No. 805,401. PATENTED NOV. 21, 1905.

L. L. ZARBAUGH.

EYE SHIELD.

APPLICATION FILED JUNE 15, 1904.

Fig. 1.

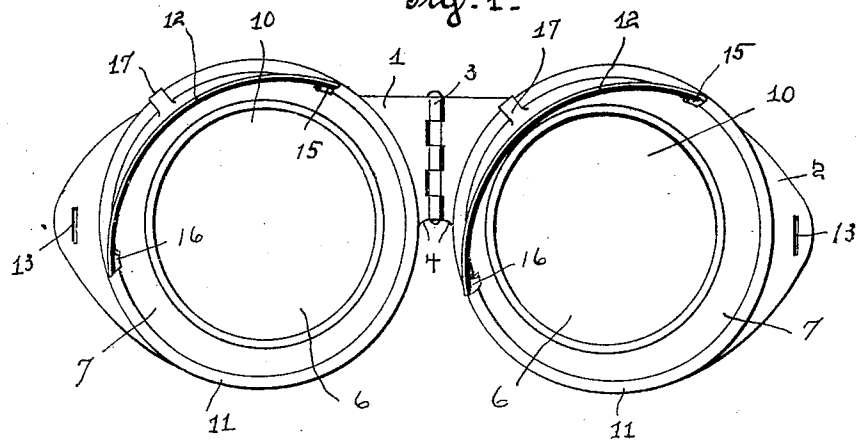


Fig. 2.

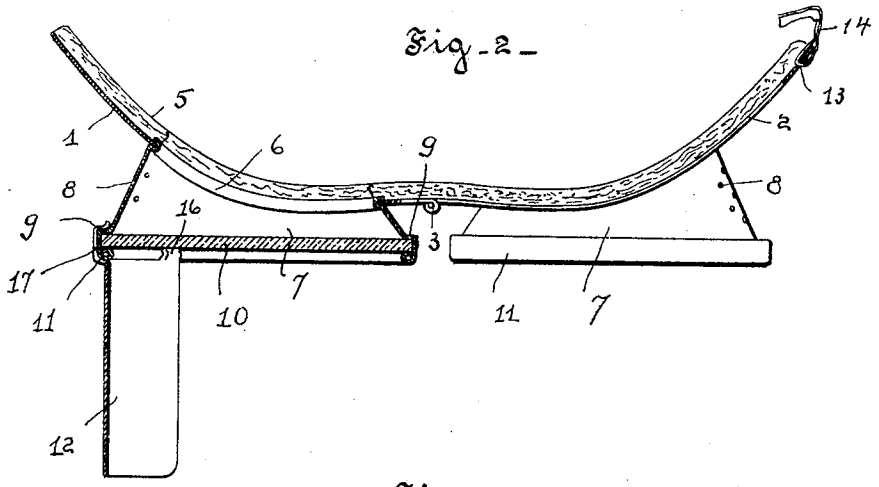
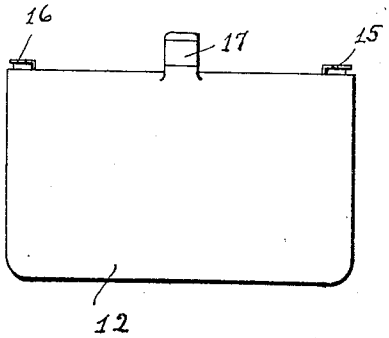


Fig. 3.



Witnesses—

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UNITED STATES PATENT OFFICE.

LYMAN L. ZARBAUGH, OF TOLEDO, OHIO.

EYE-SHIELD.

No. 805,401. Specification of Letters Patent. Patented Nov. 21, 1905.

Application filed June 15, 1904. Serial No. 212,653.

To all whom it may concern:

Be it known that I, LYMAN L. ZARBAUGH, a citizen of the United States of America, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Eye-Shields, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in eye-shields, and has specially to do with that class of eye-shields or goggles worn by people riding in an automobile or other swiftly-moving vehicle. Heretofore such goggles have been provided and worn for the purpose of shielding the eyes from the wind, dust, and insects commonly encountered by a person riding in the open air. In addition to the injury liable to be inflicted upon the eyes by the particles of matter entering them as a person is riding rapidly along the road it has been found that too strong rays of light entering the eye from some unusual angle and the images of objects close beside the road appearing and vanishing in rapid succession while the gaze is fixed upon the road ahead of the moving vehicle cause a serious irritation to the sensitive nerves of the eye, resulting in fatigue of the brain and often causing permanent injury to the eye.

One object of my invention is therefore to provide an improved means for excluding from the eyes of a person wearing goggles the too strong rays of light coming from any unusual or unnatural direction.

Another object of my invention is to provide means for preventing the strain and irritation upon the eyes of a person seated in a rapidly-moving vehicle caused by the images of objects close beside the road, but not in the direct line of vision, appearing and disappearing in rapid succession.

