

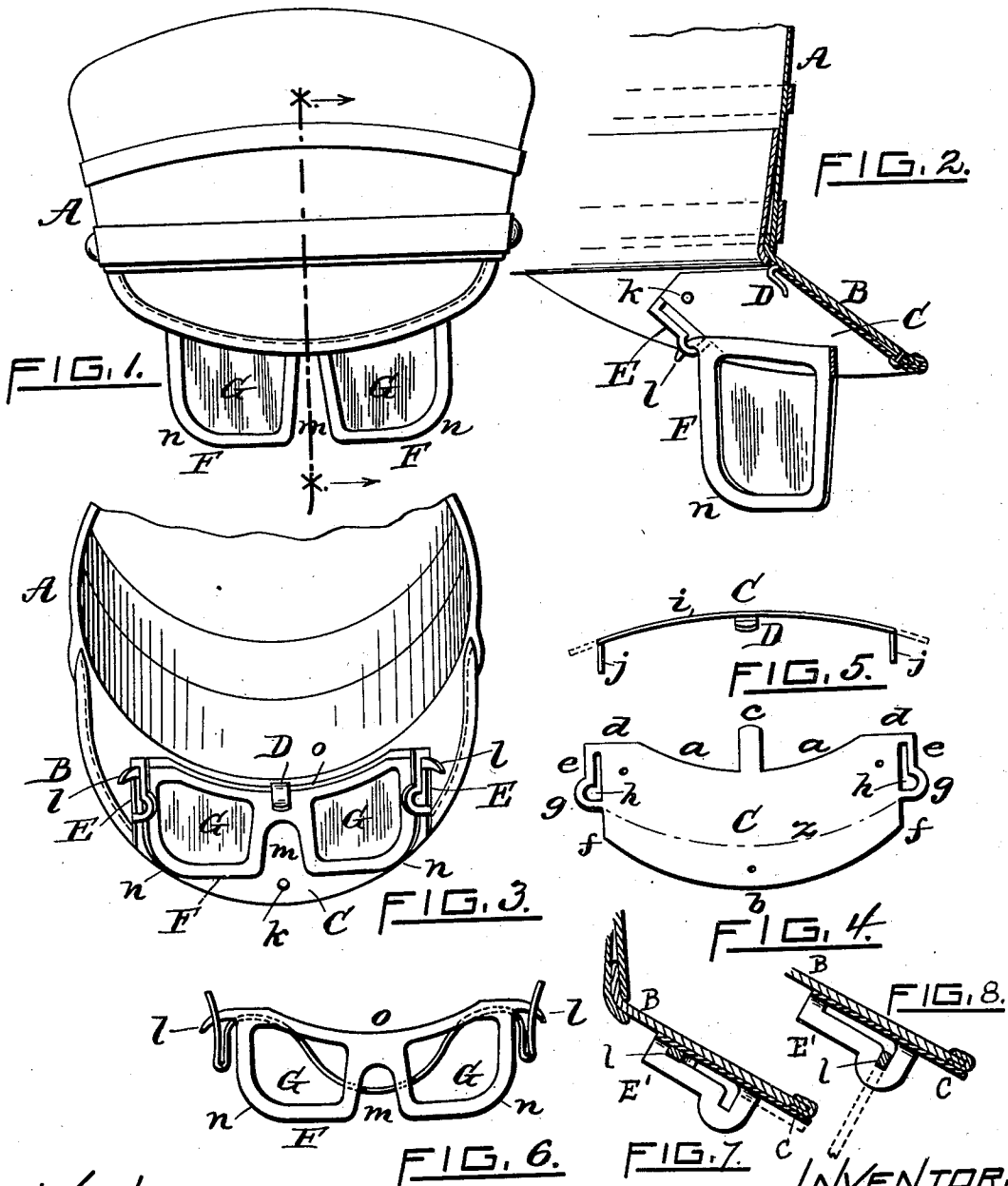
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Patented May 20, 1902.

H. L. WALDRON.
COMBINED CAP VIZOR AND EYE SHIELD.

(Application filed Feb. 21, 1902.)

(No Model.)



WITNESSES.

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COMBINED CAP-VIZOR AND EYE-SHIELD.

SPECIFICATION forming part of Letters Patent No. 700,587, dated May 20, 1902.

Application filed February 21, 1902. Serial No. 95,096. (No model.)

