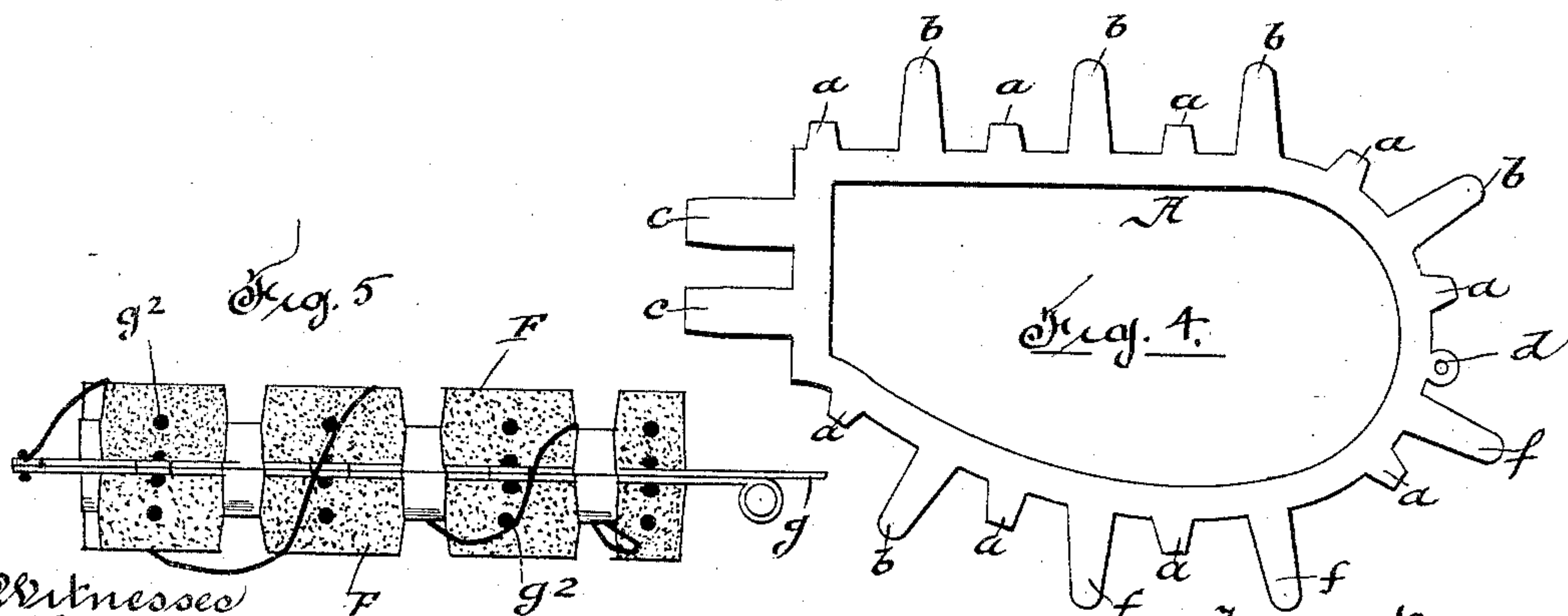
