G. W. McKINSTRY.

EYE PROTECTOR.

APPLICATION FILED OCT. 6, 1917.

1,404,039.

Patented Jan. 17, 1922.

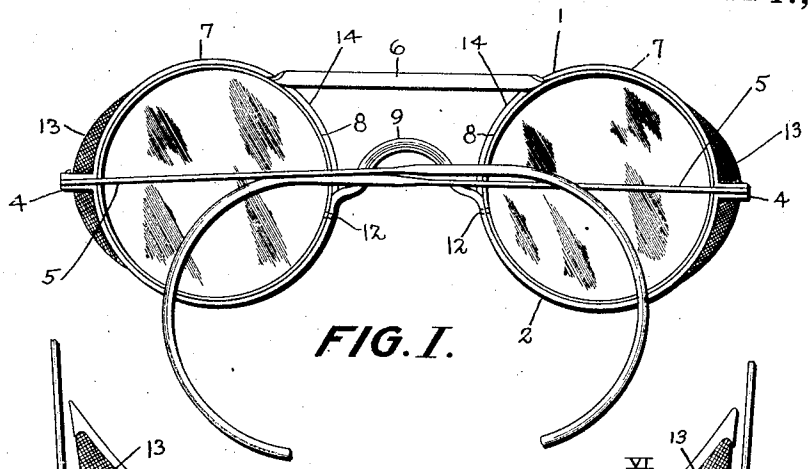


FIG. I.

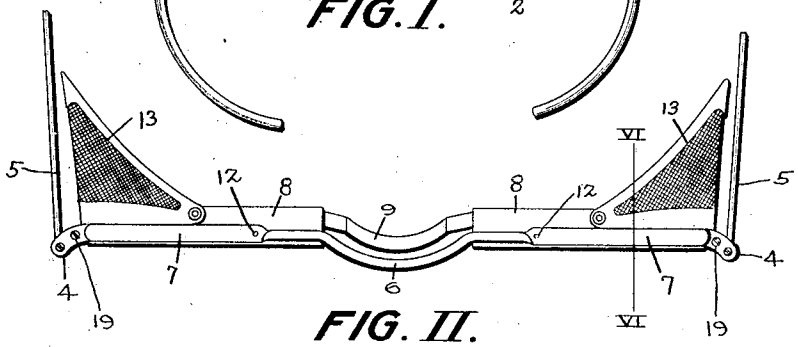


FIG. II.

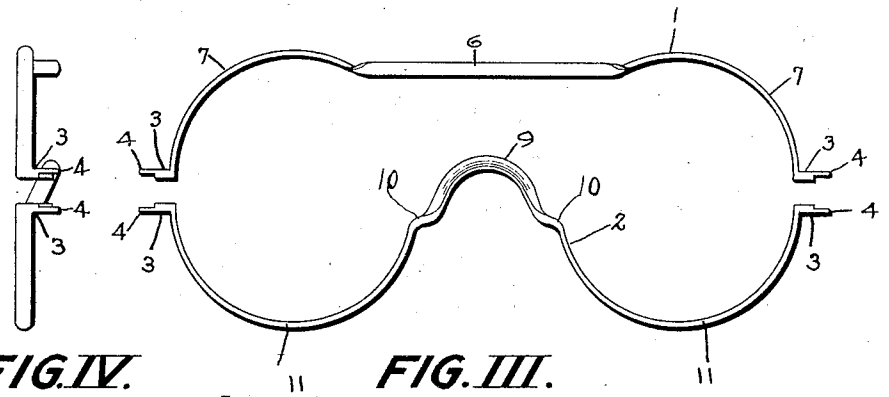


FIG. IV.

FIG. III.

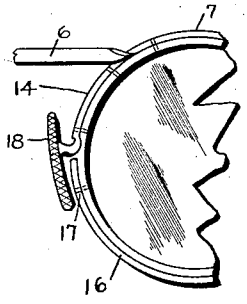


FIG. V.

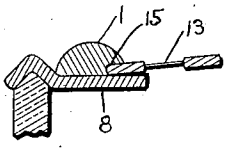


FIG. VI.

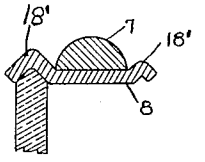


FIG. VII.

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BY

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GEORGE WALTER McKINSTRY, OF SOUTHBRIDGE, MASSACHUSETTS, ASSIGNOR TO AMERICAN OPTICAL COMPANY, OF SOUTHBRIDGE, MASSACHUSETTS, A VOLUNTARY ASSOCIATION OF MASSACHUSETTS.

EYE PROTECTOR.

1,404,039. Specification of Letters Patent. Patented Jan. 17, 1922.

Application filed October 6, 1917. Serial No. 195,035.

To all whom it may concern:

Be it known that I, GEORGE W. McKINSTRY, 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.

