May 15, 1934. J. PIEPER 1,959,217

OCULAR VITALIZER

Original Filed Dec. 26, 1929

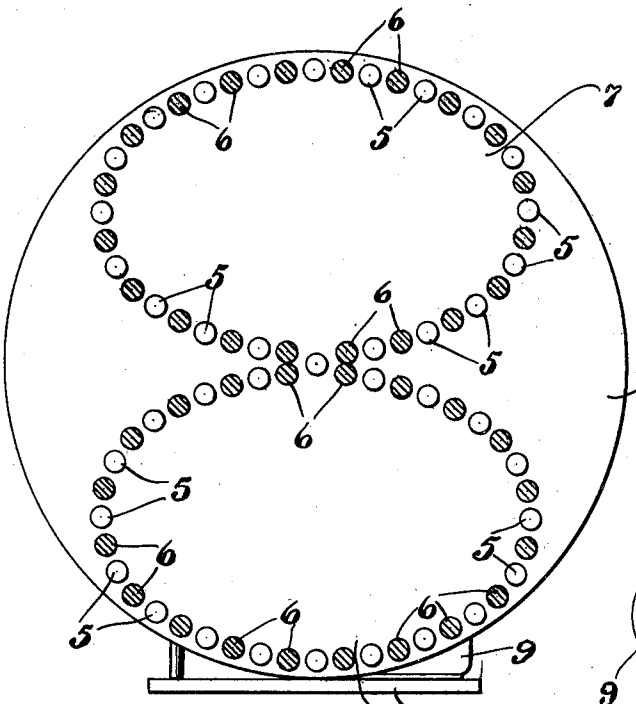


Fig. 1.

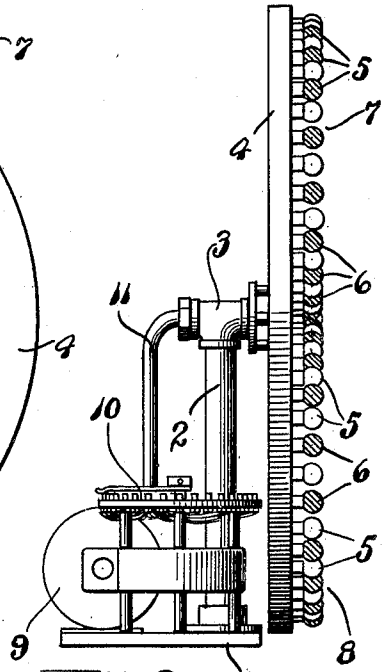


Fig. 2.

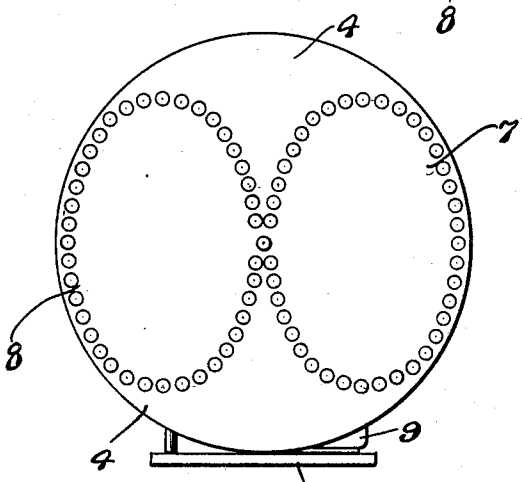


Fig. 3.

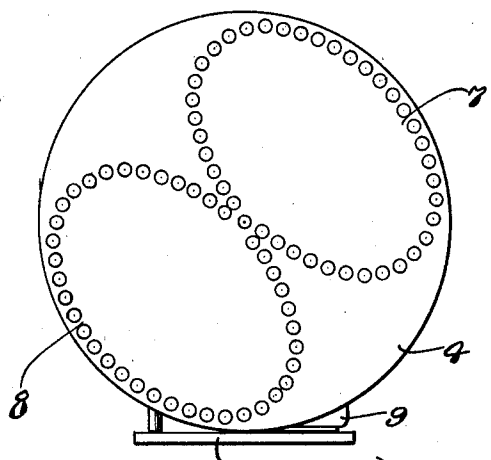


Fig. 4.

