

Oct. 31, 1950

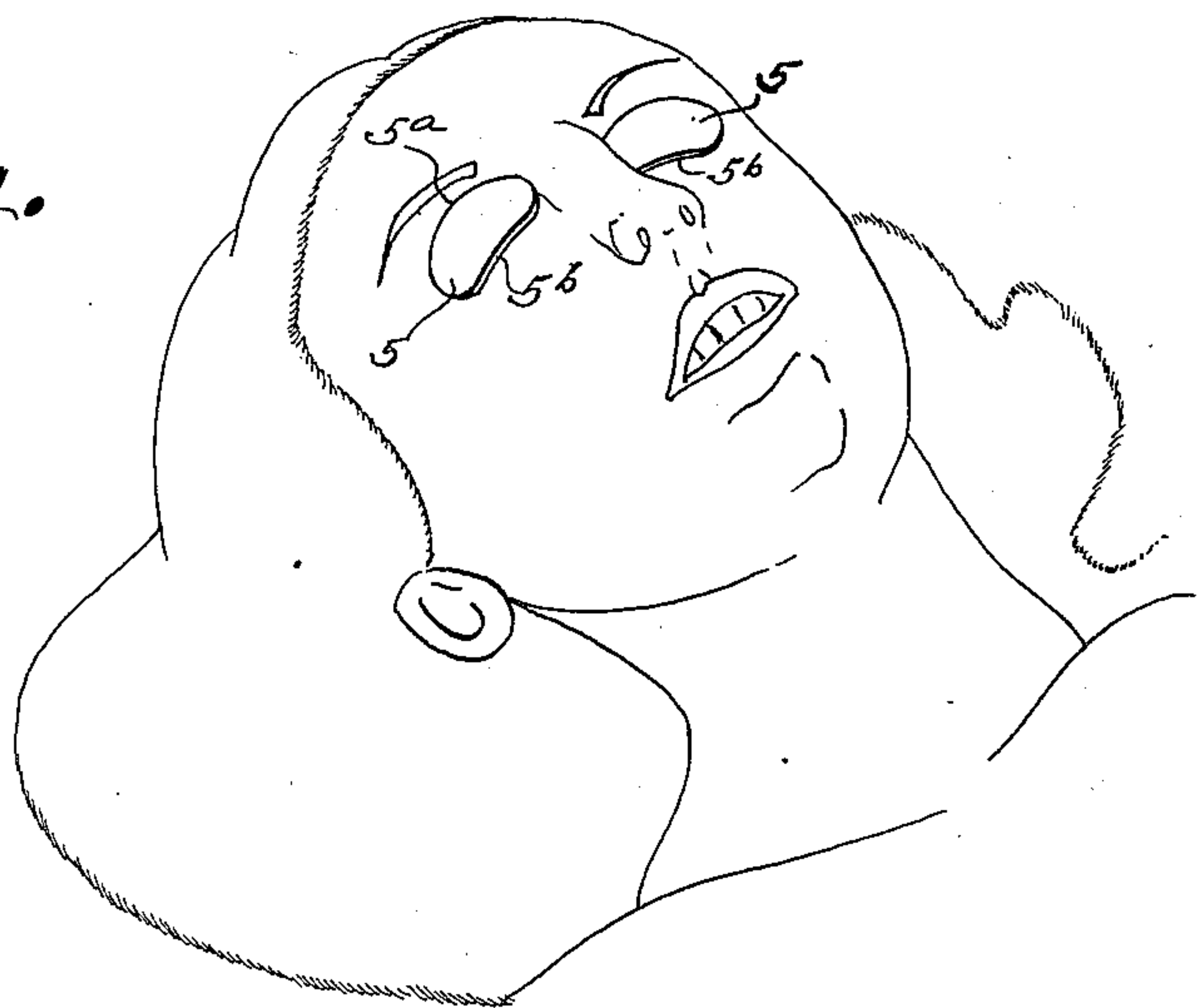
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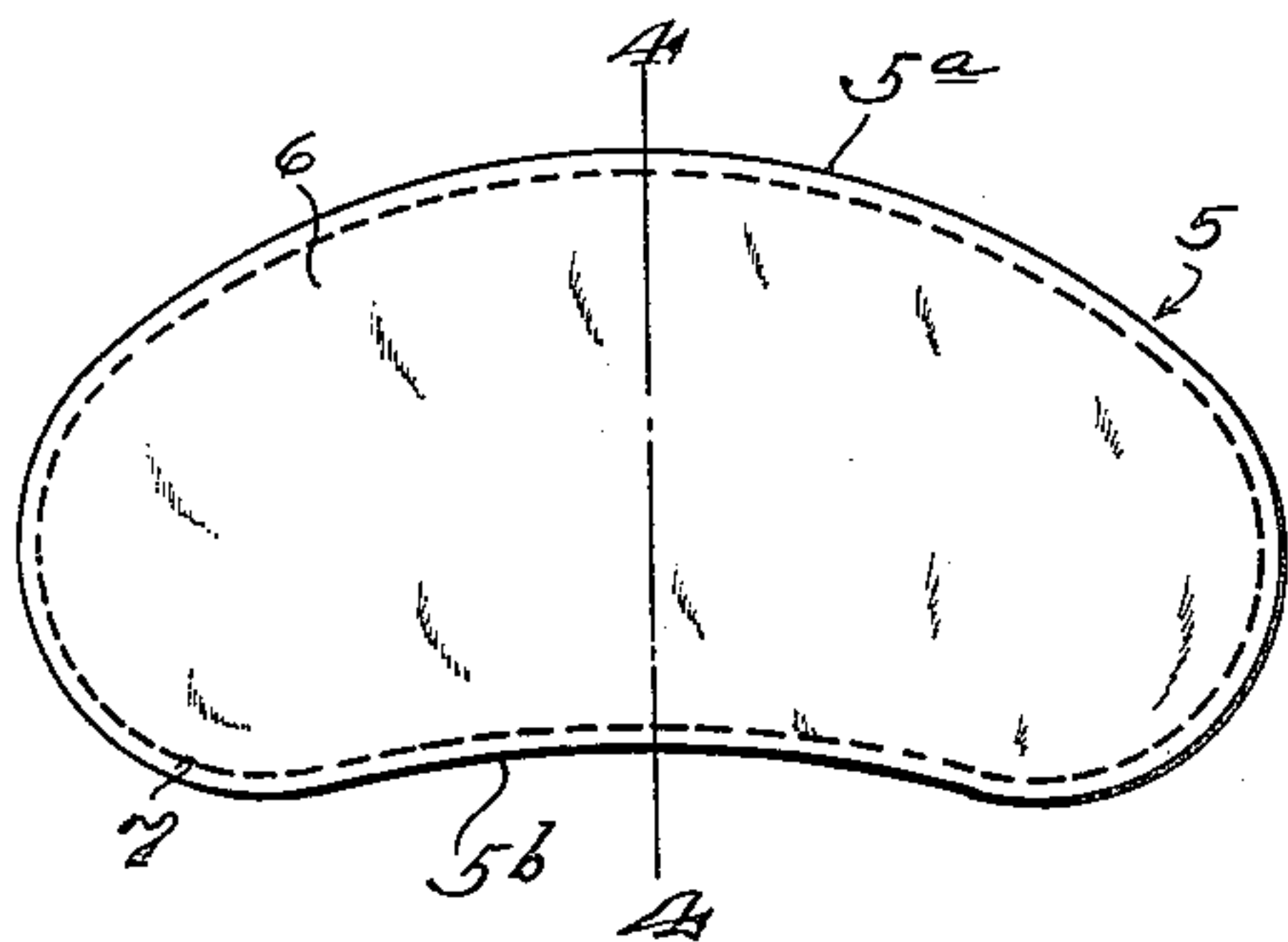
EYE PROTECTOR

