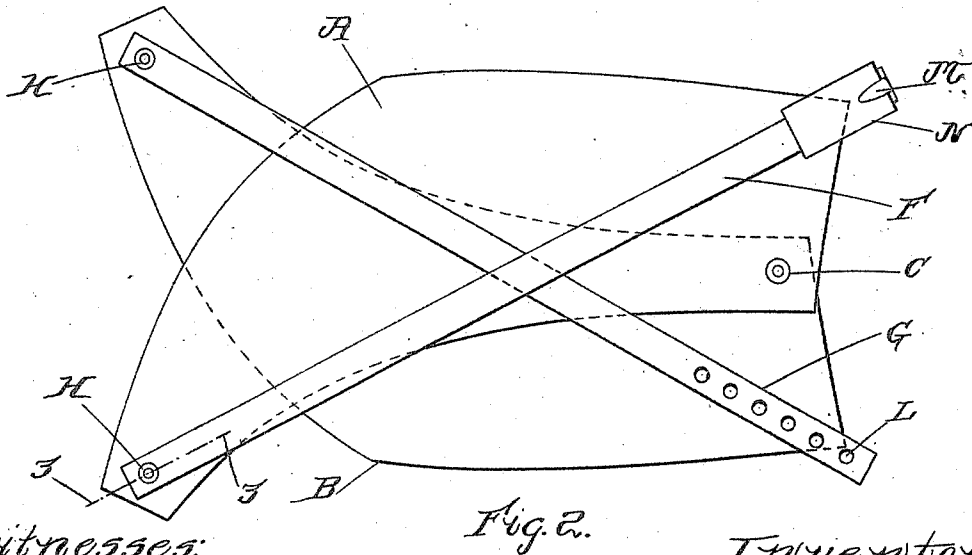
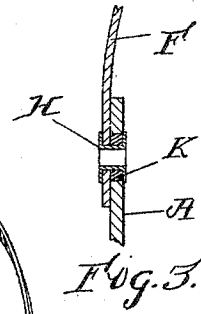
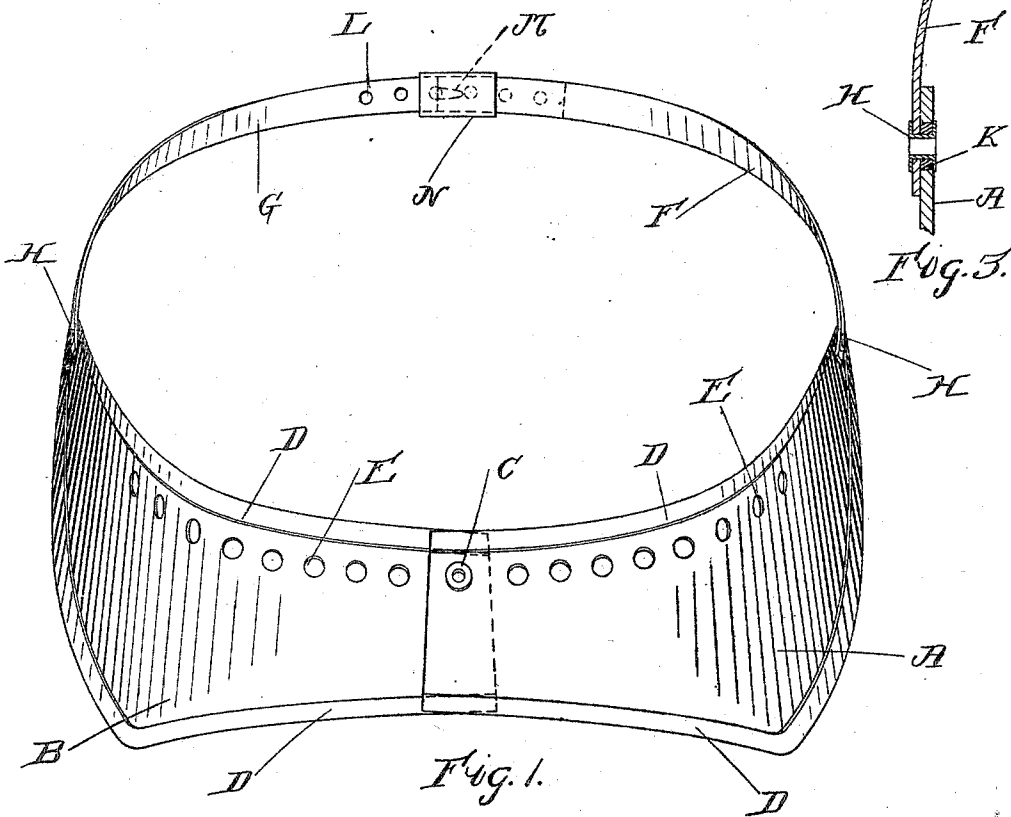


F. O. ELLIS.
EYE SHIELD.

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951,473.

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UNITED STATES PATENT OFFICE.

FRANK O. ELLIS, OF SANDWICH, MASSACHUSETTS.

EYE-SHIELD.

951,473.

Specification of Letters Patent.

Patented Mar. 8, 1910.

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To all whom it may concern:

Be it known that I, FRANK O. ELLIS, citizen of the United States, residing at Sandwich, in the county of Barnstable and State of Massachusetts, have invented a certain new and useful Improvement in Eye-Shields, of which the following is a specification, reference being had therein to the accompanying drawings.

