March 17, 1959 F. W. LINDBLOM 2,877,464

GOGGLE

Filed June 27, 1957

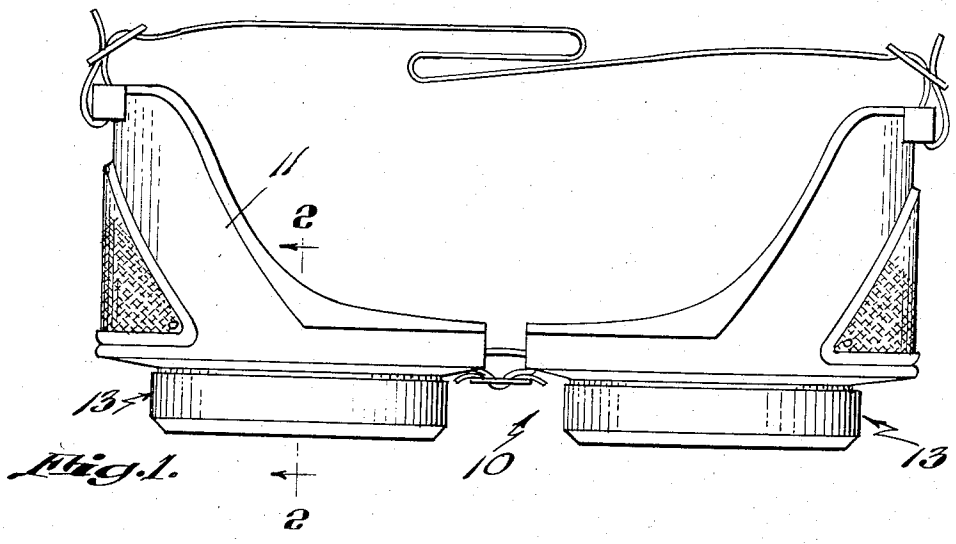


Fig. 1.

Fig. 2.

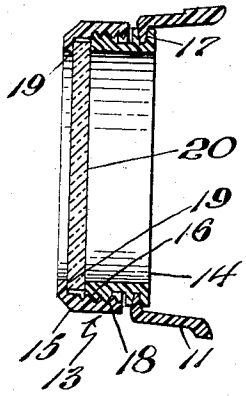


Fig. 3.

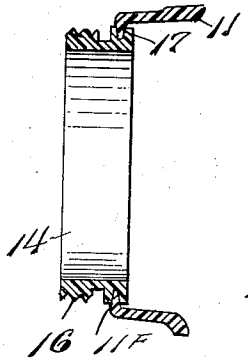


Fig. 4.

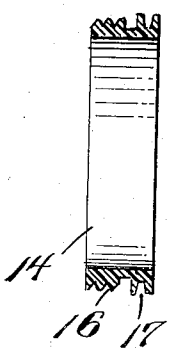
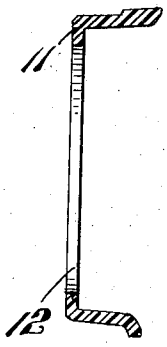


Fig. 5.



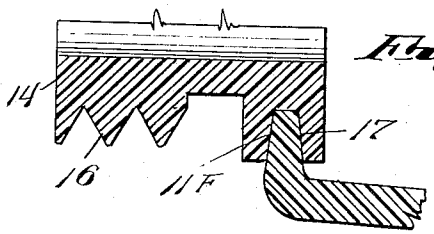


Fig. 6.

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GOGGLE

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1 Claim. (Cl. 2—14)

This invention relates to goggles, particularly goggles in which the eye piece or lens holder is made separate of the body of the goggles.

Goggles of the above type of which I am familiar usually require a machine operation to assemble the lens holder to the body of the goggle. In the alternate, if the goggle is to have replaceable lenses, the body and the lens mount may be formed from rigid material that is uncomfortable for the wearer.