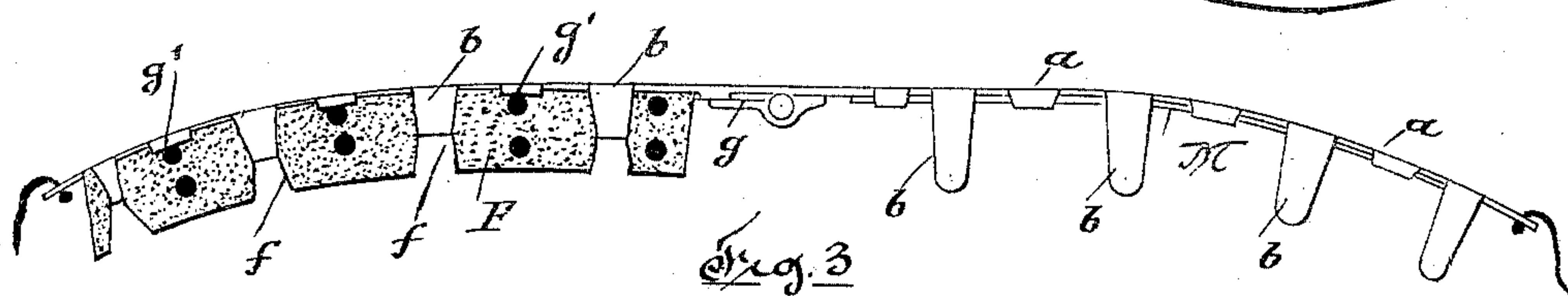
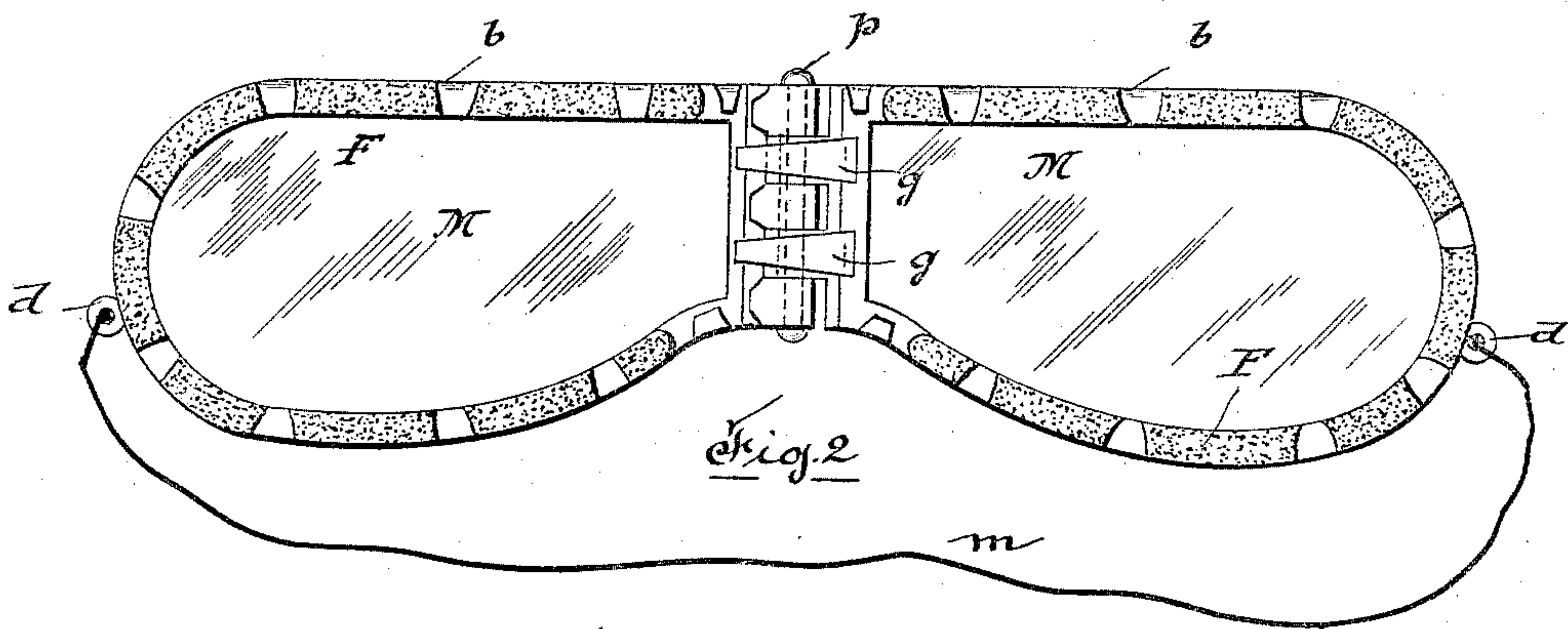
