

Sept. 9, 1941.

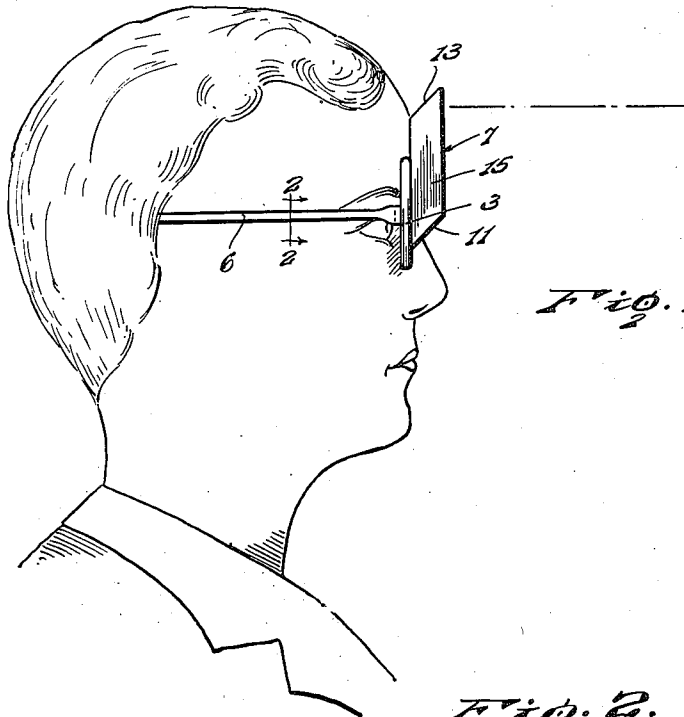
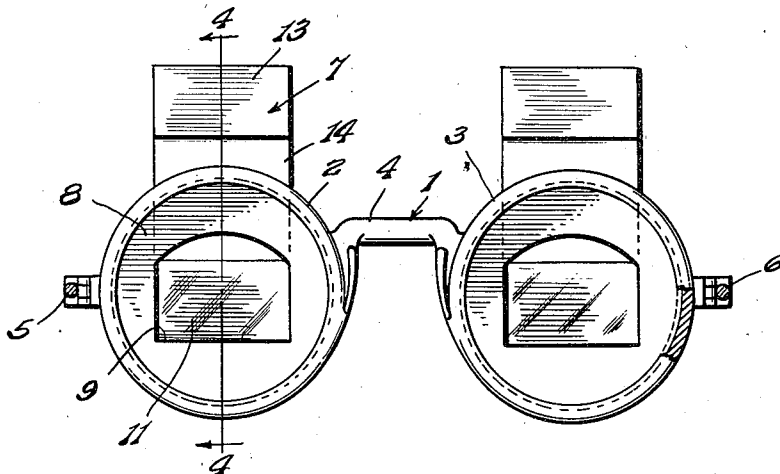
R. E. THOMAS

2,255,197

PERISCOPE

Filed March 23, 1939

2 Sheets-Sheet 1



Inventor

Roy E. Thomas.

By

Lacey & Lacey,

Attorneys

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Fig. 3.

