

(No Model.)

E. R. WYLIE.
EYE PROTECTOR.

No. 591,244.

Patented Oct. 5, 1897.

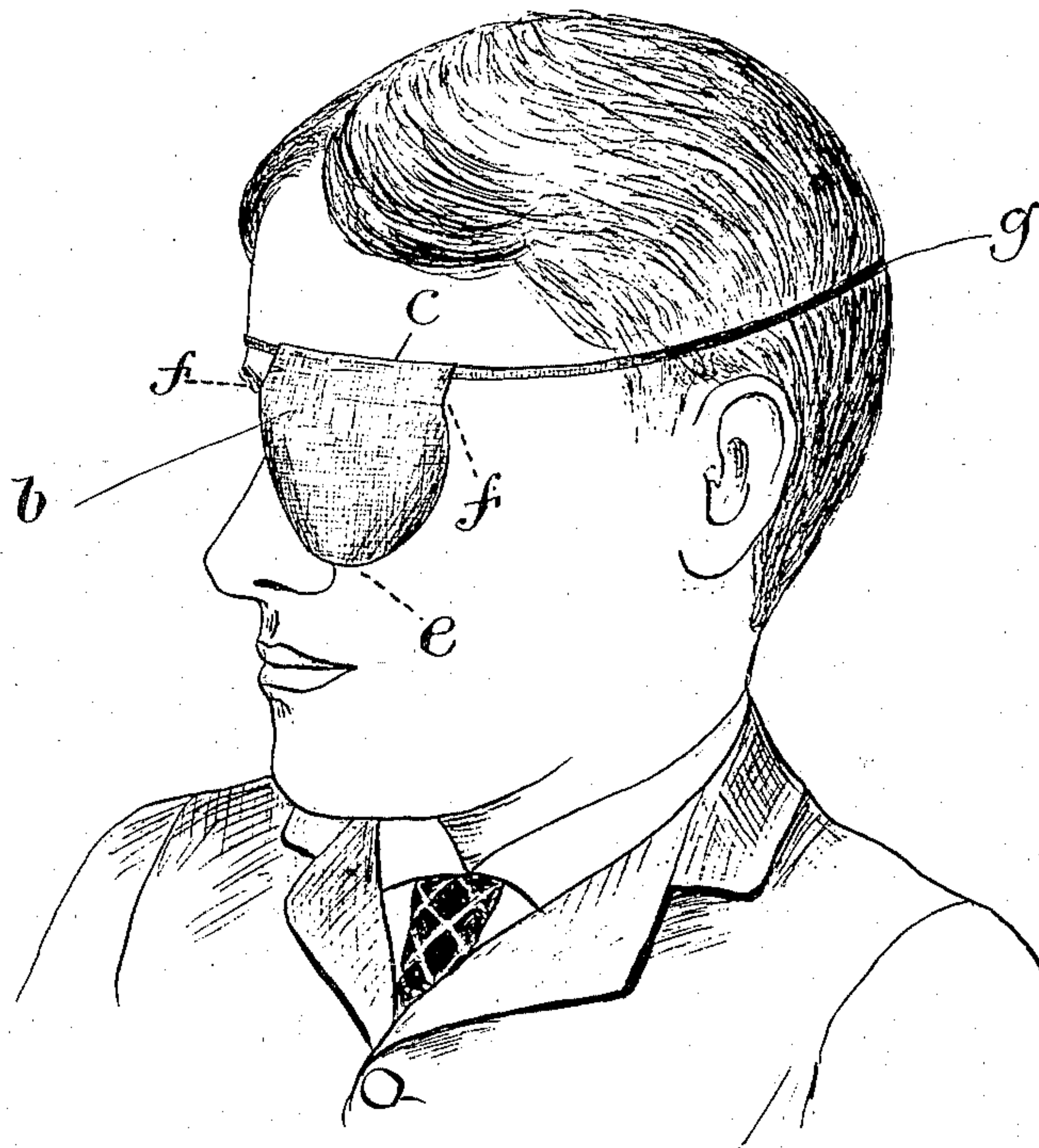
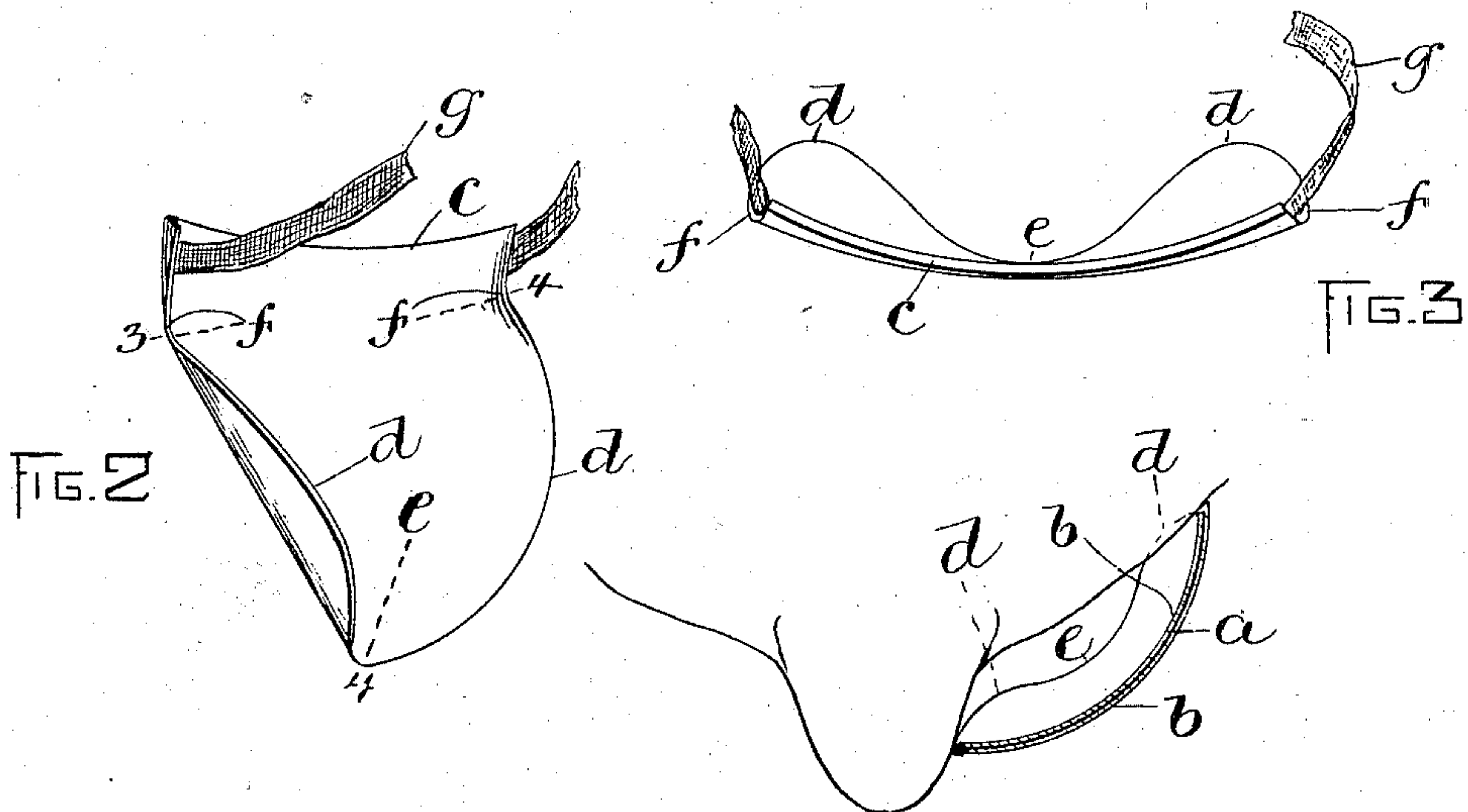


