July 10, 1928. 1,677,089

S. H. HOPEWELL

GOGGLES

Filed April 28, 1927

Fig. 1.

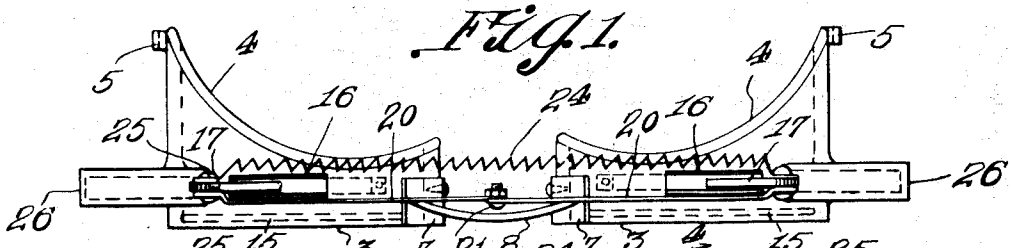


Fig. 2.

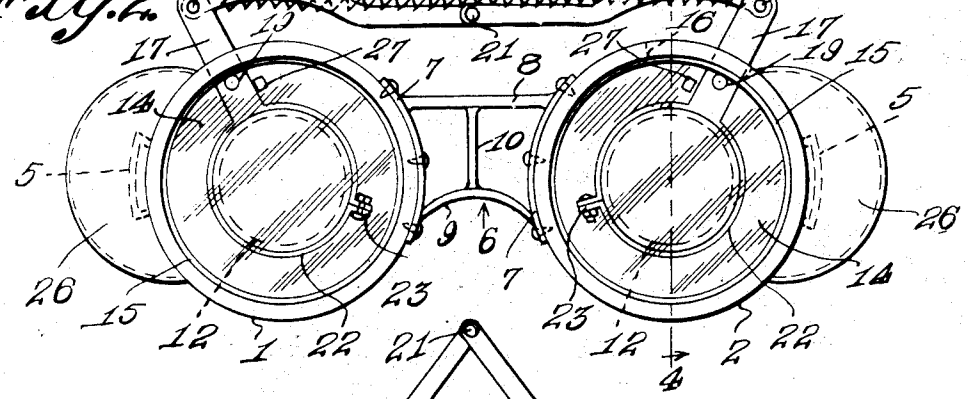
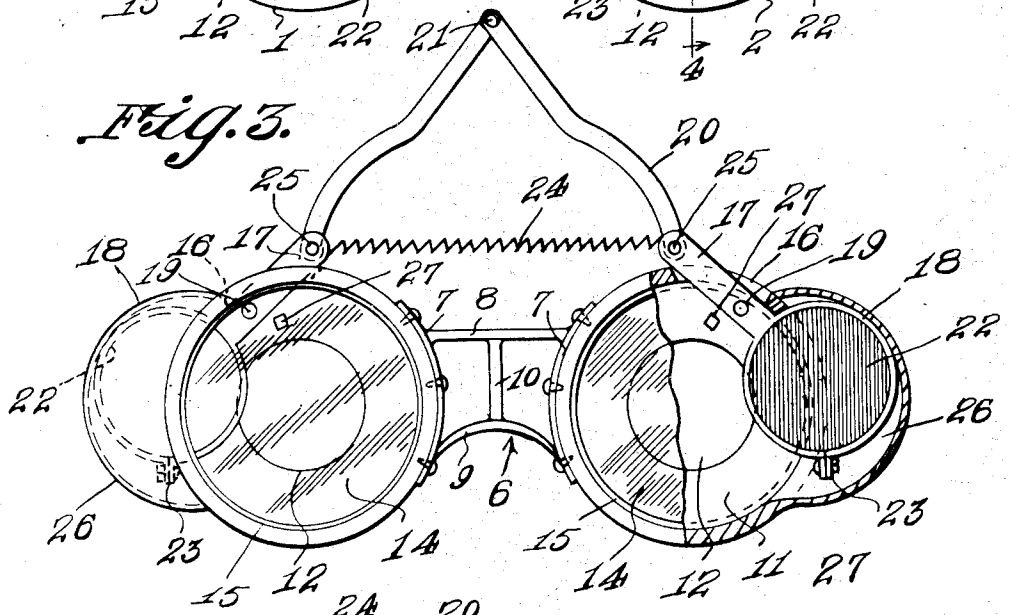


Fig. 3.



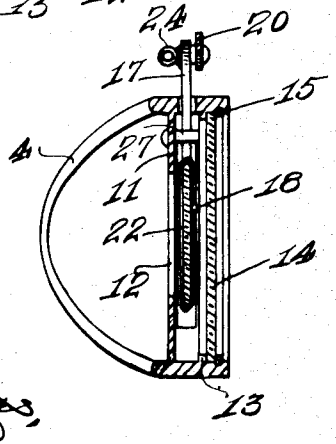


Fig. 4.

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WITNESS:

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UNITED STATES PATENT OFFICE.

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GOGGLES.

Application filed April 28, 1927. Serial No. 187,298.