This invention relates to new and useful improvements in eye protectors, and more particularly to that form of eye protector which is employed in various industries to prevent injury to the eyes of workmen, it being understood, however, that the same is equally applicable if desired to those forms of eye protectors worn by engineers and train men, by automobilists, motor-cyclists, and the like, or in fact, in any place in which most perfect protection of the eyes in the most sanitary possible manner is desired.

The principal object of the present invention is the provision of a novel construction of frame wherein the several parts are so arranged and secured together as to provide a frame which is not only light in weight but one which presents a very neat appearance while at the same time adjusted so as to securely fasten the lens frames in their proper positions.

Another object of the present invention is the provision of what is known as a solderless eye protector which is constructed of two pieces of metal forming the main body of the protector which embraces the lens frames while the ends thereof are disposed in spaced relation to form bearings for the temples.

With the above and other objects in view the invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully set forth and shown in the accompanying drawings, in which

Figure I is a front elevation of an eye protector constructed in accordance with my invention.

Figure II is a top plan view of the protector.

Figure III is a front elevation of the members comprising the body.

Figure IV is an end elevation of the members comprising the body.

Figure V is an enlarged front elevation of an end of the eye protector illustrating a modified form of the invention, and

Figure VI is a section view on the line VI—VI of Figure II.

Figure VII is a cross section of the frame illustrating a modified form.

Referring more particularly to the drawings, 1 and 2 indicate the two members which comprise the main body of the frame the ends of which are disposed at right angles to the body portions as shown at 3 and arranged in parallel relation while the extremities of the ends are cut away as shown at 4 to provide spaced ears between which the ends of the temples 5 are mounted for pivotal movement. The central portion of the member 1 is disposed in the form of an arc to provide a supplemental bridge 6, while the portions at each end of the bridge 6 are disposed in a plane at right angles to the bridge and curved as shown at 7 to embrace the upper portions of the lens frames or cups 8.

The member 2 is formed at its central portion with the nose bridge 9 the lower portions of which are disposed in a plane at substantially right angles as shown at 10. The portions of the member 2 at each end of the nose bridge are curved in the form of a semi-circle as shown at 11 and adapted to embrace the lower portions of the lens frames or cups 8 as clearly indicated in Fig. I. It will be noted from the accompanying drawings that the circular portions of the members 1 and 2 are riveted to the lens frames or cups 8 at the points indicated by the numeral 12 thus retaining the frames or cups in their proper positions. Arranged within the substantially circular portions 7 and 11 of the members 1 and 2 are the lens frames or cups 8 and pivotally connected to each of these frames 8 at diametrically opposite points is a substantially triangular shaped screen 13, the inner edge of which is adapted to fit tightly against the curved portions of the ends of the members 1 and 2 thus preventing any particles from getting in between the screens and the lens frames. When these screens 13 are not in use they are folded inwardly so that their inner ends are disposed adjacent the nose bridge 9 and

it will also be noted that the temples 5 are folded inwardly over the lens frames on the side opposite the screens whereby the entire protector is so folded that it may be placed in a comparatively small receptacle.

In order to more fully protect the eye I provide the curved members 14 which are secured to the lens frames 8 and arranged between the bridges 6 and 9 as shown and securely held in place by riveting or other similar fastening means. From the above it will be readily apparent that I have provided an eye protector which is simple in its construction and at the same time entirely eliminates the use of solder in its construction.

In Figure VI I have illustrated a modification of my invention wherein the curved portions 7 and 11 of the members 1 and 2 are provided adjacent the ends of the body of the frame with the grooves 15 adapted to receive the inner ends of the screens 13 when the same are disposed in an operative position so as to positively prevent any particles from passing between the screens and the body frame.

In Figure V I have illustrated a modified form of the invention wherein the lower member 2 of the body frame is eliminated and the semi-circular portions 16 are provided to embrace the lower portions of the lens frames 8 and securely riveted to these frames as shown at 17. It will be noted that in this form of the invention the nose bridge 9 is eliminated and the nose clips 18 are secured to the members 14 and arranged directly beneath the supplemental bridge 6. It will be apparent that either the nose bridge or clips may be used in the construction of my improved protector without departing from the spirit of the invention.

It will be readily apparent from the foregoing that I have provided an eye protector which is light in weight and durable in construction and at the same time entirely eliminates the use of solder in its construction. The lens frames may be provided with spaced ribs 18′ and the curved portions 7 and 11 arranged between the ribs so that the frames may be securely held in place by the fastening of the end members 3 and thus eliminate the use of rivets. From this it will be apparent that the lens frames may be quickly removed from the body frame or replaced by loosening the screw pins 19 which fasten the end members 3 together. In setting forth the construction of my improved eye protector it will be apparent that I have not stated what particular material the various parts are formed of but it will be understood that any suitable material may be used for the various parts.

I claim:

An eye protector including a lens frame having a shield member pivoted thereto and a brace for the lens frame, there being a groove between the brace and frame to receive the edge of the shield, substantially as illustrated.

In testimony whereof I have affixed my signature, in presence of two witnesses.

GEORGE WALTER McKINSTRY.

Witnesses:
H. E. COLEMAN,
E. M. HALVORSEN.