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R. B. SIMPKINS
MEANS OR DEVICE FOR INVESTIGATING, CORRECTING,
AND DEVELOPING THE POWER OF HUMAN VISION
Filed Sept. 4, 1934

2,049,327

Fig. 1.

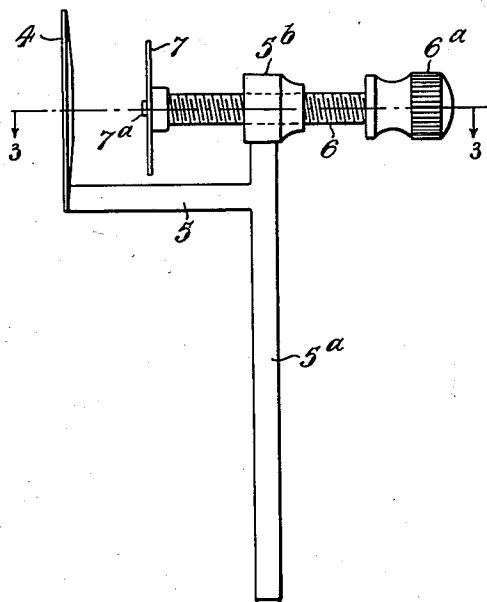


Fig. 2.

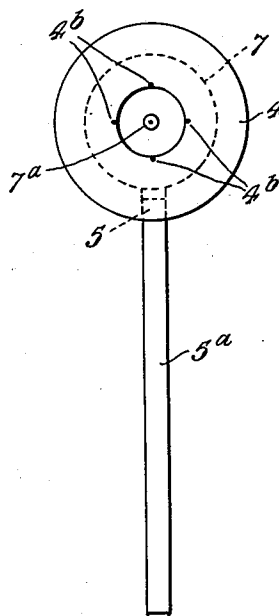
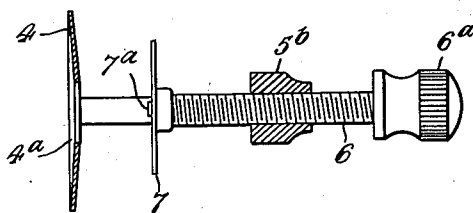


Fig. 3.



INVENTOR :—

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UNITED STATES PATENT OFFICE

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MEANS OR DEVICE FOR INVESTIGATING,
CORRECTING, AND DEVELOPING THE
POWER OF HUMAN VISION

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Application September 4, 1934, Serial No. 742,679
In Great Britain September 6, 1933

2 Claims. (Cl. 88—20)

This invention has reference to improvements in or relating to means or devices for investigating, correcting and/or developing the power of human vision.

In the specification of my co-pending application Serial No. 742,678, filed September 4, 1934, I have described a method of investigating, correcting and developing the power of human vision and means or apparatus adapted to be employed in carrying the method into effect said means or apparatus involving a carrier or mount and various devices or appliances adapted for use in conjunction therewith in the ascertainment of abnormality of vision and the performance of exercises for developing the power of human vision and/or for correcting or remedying defects to which the abnormalities if any are due.

Certain of the appliances referred to in the aforesaid specification are adapted for use independently of the carrier or mount in connection with which their use is therein specifically described and the present invention has reference to an appliance which may be otherwise used than in conjunction with the said carrier or mount.

This invention consists of a device or appliance for use in investigating, correcting and/or developing, by the performance therewith of exercises, the power or ability of central fixation of the eyes, said appliance embodying an annulus which in the use of the appliance is presented to the eyes of the user and a disc carrying a spot or other prominent marking at the centre thereof and co-axial with the centre of the aperture in the annulus, said disc being mounted on one end of a screw rotatably mounted in a suitable support.

A convenient embodiment of the invention will now be described with reference to the accompanying drawing, wherein:—

Figure 1 represents the said appliance in side elevation.

Figure 2 is a front elevation of the same, and

Figure 3 a sectional plan, the section being taken on the plane indicated by the dotted line 3—3, Figure 1.

According to this embodiment the appliance comprises an annulus or apertured disc 4 fixed to a bracket or arm 5 carried by the depending stem 5^a which may constitute a handle for holding the appliance in the requisite position before the eyes of the user or serve for its attachment to a suitable support such as the mount described in the specification of my co-pending application Serial No. 742,678 hereinbefore referred to, the

said handle or stem 5^a being provided at its upper part with a screw box 5^b the axis whereof is in true alignment with the central aperture 4^a of the annulus or disc 4.

The said screw box 5^b provides a bearing for the screwed rod 6 one end whereof is furnished with an operating head 6^a while its other end is adapted for the mounting thereon of the disc 7 bearing at its centre the focal point 7^a, or a disc bearing other prominent and suitable marking appropriate for the tests or exercises to be performed by the use of the appliance.

The dimension of the aperture 4^a in the annulus or disc 4 is preferably such as to provide the necessary degree of confinement of the normal binocular lines of vision coming to a focus on the focal spot when the said spot is disposed at a distance of four inches from the eyes and at such distance behind the aperture 4^a as to enable the spot to just be seen, without obstruction by the periphery of the aperture, with each eye separately and both together.

The annulus or apertured disc 4 may be provided on the side presented to the observer with spots 4^b or equivalent markings, disposed at the extremities of the vertical and horizontal diameters of the aperture, that is to say, the said spots or markings, to use the simile of the clock, mark the positions of 12 and 6 and 3 and 9 o'clock respectively.

The provision of these markings enhances the utility of the appliance for testing and exercising purposes, for example, if the appliance be held or supported at the appropriate distance from the eyes with the focal spot 7^a at the horizontal level of the eyes and in the vertical plane of true binocular vision, the said focal spot should be seen at the 9 o'clock spot 4^b when the left eye is closed and at the 3 o'clock spot 4^b with the right eye closed, and with both eyes open it should appear at the centre of the aperture.

The manner of employing the appliance for other tests and the requisite exercises to be performed for correcting and/or developing the power or ability of central fixation by varying the distance or position in which the annulus is held or supported in relation to the eyes of the observer and the setting of the disc 7 in relation to the annulus or apertured disc 4, the nature of which exercises will be governed by the observations made from the tests, will be fully understood by opticians and others conversant with the art and hence it is unnecessary further

to describe the tests and exercises in which the appliance may be employed.

What I claim is:—

1. An appliance to be employed in investigating, correcting and/or developing the power or ability of central fixation of the eyes comprising a stem, a screw box at the upper end of said stem, a rod screw threaded in said box disposed transversely of the stem, a disc carried by said stem, a bracket extending laterally from said stem below said disc, and a disc carried by said bracket disposed in front of the first disc, the second disc having an aperture, and a focal means on the first disc in axial alignment with the said aperture.

2. An appliance to be employed in investigat-

ing, correcting and/or developing the power or ability of central fixation of the eyes comprising a stem, a screw box at the upper end of said stem, a rod screw threaded in said box disposed transversely of the stem, a disc carried by said stem, a bracket extending laterally from said stem below said disc, and a disc carried by said bracket disposed in front of the first disc, the second disc having an aperture, and a focal means on the first disc in axial alignment with the said aperture, said aperture being open and unobstructed, the appliance being open intermediate the discs, and markings on the second disc about said aperture.

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