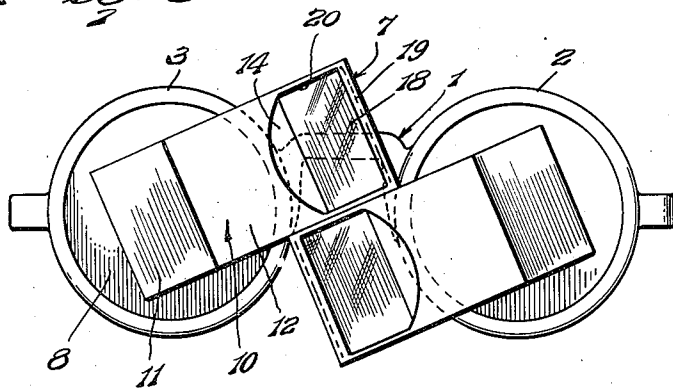
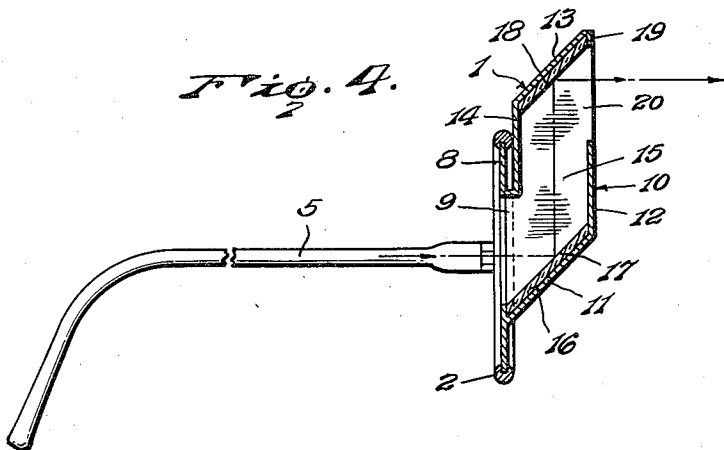


Fig. 4.



Inventor

Roy E. Thomas.

By

Lacey & Lacey,

Attorneys

UNITED STATES PATENT OFFICE

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PERISCOPE

Roy E. Thomas, Steubenville, Ohio

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3 Claims. (Cl. 88—41)

This invention relates to an improved periscope.

It is well known that persons attending theatres, viewing parades, attending lectures, or the like, are often annoyed by their inability to see past other persons or obstructions in front of them. The result is, of course, that in order to see what is taking place, it is necessary for the persons behind the obstructions to assume uncomfortable positions, or to continually change position.

One object of the present invention is, therefore, to provide a periscope which will permit the user thereof to see past an obstruction in his normal line of vision without the necessity of changing his position.

Another object of the invention is to provide a periscope which is to be worn in the same manner as spectacles or glasses.

A further object of the invention is to provide a device of this character which, when not in use, may be folded so that it will occupy a minimum amount of space, with the result that it may be carried conveniently.

As a still further object, the invention seeks to provide a periscope wherein means are employed for retaining the lenses in closed position, when the device is not in use, so that danger of breakage of the lenses will be eliminated.

A further object of the invention is to provide a periscope which may be manufactured cheaply to retail at an attractive figure.

Other and incidental objects of the invention, not mentioned hereinbefore, will become apparent during the course of the following description.

In the accompanying drawings forming a part of this application:

Figure 1 is a side elevation showing one embodiment of my improved periscope, as it would appear in use.

Figure 2 is a rear view of the periscope, on the line 2—2 of Figure 1, looking in the direction indicated by the arrows.

Figure 3 is a front view of the periscope, showing the lens housings swung to inoperative position.

Figure 4 is a vertical sectional view taken on the line 4—4 of Figure 2, looking in the direction indicated by the arrows.

Referring now more particularly to the drawings, wherein, as will be seen, similar numerals of reference designate like parts throughout the various views, attention is first called to the em-

bodiment of the invention disclosed in Figures 1 to 4 inclusive. In this embodiment of the invention, I employ a frame which is shown generally at 1. The frame 1 has lens holders 2 and 3 which are connected by a nose piece 4. At the outer extremities of each of the lens holders 2 and 3 are connected bows 5 and 6 of conventional construction. It is, of course, to be understood that the frame 1 may be varied in design to suit individual needs or requirements.

Each of the lens holders 2 and 3 has mounted therein a housing, indicated generally by the numeral 7. The housings 7 are of identical construction and, therefore, it is believed that a description of one will suffice for both. A typical housing 7 includes a plate 8 which is rotatably mounted in one of the lens holders. The plate 8 has an opening 9 which extends throughout the major portion of its central area. Fixed to the plate 8 at its forward side is a housing frame 10. The frame 10 includes an inclined bottom wall 11, a front wall 12, a top wall 13, and a rear wall 14 spaced from the plate 8 so as to clear the head of the lens holder with which it is associated. The housing 10 also includes side walls 15.

