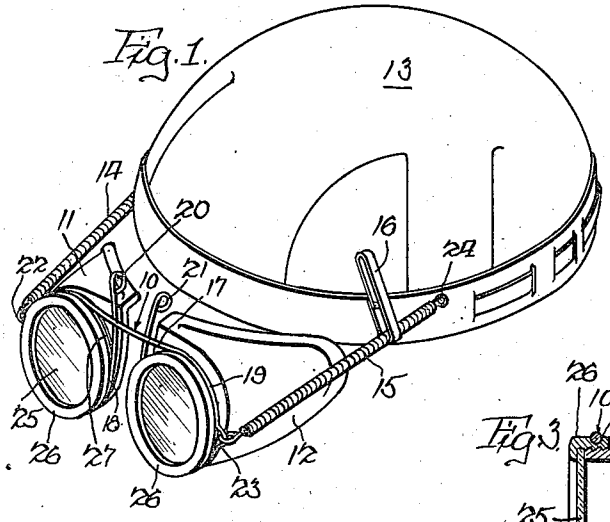
May 19, 1942. C. K. KELLEY 2,283,739

GOGGLE FRAME

Filed Aug. 5, 1940

Fig. 1.



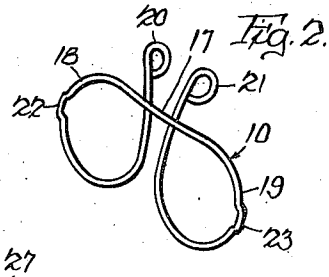


Fig. 2.

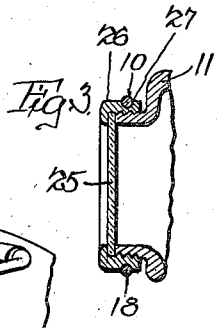


Fig. 3.

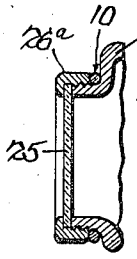
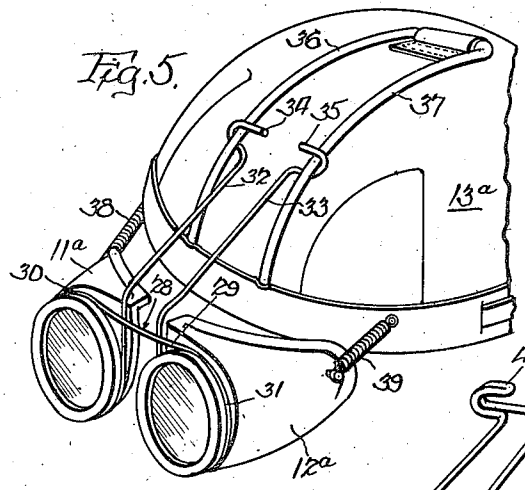


Fig. 4.

Fig. 5.



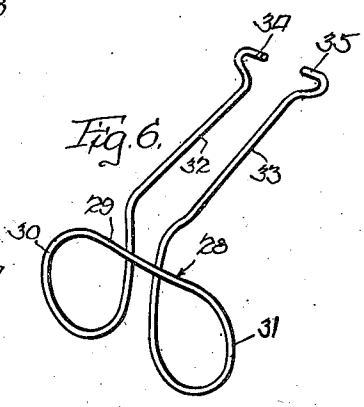


Fig. 6.

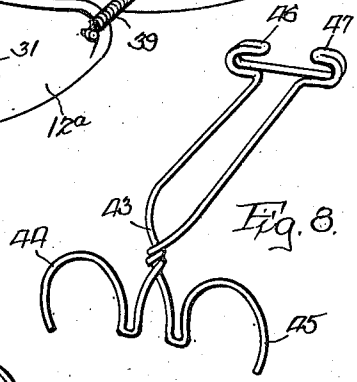


Fig. 8.

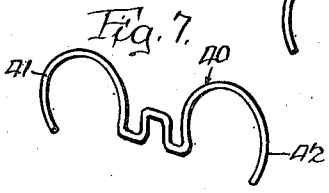


Fig. 7.

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2,283,739

GOGGLE FRAME

Charles K. Kelley, Chicago, Ill.

Application August 5, 1940, Serial No. 351,524

7 Claims. (Cl. 2—14)

This invention relates to improvements in goggles, and is more particularly directed to a goggle frame to which the goggles are attached, the structure being such that the goggles may be readily adjusted to suit the wearer.

