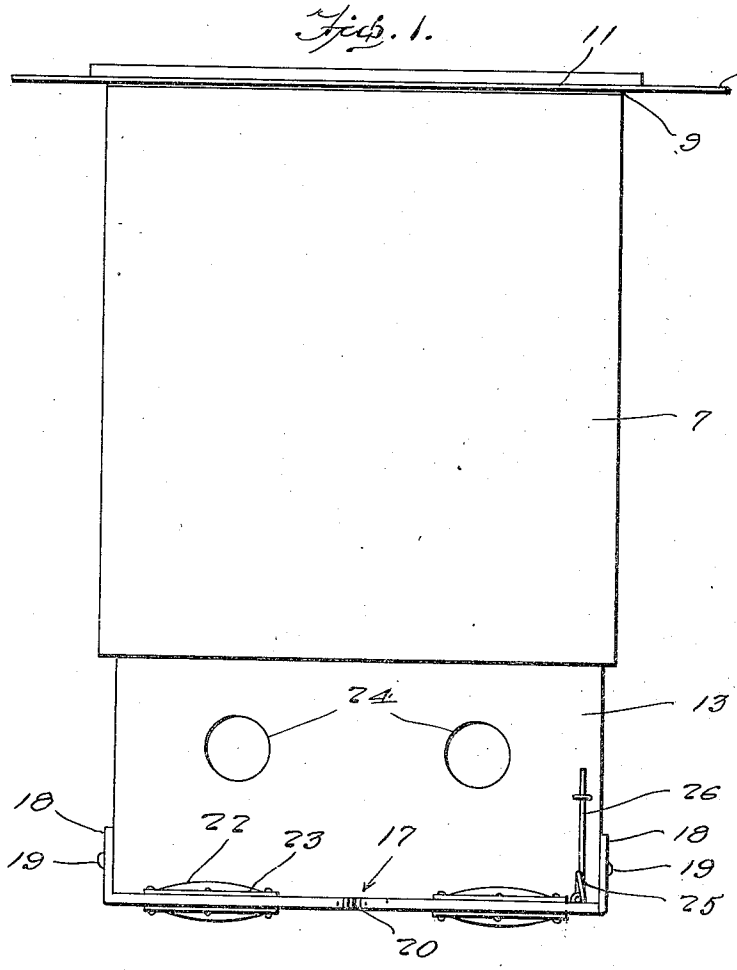
Oct. 11, 1938. J. J. ZWALD 2,133,222

COLLAPSIBLE STEREOSCOPE

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Fig. 1.



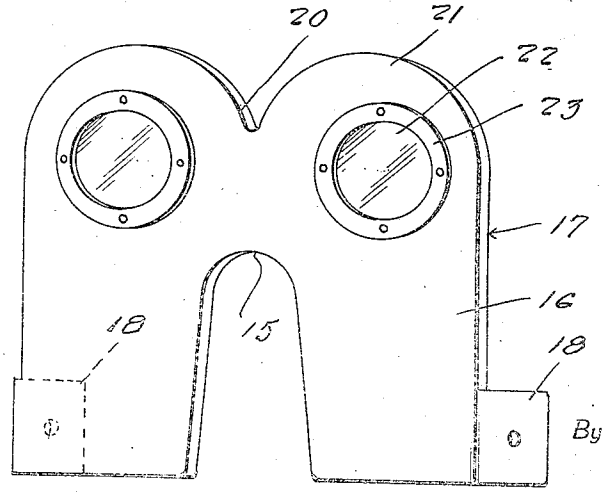


Fig. 6.

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Fig. 2.