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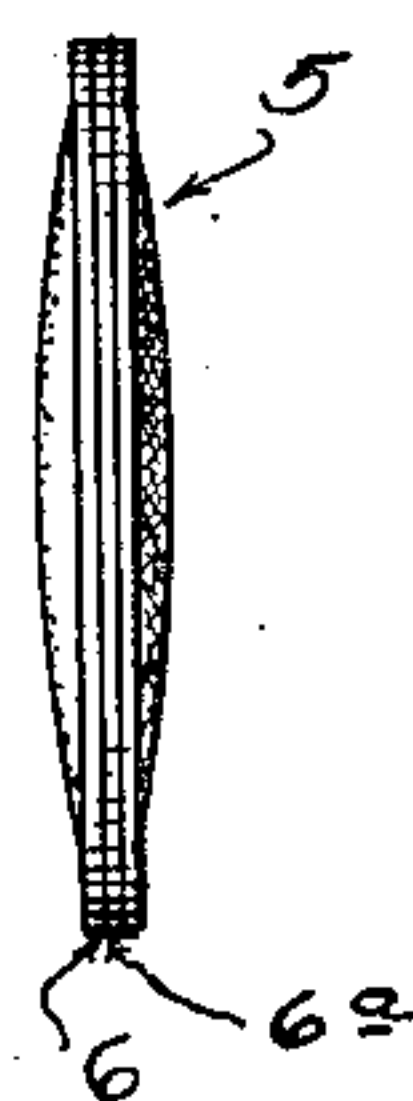
*Fig. 1.*



