May 18, 1948. T. H. CHALMERS 2,441,659

EYE SHADE

Filed Oct. 26, 1946 2 Sheets-Sheet 1

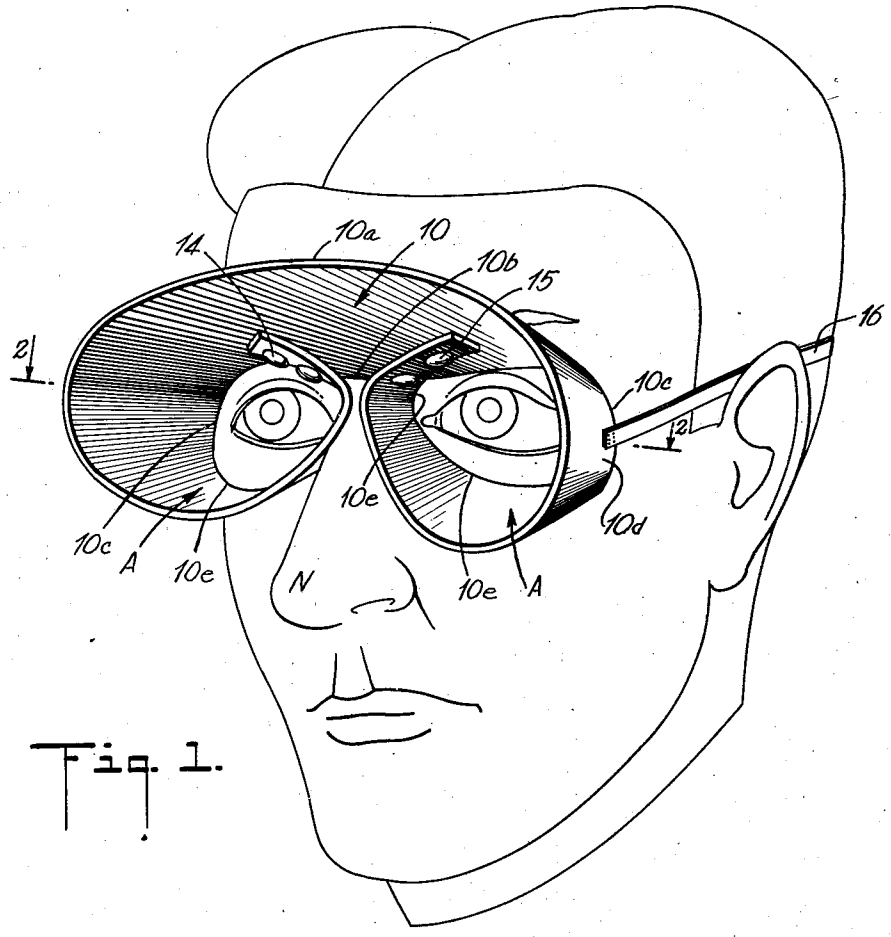


Fig. 1.

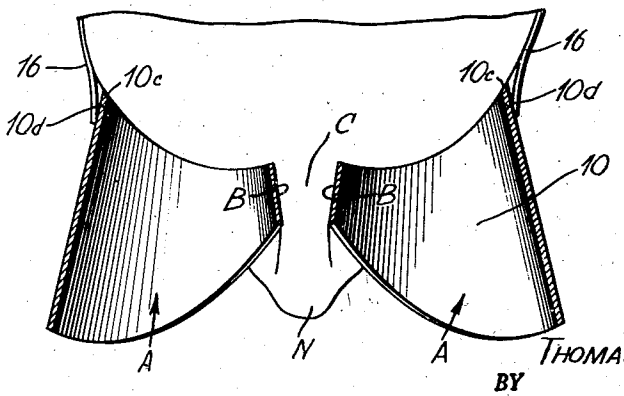


Fig. 2.

