March 28, 1933. C. E. GODLEY 1,902,997

LENS MOUNTING

Filed Nov. 21, 1931

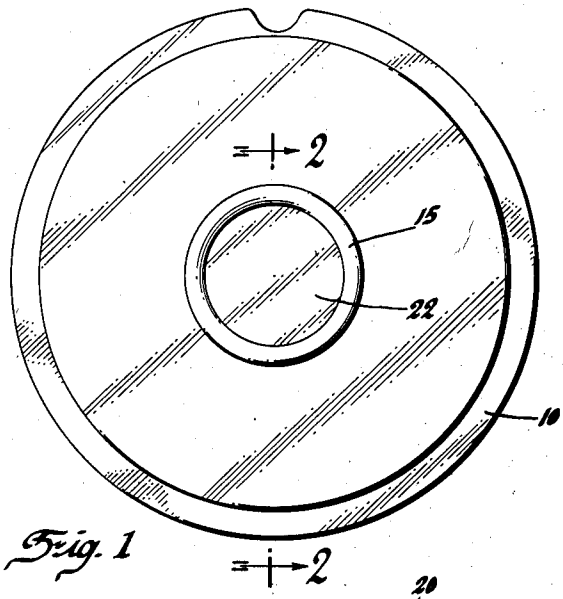


Fig. 1

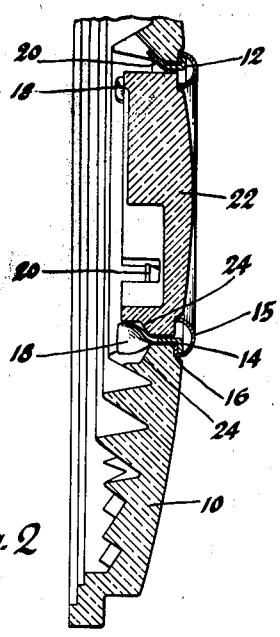


Fig. 2

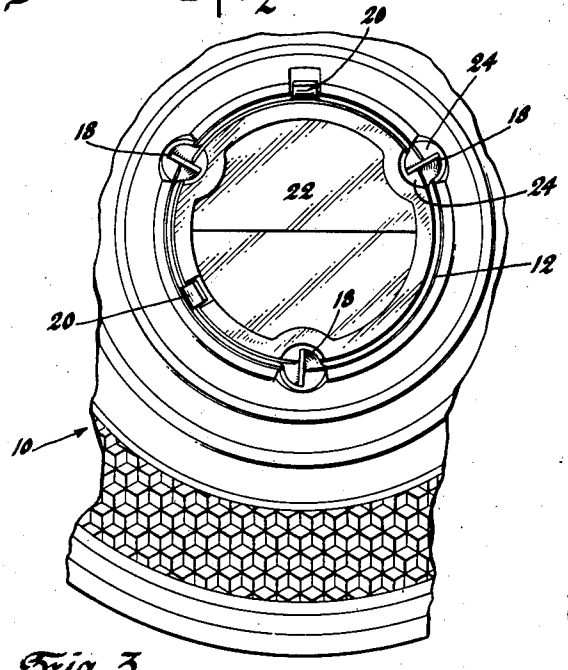


Fig. 3

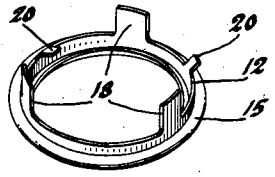


Fig. 4

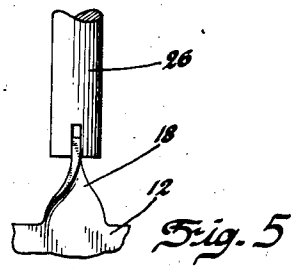


Fig. 5

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UNITED STATES PATENT OFFICE

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LENS MOUNTING

Application filed November 21, 1931. Serial No. 576,446.

This invention relates to means for mounting one lens within another. The arrangement is simple, adapted to large scale production, and secures the parts together in a manner to produce a practically water-tight seal. The construction can best be understood by reading the following description in connection with the drawing in which:

Figure 1 is a front view of the lens assembly.

Figure 2 is a sectional view on line 2—2 of Figure 1.

Figure 3 is a fragmentary rear view of the assembly.

Figure 4 is a perspective view of the bezel.

Figure 5 is a view showing the tool employed in twisting the tabs.

This invention has to do with the method of securing lenses together. The outer lens 10 is in the form of an annulus. Within the aperture in the lens 10 is fitted the bezel 12 having an outwardly turned flange 14 about which is crimped a finishing ring 15. The outwardly turned part of the bezel 12 bears against the outer face of the lens, and is preferably received within a pocket 16 formed in its edge. The bezel 12 is provided with a number of rearwardly extending tabs three of which, marked 18, are employed to hold the bezel and its contained lens in position, while the other two, marked 20, hold the two lenses in proper angular position. Referring to Figure 3, it will be noted that one of the tabs 20 is bent radially outwardly into a notch formed in the lens 10, while the other tab 20 is bent inwardly into a notch formed in the lens 22 received within the bezel. In this position of parts there are registering notches in the two lenses opposite the tabs 18. These notches have inclined side walls, as indicated at 24.

In the assembly of the lenses, the lens 22 is inserted in the bezel 12, and the tabs 20 are bent in the proper direction to hold the lenses in proper angular adjustment as well as prevent their accidental separation. Next, the tool 26 is slipped down over a tab 18, and the tool is rotated as shown in Figure 5, thereby causing opposite portions of the tab to engage the inclined surfaces 24 of the opposed notches, exerting a cam action which clamps the lens 22 in the bezel 12, and clamps the bezel in the lens 10.

As shown in Figure 5, the action of twisting the tab causes the tool to be forced upwardly so that when the tab has been twisted to the desired extent, the tool is automatically disengaged from the tab. The resulting joint between the parts is so good that even without employing a gasket, I have found that it is practically impossible for water to pass through the joint.

I claim:

1. An annular lens, a bezel fitted in the aperture in the lens, and having a portion engaging one face of the lens to limit its insertion in the aperture, a lens in the bezel, said bezel being provided with tabs extending between the lenses, said lenses being provided with opposed notches opposite said tabs and having upwardly inclined faces, said tabs being twisted in spiral fashion so as to cause portions thereof to engage said inclined faces drawing said lenses and bezel into tight engagement with each other and holding them there.

2. An annular lens, a bezel fitted in the aperture in the lens, and having a portion engaging one face of the lens to limit its insertion in the aperture, a lens in the bezel, said bezel being provided with tabs extending between the lenses, said lenses being provided with opposed notches opposite said tabs and having upwardly inclined faces, said tabs being twisted in spiral fashion so as to cause portions thereof to engage said inclined faces drawing said lenses and bezel into tight engagement with each other and holding them there, said bezel being provided with an additional pair of tabs, and each of said lenses being provided with an additional notch to receive one of said tabs to hold the lenses in fixed angular position with relation with each other.

3. An annular lens, a bezel fitted in the aperture in the lens and having a portion engaging one face of the lens to limit its insertion in the aperture, a lens in the bezel, said bezel being provided with tabs extending between the lenses and engaging the rear

faces of both lenses, said tabs being twisted in spiral form so as to exert a yielding cam action against the rear faces of the lenses to clamp the lens in the bezel and the bezel in the annular lens.

In testimony whereof I affix my signature.

CHARLES E. GODLEY.