C. E. FOLSOM.

EYE SHADE.

APPLICATION FILED DEC. 11, 1915.

1,198,337.

Patented Sept. 12, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

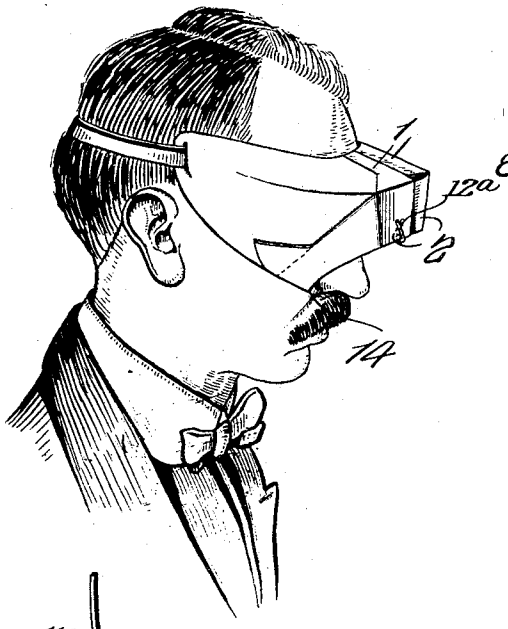


Fig. 2.

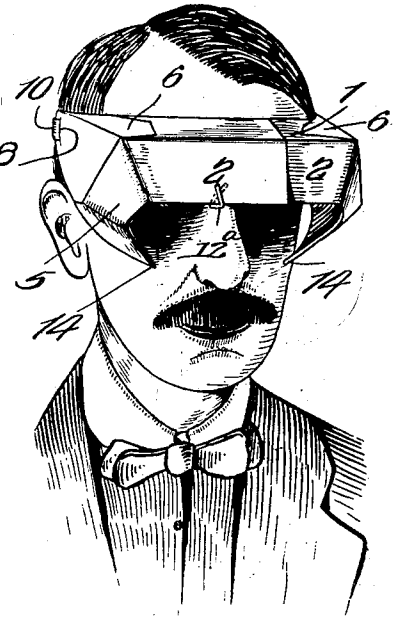
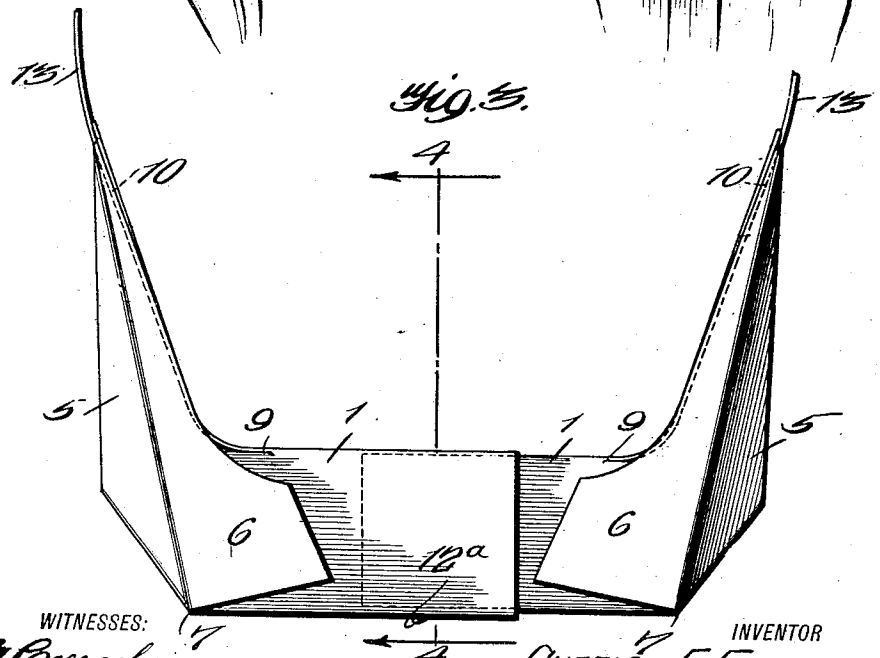


Fig. 3.



WITNESSES:

E. M. Cassaglian

C. E. Trainor

INVENTOR

CHARLES E. FOLSOM,

BY Munn & Co

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 4.