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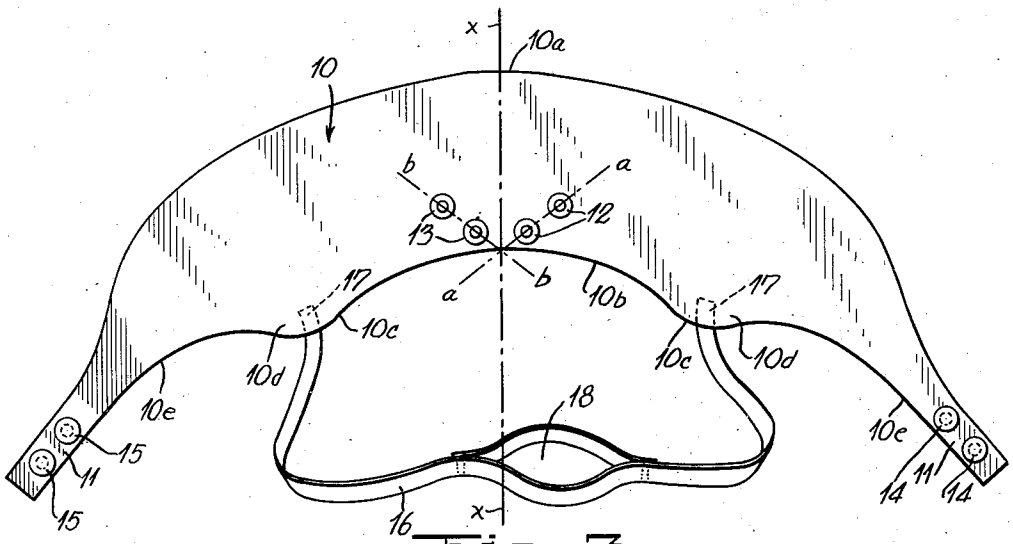
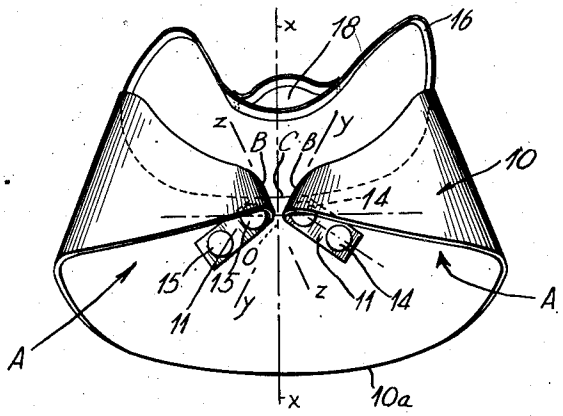


Fig. 3.

Fig. 4.



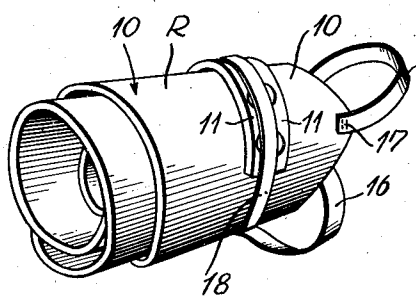


Fig. 5.

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2,441,659

EYE SHADE

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5 Claims. (Cl. 2—12)

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This invention relates to eye shades, and especially to those designed for outdoor use as protection against eye-strain caused by the glare of direct or reflected sunlight.

An object of the invention is to provide eye shades of this character that are extremely simple to manufacture and to use, and which may be cheaply manufactured on a mass production basis.

Another object of the invention is to provide eye shades of unitary construction which may be readily bent or shaped from a flat position to a position of use then providing individual sighting tubes for each eye that fit comfortably at the nose bridge and around the eye socket ridges of the wearer's head and at the same time exclude undesirable leakage of light to the eyes from above, below and the sides.

A further object of the invention is to provide eye shades of this character that may be conveniently restored to initial flat condition and then be rolled up, and fastened in such rolled up condition, and then carried in handbags, pockets or the like.

Still a further object of the invention is to provide eye shades made from uniformly sized sheets of material that may be bent or shaped into any of several adjustable positions for fitting to faces of different widths and contours.

Yet another object of the invention is to provide eye shade constructions that are comfortable to wear and of becoming appearance and with which high protection from glare is securable while good vision is insured.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, this invention consists in the novel construction and arrangement of parts hereinafter to be described and then sought to be defined in the appended claims, reference being had to the accompanying drawing forming a part hereof, which shows, merely for the purposes of illustrative disclosure, a preferred embodiment of the invention, it being expressly understood, however, that changes may be made in practice within the scope of the claims without digressing from the inventive idea.

In the drawing:

Fig. 1 is a perspective view of an eye shade embodying the invention as applied to a wearer's head;

Fig. 2 is a transverse section taken along line 2—2 of Fig. 1, and viewed in the direction of the arrows, illustrating the fit about the bridge of the wearer's nose;

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Fig. 3 is a plan of the eye shade in the flat;

Fig. 4 is a bottom plan view of the eye shade of Fig. 3 bent into shape for use; and

Fig. 5 is a perspective view of the eye shade rolled up and fastened and ready for storage in pocket or handbag.