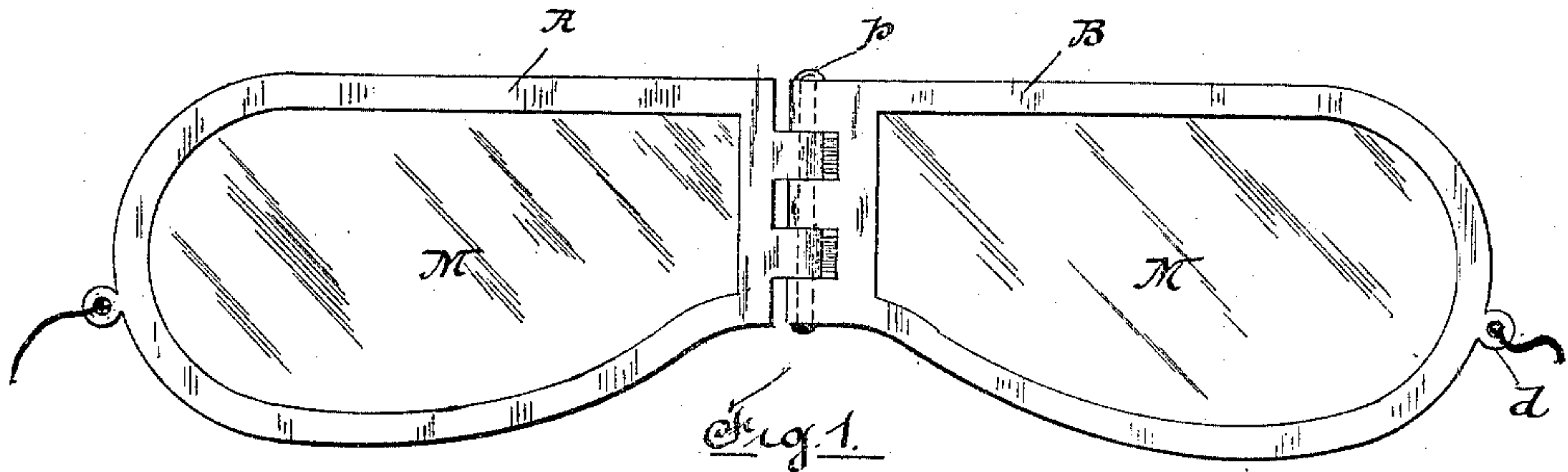