Other and further objects of my invention will appear in the novel construction, combination, and arrangement of parts hereinafter described and claimed, and illustrated in the drawings, in which—

Figure 1 is a front elevation of my improved eye-shield, showing the extension eye-shades in position. Fig. 2 is a top elevation of the same, partly in section, showing one extension eye-shade in position; and Fig. 3 is a plan view of the extension eye-shade.

In carrying out my invention I employ a framework or head-plate, which for convenience in packing and handling the same is preferably made in two sections 1 and 2, which are joined in the center by a hinge 3. Said frame is preferably made of thin sheet metal or other suitable stiff material, which for the purpose of causing it to fit snugly against the face of the wearer is pressed into an irregular curve of the general contour shown in Fig. 2, that being the contour of the forehead in a line immediately above the eyes and of the face in a line immediately below the eyes in all normally developed men and women. The lower portion of the frame between the eye-openings is cut away in an upward curve 4 to allow it to fit properly over the nose. The inner surface and edges of the frame are covered with a suitable napping 5. In front of each eye is a suitable round opening 6 in the frame, into each of which is fitted and securely fastened a short conical section 7, having small holes 8 therein for ventilation. The base of each conical section 7 is pressed into a flange 9, that is adapted to receive and hold an eyeglass 10, and each conical section is so adjusted in the frame as to bring the eyeglasses into the same plane with each other, which plane is perpendicular to the direct line of vision when the wearer of the eye-shield is looking straight ahead. On the flange 9 I provide a beaded rim 11 for the purpose of engaging and holding the extension eye-shade 12. At either end of the frame is a slot 13, in which an elastic band 14 is inserted, said band to be worn around the head as a suitable means for holding the eye-shield in place.

The detachable extension eye-shade 12 consists of a thin sheet of stiff springy material, sheet-steel, or brass properly tempered, being most suitable for the purpose. On the rear of said shade are provided clips 15, 16, and 17, having the hooked portions of the center clip and the outer two arranged reversely to each other, so that the clips 15 and 16 will engage the bead 11, while the clip 17 hooks over the entire flange 9.

The construction and arrangement of the several parts being thus made known, it is thought that the purpose of my invention and the methods of using my improved eye-shield will be readily understood.

To attach the extension eye-shade to the goggles or to adjust its position thereon and to remove it therefrom, place the thumb and fingers upon either edge of the shade and

spring it into a curve sufficient to allow the outer clips to hook under the bead and the center clip to hook over the flange surrounding the eyeglass. On removing the hand from the shade its elasticity forces the end clips firmly up under the bead and the center clip down over the flange, and thus holds the shade immovably in the position to which it has been adjusted. By again springing the shade sufficiently to loosen its hold upon the flange it may be turned to any desired quadrant of the circle around the eyeglass to shade the eye from either the reflected rays of light coming from a surface below the level of the eyes or from the direct rays of light coming from the side or from above the eyes, and by springing it a little more it may be entirely removed from the goggles.

If a wearer of my improved eye-shield with extension-shades attached is riding along a road where strong sunlight is reflected from an expanse of water, snow, or sand below the level of the eyes, he will turn the extension-shades until the screen comes below each eye, so as to exclude the reflected rays. If the direct rays of the sun coming from the side or from an oblique angle are the cause of greater annoyance, the screen may be turned so as to intercept those rays. When the light is not too strong from any particular direction, the screens may be turned to the side, as illustrated by the position of the one in Fig. 2, for the purpose of excluding the images of objects at the side of the road. At night or at any other time when the wearer of the eye-shield does not need the added protection of the extension-shade and for the purpose of packing in a carrying-case it will be removed in the manner above stated.

The inner surfaces of the cones and of the extension-shades are finished in dull black in order that they may not reflect the light.

One of the most important features of my invention is the peculiar construction and manner of application of the adjustable shade, the shade comprising only the segment or portion of a circle, and thus being capable of adjustment at any point on the lens-frames to protect the eye from the sides, from the top, or from the lower portion, thus keeping out the glare or strong light, but not in the least interfering with the clearness of vision, and thus forming a perfect protector, but not shutting out any of the needed light.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an eye-shield, the combination of a head-plate curved to fit the contour of the face around the eyes and provided with eye-openings; elongated, flanged, eyeglass-holders extending outward from the eye-openings in the head-plate; a detachable extension-shade for each eye, each comprising a screen projecting outward from the flange of the glass-holder at substantially a right angle and covering only a segment of the circle described by each flanged glass-holder; a bead on the flange of each eyeglass-holder, adapted to engage the hooked clips on the extension eye-shades; clips on the extension eye-shades, having the hooked portions thereof arranged reversely to each other and adapted to engage the beaded flange of the eyeglass-holder; and means for securing and holding the eye-shield to the head of the wearer; all substantially as described.

2. In combination with the lens-frames of a pair of goggles, of the pair of shades adapted to be bent or sprung to correspond to the curve of the lens-frames and each shade being formed with a central clip and a pair of end clips, arranged in opposite directions to engage the lens-frames to secure the shades and permit movement or adjustment of the shades with reference to the lens-frames.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LYMAN L. ZARBAUGH.

Witnesses:
S. N. YOUNG,
FRANK W. LONG.