

Feb. 5, 1935.

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1,990,143

ANTI-GLARE DEVICE AND METHOD OF MAKING IT

Filed April 7, 1930

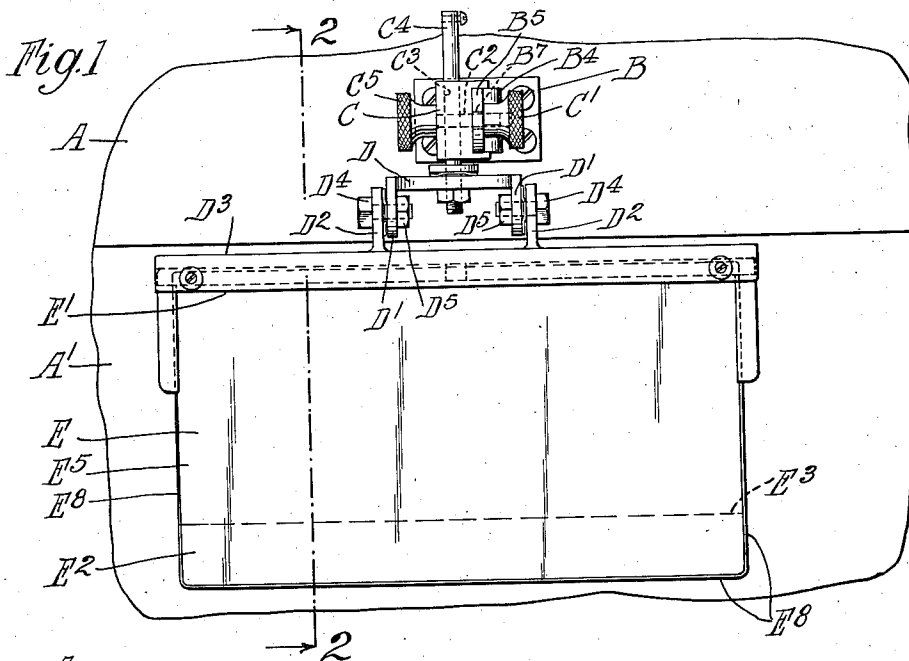
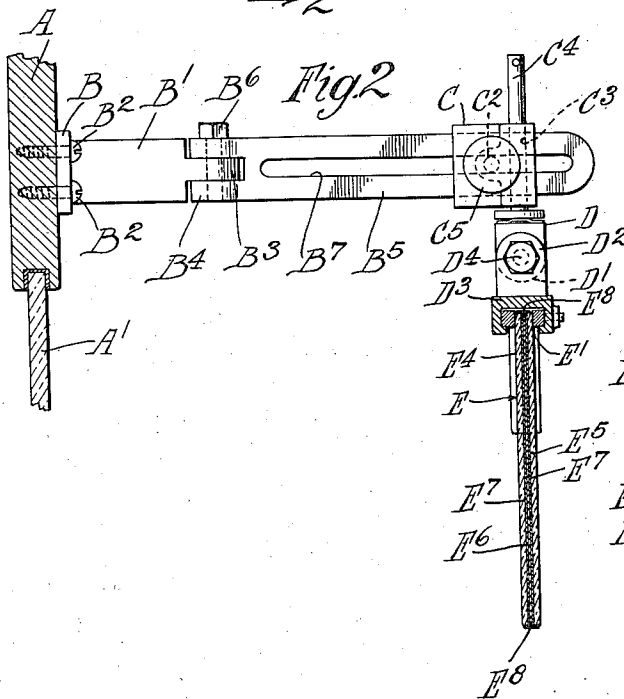
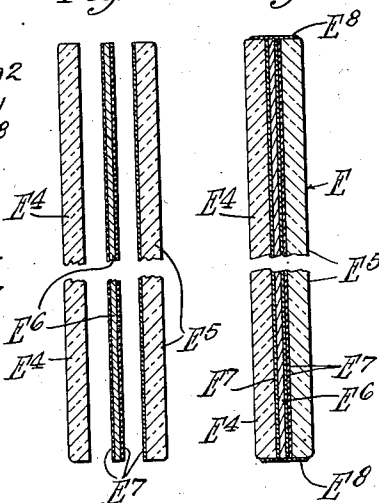


