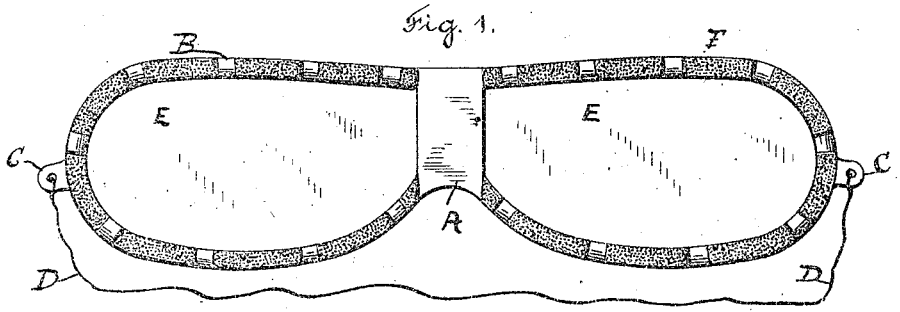
(No Model.)

J. D. WARREN.

SPECTACLE EYE SHIELD.

No. 492,125 Patented Feb. 21, 1893.

Fig. 1.



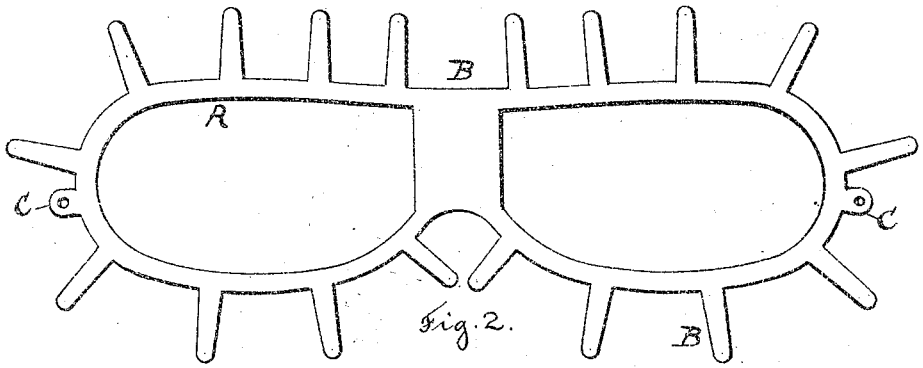


Fig. 2.

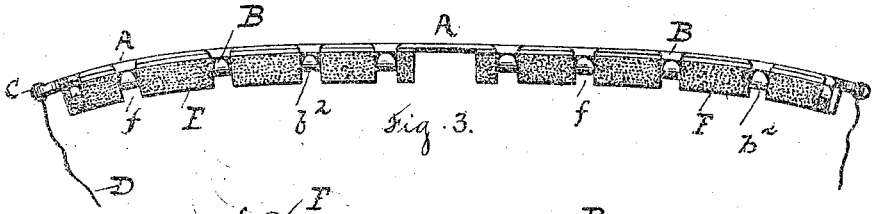


Fig. 3.

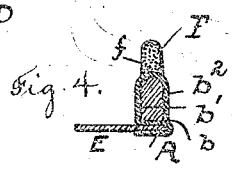


Fig. 4.

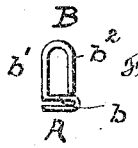


Fig. 5.

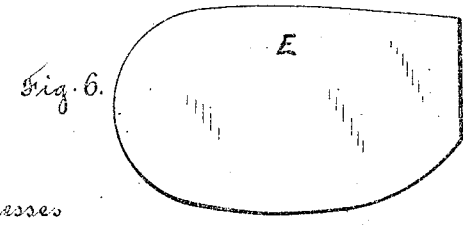


Fig. 6.

Fig. 7.

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UNITED STATES PATENT OFFICE.

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SPECTACLE EYE-SHIELD.

SPECIFICATION forming part of Letters Patent No. 492,125, dated February 21, 1893.