My present invention relates to shields which are intended for use in protecting the eyes from injurious rays of light. These shields, as heretofore constructed, have been of such shape and character that the packing of them for shipment and the storage of them on the shelves of stores and like places have been attended with considerable expense and difficulty for the reason that the eye-shields have not been adapted to be packed flat in small compass, but have, on the contrary, been of such shape and form as to require large boxes to contain them or have been prepared for shipment by rolling them into tubular form.

The eye-shield embodying my present invention is so constructed that the two main parts composing it may be superimposed, the one upon the other, and the whole packed flat in very small compass. This desirable result is attained by dividing the vizor of the eye-shield into two parts which are pivotally connected so that one part may be turned relatively to the other about the said pivot until the parts are superimposed. This construction adds also very largely to the comfort and utility of the eye-shield because when constructed in this form, the vizor of the eye-shield adapts itself to the shape of the forehead of the wearer.

The eye-shield embodying my present invention may also embody my previous invention shown and described in my previous patent of the United States No. 865,484 dated September 10, 1907, in which case it will be constructed with depending wings or flanges at the sides which prevent the admission of the injurious cross lights from the sides as well as the injurious rays of light from the front.

My invention also has to do with the means for supporting the eye-shield upon the head of the wearer.

The invention will be fully understood from the following description taken in connection with the accompanying drawings, and the novel features thereof are

pointed out and clearly defined in the claims at the close of the specification.

In the drawings,—Figure 1 is a front view of an eye-shield embodying my invention. Fig. 2 shows an eye-shield embodying my invention but constructed of different material in its folded condition ready for shipment. Fig. 3 is a section on line 2—2 of Fig. 2.

Referring to the drawings and more particularly to Fig. 1,—at A and B are shown the two portions of the vizor of the eye-shield which overlap slightly in the center and are connected by a pivot C so that they are capable of being swung, the one about the other, for the purposes of adjustment or when it is desired to fold the eye-shield for packing or to put it into the pocket. The portions A and B of the vizor are constructed of any suitable material, such for instance as paper of proper consistency, leather, etc., celluloid or similar materials. If the portions of the vizor are made of celluloid, it is not necessary to bind the edges to protect them. If, however, they are made of paper as is indicated in Fig. 1, it may be desirable to apply to the edges thereof a binding D of the form well known to those skilled in the art.

I prefer to construct the parts of the vizor of my improved eye-shield as shown in Fig. 1, very shallow in the middle and correspondingly deep on the sides, so that the eyes are protected fully from the cross-lights, but the wearer is obliged to throw back the head but a little when looking up from the work to some object at a distance and yet the eyes are fully protected from both the front and side lights.

If desired, a series of holes E may be cut for purposes of ventilation in the vizor next the line thereof which comes in contact with the forehead.

The eye-shade is held upon the head of the wearer by means of a band which is formed into two parts or section F and G, said parts F and G being pivotally connected to the respective parts A and B of the vizor by eyelets H working in washers K. The band section G is perforated as shown at L, and the band section F is provided with an eyelet hook M which engages one of the holes L. A flat tube or sleeve N slips over the hook M and prevents the hook catching in the wearer's hair and also keeps the hook from becoming disengaged from

the hole L. I find that this means of adjustably connecting proximate ends of the band portions to be simple and effective while at the same time it permits the ends
 5 of the bands to be disengaged so that the halves of the band may be swung about the eyelets H and laid flat upon the halves A and B of the vizor when the shield is in position to be packed. The arrangement
 10 for adjusting the length of the head band is very important because the position of the parts of the vizor on the head of the wearer is largely dependent on the tension of the head band.

15 In Fig. 2 there is shown an eye-shield embodying my present invention, the parts of the vizor of which are constructed of celluloid and are, therefore, not bound. This figure shows plainly the shape of the
 20 vizor and the manner in which they and the band portions F and G are superposed for the purpose of shipment or for carrying in the pockets of wearers such as students.

An eye-shield embodying my invention
 25 does not require to have the parts of the vizor shaped but may be made of material which normally lies flat, since I find that if the head band is adjusted to the proper length, it puts a slight tension upon the
 30 vizor and causes them to assume the desired shape when in place upon the head of the wearer. The shape of the shield may also be varied to a considerable degree by varying the position of the pivot C. I find in
 35 practice that if the pivot C is put near the top edge of the vizor, the said vizor tends to assume a more horizontal position when in use, while if the pivot C is moved away from the top edge of the eye-shield, the vizor
 40 tends to assume a more vertical position on

the head of the wearer thus bringing the vizor nearer the eyes and glasses of the wearer. The position of the shield also varies with the tightness of the head-band.

I find that an eye shield constructed in
 45 accordance with the invention as described herein naturally adjusts itself to the head of the wearer without putting pressure on any one point thereby giving to the wearer greater comfort than has usually been the
 50 case with eye shields as heretofore constructed.

What I claim is:—

1. The improved eye-shield comprising a normally flat vizor of resilient material
 55 divided into two parts along a substantially vertical line about midway between the two ends of the vizor, said two parts being pivotally connected and overlapping for substantially the length of said line, and a head-
 60 band attached to the ends of the vizor and holding the vizor in curved position about the head of the wearer.

2. An improved eye shield comprising a vizor, a flat head band in two portions, holes
 65 in one portion of the head band, a hook on the other portion and a sleeve covering the said hook.

3. The improved eye-shield comprising a vizor in two parts pivotally connected, a
 70 flat head-band in two portions, holes in one portion of the head-band, a hook on the other portion and a sleeve covering the said hook.

In testimony whereof I affix my signature, 75
 in presence of two witnesses.

FRANK O. ELLIS.

Witnesses:

GEORGE P. DIKE,

ALICE H. MORRISON.