

the eye of a cat, I found it necessary to put it under the influence of chloroform, but the image of the optic nerve, vessels, &c., upon the ground glass is so very bright and clear that I do not doubt if the most sensitive process be adopted, the impression could be taken instantaneously, thus rendering anesthesia unnecessary.

POSITION.

In either case the eye is brought to the proper position, and the eye-lids held apart by an assistant. If it is the eye of a patient to be photographed the instrument is mounted upon its case, 8 inches high, which, for most persons, gives it the right height. The patient being seated upon a chair, as close as possible to the table, leans forward towards the camera, and brings his eye as near as possible to the aperture in the diaphragm, the brow rests lightly against the end of the tube, and by bringing the elbow upon the table he, with the palms of his hands, extemporizes a very good rest for his chin.

The pupil of the eye to be photographed must be previously dilated with atropine.

PROCESS.

When the instrument is in its proper position, and the light from the plate glass enters the dilated pupil, the fundus of the eye is brilliantly illuminated, and its reflection passes out of the eye and through the plate glass and lenses, and forms an inverted image upon the ground glass at the back of the camera, where the observer in the rear can see the optic nerve entrance, distribution of the arteries and veins, &c., beautifully depicted, but magnified about 4 diameters. If the details of the image are not perfectly defined the camera tube is moved backward and forward until the proper focus is obtained. This image can be seen by the observer again very much magnified by placing to his eye a lens of say 6 inch focal length, and bringing his eye with the lens to within 6 inches of the ground glass, but the image will be seen even better by moving the ground glass to one side—the observer will then see the *aërial* image of the reflection from the eye which will occupy the same position as the ground glass previously occupied, (see Definition 8). In photographing, the slide containing the ground glass is removed and a slide substituted containing a plate glass “prepared” by the ordinary collodion process. An “exposure” of about 5 seconds is sufficient. If the