The eye shade is made from a single sheet 10, preferably of leather or a leather substitute such as cotton or paper, vinyl or rubber coated fabrics of sufficient thickness to be comfortable against the user's face and possessing enough resilience to maintain its shape, and also being capable of restoration to original shape. About a four ounce or 55 gage fabric is preferable. Other resilient materials of suitable gage and weight may be used.

The original shape of sheet 10 is illustrated in the flat in Fig. 3. As there seen, the front edge 10*a* is outwardly or convexly curved. The rear edge in its central portion 10*b* is inwardly or concavely curved and connects with adjoining reversely curved portions 10*c* which lie adjacent the opposite ends of curved portion 10*b* defining protuberances 10*d* for purposes presently described. The front edge 10*a* near its ends first tapers toward and then extends parallel with the inner edges 10*e* to define narrow end strips or end flaps 11 at opposite ends of the sheet 10.

Spaced snap fastener elements 12 are secured to one face of the sheet 10 adjacent to the rear edge 10*b* to one side of the transverse central axis *x*—*x* along a line *a*—*a* that is angularly disposed relative to said central axis *x*—*x*. Similar spaced snap fastener elements 13 are secured to the same face of the sheet 10 adjacent to its rear edge 10*b* at the opposite side of the transverse central axis *x*—*x* along the angularly disposed line *b*—*b*. The lines *a*—*a* and *b*—*b* make equal angles with the axis *x*—*x* so that symmetrical disposition of the fasteners 12 and 13 relative to said central axis is provided.

Complementary snap fastener elements 14 and 15 are secured to the opposite faces of the sheet 10 in the end strips 11 so that they may be interengaged with the mating portions on the fastener elements 12 and 13 on sheet 10 when the eye shade is formed. The spacing between fastening elements 14 corresponds to that between elements 12. Similarly, the spacing between fastening elements 15 corresponds to that between elements 13.

An adjustable securing band or cord 16 of elastic material has its ends attached at 17 preferably to the respective protuberances 10*d* in

any convenient manner. The band serves as means to maintain the eye shade on the wearer's head. A loop or doubled section 18 is provided in the band or cord intermediate its ends which can be stretched for purposes presently to be described.

To use the device, the opposite ends 11 in turn are bent or rolled upwardly out of the plane of Fig. 3 until the fastening elements 14 overlie elements 12 and can be joined thereto and likewise until the fastening elements 15 overlie elements 13 and can be joined thereto. When so joined the sheet and its end strips form an eye shade having a pair of divergent tubular members A such as is seen in Figs. 1 and 4. The inner adjacent surfaces B of these tubular members A are divergent as is seen clearly in Figs. 2 and 4 leaving the space C, which accommodates the bridge of the wearer's nose comfortably. In fact, planes *y—y* and *z—z* (Fig. 4) which are tangent respectively to the inner adjacent surfaces B and at an angle to the plane of the sheet 10 are divergent and are substantially equi-angularly and oppositely disposed relative to the central axis *x—x*. These planes *y—y* and *z—z* intersect the central transverse axis *x—x* at a point 0 which lies between the front edge 10*a* and rear edge 10*b* of the sheet 10. These planes *y—y* and *z—z* correspond substantially to the planes defined by the surfaces at the bridge of the nose N. The space C provided between edges B comfortably accommodates the said nose bridge. Light leakage around the inner edges of the shade are prevented by this comfortable fit, the comfortable snug fit of the inner curved edge 10*b* above or below the eyebrow ridge, the fit of the edges 10*c* of the protuberances 10*d* in the outer corners of the eye sockets and the fit of the edge portions 10*e* along the face surfaces above or below the eyebrows as seen in Figs. 1 and 2. In other words, the rear edge portions are adapted to the contour of the wearer's face. The outer edge 10*a* forms a visor along the front of the device thereby insuring effective anti-glare protection from above, below and the sides. The elastic band 16 which is looped about the wearer's head, holds the eye shade in place.

After use, the snap fastener elements 12, 14, and 13, 15, are readily disengaged. Thereupon the sheet 10 may be restored to flat condition and then rolled up into the small roll R shown in Fig. 5. The loop 18 is then slipped over this roll R to secure it in this condition. The roll R being small is conveniently carried in a pocket or handbag until the use of the eye shade is again required.