It is to be noted that the bottom wall 11 is connected with the plate 8 a short distance beneath the lower margin of the opening 9 so as to cooperate with the front wall 12 to define a pocket 16. Carried in the pocket 16 is a mirror 17. The mirror 17 is disposed at an angle of substantially forty-five degrees from the horizontal so that reflection from this mirror from the horizontal will be at an angle of ninety degrees to the horizontal. It will be seen that the upper surface of the mirror 17 lies substantially flush with the lower margin of the opening 9. The mirror 17 may be held in place in the pocket frictionally or by cement or any other suitable manner. At the opposite end of the housing frame 10 is a mirror 18 which is clamped or otherwise secured to the under surface of the top wall 13 of the housing. A flange 19, formed on the housing frame, protects the forward edge of the mirror 18 and would, of course, effect a clamping action on said mirror. The mirror 18 is, like the mirror 17, disposed at an angle of forty-five degrees from the horizontal so that an image will be reflected from its surface directly forwardly through an opening 20 in the front wall 12 of the housing. Of course, the opening 20 is disposed above the plane of the opening 9 so that a person looking through the opening

9 will be enabled to see an object not in the direct line of vision. The housings 7 may, of course, be of any suitable length. It should be understood that the housings 7 are of such length as to permit easy carrying of the periscope in a handbag or pocket.

In Figures 1 and 2 of the drawings, the housings 7 are shown as extended to operative position in order to enable the user of the device to see an object not in the direct line of vision.

In Figure 3 of the drawings, I have shown this embodiment of my invention as it would appear in folded position for convenient carrying. In this position, the housings 7 are swung so that the extremities of confronting side walls will lie in parallel engagement. In this position, the housings will be disposed so that their extremities lie nearly within the area of the lens holders 2 and 3. It will now be understood that, when folded, the device will take up but a small amount of space so that it may be conveniently carried about.

It is thought that the foregoing description, taken in connection with the drawings, will render the operation of the invention entirely clear. It is desired to add, however, that while the housings 7 have been shown in operative position as extending vertically, it should be understood that they may be shifted to any desired position along their circumferential paths. For example, instead of looking above an object in the line of vision of the user, it will be entirely possible to shift the housings to lie in the same horizontal plane for looking around the side of an obstruction.

Having thus described the invention what is claimed is:

1. A periscope including a frame having frame members connected by a nose piece, housings associated with the frame members and having plates rotatable in said frame members, said plates having openings communicating with the housings, said housings being elongated and hav-

ing housing frames formed with angularly disposed top and bottom walls, reflecting surfaces carried by the top and bottom walls, and means carried by the frame for positioning the device in front of the eyes of the user, said housings being shiftable to a position for reflecting an image past an obstruction in the normal line of vision, said housings being shiftable to inoperative position with the housing frames lying with portions thereof in engagement.

2. In a periscope, a frame having frame members connected by a nose piece, housings carried by the frame members and having plates rotatably mounting said housings in said frame members, said plates having openings communicating with the housings, said housings having angularly disposed top and bottom walls, front and rear walls and side walls, mirrors carried by the housings, certain of said mirrors being mounted on the top walls of the housings and certain other of the mirrors being mounted on the bottom walls of said housings, said front walls having openings adjacent the top walls, and means for mounting the frame in front of the eyes for use, said housings being disposed vertically in parallel relation in use for projecting an image past an obstruction and reflecting the image to the line of vision of the eyes.

3. A periscope including a frame having frame members, means connecting the frame members, housings associated with the frame members and having plates rotatable therein, said plates having openings communicating with the housings, said housings having housing frames, reflecting surfaces carried by the housing frames, and means carried by the first-mentioned frame for positioning the periscope in front of the eyes of a user, said housings being shiftable from an inoperative position to a position for reflecting an image past an obstruction in a normal line of vision.

ROY E. THOMAS.