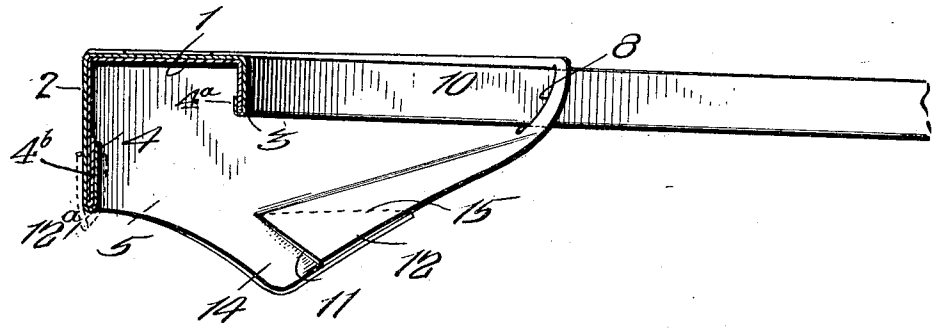


Fig. 5.

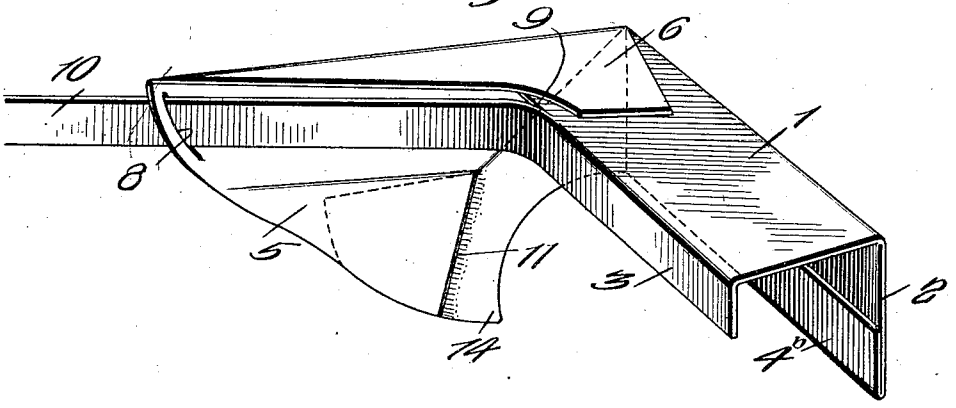


Fig. 6.

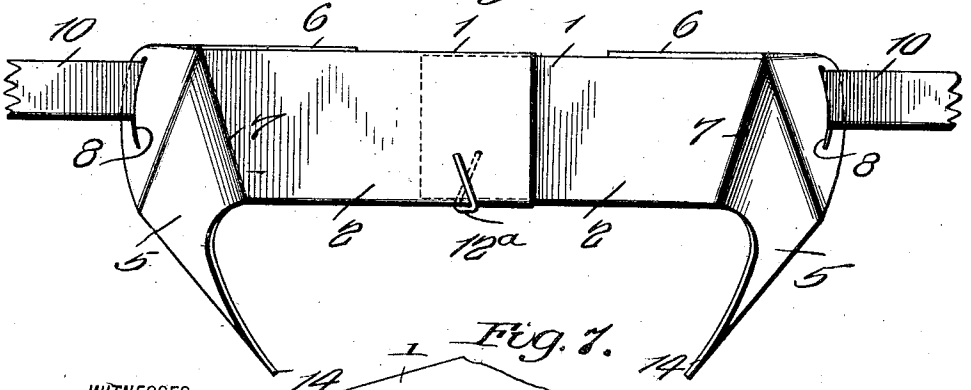
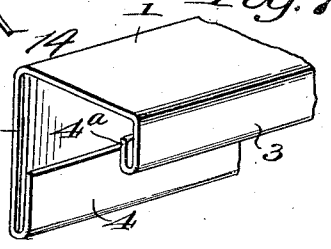


Fig. 7.



WITNESSES:

C. A. Callaghan

C. E. Tranmer

INVENTOR

CHARLES E. FOLSOM,

BY Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., PHOTO LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES EDWARD FOLSOM, OF ATLANTA, GEORGIA.

EYE-SHADE.

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To all whom it may concern:

Be it known that I, CHARLES E. FOLSOM, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Improvement in Eye-Shades, of which the following is a specification.