FIG. 1



WITNESSES:
A. D. Hanson.
R. M. Pearson

FIG. 4.

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UNITED STATES PATENT OFFICE.

ELLA ROSALIND WYLIE, OF BOSTON, MASSACHUSETTS.

EYE-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 591,244, dated October 5, 1897.

Application filed March 25, 1897. Serial No. 629,199. (No model.)

To all whom it may concern:

Be it known that I, ELLA ROSALIND WYLIE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Eye Protectors or Shields, of which the following is a specification.

This invention has relation to optics, and has for its object to provide a hygienic protector or shield which will cover a diseased eye so as to entirely exclude the rays of light therefrom and protect it from wind and dust.

Heretofore protectors for the eye have been generally made of some material, as cardboard, covered with silk and shaped in such way as to closely fit over the eye. In many diseases of the eye it is essential that the protector should be held over the eye to exclude the rays of light therefrom without heating the eye and thereby inducing or increasing inflammation of the tissues; but as heretofore constructed I have found that the protectors have not only been of no material benefit to the eye, but have actually increased the disease by overheating the eye and preventing the free discharge of the physiological or pathological secretions.

The object of the present invention, therefore, is to provide a shield or protector which will fit closely over the eye to guard it against the entrance of the light-rays and particles of dust, and which will be also so formed or shaped as to afford free ventilation for the eye, and at the same time provide for the discharge of tears or other secretions.

To this end my invention consists of a protector formed of some suitable light material, preferably aluminium, covered with fabric and shaped to provide for the entrance of air and discharge of secretions at its lower edge and for the discharge of air at points near its upper edge, all as I shall now proceed to describe with particularity, and point out in the claim.

Reference is to be had to the accompanying drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 shows in perspective a patient wearing one of my improved

shields or protectors. Fig. 2 is a perspective view of the rear face of the shield or protector, showing the peculiar curvature or conformation of the same. Fig. 3 is a view looking at the upper edge of the protector. Fig. 4 shows a cross-section of the protector with the edges resting upon the nose and the cheek.

Preferably the shield or protector is formed, as I have previously stated, of a plate *a* of aluminium, which is ductile metal covered on both sides by a fabric *b*, such as silk or any antiseptic material, and held in place by an elastic band or strap, as at *g*. Its upper straight edge *c* is curved to fit closely against the forehead slightly above the supra-orbital ridge, as shown in Fig. 1, and it extends downward for a sufficient distance to entirely exclude rays of light, wind, and particles of dust from the eye, being semielliptical in shape.

The lower edge of the protector is preferably semicircular and the outer edges are curved rearwardly from the converging lines 3 4 and 4 4 in Fig. 2, so that the side edges *d d* may rest against the nasal and the malar bones, respectively, as illustrated in Fig. 4, and thus provide an open passage-way *e* at the lower edge of the protector for the free admission of air.

The edges *ff* at the side of the protector, near the upper end thereof, are bent outwardly to form discharge apertures or ducts for the air which enters in the aperture *e* and which is heated by contact with the eye, so that a perfect circulation of air between the eye and the shield is secured. Thus it will be seen that the eye is covered by the protector, so as to exclude the rays of light, the wind, and particles of dust therefrom, owing to the close fit against the forehead and the cheek and the side of the nose, while at the same time the protector provides for the free circulation of air between the eye and the shield or protector and prevents the eye from becoming heated, and also provides for the discharge of tears or pathological secretions through the aperture *e*.

By forming the protector of aluminium it is rendered strong enough to prevent the eye from being injured, and is at the same time very light, so as to give the wearer no mate-

rial discomfort, and is rendered sufficiently ductile to enable it to be fitted to the particular wearer.

5 I prefer to employ a covering of black silk for the protector, but I may, if desired, employ any fabric which has been suitably treated so as to render it antiseptic.

10 While I have shown but a shield or protector which is adapted to cover one eye, it may be understood that I may form it double, so as to cover both the eyes, if desired.

I claim—

15 An eye protector or shield, constructed of ductile metal having a covering of fabric, and having means for holding it in place on the wearer, said shield having its upper edge slightly curved to closely fit the forehead and

having its lower side edges curved to closely fit the cheek and one side of the nose, the center of the lower edge being bent outward 20 to provide a relatively narrow passage or air-inlet between the shield and the face of the wearer, and the upper portions of the two side edges being bent to provide relatively narrow passages or air-outlets above the eye 25 of the wearer.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 17th day of March, A. D. 1897.

ELLA ROSALIND WYLIE.

Witnesses:

JOSEPH B. ESMOND,

HENRY B. ESTABROOK.