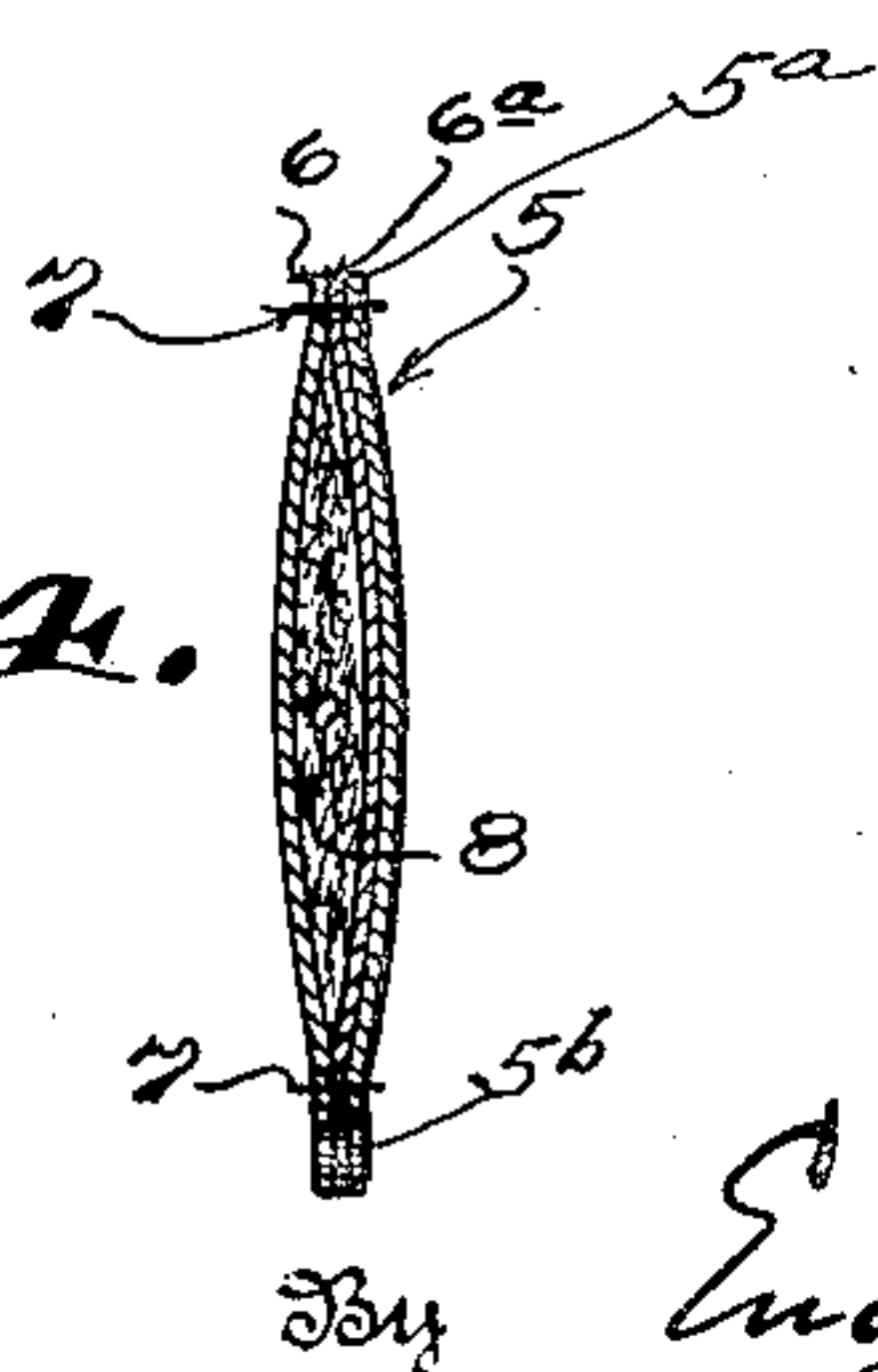
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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## UNITED STATES PATENT OFFICE