To all whom it may concern:

Be it known that I, HARRY L. WALDRON, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in a Combined Cap-Vizor and Eye-Shield, of which the following is a specification, reference being had therein to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a front elevation of my invention. Fig. 2 is a view of the same, partly in elevation and partly in section, as seen on line *xx* of Fig. 1. Fig. 3 is a bottom plan view of said invention. Fig. 4 is a plan view of the sheet-metal blank constituting a part of the device before said blank is bent into shape. Fig. 5 is an edge view of the said blank when bent into shape. Figs. 6, 7, and 8 are plan views of modified forms of my invention.

My invention relates to the vizors of caps provided with an eye-shield pendent therefrom; and it consists of the novel construction and combination of the several parts, as hereinafter particularly described, and specifically set forth in the claims.

In the drawings, A represents a cap, and B is the vizor thereof.

A plate of sheet metal C, preferably aluminium or brass, is made of the shape illustrated in Fig. 4, having the concave curves *a a*, the convex curve *b*, the central tongue *c*, the straight edges *d d*, *e e*, *f f*, and the ears *g g*, and provided with the two slots *h h*, each of which slots has a narrow portion with parallel sides and an enlarged portion with one straight side and a curved side parallel to the outer edge of the ear *g*, all as plainly shown in Fig. 4. This blank is bent transversely into a long curve, as seen at *i* in Fig. 5, so as to make it parallel with the upper curve of the vizor B, and to fit on the under surface of the vizor, as shown in Fig. 3, the tongue *c* is bent into the hook-like shape shown at D in Figs. 2 and 3, and the two slotted sides are bent, as shown at *j* in Fig. 5, thus forming angularly-directed ears E, as indicated in Figs. 2 and 3. The blank so bent is attached to the underside of the vizor B by pins *k*, screwing through holes made therefor in

the plate, as shown in Fig. 4, or it may be secured in position in any other suitable manner. The convex edge *b* of the blank preferably coincides with the outer edge of the vizor, as seen in Figs. 2 and 3.

The eye-shield consists of the frame F and lenses G. The frame F may be made of hard rubber, celluloid, or any other suitable material and has the parallel vizor portion, as illustrated in Figs. 1, 2, and 3. It is made with two horns or projections *l* at its opposite upper corners and with a central aperture *m*, having a concave inner end. It is preferably shaped so that its lower corners *n* are rounded, as shown in Fig. 1, to enable it when folded up to lie wholly within the edge of the vizor B, as shown in Fig. 3. It has its upper edge concave, as seen at *o*, so that in its folded position said edge *o* is parallel to the upper curved edge of the plate. The position of the eye-shield when not in use is that shown in Fig. 3, where it is seen that the same is folded up into snug contact with the under side of the vizor B, the center of its upper curved edge *o* lying beneath the hook D. In this position the horns or projections *l l* extend through the narrow upper portion of the slots *h h* in the plate C, and as said horns or projections *h h* are rectangular in cross-section and are slidably held in the narrow portion of the slots *h h* the eye-shield is confined in position parallel to the plate C, the hook D serving also to maintain the eye-shield in this folded-up position. When it is desired to move the eye-shield into its wearing position, it is brought forward by the fingers so that the horns or projections *l l* slide along in the narrow portion of the slots *h h* until they come to the enlarged semicircular portion of the slots *h h*, when they drop by gravity into the position shown in Figs. 1 and 2, the eye-shield then being sustained in position by the contact of the lower edges of the horns or projections *l l* upon the semicircular portion of the slots *h h*, as indicated in Fig. 2. When in this position, the nose of the wearer projects out through the aperture *m* of the eye-shield. In returning the eye-shield to its non-wearing position it is swung up by the fingers and pushed inwardly, so as to

bring the broad parallel surfaces of the horns or projections *l l* into the narrow portion of the slots *h h*, and is there slid inwardly until the edge *o* of the eye-shield enters fully beneath the hook *D* as far as it will go.

The lenses *G* are made, preferably, of mica, (which may be tinted with colored lacquer,) celluloid, or other transparent material and are held in position in the frame *F* in any proper manner.

