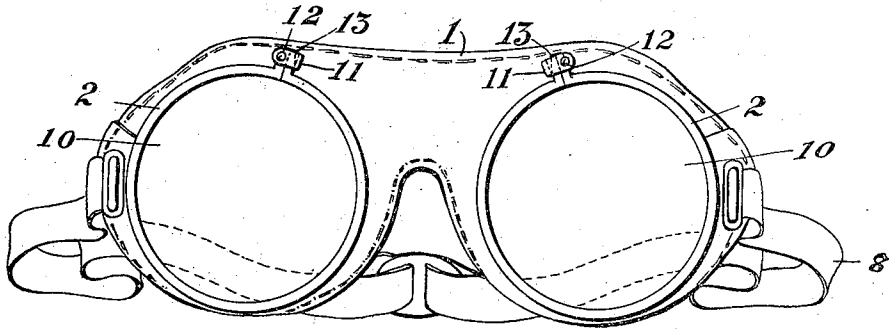
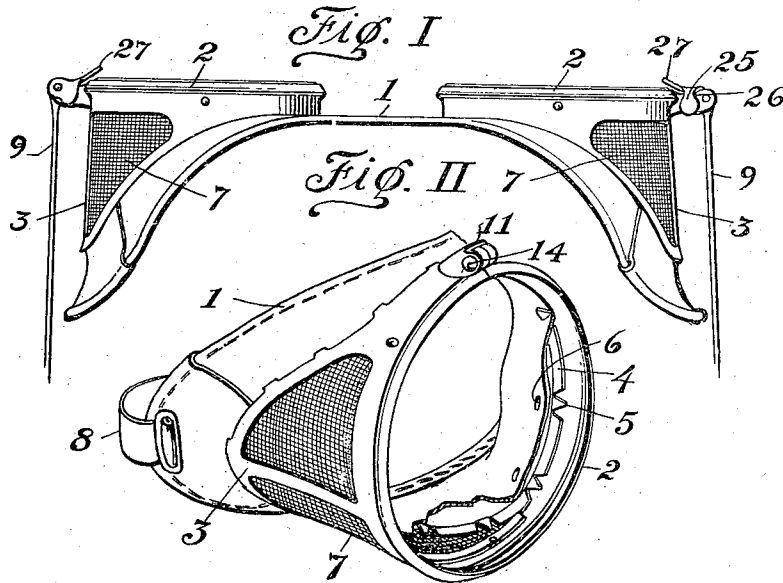
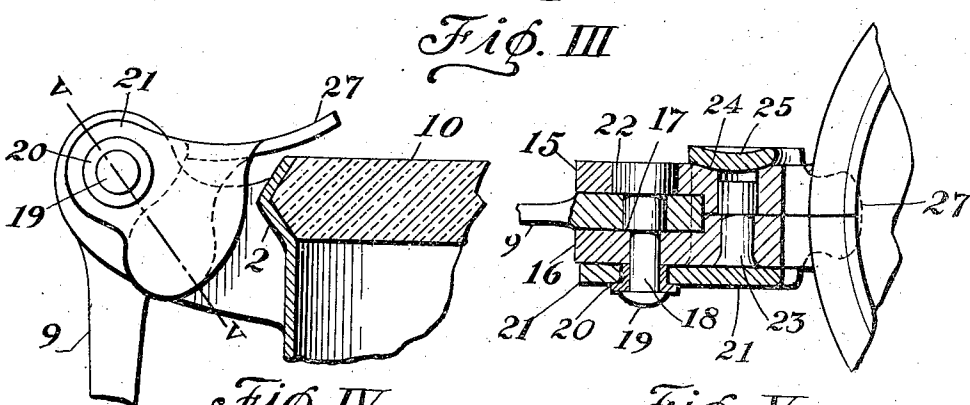


G. H. DAY.
EYE PROTECTOR.
APPLICATION FILED SEPT. 20, 1915.

1,243,820.

Patented Oct. 23, 1917.



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EYE-PROTECTOR.

1,243,820.

Specification of Letters Patent.

Patented Oct. 23, 1917.

Application filed September 20, 1915. Serial No. 51,636.

To all whom it may concern:

Be it known that I, GEORGE H. DAY, a citizen of the United States, residing at Southbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Eye-Protectors, of which the following is a specification.

My invention relates to improvements in eye protectors, and has particular reference to improved means for readily connecting the several parts of the protector.

One of the leading objects of my invention is the provision of a novel form of attaching device permitting of ready removal and replacement of the lenses as desired.

A further object of the invention is the provision of improved means for connecting the lens frame and flexible shield portions of the mounting.

Other objects and advantages of my improved construction should be readily apparent by reference to the following description taken in connection with the accompanying drawings, and it will be understood that I may make any modifications in the specific details of construction shown and described within the scope of the appended claim without departing from or exceeding the spirit of my invention.

Figure I represents a front elevation of one form of my improved eye protector.

Fig. II represents a plan view of another form thereof.

Fig. III represents a fragmentary perspective view illustrating another slight modification of locking means.

Fig. IV represents an enlarged detail view, and

Fig. V represents a sectional view on the line V—V of Fig. IV.

