rays pass through the pupil, the size of which is controlled by the involuntary muscles of the iris, after which they pass through the "crystalline lens" (this being to the eye just what the lens is to the camera). The picture is then made upon the sensitive surface at the back of the eye called the (retina) corresponding to the film or plate in the camera. The retina is really a portion of the optic nerve spread over the back of the eye, and the optic nerve itself conveys the impression to the brain.

We have already said that a bright glaring light is an error to be guarded against, and the truth of this will be readily apparent. Let us now come back to the iris and the pupil. As we have seen, when the light is too bright, the iris adjusts itself so that much of the superfluity of light is excluded, and of course might as well not have been provided so far as its usefulness goes; it is sheer waste. But this is only part of the story. The action of the iris is only intended to serve the conditions found in nature, and consequently its action is limited, and when there is a superabundance of light, too much is admitted to the eye and causes a form of paraly: is in the nerve itself, besides being a very prolific cause of various nerve troubles the connection of which with the lighting in use might easily be overlooked. If this trouble is allowed to continue, the sight becomes impaired and permanent injury occurs.

Again: we do not look at the sun when we wish to see, but at the article upon which the sun's light is shining. Even then, though, if the rays of light are directly reflected into the eye, we find it almost impossible to see. Either the light must be diffused or must have been softened by repeated reflection, or its effect is to partially paralyse the retina.

The lesson from this in the application of artificial lighting is obvious. The light source should be placed above or in some way beyond the line of vision, and so situated that whilst it will illuminate the article or area which we wish to see, there will be no possibility of rays of light entering the eye directly. And if the articles at which the eye is directed are of a bright, glossy surface, it will still be necessary to have the lamp in such a position that the light is not reflected from the article directly to the eye.

Again: as to uniformity of illumination: suppose a bench to be well lighted, and the surrounding room in semi-darkness. The pupil, whilst we are looking at the bench, contracts. But we cannot possibly keep the eye still for any long period—it is always moving. And when the semi-darkness of the room is encountered, the pupil expands. It will be obvious that the pupil is called upon to expand and contract at a rate far greater than nature ever provided for, and becomes weak and partially fails to respond. This is another frequent cause of