back of the bowl of a spoon—astigmatism.

The measurement and correction of these errors of refraction by special glasses occupies a large part of the time of every ophthalmic surgeon, and I know some busy hospitals where nurses are called upon to assist in this work, but I cannot pursue the subject in any detail here.

In addition to the protective covering afforded by the soft eyelids in front, each eyeball and optic nerve is further screened from pressure and injury by being set in a rudely conical cavity of the skull, with bony walls—the orbit. This opens widely forwards, but narrows backwards, so as only to leave room for the passage of the optic nerve into the cranial cavity, and the transmission of some other smaller nerves, blood, and lymph vessels. There is an intimate connection between the blood supply of the eyeball, the orbit, and the surrounding parts. Five little ribbon-like muscles take their origin from the apex of each orbit and pass forward to be inserted one into the upper lid and one into each aspect of the eyeball, above, below, and on either side. These straight-going muscles—the recti—aided by two others, whose path and insertion is more oblique, impart turning movements to the eyes, and enable us to look in different directions at fixed objects or follow them if moving in space.

A well-made, well-set, and well-controlled pair of eyes should be directed to the same point in space, whether covered or uncovered, and the image obtained on the one should give so similar and symmetrical an impression on the other that the two sensations are fused into a common picture in the brain. A faulty configuration of the orbit, an inequality in the shape or focus of the eyes, over-action, paralysis, or contraction of an ocular muscle, or the displacement of the eye by a tumour, etc., in the orbit, may lead to an appearance of squinting, or an annoying sense of seeing things doubled.

Without going into too much detail, between the orbits, the sphenoidal sinus below chiefly composed of fat, fills up the remaining space between the eyeball and the bony walls of the orbit. Immediately surrounding the orbit we have several air spaces connected with the nose, the frontal sinus in the brow above, the antrum in the cheek-bone below, the upper part of the nasal cavity, and the ethmoid cells between the orbits, the sphenoidal sinus below and behind, and the brain above and behind.

Now let us consider some of the duties which might fall to an ophthalmic nurse. I need scarcely say that their extent and responsibility must largely be governed by the amount of special training and experience she has had. One demands little but commonsense from a probationer, but a staff nurse is naturally a more efficient assistant in many ways than a fresh-fledged house surgeon. Still, there are some things which every nurse ought to learn in order to know how to render first aid, or carry out instructions intelligently. First, how to place a patient for examination. Speaking generally, it is important that they should be placed so that a good light falls upon the eye which is to be examined, and that the head

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