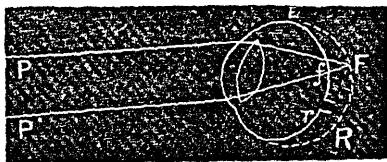


and the United States, following Donders' example, have worked these problems out for themselves, and with uniformly the same satisfactory result.

It having been satisfactorily demonstrated that, as a rule, hypermetropia exists in all cases of convergent strabismus, we can hence infer that the hypermetropia is the cause of the squint. In support of this view we have the following facts:—Hypermetropia is to a great extent inherited, and can be demonstrated in the infant. If the hypermetropia be corrected when the squint is incipient, the squint disappears. If then hypermetropia is the cause of the squint, the next question is, How is this brought about?

According to Donders, hypermetropia depends, as a rule, upon the shortening of the antero-posterior diameter of the eye. The cornea and lens have usually the normal degree of curvature, but the distance between the lens and the retina is too short. Parallel rays of light falling upon the normal eye are brought to a focus *on* the retina; but when parallel rays fall upon the hypermetropic eye, they are brought to a focus *behind* the retina.



Thus in Fig I., E represents a section of a hypermetropic eye; parallel rays PP falling upon E, do not meet in a focus on the retina r, but pass to F—a point on the dotted line R, which represents the position of the retina in the normal eye.

When the normal eye is in a state of rest, and directed to a distant object, the image of the latter is formed on the retina, without any effort of the "accommodation" of the eye. When the hypermetropic eye, however, is directed to a distant object, that object can be seen with distinctness only by an effort of the "accommodation."

Again, we know that when both eyes are directed to a near object, they are very much converged; the optic axes cross at the point to which they are directed. If one eye be covered, and the opposite eye be accommodated for its "near point" (the nearest point of distinct vision), the covered eye will be found to be very decidedly converged towards the nose—to have, in fact a temporary convergent squint. This arises from the constant association of the act of accommodating the eye for short distances with the act of contracting the internal rectus muscle. Hyper-