Dec. 1, 1959 W. F. STERNE ET AL 2,914,770

SAFETY GOGGLE

Filed July 26, 1957

Fig. 1.

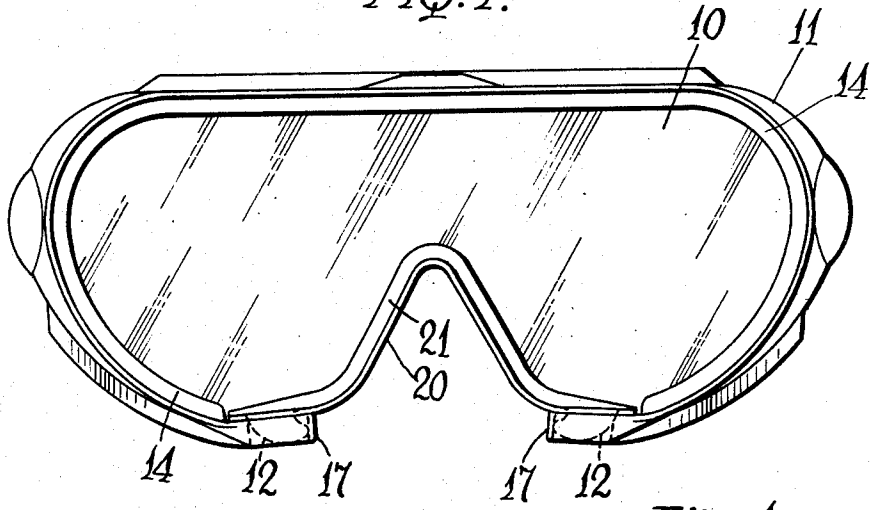


Fig. 2.

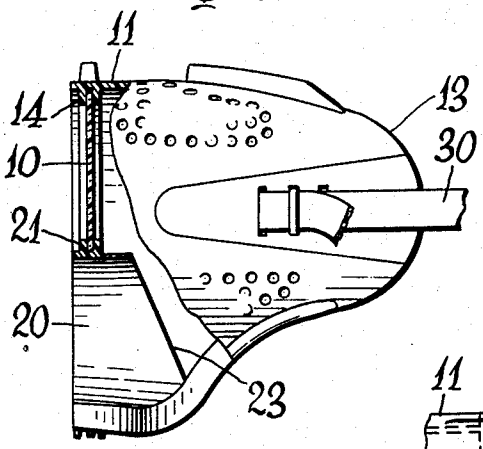


Fig. 4.

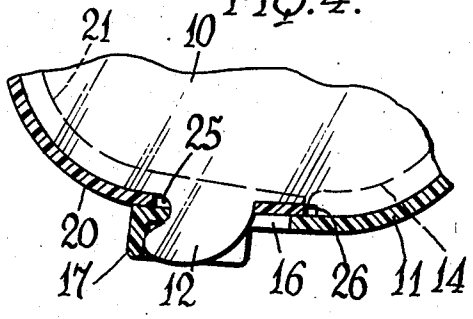
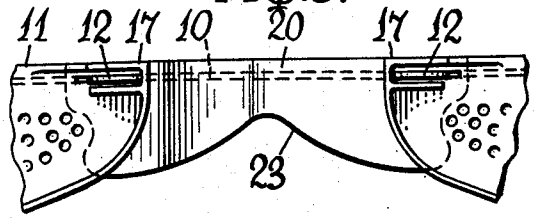


Fig. 3.



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United States Patent Office 2,914,770
Patented Dec. 1, 1959

2,914,770

SAFETY GOGGLE

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Application July 26, 1957, Serial No. 674,456

5 Claims. (Cl. 2—14)

This invention relates to goggles of the type designed to protect the eyes of the wearer against dust, dirt and other foreign matter, such goggles being used particularly by industrial workers of various kinds such as in welding, grinding and similar occupations where flying particles present an eye-safety hazard.

A fairly common type of safety goggle of this general class comprises a continuous generally oblong lens member and a frame or support member which fits about the periphery of the lens member and is secured thereto or interlocked therewith. The frame or support member extends rearwardly from the lens member, and its rear edge is contoured to fit against the face of the wearer, particularly against the forehead, the cheekbone and the nose portions of the face.