In the drawings, in which similar characters of reference are employed to denote corresponding parts throughout the several views, the numeral 1 has been employed to denote the main or face engaging portion of the protector, which has been here illustrated as formed from leather or like flexible material shaped to fit the face and exclude all dust or other foreign matter, while carried by said member 1 are the pair of lens engaging frames or cups comprising a lens engaging ring 2 having extending rearwardly therefrom the shield portion 3 terminating in the inturned bracing flange 4, which has cut therefrom the prongs 5 adapted to be

forced through the apertures 6 in the member 1 and then crimped down against the cup portion 3 to securely connect the cup or lens frame member with the flexible shield portion 1, as will best be understood by reference to Fig. III.

By reference to this figure it will be noted that the flange 4 at the outer portion of the lens frame or cup 3 is clamped down against and serves to securely retain in position the mesh 7, portions of the flange thus serving to clamp the mesh 7 or portion of the cup in position, while the additional portions clampingly engage and secure the entire lens frame or cup to the flexible face engaging portion.

To retain the protector in position on the face of the wearer, I may employ either the head band 8, as illustrated in Figs. I and III, or the temples 9, as illustrated in certain of the other views, the essential being that some means be provided for securely retaining the protector in close engagement with the face where it will satisfactorily perform the intended purpose.

One of the main purposes of my present protector is for use in shops or the like to prevent injury to the eye from flying particles. As a result it frequently happens that the lenses 10 become shattered by said particles and it is necessary that they be replaced. It has hitherto been customary to unite the ends of the slit ring or lens frame 2 by a screw or similar connection to retain the lens in position. This practice is open to certain objections in the shop, in that it is necessary to have a specially designed screw driver to loosen the screw to remove a broken lens for replacement while the screw itself is liable to become lost during the change, thus occasioning considerable difficulty.

One purpose of my present invention, therefore, is the provision of improved means permitting of the ready removal and replacement of the protecting lenses without the necessity for employment of any tools.

To accomplish this result, in that form of my invention illustrated in Fig. I, I have shown the stirrup 11 as pivoted to one of the ears 12 on the lens ring or frame 2, and adapted to swing downward or over the suitably beveled space of the other ear 13 to lock the ring in closed position and in clamping engagement with the lens. To re-

move and replace the lens, in this form of my invention, it is merely necessary to raise the stirrup 11 with the finger-nail or the like, when the ring may be readily spread sufficiently to admit a new lens, after which the ears may be again brought together and forced into tight locking engagement by closing up of the stirrup 11.

In Fig. III, I have illustrated a slight modification in which the stirrup 11 when closed spans both ears and is pivoted as by the pin 14 to one of the ears, in this case the stirrup being so constructed that when swung forward into open position it will remain fixed to the one ear but will disengage from the opposite ear, the construction and operation in this form being quite similar to the form shown at the right of Fig. II, and to now be described.

In that form of the invention particularly illustrated in Figs. II, IV and V, I have shown my improved eye protector as adapted to be retained in position by temples and have here employed a single end piece formed as by ears 15 and 16, this end piece forming both a joint for the split lens ring 2 and an attachment for the temples 9.

The operation of this form of my invention is shown in detail in Fig. V, from which it will be seen that the ear 16 has bearing thereagainst the shoulder 17 on the pivot rivet 18 which passes downwardly through and projects beyond the ear 16, having its lower end spun or riveted over as at 19, to retain in position the bearing sleeve 20, on which is rotatably mounted the lower portion 21 of my improved locking stirrup. The pin or pivot 18 has a bearing portion above the shoulder 17 on which the temple 9 is pivotally mounted and is provided thereabove with the enlargement or head portion 22 retaining the temple in position, said portion 22 fitting loosely within an aper-

ture in the ear 15 which may be slipped over the head 22 when desired. To aid in centering and prevent lateral relative movement of the ears 15 and 16, I may if desired, rivet or suitably secure in the ear 16 the dowel 23, which projects up into the ear 15 but terminates preferably short of the recess or countersink 24 formed in said ear.

The stirrup or locking member 21 has for engagement with the ear 15, the resilient lip 25 cut away as at 26 so that when in open position it will be entirely clear of the ear 15 which may then be moved away from the ear 16 to open up the lens ring for insertion or removal of the lens, this lip 25 being centrally depressed to fit into the recess 24 and ordinarily securely lock the parts in engagement. To facilitate unlocking or releasing of the parts the stirrup 21 is preferably provided with the finger piece or projecting tongue 27 which may be engaged with the finger-nail or the like to open the locking device.

I claim:

In an eye protector, the combination with a frame and a pair of coextensive end piece members, of a U-shaped locking clip adapted to embrace said members, one of the uprights of the U being formed with a laterally extending ear, and a pivot uniting the ear to one of the end piece sections, the position of the ear being such that it will lie along one of the end pieces when the clip is in locking position and will project laterally from the end pieces and hold the clip to one side of the end pieces and disengaged therefrom when in unlocked position.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE H. DAY.

Witnesses:

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E. M. HALVORSEN.