

nation, but other rays proceed to *de*, where they are incident on the lens II by which they are refracted, and they would proceed to a focus at the principal focal distance of the lens H (viz., at P at five inches) but they are again intercepted at *fg* by the lens I, which refracts them to an earlier focus, at *h*. In the same way rays from *i*, on E's retina, proceed from the cornea parallel to the axis *ikm* and are also refracted by the lenses II and I, and are brought to a focus at *o*. In like manner all points intermediate between *i* and *a*, on E's retina, are reflected from the fundus, and refracted by the lenses forming an inverted image of *ia* at *oh*, which is received upon the ground glass placed at F.

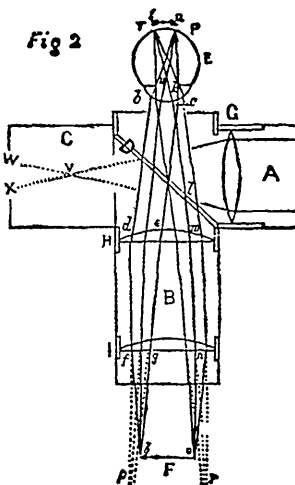


FIG. 4.

ADVANTAGES.

The advantages I claim for this instrument are :—

1st. The simplicity of its construction, taking into consideration its twofold purpose, namely, as an ophthalmoscope and as a photographing instrument. My friend Dr. Noyes, of the New York Eye Infirmary, constructed an instrument for photographing the fundus oculi, and which was, I believe, to a considerable extent successful, but its construction was too complicated and the instrument too expensive to be generally adopted. Dr. Noyes' instrument is constructed somewhat on the principle of the binocular microscope. Any good optician can construct this new instrument. The one I exhibit to the Institute was made by Charles Potter, No. 20, King-street East. They can be had complete for \$10.

2nd. The limited experience necessary in order to use it successfully. The ordinary Ophthalmoscope requires months of practice before it can be used satisfactorily.

3rd. Being able to see the aerial image free from reflections from the object lens, which reflections are serious obstacles to beginners.

4th. Being able to receive the image either of a healthy or diseased fundus upon a screen of ground glass, which can be seen by a number of persons at the same time, and can be taken advantage of by gen-