Certain prior art forms of safety goggles of this general class comprise a frame member which extends about the lens member with an opening at the bottom of the frame at a point where the lens is notched or otherwise formed to accommodate the nose of the wearer. An example of safety goggles of this form is found in Taylor, et al. Patent No. 2,770,807. In other forms of this general type of safety goggles the frame member comprises a continuous loop which fits entirely about the edges of the lens member having a reentrant portion in registry with the lower central notch of the lens member provided to accommodate the nose of the wearer. Both of these general types of safety goggles have distinct advantages. The type wherein the frame is interrupted at the nose portion may be manufactured with greater facility and more readily accommodates inhalator devices and the like. On the other hand, the type wherein the frame extends throughout the nose notch of the lens may fit better and be more comfortable for certain types of use.

The present invention provides a safety goggle arrangement wherein the advantages of both types are afforded, either simultaneously or by ready adaptation. In its broadest phase the present invention comprises a two-piece framing arrangement wherein a separate framing portion is provided for engagement with the lower central portion of the lens which is notched to accommodate the nose of the wearer. With this separate nose framing member in position the goggles possess all of the advantages of the continuous loop type of goggle frame but may be manufactured with greater facility and assembled about the lens with greater ease. Furthermore, the arrangement is such that the separate nose framing portion may be omitted or may be readily removed from the goggles as desired. This omission or removal may be for any of various reasons, for instance when a mask or inhalator is to be employed which would normally be interferred with by the nose framing portion of the continuous loop type of goggle frame.

A further important advantage of the separate nose piece frame member construction of the present invention resides in the fact that it permits the use of a different material for the nose piece portion of the frame

whereby a softer or more flexible plastic material may be used for this portion of the frame to rest more easily on the nose of the wearer, it being understood that a relatively more self-sustaining material is required for the main framing portion of the goggles.

Various modifications and mechanical advantages may be made in the goggles illustrated and described herein without departing from the principles of the present invention. It is to be understood that the embodiment thus illustrated and described in detail is set forth by way of example and that the principles of the invention are not limited thereto or otherwise than as defined in the appended claims.

In the drawings:

Fig. 1 is a general front elevational view of an assembled goggles of one form of the present invention;

Fig. 2 is a side elevational view of the goggles of Fig. 1 with the front portion shown as a vertical central cross-sectional view;

Fig. 3 is a fragmentary bottom plan view of the central portion of the goggles of Fig. 1; and

Fig. 4 is an enlarged fragmentary cross-sectional view of one of the junctures of the two frame portions of the goggles of Fig. 1, the view being taken similarly to Fig. 1.

Like characters of reference denote like parts in the several figures of the drawing and, referring more particularly to Fig. 1, a lens member **10** of transparent, relatively stiff, plastic or other material is horizontally oblong to cover both of the eyes of the wearer and is notched at its lower central portion to accommodate the wearer's nose, all as shown in Fig. 1 and as is generally known in the art. A main frame member **11** extends across the top and sides of the lens member **10** and terminates generally at the lower part of the lens member at opposite sides of the nose notch thereof. As shown in Figs. 1 and 4 the lens member **10** is provided with a pair of hook formations **12** for interlocking engagement with the frame member **11** in a manner which will presently appear.

The rear edge of frame member **11** is contoured irregularly as indicated at **13** in Fig. 2 to fit against the face of the wearer and the interior of the frame member **11**, adjacent to its front edge portion, is provided with an inwardly directed channel formation **14** which fits over the edge of lens member **10**. In the form illustrated herein, as will be seen from Figs. 1 and 4, channel formation **14** of frame member **11** terminates short of the hook formations **12** of the lens member **10**. Beyond the terminus of each end of channel formation **14** the frame member **11** is slotted as at **16** in Fig. 4 to fit over the companion hook formation **12** of the lens member and the end portions of frame member **11** are preferably flanged as at **17** to shroud or enclose the assembled hook formation **12** when the frame is in assembled position.

The nose portion framing member is designated **20** and generally forms a continuation of the main frame member **11**, being provided in a similar manner with a channel formation **21** which fits over the edge of the nose opening notch in the lens member **10**. The rear edge portion of nose framing member **20** is contoured as at **23** in Figs. 2 and 3 to more or less fit and rest upon the nose of the wearer and, as indicated in the preamble hereto, may be formed of a relatively soft plastic material to provide a comfortable nose rest portion.