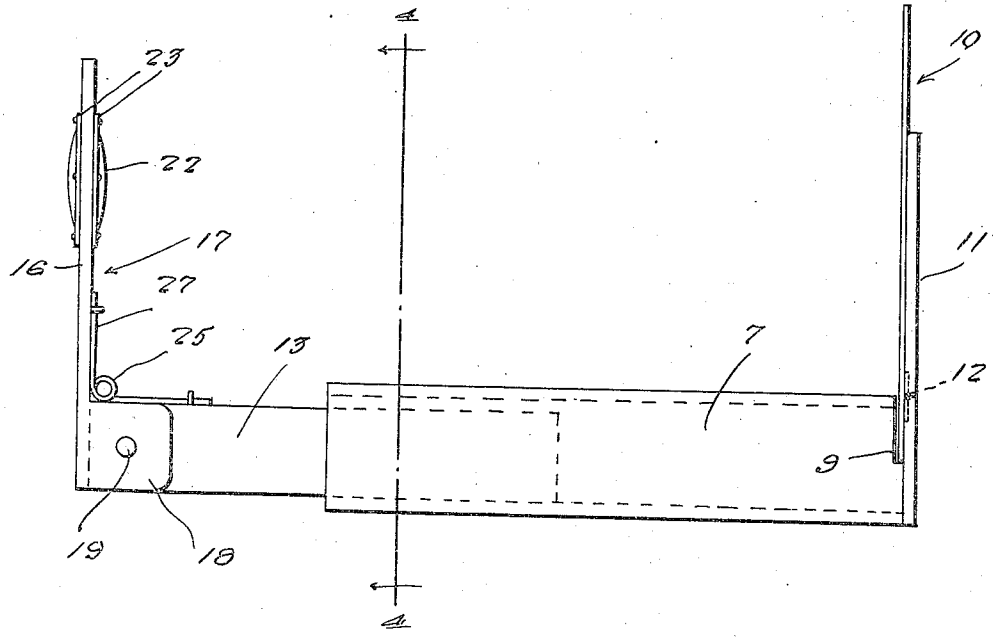
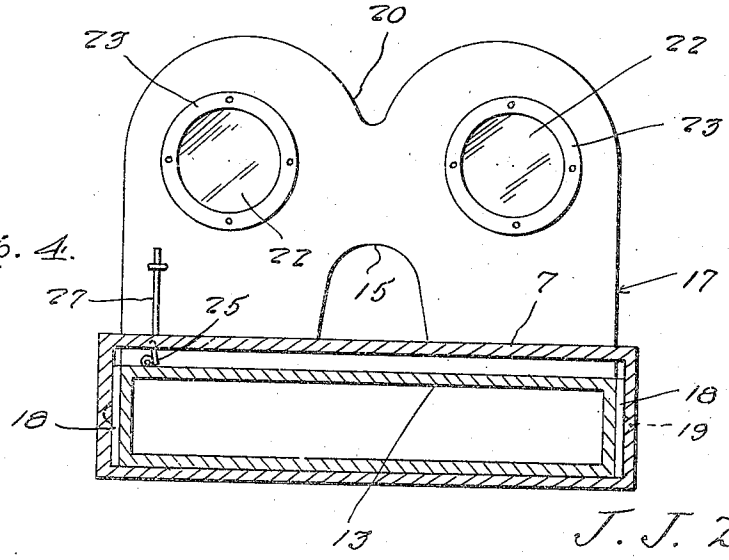


Fig. 4.



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Fig. 3.