The provision of at least two fastener elements 12, 13, and at least two mating fastener parts 14, 15, is for the purpose, primarily, of providing adjustability for faces of different widths and in the dimensions of tubular members A so the shade may be worn above or below the eye-brows without materially altering the relationship of the lines *a—a*, *x—x* and *b—b*, or planes *x—x* and *y—y* as hereinabove described. For example, if the outermost of snap fastener elements 14, 15 are joined respectively with the fastener elements 12, 13 nearest the edge 10*b*, tubular elements A will be large and the shade will adjust to a wide face or fit above the eye-brows. On the other hand, when both fastener elements 12 and both fastener elements 13 are secured respectively to the corresponding pairs of fastener elements 14 and 15, the tubular elements A are reduced in circumference, the overall width of the shade is also reduced making it fit comfortably on a narrow face or below the eye-brows of a wide face should the wearer prefer. Elements other than snap fasteners may be used although these are preferable.

The structure disclosed possesses a number of advantages.

The flared binocular tubular members A assure good vision. Since the adjacent faces of these tubes are angularly arranged to fit closely at the nose bridge, they do not interfere with vision, increased glare protection is afforded and at the same time more comfortable wear and becoming appearance are imparted to the device. In addition the provision of several fastening elements affords adjustability features rendering the same device applicable to wearers having different facial contours and widths. The device is readily restored to flat condition and then rolled up into a compact roll that is quickly secured. Such roll then is readily stored in a pocket or handbag until use of the eye shade is again required.

While a specific embodiment of the invention has been disclosed, variations in structural detail are possible and are contemplated. There is no intention, therefore, of limitation to the exact details shown and described.

What is claimed is:

1. An eye shade comprising a sheet of material, fastening elements secured thereto to extend from one face thereof, said elements being spaced apart and arranged symmetrically with respect to the central transverse axis of the sheet, said sheet having end strips, fastening elements complemental with said first-named fastening elements secured to the end strips on opposite faces of said sheet, said sheet being bendable from flat form to provide a pair of tubular members with end strip borne fastening elements secured to the first-named fastening elements and means to maintain said eye shade in place on the head of a wearer.

2. An eye shade comprising a sheet of resilient material, fastening elements secured to the sheet to extend from one face thereof and being spaced apart and arranged symmetrically about the transverse central axis and adjacent the inner edge of said sheet, said sheet having integral end strips, and fastening elements complemental with said first-named fastening elements secured to the end strips on the opposite face of said sheet, said sheet being bendable to form a pair of tubular members with the end strip borne fastening elements secured to corresponding of the first-named fastening elements, and with adjoining faces of the tubular elements disposed so that planes tangent thereto are divergent to provide a receiving space for the bridge of the nose of the wearer of said eye shade.

3. An eye shade comprising a sheet of resilient material having a convex forward edge, a rear edge having a concave portion connected to reversely curved edge portions to define protuberances, and end portions substantialy parallel with end portions of the forward edge to define end strips of narrower width than the sheet proper, fastening elements secured to the sheet adjacent the concave portion of the rear edge, extending from one face of the sheet and being spaced apart and disposed symmetrically about the transverse central axis of said sheet, and fastening elements complemental with the first-named fastening elements secured to said end strips on the opposite face of said sheet, said sheet and end strips being bendable to form a pair of tubular members with the end strip borne

fastening elements secured to corresponding of the first-named fastening elements and with adjoining faces of the tubular members disposed so that planes tangent thereto are divergent and intersect along a line lying between the front and rear edges of said sheet to provide a receiving space for the bridge of the nose of the wearer of said eye shade while the other rear edges adapt themselves to the contour of the wearer's face.

4. An eye shade comprising a sheet of resilient material, pairs of angularly disposed snap fastening elements secured to the sheet and symmetrically arranged adjacent the transverse central axis of the sheet, said sheet having end strips, and complementary snap fastening elements secured to said end strips, said sheet being bendable to form a pair of tubular members having diverging axes with at least one of the snap fastening elements on each of said end strips joined with one of the first-named snap fastening elements.

5. An eye shade comprising a sheet of resilient material, pairs of snap fastening elements secured to the sheet to extend from one face thereof and arranged symmetrically about the transverse central axis of said sheet along angularly disposed lines, said sheet having end strips of reduced width, and pairs of fastening elements complemental with said first-named snap fastening elements secured to said strips to extend from the opposite face of said sheet, said sheet being bendable to form a pair of tubular members having diverging axes with the end strip borne snap fastening elements overlapping and joined to the underlying complementary first-named snap fastening elements.

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