My invention is an improvement in eye shades, and the invention has for its object to provide a device of the character specified, of simple inexpensive form and of light weight that will in a practical way intercept the useless light rays that tend to contract the pupil of the eye unduly with resulting increase in muscular and nervous tension and to admit only those rays which are reflected from the object viewed, with resulting reduction in muscular and nervous tension to afford increased visual efficiency in occupations requiring sustained use of the eyes.

In the drawings:— Figure 1 is a perspective view of the improved shade in use looking from one side, Fig. 2 is a similar view looking from the front, Fig. 3 is a top plan view of the shade, Fig. 4 is a section on the line 4—4 of Fig. 3, looking in the direction of the arrows adjacent to the line, Fig. 5 is a perspective view of one section of the shade, Fig. 6 is a front view and Fig. 7 is a detail perspective view of the inner portion of the right hand section showing more clearly the inwardly recurved portions at the lower edges of the front and rear walls.

In the present embodiment of the invention the shade is sectional consisting of similar sections which are slidably connected with each other, and the shade may be made of any suitable or desired material, as for instance, opaque celluloid or like light sheet material. Each of the sections is formed from a sheet of suitable material, bent upon itself to form a substantially channel-shaped member having at one end a depending wing or light excluding vane, and the channel-shaped members are slidably connected, the inner side walls of the channel-shaped members and the wings or vanes being shaped to fit the head of the wearer.

Each of the sections is as before stated, formed from a sheet of suitable material, bent to form a channel-shaped member, consisting of a body 1, a front wall 2 and a rear wall 3, the front wall being of greater height or depth than the rear wall. The front and rear walls of one of the sections are provided at their lower edges with inwardly recurved portions to embrace the lower edges of the front and rear walls of the companion section and retain it in proper position and give direction thereto in its sliding movements. These recurved portions are shown most clearly in Figs. 4 and 7 in which 4 designates the recurved portion of the front wall 2 and 4^a the recurved portion of the rear wall 3. The companion section has the lower edge of its front wall stiffened and reinforced, as indicated at 4^b, by folding the lower edge portion of such wall upon itself close against the inner face of the wall 2. The wing or vane is integral with the wall 2 at the outer end thereof and the said wing or vane comprises a body portion 5, which is approximately vertical and a portion 6 at the upper edge of the body portion which overlies the body 1 of the channel-shaped portion at the outer end thereof at the end of the said end portion 6 adjacent to the wall 2 of the channel-shaped portion.

The connection 7 between the wall 2 and the wing or vane 5 is a species of hinge, which permits the wing or vane to take different positions with respect to the channel-shaped portion, the portion 6 moving on the body 1 of the channel-shaped portion.

The wing or vane is provided with a slot 8 at the end remote from the connection 7, and the wall 3 at the outer end of the body 1 is separated from the body, as indicated at 9, and the said portion is extended to form a tab 10, for engaging means to encircle the head of the wearer to hold the shade in place. The lower portion of the wing or vane is slitted approximately vertically as indicated at 11, and the opposite sides of the slit are overlapped as shown at 12 to provide for an inward projection of the lower edge of the vane, the said projection fitting against the cheek of the wearer at about the cheek bone as shown in Figs. 1 and 2.

The two similar sections are connected by fitting the free end of the channel-shaped portion of one within the free end of the channel-shaped portion of the other, as shown in Fig. 4. The channel-shaped portion of one section is of sufficiently small size to permit it to slip within the end of the channel-shaped portion of the other section, and the two portions may be adjustably connected in any suitable manner, as for instance, by the paper clip 12^a, shown in Figs.

4 and 6. This clip is engaged over the lapping front walls of the sections. The inner edges of the portions 6 of the sections are cut away or shaped to fit closely about the forehead of the wearer.

A suitable holding band indicated at 13 is connected with the extended portions 10 of the walls 3 of the sections, and this band may be of flexible celluloid or other light material suitable for the purpose.

It will be noticed from an inspection of Figs. 1 and 2 that each wing or vane consists of three planes, namely, a plane at the temple adjacent to the slot 8, a plane adjacent to the wall 2 of the section and inclined with respect to the first-named plane, and a plane extending from the outer edge of the second-named plane and from the adjacent edge of the first-named plane and inclined inwardly toward the cheek bone of the wearer. When in place, the portions 6 and the bodies 1 of the sections coöperate to form a horizontal shield above the eye and perpendicular to the forehead.