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## EYE PROTECTOR

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1 Claim. (Cl. 128—163)

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My invention relates to improvements in eye shields, pads, or the like, and is designed for use not only when a sun bath is to be taken, but also when it is desired to rest the eyes.

Shields or pads have been heretofore proposed for protecting the eyes when taking a sun bath, artificial or otherwise. Also, compresses consisting of wads of cotton or cloth moistened with witch hazel, eye lotion or water have been used upon the closed eye to rest and refresh same. However, such expedients are objectionable on a number of scores.

In the first place, such prior art eye shields have required adhesive strips to secure them in place; or they have been spectacle-like in form with a nose bridge and the equivalent of temple bars for keeping them in place. Such expedients leave white streaks or areas, thus preventing the user from getting an even sun tan. And wads of cloth or cotton covering as they do a considerable area of the face adjacent the eye are similarly objectionable.

It is therefore the primary object of my invention to overcome the objections noted and provide eye pads or shields which, while composed of fabric or other kindred material so as to be flexible and conform to the shape of the closed eye, will nevertheless remain in place without resorting to adhesive strips or a spectacle-like holding frame.

More specifically stated, the invention contemplates a flexible pad or shield which is preferably largely composed of fabric or fabric-like material and which, partly by reason of its shape and partly by reason of a multiple ply body formation, will, when wetted, conform to the contour of the eyeball and thereafter retain such shape so as to remain in place upon the closed upper lid even when a stiff wind is blowing.

It is a further object of the invention to provide a flexible multiple ply pad or shield for the purpose specified having an outer shape-defining and retaining ply which is exposed to the sun, and which outer ply is heavier and less pervious to moisture than is the inner eyelid-contacting ply, whereby the medicated or other solution with which the pad is saturated will mainly evaporate through the thin lid-covering ply of the pad to cool the user's eyes. The outer or shape-defining ply can be given the characteristics noted by applying thereto a layer of plastic or plastic-adhesive which may be availed of for securing adjacent plies together.

Other objects and advantages of the invention will become apparent as the description proceeds,

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reference being had to the accompanying drawing which illustrates the now preferred example of the invention.

It is to be understood, however, that my inventive concept is susceptible of other mechanical expressions within the spirit and scope of the subject matter claimed hereinafter.

In the drawing, wherein the same reference characters have been used to designate the same parts throughout the several views,

Figure 1 is a perspective view illustrating one form of the pads in use;

Figure 2 is a plan view of the pad of Figure 1 with the outer surface exposed;

Figure 3 is an end view of the pad disclosed in Figures 1 and 2;

Figure 4 is a cross-sectional view taken on the line 4—4 of Figure 2.

Referring to the drawing by reference characters, Fig. 1 illustrates the upper edge 5a of the pad 5 as being convexly arched so as to substantially conform to the contour of the lid-covered eyeball at what might be termed the ceiling of the eye socket.

On the other hand, the lower edge 5b of the pad is concaved so as to conform generally to the lower edge of the closed upper lid at the inner ends of the eyelashes, as seen in Fig. 1. It will be observed that in practice each pad 5 in effect forms a cup which substantially completely receives the closed upper lid and conforms to its shape as defined by the subjacent eyeball. The lower edge of the pad lying along the line of the inner ends of the eyelashes, as stated, also generally conforms to what might be termed the "floor line" of the eye socket.

The ends of the pad are rounded, as shown, to substantially conform to the ends of the eye socket. It will therefore be apparent from an inspection of Fig. 1 that when the pad has been saturated with eye lotion, water, or the like, and applied to the closed eye the edges of the pad will substantially abut the walls of the eye socket. Therefore, wind will not pass between the edges of the pad and the eye to result in the pad blowing off. In effect, the walls of the eye socket provide a screen or abutment for the edges of the pad so that if the wind is blowing it strikes the outer surface of the pad inwardly of the edges thereof tending to maintain the pad in place rather than dislodge it.