(No Model.)

A. D. WARREN.  
SPECTACLE EYE SHIELD.

No. 466,896.

Patented Jan. 12, 1892.



Witnesses  
Walter S. Bowen  
L. E. Hunt

By his Attorney

Inventor  
Alfred D. Warren  
Louis W. Southgate



# UNITED STATES PATENT OFFICE.

ALFRED D. WARREN, OF WORCESTER, MASSACHUSETTS.

## SPECTACLE EYE-SHIELD.

SPECIFICATION forming part of Letters Patent No. 466,896, dated January 12, 1892.

Application filed August 1, 1891. Serial No. 401,342. (No model.)

*To all whom it may concern:*

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

The aim of this invention is to produce a new and improved eye shield or protector that may be used in driving, by workmen in shops, &c.

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 front elevation of my shield open and ready for use. Fig. 2 is a rear elevation. Fig. 3 is a plan. Fig. 4 is a view of one of the blanks of which the device is made, and Fig. 5 a plan with the device closed.

My device consists, primarily, of two sections of peculiar construction and nearly similar in form, which are transversely hinged together.

In detail, A and B represent the rims, of thin flexible metal, which are originally stamped out, as shown in Fig. 4. The two blanks for each eye-piece or section are exactly the same, except that the piece B may have three hinge-joints and the piece A may have two. Each blank consists of the rim, projecting from which are the two series of tongues *a* and *b* and the projections *c*, which are formed into the hinge-joint, as described further on. The blank also has the projection *d*, punched wherein is a small hole, in which may be secured means, as wires or an elastic, for holding the shield on the face. On the rim is placed a piece of mica, gelatine, or other transparent material, preferably but not necessarily of a flexible texture. This piece of mica *M* is cut out the same shape as the rim and is laid on the same, and the tongues or fingers *a* are bent back or over to secure the same in place, as shown particularly on the right-hand section in Fig. 3. Now a piece of felt or other suitable material is bent to fit the rim, as shown, and these pieces of felt are cut or stamped out in suitable form in large quantities. The pieces of felt are formed with suitable holes, as *g' g'*, to afford ventilation

and with suitable notches *f*. The felt is placed around the rim, and the tongues *b* are bent over to fit the notches *f* and hold the felt in place on the rim. Further, it will be seen that the notches *f* form additional ventilating-holes, and as the tongues *b* fit in the notches no part of the metallic rim will come into contact with the face of the wearer. The pieces *c* of the blanks are bent back and preferably soldered, so as to form hinge-joints, and a suitable pin *p* is set in these joints, preferably by heading the same over, so as to form a hinge connection between the two sections. Fastened to one of the sections are one or more projecting pieces *g*, which bear against the other section when the two are opened, so that the sections can only be opened to the position shown, but so that the two sections may be folded back on each other, as shown in Fig. 5, for convenience in carrying. Further, it will be seen that when the sections are folded together the felt will protect the mica from being scratched.

The manner in which my device is used is apparent. The sections are opened out as shown in Fig. 3, and as the mica and the rims are flexible the device can be closed to snugly fit the face. If the mica should be broken, there would be no flying pieces to strike the eye; but as the mica is not brittle this is not liable to happen.

I contemplate in some instances using lenses, so as to form a pair of glasses. By the use of colored mica the device is of great utility on the water, &c., where it is desired to protect the eyes from the bright light and the wind. Further, as the device is entirely put together without the use of glue the same cannot come to pieces if exposed to moisture or if dampened from perspiration from the face of the wearer.

I contemplate in some instances omitting the hinge-joint and making the device in one section; but for most purposes the hinge is an important point.

Modifications of the device herein described may be made by a skilled mechanic without departing from the scope of my invention.

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

1. An eye-shield comprising two trans-



parent sections, each constructed of flexible materials, transversely hinged together, substantially as described.

2. An eye-shield consisting of two trans-  
5 parent sections transversely hinged together, each section being made of a flexible transparent material, and a flexible binding for each section, substantially as described.

3. An eye-shield consisting of two trans-  
10 parent sections transversely hinged together, each section made of mica and having a binding of light flexible metal, and a strip of felt or other suitable material held by each of said bindings, substantially as described.

15 4. An eye-shield consisting of the rim having two sets of fingers, as *a* and *b*, a transparent material held in place by the fingers *a*, and a strip of felt held in place by the fingers *b*, substantially as described.

20 5. An eye-shield consisting of the rim having two sets of fingers, as *a* and *b*, a transparent material held in place by the fingers *a*, and a strip of felt or suitable material held in place by the fingers *b*, the felt being notched,  
25 as at *f*, to receive the fingers *b*, substantially as described.

6. An eye-shield consisting of two sections transversely hinged together, each section being constructed of a light flexible metallic rim, a transparent flexible material held by 30 said rim, and a strip or binding of felt or suitable material also held by said rim, substantially as described.

7. An eye-shield composed of two flexible sections hinged together, one of the sections 35 having the extending projections *g*, so arranged that the sections can be opened so as to be only in substantially the same line and so that the same can then be bent to fit the face, substantially as described. 40

8. The blank for eye-shields, comprising the rim having the two sets of laterally-projecting fingers, as *a* and *b*, and the extending pieces *c*, which may be bent to form hinge- 45 joints, substantially as described.

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

ALFRED D. WARREN.

Witnesses:

LOUIS W. SOUTHGATE,  
GEORGE H. BLAKE.