This invention relates to optics, and its general object is to provide a pair of protective spectacles commonly known as goggles, that includes two sets of lens, one of which is colored and movable into and out of registration with the other set which is clear, in an easy and expeditious manner, so that the eyes of the wearer will be amply protected against strong light and heat when using the colored lens in combination with the clear lens, and the colored lens can be moved out of registration with the clear lens when a clear vision is desired.

A further object of the invention is to provide goggles of the character referred to that are simple in construction, strong, constructed to endure prolonged life, and are inexpensive to manufacture.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a top plan view of the goggles forming the subject matter of the present invention.

Figure 2 is a front view of the goggles with the colored lens thereof in operative position.

Figure 3 is a similar view with the colored lens in their normal position.

Figure 4 is a sectional view taken on line 4—4 of Figure 2.

Referring to the drawings in detail the reference numerals 1 and 2 indicate similar shaped body portions each of which include a hollow circular rim having a straight front edge 3 while the rear portion of said rims terminate in an outwardly extending curved edge 4 to follow the shape of the wearer's face upon opposite sides of the eyes and so as to provide closed sides for the goggles as will be readily apparent. Formed on the closed sides and at the extreme inner ends thereof are substantially U-shaped bails 5 adapted to receive an elastic head piece (not shown) and of course this head piece can include a buckle or other similar adjusting fastening means whereby it can be adjusted with respect to the wearer's head.

The body portions are secured together in the usual manner through the medium of a bridge frame broadly indicated by the reference numeral 6, and which has curved side arms 7 following the curvature of the rims and fixed to the confronting sides thereof as best shown in Figures 2 and 3 through the medium of screws. Extending between the side arms 7 are pieces 8 and 9 which are braced by a central vertically extending strip 10. Arranged in each of the rims is a partition 11 of disk formation and centrally formed in each partition is a vision opening 12. Extending inwardly from the inner surface of the rims and disposed outwardly from the partitions 12 are annular ribs 13 which provide a stop for clear lens 14 and in order to retain the lens 14 in engagement with the ribs 13, I provide resilient rings 15 accommodated in grooves formed in the rims as best shown in Figure 4.

The rims are provided with slots 16 in their upper ends, through which pass the arms 17 of circular lens clamps 18. The arms 17 are pivotally secured to the partitions 11 through the medium of pins 19, and pivoted to the outer ends of the arms 17 are one of the ends of links 20 which have their opposite ends pivotally secured together by a pin 21.

The lens clamps have secured therein colored lens 22 and it will be apparent that due to the bolt and nut connection 23 the lens 22 can be readily changed so that any colored lens can be used, it depending of course upon the desired color and which color is best suited for the wearer.

A coil spring 24 has its opposite end secured to the pivot pins 25 for the arms 17 and links 20, and said spring is adapted to urge the colored lens carrying means to their normal inoperative position and when in such position the lens 22 are disposed in chambers 26 integrally or otherwise formed upon the opposite sides of the rims as best shown in Figure 3 of the drawing. Of course the chambers 26 communicate with the rims and the side walls of the rims are slotted as at 27 for this purpose.

From the above description and disclosure in the drawings it will be obvious that I have provided a pair of goggles which will

amply protect the eyes of the wearer regardless of the conditions they are subjected to, and in the event the wearer desires to protect his eyes against strong light, all that is necessary is to apply pressure to the links 20 which will move the colored lens 22 with their holding means against the tension of the spring 24 and dispose the same into registration with the sight opening 12 and the clear lens 11 as shown in Figure 2 of the drawings, and I have provided stops 27 to limit the inward movement of the lens 22 as will be apparent. When a clear vision is desired, a slight pressure may again be applied to the links 20 which are in a position as shown in Figure 2, and such pressure will break the joint provided by the pin 21 and cause the spring 24 to position the colored lens in the chambers 26 as shown in Figure 3.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A pair of protective spectacles of the character described comprising similar shaped body portions, including rims, a partition disposed in each rim and being provided with a centrally disposed sight opening, means for securing the inner sides of said rims together in spectacle formation, chambers formed on the outer sides of said rims and communicating therewith, a clear lens secured in each of said rims and colored lens adapted to be cooperatively associated with said clear lens in a manner to be disposed in registration therewith and the sight openings respectively and capable of being disposed out of said registration and into the chambers.

2. In goggles of the character described, a pair of similar shaped body portions including rims, means for securing said rims in cooperative position, a partition for each rim and each partition being provided with a centrally disposed sight opening, an annular rib formed in each rim adjacent an annular groove therein, a clear lens disposed in each of said rims for engagement with the ribs, a resilient ring for holding the lens in operative position, lens clamps, colored lens detachably secured in said clamps, arms formed with said clamps and being pivotally secured to the partitions, link means secured to said arms, resilient means between said arms and adapted to urge said colored lens out of registration with the clear lens and stop means carried by said partitions for limiting the inward movement of said colored lens and retaining the same in registration with the clear lens.

In testimony whereof I affix my signature.

SAMUEL HENRY HOPEWELL.