The end portions of nose framing member **20** are notched as at **25** to fit over hook formation **12**, being retained in assembled position over such hook formations by the overlying end portions of the main framing

member 11 as clearly shown in Fig. 4. The lens member is preferably notched as at 26 to accommodate such end portions of the nose portion framing member 20.

Thus in assembly the nose portion framing member 20 is merely placed in position with its notches 25 assembled over the hook formations 12 of lens member 10 and the main framing member 11 is then assembled in the same manner as in the above-identified Taylor, et al. patent, such assembly of the main framing member automatically retaining the nose portion framing member in proper assembled position. If the nose portion framing member is not desired it is merely omitted in this assembly operation. If desired, the nose portion framing member 20 may be cemented or otherwise attached to the companion end of the main framing member in a more or less permanent manner, either at one end or at both ends. While this does not permit ready omission of the nose portion framing member, it still affords certain manufacturing advantages and permits the use of a different material for molding the nose portion framing member than the material of the main frame member.

A head band 30 is attached to opposite sides of the main framing member 11 in an adjustable manner as shown in Fig. 2 and as is known in the art.

We claim:

1. In a goggle, an oblong lens member having a central notch in its lower edge to accommodate a wearer's nose, an integral open ended frame member of flexible self-sustaining material extending about said lens member and terminating at the lower ends of said notch, and a supplemental frame member of a softer and less self-sustaining flexible material than the first-mentioned frame member shaped to follow the contour of said notch and detachable interlocking means integral with one of said members connecting said ends with the terminal portions of said open ended frame member, whereby said two frame members form a continuous rim about said lens member and extending rearwardly from said lens member with the rear edges of the frame members contoured to fit a wearer's face.

2. In a goggle, an oblong lens member having a central notch in its lower edge to accommodate a wearer's nose, an open ended frame member of flexible material extending about said lens member and terminating adjacent to the lower ends of said notch, and a supplemental frame member of flexible material shaped to follow the contour of said notch and terminating in overlapping relation with respect to the ends of said open ended frame member, and means on said lens member for detachable engagement with the overlapping ends of the frame members whereby said two frame members form a continuous rim about said lens member, said frame members extending rearwardly from said lens member with the rear edges thereof contoured to fit a wearer's face.

3. In a goggle, an oblong lens member having a central notch in its lower edge to accommodate a wearer's nose and hook formations at opposite sides of said notch and projecting generally toward said notch, an open ended main frame member of flexible material extending about said lens member and terminating adjacent to the lower ends of said notch, said frame member having slots adjacent to its ends for interlocking engagement over said hook formations, and a supplemental frame member of flexible material shaped to follow the contour of said notch and having openings at its ends disposed over said hook formations with said ends underlying the hook-engaged ends of said open ended frame member to be retained by the latter, said two frame members forming a generally continuous rim about said lens member and extending rearwardly therefrom and contoured to fit against a wearer's face.

4. In a goggle, an oblong lens member having a central notch in its lower edge to accommodate a wearer's nose and hook formations at opposite sides of said notch and projecting generally toward said notch, an open ended main frame member of flexible material extending about said lens member and terminating adjacent to the lower ends of said notch, said frame member having slots adjacent to its ends for interlocking engagement over said hook formations, and a supplemental frame member of flexible material shaped to follow the contour of said notch and having slots at its ends fitting over said hook formations beneath the hook-engaged ends of said open ended frame member to be retained by the latter, said two frame members forming a generally continuous rim about said lens member and extending rearwardly therefrom and contoured to fit against a wearer's face.

5. In a goggle, an oblong lens member having a central notch in its lower edge to accommodate a wearer's nose and hook formations at opposite sides of said notch, an open ended main frame member of flexible material extending about said lens member and terminating adjacent to the lower ends of said notch, said frame member having openings at its ends for engagement over said hook formations, and a supplemental frame member of flexible material shaped to follow the contour of said notch and likewise having openings at its ends for engagement over said hook formations whereby said two frame members are detachably retained by said hook formations to form a generally continuous rim about said lens member and extending rearwardly therefrom and contoured to fit against a wearer's face.

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