As heretofore indicated, the pad is formed of fabric or fabric-like material, and Fig. 4 discloses its outer surface as being defined by two plies 6a of closely woven material preferably



black or other dark color. On the other hand, the inner surface-defining ply 6 is relatively thinner than the outer plies 6a and will be preferably of white material and less tightly woven than the outer plies 6a.

Between the inner surface-providing ply 6 and the inner one of the dark outer plies 6a is interposed a sheet of flannel, cotton, or other soft material 8 capable of absorbing or storing so to speak, a considerable quantity of moisture. The shape of the plies 6, 6a and 8 is the same, and their edges are aligned with one another and so retained by means of the endless line of stitching 7 slightly inwardly of the pad margin.

When using the pad it is first saturated preferably in a solution of boric acid, or other eye wash, although water can, of course, be used. It is then disposed on the closed upper lid, as indicated in Fig. 1, with its concaved lower edge resting at the inner ends of the eyelashes, and the upper convexly curbed or arched edge lying along the contour of the eyeball and eye socket, as previously mentioned earlier herein.

The doubled black outer plies 6a exclude light rays but absorb heat therefrom so as to promote evaporation of the moisture from the filling strip or pad 8 through the thinner lid-contacting ply 6. The very thickness of the dark outer plies 6a resists outward evaporation of moisture therethrough. The evaporation of moisture through the inner ply 6 produces a suction which materially aids in retaining the pad in place on the closed eye. Also, the edges of the pad are shielded by the eye socket walls, as aforementioned, so as to prevent entry of a dislodging air current between the pad and the eyelid.

Although I have illustrated the pad as having two dark outer plies 6a, it will be obvious that one heavy, closely woven outer ply will serve the same purpose and that they form what might be termed a relatively stiff outer shell for the device as compared to the moisture-holding intermediate pad or strip 8 and the eyelid-contacting inner ply or strip 6. The stitching 7 adjacent the margin also cooperates with the heavier outer ply or plies 6a in forming what might be termed a stiffening or marginal rim for the pad, which is helpful in retaining it in cup-like form when in use.

The use of a solution of boric acid or some eye lotion is advantageous not only for the soothing effect which will be produced should some of it reach the eyeball, but also because the solid matter in the solution impregnates the outer plies 6a, tending to stiffen same in cup-like eye-covering form. This is obviously an aid in retaining the pads in place.

I find that closely woven material such as black satin, gingham, and black broadcloth are admirably suited for the outer plies 6a. The inner woven ply 6 may be made of gauze or any

light and preferably loosely woven material. The use of a white inner ply 6 has advantage also of enabling the user to see that it is clean.

The use of heavy and preferably dark outer plies 6a is especially advantageous in largely restricting evaporation through the inner ply 6 when a volatile cooling solution such as witch hazel is used for saturating the pad, and subjecting the closed eye and lid to an agreeable cooling action caused by evaporation of the witch hazel.

If the pads are used for an extended period at a time, it is preferable that they should be periodically wetted, as mentioned.

Practical use of these pads over a long period of time has demonstrated their characteristics of remaining in place even in a strong wind. And, as earlier pointed out herein, the use of my pads avoids leaving white marks on the face surrounded by sun tan, as would be the case where adhesive strips or spectacle temple bars or the like are used for retaining the pad in place.

Having thus described my invention, what I claim is:

25 An eye shield comprising a flexible multiple ply pad consisting of an outer layer of a relatively thick fabric which is relatively impervious to sunrays and moisture and is heat absorptive, an intermediate layer of absorbent material and 30 an inner layer of relatively loosely woven fabric, said inner layer being porous to permit medication or water in the intermediate layer to travel through said inner layer to the eyelid, and marginal stitching securing said plies together, said shield having an upper convex contour and a 35 lower concave contour and being rounded at its respective sides, said shield when moistened being adapted to be placed on the closed eyelid and conform to the shape thereof and further adapted to be confined within the bony conformation of 40 the orbital area whereby the edges of the pad lie substantially within and adjacent the outline of the orbital area to thereby prevent dislodgement of the shield by air currents.

MARIE LOOS.

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