The free edges of the portions 6 are cut to extend above the upper edges of the portions 10 of the walls 3, and the walls 2 of the sections coöperate to form a depending approximately vertical shield in front of the eyes. The wings or vanes of each side form shields at the opposite sides of the eyes, and it will be noticed from an inspection of Fig. 6 that the lines 7 of connection between the walls 2 and the vanes incline or converge toward the lower edges of the walls 2. Thus there is provided means for intercepting light coming from sources below the plane of the eye as well as from other directions, the lower portions of the vanes, that is, those portions 14 and 15 on opposite sides of the slit 11 coöperating for this purpose. The light coming from above from each side, from below and from in front is intercepted, in fact, all rays except those coming directly from the object at which the wearer looks are intercepted.

The lower edges of the vanes are curved inwardly toward the cheek on the sides and in front of the eye but lie below the eye so that these portions do not interfere with the light coming from the object, and the shield or shade, as a whole, is adjustable by means of the sliding connection between the sections. This feature of adjustability applies both as to width of head and as to width of face at the cheek bones. The interior of the shade in practice will be finished in a non-reflecting dull or mat black.

As is well known, the eye operates on the same principle as a camera and since it is a fact that the best of cameras cannot obtain a satisfactory picture with improper illumination it is obvious that the eye does not operate to the best advantage under improper light conditions.

As is known, the area of the pupil of the eye varies inversely with the quantity of light reflected into the eye. The greater the illumination the smaller the pupil. It is also a fact that the smaller the lens aperture of the camera the more time is required to take the picture. When illumination reaches the eye improperly directed, the pupil contracts and slows up the visual operation. Under improper light conditions efficient vision is accomplished only by excessive expenditure of nervous energy, thus inducing fatigue in a much shorter time than in cases where the light rays reaching the eye are limited to those reflected from the object viewed.

The purpose of the present invention is to exclude as nearly as possible all those rays not reflected from the object viewed and in this aim those from below and from the sides as well as those from above are cut off.

It will be understood that in practice the improved shade may be molded from suitable material when in a plastic state, so that no cutting nor over-lapping is necessary.

It will be obvious that the entire shade might be a single piece instead of in sections as shown. The sections however, permit adjustment which the solid construction would not do.

I claim:—

1. An eye shade of opaque material and consisting of similar sections, each section consisting of a channel-shaped portion having a body and depending side walls, the side wall of the front of the body being of greater depth than that at the rear, and having an up-turned flange at its lower edge extending parallel with the side wall in spaced relation, the channel-shaped portion of the sections fitting one within the other and being slidable with respect to each other, the inner side wall of the channel-shaped portion being separated from the body at the outer end thereof and extended to form a connecting tab, and a depending wing or vane at the outer end of the channel-shaped portion and having a flange at its upper edge overlying the adjacent end of the channel-shaped portion and extending above the upper edge of the separated portion of the inner wall, and having a slot at the end remote from the channel shaped portion through which the tab extends, said wing or vane being adapted to contact with the side of the face at the cheek bone and being bent inward at its lower edge to lie against the cheek of the wearer below the adjacent eye, the inner edge of the flange being shaped to fit against the forehead, and means connected with the tabs for holding the shade in place.

2. An eye shade, consisting of similar sections slidably connected, and comprising a horizontal portion shaped at its inner edge

to fit against the forehead and having at its outer edge a depending portion and having at either end a wing or vane extending below the depending portion at the front and bent inwardly at its lower edge to contact with the cheek of the wearer below the adjacent eye, and means for holding the shade in place.

3. An eye shade comprising similar sections slidably and detachably connected, each of such sections being of channel form having a depending wing at its outer end, and comprising a body and front and rear walls depending from the longitudinal edges of the body.

4. An eye shade comprising similar sections slidably and detachably connected, each of such sections being of channel form having a depending wing at its outer end, one of the sections having the lower edge portions of the front and rear walls recurved inwardly to embrace the lower edge portions of the corresponding walls of the companion section.

5. An eye shade comprising similar sections slidably and detachably connected, each of such sections being of channel form having a depending wing at its outer end in the upper rear portion of which is formed a slot and comprising a body and front and rear walls depending from the longitudinal edges of the body, the rear wall being separated from the outer end of the body and extended to form a tab which passes along the inner side of the wing and out through the slot thereof.

CHARLES EDWARD FOLSOM.

Witnesses:

GEO. T. OSBORN,

A. R. BLANCHARD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."