In the use of goggles by welders, grinders and others, it has been found that they do not properly fit to fully enclose the eyes of all of the wearers, and consequently when not properly fitted, may subject the wearer to severe harm should a spark or flash attack the eyes.

While the structure shown is particularly for use by welders, grinders, buffers, etc., the same is susceptible for use as sun glasses, etc., and it is when used by welders or grinders, that the goggles must fit closely and properly, in order to afford the greatest amount of protection to the wearer.

An object of the present invention is the provision of a goggle frame to which individual goggle cups may be securely attached and which frame permits of the adjustments of the goggle cups to suit and properly fit the wearer.

Another object is the provision of a goggle frame formed preferably of one piece and arranged to be sprung to permit of the attaching of the goggle cups thereto and to also permit of their turning movements while attached in the frame.

A further object is the provision of a goggle frame formed in a manner to provide openings properly spaced to receive goggle cups positioned therein, and which frame is arranged to be manually sprung to permit of the insertion or removal of the cups.

And a further object is the provision of a goggle frame which may be attached to a visorless cap by means of a yielding connection attached to each side of the goggle frame and cap for maintaining a yielding pressure of the goggles on the wearer's face.

The invention is illustrated in the accompanying drawing in which:

Figure 1 is a perspective view showing my improved goggle frame with goggle cups attached thereto, and with yielding means on the frame attaching the same to a visorless cap.

Figure 2 is a perspective detail view of the goggle frame.

Figure 3 is a cross-sectional view taken through the goggle cup, illustrating the goggle frame as attached to the cap thereof.

Figure 4 is a cross-sectional view of a goggle cup, illustrating the goggle frame as positioned between the cup and the cap of the goggle.

Figure 5 is a perspective view of the goggle frame with goggles attached thereto, and with the frame slidably attached to guide members supported on a cap.

Figure 6 is a detail perspective view of the goggle frame shown in Figure 5.

Figure 7 is a modified form of goggle frame; and

Figure 8 is a modified form of goggle frame similar to that shown in Figure 7, with an extension thereto for guiding the same on guides, similar to those shown in Figure 5.

Referring more particularly to Figs. 1 to 4, inclusive, the goggle frame is designated as a whole as 10, and is illustrated as having the goggle cups 11 and 12 attached thereto and with the frame attached to a visorless cap 13 by means of tension springs 14 and 15, each of which extends through a loop 16 (one of which is shown), and which loops are attached to the cap and serve to limit the swinging movement of the goggle from lowered position when in use to raised position on the cap.

The goggle frame 10 as illustrated, is preferably constructed of a spring wire of a sufficient size and strength to retain its position when formed and to permit of a yielding tension against the goggle cups attached thereto. The goggle frame 10 is formed to provide a substantially horizontally extending portion 17 which terminates into a pair of spaced apart loops 18—19, and the free ends of the frame extend upwardly and terminate into relatively small loop portions 20—21 forming finger grips. At the extreme outer sides of the loops 18—19, the frame 10 is formed with small outwardly projecting portions 22—23 to which earpieces may be attached, but as illustrated in Figure 1, springs 14 and 15 are attached to the loops and the other ends of the springs are pivotally attached at 24 to the wearer's cap 13.

As illustrated in Figure 3, the goggle cup 11 may be suitably fitted with a colored lens 25, which may be of any desired color, or which may be arranged with a pair of lenses, such as is common in welders' goggles, where a colored lens is employed and a plain glass is used outwardly thereof for protecting the colored lens from damage. The lens 25 is secured in position on the cup 11 by means of a cap 26, which may be threaded or otherwise secured to the cup, and which cap 26 is provided with an annular groove 27 therearound for receiving one or the other of the loops 18 or 19 of the goggle frame 10.

In order to attach the goggle cups and caps to the goggle frame, it is only necessary that the two finger grips 20—21 of the goggle frame be pressed, which will effect the opening of the loops 18 and 19 a sufficient distance to insert the caps within the loops, and when the finger grips are released, the loops 18 and 19 will fit into the grooves 27 of the goggle caps 26 and securely retain them in position with the frame.