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UNITED STATES PATENT OFFICE

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OCULAR VITALIZER

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Application December 26, 1929, Serial No. 416,674
Renewed September 30, 1933

3 Claims. (Cl. 128—25)

This invention relates to ocular vitalizers, the object and purpose of which is to cause exercise and stimulation control of the eye muscles and make all do an equal amount of work as the eye follows the path of movement made by the vitalizer, whereby eye defects such as squinting, cross eyes and the like may be corrected either wholly or to a large degree through the exercise of the eye muscles and the imposition of work thereupon equally.

The invention for the attainment of the ends stated may be understood from the following description, taken in connection with the accompanying drawing, in which,

Fig. 1 is a front elevation of the ocular vitalizer of my invention.

Fig. 2 is a side elevation thereof, and

Figs. 3 and 4 are elevations similar to that shown in Fig. 1, on a reduced scale, showing the device in different positions.

Like reference characters refer to like parts in the different figures of the drawing.

In the construction, a supporting base 1 is provided to rest upon the floor or other suitable support, from which a vertical post 2 extends upwardly equipped at its upper end with a union 3 whereby a circular disk 4 may be mounted on and at one end of the union to turn about a central horizontal axis. On the face of said disk a plurality of alternately arranged electric light bulbs 5 and 6 of different colors are mounted substantially in two ovals 7 and 8, respectively, as shown in Figs. 1, 3 and 4, the two ovals when the disk is in the position shown in Fig. 1 presenting substantially the outline of the arabic figure 8.

An electric motor 9 is mounted on and above the base 1 serving to drive a suitable flash contact mechanism, a cable 11 enclosing the various wires which lead to the light bulbs 5 and 6 through the union 3. The specific detail of construction of the flash contact mechanism indicated at 10 is old and well known and need not be specifically described herein. It is enough to say that with the motor 9 operating the lights are flashed in continuous succession and follow around the upper oval 7 (Fig. 1), for instance, in a clockwise direction crossing to the lower oval and following it in counterclockwise direction until the crossing point to the upper oval is reached, whereupon the lights consecutively flash around the upper oval in a clockwise direction and this continues as long as the motor 9 is in operation.

The disk 4 may be turned about its central horizontal axis to different positions, two of which are indicated in Figs. 3 and 4. By turning the disk 4 to the different positions a different effect on the eyes which follow the consecutive flashes of the lights in the path of movement of the figure 8 outline may be had. It is evident that by turning the disk through 180° there is in effect a reversal of the continuous path of movement of the light.

In using the device the patient is placed in front thereof and his eyes following the continually changing path of movement of the lights, moving from right to left and back again and the muscles of the eyes are all exercised and worked in equal amounts. The eyes follow the ovals and every time an exercise is completed the eyes have to cross the vertical or visual axis twice and by repetition of this crossing of the visual axis from right to left or vice versa the muscles controlling the eyes are exercised and worked, stimulating the same and correcting to a large degree, and in many cases entirely, the defects in the muscles which cause what is known as cross eyes or squinting.

While the construction which I have described is one which has been built and practically used with exceptionally satisfactory results, the invention is not to be specifically limited to the use of electric light bulbs but is to be more generically directed to a means for producing actually or in simulation the movement of an object along a path as described wherein the object which is followed by the eyes along the path of movement crosses the visual axis back and forth at periodic intervals thereby causing the eyes to be moved to one side of the visual axis, crossing the same to the other side, then back across to the first side and be thus continued for as long a time as may be desirable or necessary. The exercise on the eye muscles, where the distance to each side of the visual axis that the object followed by the eyes moved is the same, results in equal exercise of the eye muscles, strengthens the same and stimulates them whereby defects in vision caused by defects in the muscles controlling the eye movements are either completely cured or in a large degree corrected. The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. An ocular vitalizer comprising a supporting base, a vertical post extending upwardly therefrom, a union mounted upon the top of the post, a circular disk, means to mount the disk upon the

union so as to rotate about a central horizontal axis therethrough, a plurality of electric light bulbs arranged upon the disk in the form of an arabic figure 8 with the center point of the 8 coincident with the axis of rotation of the disk, and means to successively illuminate the several light bulbs.

2. An ocular vitalizer comprising the elements in combination as recited in claim 1 in which the successive paths of illumination in the two ovals forming the figure 8 are in opposite directions.

3. An ocular device of the class described, comprising a support, a disc thereon, and means for providing the effect of an object moving in a curved path similar to that of the arabic numeral 8, said movement occurring in a clockwise direction around the upper portion of the 8 and in an anti-clockwise direction around the lower portion thereof.

JOHN PIEPER.