An object of the invention is to provide a way of securing a goggle lens holder to the body of the goggle without the use of tools.

Another object of the invention is to provide a way of securing a lens holder to the body of the goggles which will be particularly adapted to be carried out manually with unskilled labor.

A further object of the invention is to provide a rigid lens holder that will firmly seat in a soft, pliable goggle frame.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings:

Fig. 1 is a top plan view of a pair of goggles embodying the present invention;

Fig. 2 is a sectional view taken substantially along line 2—2 of Fig. 1;

Fig. 3 is a similar view but omitting the lens and bezel of Fig. 2;

Fig. 4 is a similar view of the lens holder per se;

Fig. 5 is a view of a fragmentary portion of the front of the goggle and shown in section; and

Fig. 6 is a fragmentary view of the joint between the lens holder and goggle body on a greatly enlarged scale.

Referring to the drawing in more detail, 10 designates a pair of goggles having a body portion molded into the shape shown from soft, pliable resilient plastic, as for example, polyethylene material, which provides self-sustained wall portions and also allows said walls to be readily deformed under pressure of the fingers and which wall may be stretched and recovered to original molded shape when free of said pressure. The body 11 has a front wall 11F which extends in a flat plane and is provided with spaced sight openings 12 therethrough. The lens holder indicated generally 13 comprises an annular portion 14 and a cap or bezel 15. The annulus 14 is externally screw threaded at one end thereof as at 16 and has a tapered circumferential groove 17 at the other end thereof. The annulus 14 is relatively stiff and is made of a hard acetate or other suitable material exhibiting stiffness. The bezel 15 is made of a similar hard acetate or other suitable material and is internally screw

threaded as at 18 inwardly from one end thereof to engage threaded portion 16. An annular inwardly extending shoulder 19 is provided at the other end of the bezel and against which abuts the lens 20 to be clamped between the said shoulder 19 and the adjacent end edge of annulus 14 (see Fig. 2) when said bezel is engaged with said annulus.

The lens holder 13 is secured to the goggle body by inserting the edge of the material about the sight opening into the groove 17. In order to assure a tight joint, the diameter of the sight openings 12 are made slightly less than the diameter of the groove 17, preferably on the order of .060".

Additionally, the groove 17 has a tapered cross section with a wide open mouth portion. In a preferred construction, the mouth portion of the groove is of a width greater than the thickness of the material to be received therein and a root section of smaller width than said material. For example, if the front wall 11F has a thickness of .090", then the mouth portion might be on the order of .093" and the root portion on the order of .087".

In assembling the annulus 14 with the body of the goggle, the material about the sight opening is stretched to be passed into groove 17. Upon being released, the material about the sight opening will recover and be compressed in said groove inasmuch as the sight opening diameter is less than the diameter of the groove so as to result in a tight connection. This construction allows the bezel to be tightly secured in place or removed without experiencing any turning of the annulus 14 relative to the body of the goggle.

From the foregoing, it will be apparent that the annulus 14 may be easily assembled to the body 11 without the use of tools, jigs or fixtures. It will be further apparent that the assembling of the lens holder to the body may be made with inexperienced labor which reduces the cost of manufacture.

In some cases, the annulus 14 may be positioned in a mold and the body 11 molded about the annulus lodging in the groove 17.

I claim:

A goggle comprising a body provided with a front wall having a sight opening, a lens holder of an annular shape provided with a circumferential outwardly opening groove on its outer surface, said groove having outwardly extending, annularly continuous, straight side walls and of a diameter greater than the diameter of said sight opening, the side walls of said groove converging inwardly and at their inner portions have a dimension between them less than the thickness of said front wall, said groove frictionally receiving in a plane perpendicular to the axis of the lens holder the marginal edge of the front wall about said sight opening, said lens holder being relatively rigid and said walls being relatively flexible and elastic so that the front wall may be expanded outwardly of said groove to detach the holder from the body.

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