Original application filed April 16, 1892, Serial No. 429,434. Divided and this application filed September 19, 1892. Serial No. 446,241. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. WARREN, a citizen of the United States, residing at South Framingham, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Spectacle Eye-Shields, of which the following is a specification.

This application covers a division of an application filed by me April 16, 1892, Serial No. 429,434, for a method of making, and an improved eye-shield.

The aim of this invention is to produce a new and improved eye-shield, and to this end, the invention consists of the device described and claimed in this specification, and illustrated in the accompanying drawings, in which

Figure 1 is a rear elevation of my complete device, Fig. 2 is an elevation of the sheet-metal blank from which my device is made, Fig. 3 is a plan of my complete device, Figs. 4 and 5 are views illustrating how each finger of the blank is bent to hold both the mica and the cushions, and Figs. 6 and 7 are views showing the mica, and illustrating the way the same is prepared.

Referring to the drawings, and in detail, A represents a sheet metal rim, struck up as shown in Fig. 2, having fingers B projecting therefrom, and projections C to which an elastic cord D may be secured to hold the device in place on the head. Laid on the rim A are the pieces of mica E, which preferably are two in number, and are cut out of the shape shown in Fig. 6. I preferably use two pieces of mica, though of course, a single piece could be used, and made to extend to cover the entire space of the rim. A cushion F is laid around each part of the shield, and this cushion may be made of felt, rubber, or any suitable material.

The way the device is made or put together is as follows:—The pieces of mica are first laid on the blank, and the fingers B are bent back as at *b* to hold the mica in place, and the fingers are then nipped tightly in this position. The fingers are then bent up as at *b'*, and the cushion or felt is laid around on the metal, and then the ends b^2 of the fingers are bent around to hold the same, and, if desired, the felt may have suitable notches *f* to receive the fingers. Thus, I provide a shield which is extremely simple and easy of manufacture, and one that is constructed entirely of elastic or flexible material, whereby the same may be easily bent to fit or conform to the face of the user.

Mica is admirably adapted for eye-shields of this character, as the same is of very light weight, flexible and tenacious; but mica has some very serious disadvantages, among which may be noted that the surface of the same is very easily scratched and marred, and hence, after considerable use, the same becomes completely blurred, and unfit for use. Further, mica of good quality, cannot be produced in some colors desirable for use in eye-shields, notably blue and green, and it is one end of my invention to remedy these defects. To accomplish this, I coat the mica with a film or coating of some impervious transparent or translucent material, and allow the same to dry to form a protecting medium for the mica, which film will protect the mica from being scratched, and from flaking or chipping off.

I preferably coat the mica on both sides, by dipping the mica in the solution, and allowing the same to dry; though, of course, the mica may be coated only on one side without departing from the scope of my invention. For this coating, I may use any desired compound that will give the desired result, such as white varnish, oxidized linseed oil, &c.; but I have found in the course of my experiments, that a compound commercially known as crystalline is admirably adapted for this purpose.

When it is desired to color the mica differently from which it is naturally obtained, I may do so in three ways: first, by coating the mica, preferably on both sides, with the desired dye; second, by coating the mica, preferably on both sides with the desired dye, allowing the same to dry, and then coating the

same with the film; and third, by dissolving the dye in the compound that is to be applied to the mica, and then applying this compound.

The second process is the preferred way of applying the dye. In this way, I can produce an eye-shield of any desired color, and one that will wear a long time without becoming scratched, marred, or blurred.

The details of the invention herein described may be greatly varied by a skilled mechanic without departing from the scope of my invention as expressed in the claims.

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

1. An eye-shield made of mica, having a transparent or translucent protecting coating or film, substantially as described.

2. An eye-shield made of mica, having a transparent or translucent coating or film, and a dye held by said film, substantially as described.

3. An eye-shield made of mica being coated on both sides with a dye, and a coating or film of impervious material over said dye, substantially as described.

4. The eye-shield consisting of the metallic frame A having the fingers B, the mica and cushions, said fingers being bent as at *b* to hold the mica, and then bent as shown to hold the cushions, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN D. WARREN.

Witnesses:
F. F. RAYMOND, 2d,
M. LYNCH.