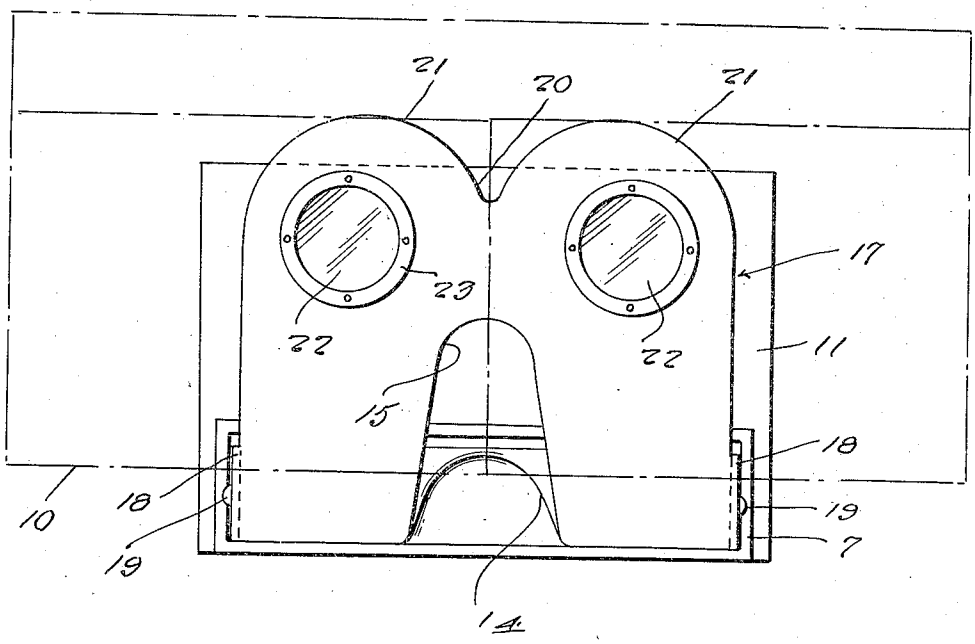
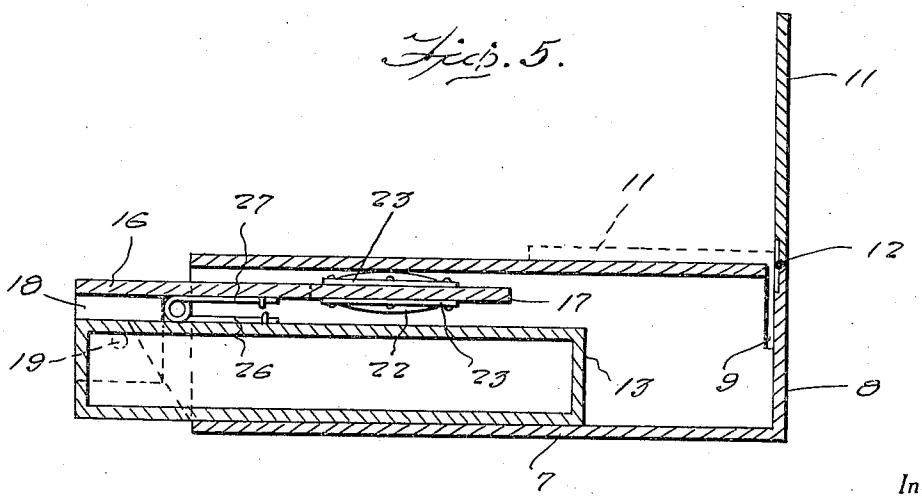


Fig. 5.



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UNITED STATES PATENT OFFICE

2,133,222

COLLAPSIBLE STEREOSCOPE

John J. Zwald, Emporium, Pa.

Application December 15, 1937, Serial No. 180,023

1 Claim. (Cl. 88—29)

This invention relates to what may be conveniently called a pocket size stereoscope, and the object of the invention is to provide a relative small, compact and convenient foldable instrument susceptible of being conveniently carried on one's person and adapted for reviewing stereographs on especially prepared postal cards or the like.

The instrument was designed and perfected with the thought in mind of promoting pastime and apparent amusement in that it could be conveniently carried in an automobile, or even in one's pocket for ready usage. In this connection, it is to be pointed out that I am aware of the use of domestic and home size stereoscopes and make no claim to the principle of reviewing companion twin pictures in apparent projected relief as is accomplished by the well known stereoscopic vision. It follows, therefore, that my particular contribution to the trade and art is in the nature of a simple and economical foldable pocket type stereoscope such as may be used to advantage in reviewing camera snapshots reproduced in duplicate on especially prepared cards for that purpose.

The foregoing is not intended to imply that I predicate the claim on the postal card or the method of photography for developing it for commercial purposes. On the contrary, the invention claimed, as will be hereinafter observed, has to do with the particular construction of the small sized convenient to use stereoscope.

Other features and advantages will become more readily apparent from the following description and drawings.

In the drawings:

Figure 1 is a top plan view of the instrument or stereoscope, as constructed in accordance with the principles of the present invention, showing the same set up for use.

Figure 2 is a side elevational view of the assemblage seen in Figure 1.

Figure 3 is a front end elevation showing to advantage the binocular style panel or lens plate.

Figure 4 is a transverse vertical section on the line 4—4 of Figure 2, looking in the direction of the arrows.

Figure 5 is a central longitudinal sectional view showing how the structure may be collapsed or folded into compact form.

Figure 6 is a perspective drawing of the nose fitting binocular panel.

Referring now to the drawings by distinguishing reference numerals, I would call attention first to the fact that any suitable material, found commercially practicable for the purpose, may be employed in the construction of the essential details. With this in mind, it will be observed that the body of the structure is in the nature of a rectangular casing 7. This is open at the left-hand end as shown in Figure 5, and at the opposite closed end 8 it is provided with notches forming a receiving kerf or slot 9 for the picture postal card, indicated in phantom lines, and denoted by 10, in Figure 3. Incidentally, and as before indicated, I have in mind commercializing the idea of taking the ordinary snapshots with domestic style cameras and photographically reproducing these in duplicate in order to provide the desired stereoscopic result. It may be added, however, that any suitable stereographs of appropriate size may be utilized.