It is essential that the eye-shield when moved from its non-wearing to its wearing position should be capable first of an outward sliding movement and then of a downward swinging movement in order to clear the lower part of the forehead and the eyebrows and to hang at a proper distance in front of the eyes. For this reason the slots *h h* have a straight narrow portion and are enlarged diametrically at their outer ends; but it is also necessary that the slotted ears by which the horns or projections *l l* are supported when the eye-shield is in use should rigidly maintain their proper distance apart. In previous constructions of combined cap-vizors and eye-shields two separate guides or wires have been used to direct the movement of the eye-shield in passing from its non-wearing to its wearing position and in its return movement and to sustain the eye-shield when in its pendent position, and each wire has been looped, with one end passing through the vizor and engaged with a nut on the upper side of the vizor, while the opposite end of the loop has been merely inserted in a hole through the vizor-lining. Such wire loops, however, are liable to work loose and swivel more or less, and if so the eye-shield is liable to be detached therefrom. To avoid this difficulty, I have used the lining-plate *C*, made of thin light metal and with the earpieces integral therewith. In this manner said earpieces always maintain their proper relative direction and the whole structure is firmer and stronger than is possible where the wire loops are used and placed in position separately. Another advantage of the use of this plate *C* is that by means of it the invention is adapted for use upon bicycle-caps. Such caps usually have a soft vizor, which is not sufficiently firm to permit an eye-shield to be attached thereto. By connecting the earpieces of my device by a metal strip, integral or otherwise, the eye-shield is sufficiently supported, and thus my improved eye-shield is easily arranged for bicyclists' use. In such caps, however, it may not be desirable to use a broad lining-plate *C*, such as is shown in the drawings, but a mere strip of metal curved on its outer edge, as indicated by the dotted line *z* in Fig. 4, or straight, if preferred, which will sufficiently serve the purpose.

As shown in the modified form of my invention illustrated in Fig. 6, a mere wire connection of the guides or earpieces may be employed, the object being to maintain such guides or earpieces in proper mutual arrange-

ment and position, and so to prevent their independent turning.

It is obvious that my improved eye-shield may be used not only on caps, but on hats and other head-apparel.

In Figs. 7 and 8 is shown a modified form of said invention, in which the earpieces *E'*, extending angularly from the lining-plate *C*, have their slots made L-shaped, but a little curved at the intermediate angle. In Fig. 7 one of the horns *l* is shown in its position when the eye-shield is not in use, and in Fig. 8 it is shown in its position when the eye-shield is in use. In the latter case the eye-shield is locked to prevent its loosely swinging and is held rigidly in position, because the lowest or angular portion of the slot has its sides parallel and distant from each other a space just equal to the thickness of the horn *l* therein, so that the eye-shield cannot swing, but maintains a fixed position. The slight rounding of the corner of said slot enables the turning of the horn *l* in its travel along the slot.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. The combination with a cap, of a vizor, an eye-shield consisting of lenses and a frame with horns or projections from its two upper corners, and a metallic lining-plate attached to said vizor and provided with bent slotted ears with which said horns or projections of the eye-shield are engageable, substantially as shown.

2. The combination with a cap, of a vizor, an eye-shield consisting of lenses and a frame with horns or projections, and a metallic lining-plate attached to said vizor and having integral bent slotted ears with which said horns or projections of the eye-shield are engageable, substantially as described.

3. The combination with a cap, of a vizor, an eye-shield consisting of lenses and a frame with horns or projections, and a metallic lining-plate attached to said vizor and provided with a hook on its inner edge and with two bent slotted ears on its opposite ends with which ears, respectively, said horns or projections are engageable, substantially as specified.

4. The combination with a cap, of a vizor, an eye-shield consisting of lenses and a frame with horns or projections and a metallic lining-plate attached to said vizor and provided with an integral hook on its inner edge and with two integral bent slotted ears on its opposite ends with which ears, respectively, said horns or projections are engageable, substantially as set forth.

5. In combination with a cap, a vizor, an eye-shield consisting of lenses and a frame having two horns or projections which are rectangular in cross-section, and a metallic lining-plate attached to said vizor and provided with two bent earpieces at its opposite sides, each of which earpieces has a slot which in its inner part is straight and of a width slightly

in excess of the thickness of said horns or projections and in its outer part is adapted to allow said horns or projections to turn therein ninety degrees, substantially as shown.

- 5 6. In combination with a cap, a vizor, an eye-shield consisting of lenses and a frame with horns or projections, and two guides adapted to allow said horns or projections first to slide and then to partially turn therein, and

provided with locking means adapted to prevent the swinging of said eye-shield when in its wearing position, substantially as described. 10

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

HARRY L. WALDRON.

Witnesses:

WARREN R. PERCE,
HOWARD A. LAMPREY.