When it is desired to adjust the goggle cups 11 or 12 to suit the wearer, they may be frictionally turned with respect to the frame 10, or the finger grips 20—21 may be sufficiently pressed to release the tension on the caps 26 and permit of their turning movements in the loops 18 or 19. The frame being of spring material, will permit of considerable flexing for the inserting and rotary adjustments of the goggle cups. This adjusting movement of the cups with respect to the frame is very convenient, especially where the type of cup employed is for use by welders or grinders, and in which instances, the cup is constructed to extend on each outward side of the eyes, as well as to closely fit the bridge of the nose, and when properly adjusted in the frame, a very snug fit may be had.

In Figure 4, the loops of the frame are illustrated as gripping the cup and resting between the cup and the cap, and in this instance, the cap 26*a* is illustrated without the annular groove shown in Figure 3.

While the goggle frame 10 is arranged to be flexed, it is illustrated in Figs. 4, 6 and 8, as also having an extension for guiding the same on guide rails during its movements into and out of wearing position, and these guide rails are more fully illustrated and described in my pending application Ser. No. 344,296, filed July 8, 1940, for "Goggle."

In Figs. 5 and 6, the goggle frame 28 is provided with a horizontal portion 29 and spaced apart loops 30 and 31 for receiving the goggle cups. The free ends 32—33 of the loops extend upwardly and rearwardly and terminate into a pair of inwardly directed U-shaped portions 34—35 to receive the guide rails 36—37 for guiding the frame and goggle during its movements into and out of wearing position.

The tension springs 38 and 39 are secured to each side of the cups 11*a* and 12*a* and to the cap 13*a* and serve to maintain a tension on the goggles when in use.

The modified form Fig. 7 illustrates a goggle frame 40 which is provided with spaced apart loops 41 and 42, which extend a little more than a semi-circle and thereby provide resilient means and a space through which the goggle cups may be inserted from the bottom against the yielding tension of the frame.

In Fig. 8 is illustrated a structure similar to that shown in Fig. 7, only that the frame portion 43 between the loops 44—45 extends upwardly and rearwardly and is formed at its extreme rearward end to provide inwardly directed U-shaped portions 46—47.

While I have illustrated several forms of goggle frames, the same are all arranged to yieldingly grip the goggle cups and to permit of their turning adjustments in the frame, and also of their being easily and quickly removed from the frame for cleaning purposes or for the renewal of the lenses.

I claim:

1. An eye protector of the character described, comprising a frame formed to provide a pair of spaced apart loop openings each arranged to receive a goggle cup therein and to frictionally retain said cups turnable for adjustments therein, and upwardly extending portions on said loops whereby to expand them for the release of the goggle cups.

2. An eye protector of the character described, comprising a frame formed of substantially resilient material to provide spaced apart loop openings each arranged to receive a goggle cup therein, said loops terminating into upwardly extending portions whereby to expand said frame for the release of the goggle cups from the loops said frame frictionally retaining the goggle cups for rotary adjustments in each of said loops.

3. An eye protector of the character described comprising, a frame formed to provide a pair of spaced apart loops for receiving goggle cups therein, said loops terminating into upwardly extending portions forming finger grips for expanding said loops for the release of the goggle cups, said loops frictionally retaining the goggle cups when inserted.

4. An eye protector of the character described comprising, a frame formed to provide a pair of spaced apart loops each having upwardly directed portions extending substantially parallel to each other and forming finger grips whereby to expand said loops, a goggle cup in each of said loops and frictionally retained against turning movements therein, guide means, and means extending from said finger grip to slidably attach said frame on said guide means.

5. An eye protector of the character described comprising, a frame formed to provide a pair of spaced apart loops each arranged to receive a goggle cup therein and to frictionally retain and resist turning movements of the goggle cups, a cap having guide means thereon, and upwardly and rearwardly directed portions on said frame including means at the ends of said portions to slidably attach said frame on said guide means.

6. An eye protector of the character described comprising, a frame formed to provide a pair of spaced apart loops each having upwardly directed integral portions extending substantially parallel to each other forming finger grips whereby to expand said loops, a goggle cup in each of said loops and frictionally retained against turning movements therein, means for holding the device on the head of a person, and means resiliently connecting said device with said last-mentioned means.

7. An eye protector of the character described, comprising a frame formed to provide a pair of spaced apart loop openings each arranged to receive a goggle cup therein and to frictionally retain them turnable for adjustments therein, a cap having guide rails thereon, said frame having upwardly and rearwardly directed portions whereby to expand said frame for the release of the goggle cups and to slidably attach said frame on said guide rails.

CHARLES K. KELLEY.