To hold the stereograph card more satisfactorily in place, it is observed that I provide a backing plate 11 and this is hinged as at 12 to the back wall 8 of the casing. Thus, when it is not in use it can be folded down to the dotted line position observed in Figure 5.

The parts so far described provide the relatively stationary frame or base unit and cooperable with this is the telescoping relatively movable unit. The latter part comprises a slide 13 proportioned to slip and house itself completely within the casing as brought to advantage in Figure 5. For lightness of weight the part 13 may be a simple hollow box. At its outer end it is formed with a recess or cavity 14 to accommodate the nose of the user. The feature 14 coordinates with a complemental notch 15 formed centrally in the lower edge of the panel 16 of the binocular lens unit 17. As implied, this is preferably in the nature of a panel and the opposite vertical edges are provided with laterally directed ears 18, these being hingedly or pivotally connected to the side walls of the frontal portion of the slide 13 as indicated at the point 19. This allows the pivoted end portion of the panel to swing against and in contact with the adjacent end portion of the slide to maintain said panel at right angles to the slide when it is used for reviewing the stereographic postal card 10. While it is not essential, the upper edge or crown portion of the panel is centrally notched as indicated at 20 and the surfaces of the side furcations are rounded or appropriately shaped as at 21. This is desirable to render the device smooth for handling and to avoid projections such as might injure the eyes of the user. Moreover, it lends itself appropriately to the particular purposes of the invention.

The furcations or divided sectors of the panel 5

are apertured to accommodate duplicate double convex lenses **22**, these being held in place by retaining rims or rings **23** on opposite sides of the panel. The lenses are arranged in customary reviewing relationship so as to be in proper focus in relation to the coacting stereographs on the postal card. Moreover, the lenses are of appropriate magnifying properties to enlarge and render realistic the single objective in relief seen when the device is in use. Of course, the focus is obtained by pushing the slide in and out, and to facilitate this finger holes **24** may be provided in the top of the sliding box.

It is also desirable to have the reviewing panel snap up to useful position as the complete movable unit is withdrawn from the casing. This may be accomplished in any suitable way. In the drawings, I have shown a coil spring **25** having its ends **26** and **27** anchored or otherwise fastened to the slide and panel. Under this spring tension action, as the panel is swung down to folded position as seen in Figure 5 of the drawings, the spring action is such as to maintain the parts in relative position not susceptible of easy displacement. Hence, the handling and carrying of the device is thus facilitated.

Under normal circumstances, it is obvious that the relatively movable unit is slid and maintained in an out-of-the-way position completely within the casing. Moreover, the backing board or leaf **11** is folded down. When using the device, however, the backing plate is swung up to the supporting position shown in the drawings. Then the photograph or postal card **10** is slipped into the kerf **9** where it is held in position and is susceptible of adjustment to obtain the desired median position. With the device thus ready for reviewing the pictures in customary consolidated relief, the structure is employed, as any full-sized stereoscope, the observer peering through the lenses in the direction of the pictures. The focus is obtained by slidably adjusting the lens unit or panel. Due to the particular formation of the panel, this part of the structure may be placed close to the eyes and literally bridged over the nose.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

A collapsible stereoscope comprising a casing fully open at the front thereof and having aligning slots formed in side and top walls adjacent the other end thereof to provide a kerf to receive stereoscopic pictures, a backing panel hinged on the last-named end of the casing to be positioned to overlie the kerf and to extend vertically therefrom to cooperate therewith in supporting the stereoscopic pictures, a hollow slide mounted in the casing for sliding inwardly and outwardly thereof by way of the open front of said casing, a lens supporting panel including ears at opposite edges thereof and adjacent one end and pivoted on opposite sides of the slide and adjacent one end thereof whereby the lens panel may be swung to lie on the top wall of the slide for movement into and out of the casing with the slide and to assume a vertical position outwardly of the casing to parallel the first-named panel when the latter is positioned for aiding in the supporting of the stereoscopic pictures, spring means between said lens panel and the top wall of the slide to urge said lens panel to assume a vertical position when disposed outwardly of the casing, said lens panel having lens openings and a nose notch opening outwardly through the hinged edge thereof, and lenses mounted in the lens openings.

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