Fig. 3

Fig. 4



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UNITED STATES PATENT OFFICE

1,990,143

ANTIGLARE DEVICE AND METHOD OF
MAKING IT

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Application April 7, 1930, Serial No. 442,058

4 Claims. (Cl. 91—68)

My invention relates to a filter or antiglare device. One object is the provision of means for shielding the eye of a user from bright light or glare. Another object is the provision of such a filter or shield which, although effective to shield the eye of the user from bright lights or glare, will still permit the user to distinguish, through it, signal lights and the like, in their proper relationship. Other objects will appear from time to time in the course of the specification and claims.

I illustrate my invention more or less diagrammatically in the accompanying drawing, wherein—

15 Figure 1 illustrates an elevation;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a section through the parts employed for the filter; and

20 Figure 4 is a section through the filter, with the parts assembled and positioned.

Like parts are indicated by like symbols throughout the specification and drawing.

25 A generally indicates a frame member passing across the front of a vehicle, and A^1 indicates any suitable windshield or window member for such a vehicle.

30 Secured to the member A I illustrate a base member B with a bracket or arm B^1 forwardly projecting therefrom. B^2 are any suitable securing means, such as screws. The member B^1 is indicated as terminating with a hinge eye B^3 alinged with eyes B^4 of the end of the pivoted link B^5 . B^6 indicates any suitable pivot or hinge member passing through the members B^3 and B^4 . The member B^5 is longitudinally slotted as at B^7 .

35 Slidable along the member B^5 is the block C. It may be clamped at any suitable position therealong as by the nut C^1 screwthreaded for locking engagement with the bolt or screw C^2 which passes through the slot B^7 . The block C is apertured as at C^3 slidable to receive the stem C^4 . C^5 represents any suitable thumb nut or locking member adapted to lock the member C^4 against longitudinal movement through the aperture C^3 .

40 Positioned at the lower end of the pin C is the yoke D having the downwardly turned arms D^1 . Opposed to each such arm D^1 is an ear D^2 projecting upwardly from the transverse member D^3 . D^4 indicates any suitable bolts with the lock nuts D^5 , whereby the members D^1 and D^2 may be held against rotation in relation to each other.

45 E indicates the filter member proper which is herein illustrated as being secured, along its up-

per edge E^1 , by the transverse member D^3 . It will be understood that the member E is transparent or translucent to a varying degree. I may for example, have a zone E^2 of substantially complete transparency, formed, for example, of untinted glass or equivalent material. Beginning, for example, along the general line E^3 , I may employ coloring material or pigment or light obscuring material of any suitable color or type, the light obscuring or absorbing effect of which increases progressively upwardly toward the upper edge of the filter. I prefer to employ a color, such as a shade of brown or a dull green which, I have found, permits the eye of the observer to distinguish the visual signals ordinarily used, such as red, green and amber lights, one purpose being to reduce the strain upon the eye of the observer, when driving into bright lights, while avoiding the extremely undesirable result of making it more difficult for the observer to distinguish visual signals.

20 As a means of forming such a filter I may employ two separate sheets of glass, as shown in detail in Figures 3 and 4 and indicated as E^4 E^5 . While I do not wish to be limited specifically in my filter or in my method of making it, except so far as I limit myself specifically in my claims, I suggest as a practical method of making such a filter the provision of an intermediate layer E^6 , which may be of celluloid, bakelite, or some substance sufficiently transparent for the purpose, while less brittle than glass. I may then apply to either or both faces of the member E^6 , or to the inner face of either of the glass members E^4 E^5 a coating of gelatin, glue or the like, indicated in Figure 3 as E^7 . This gelatin serves as means for precipitating the coloring matter to be employed. It will be understood that while preferably I employ two sheets of glass and an intervening sheet of celluloid, that nevertheless I may find it practical, under some circumstances to omit the celluloid. Also I may apply the gelatin and the coloring matter to both celluloid and glass, or to glass alone, or to celluloid alone. Whatever coloring matter or obscuring matter I may employ may be applied directly to the surface of celluloid, bakelite, or glass, or may even be incorporated in the substance of the glass, celluloid, or other material.

50 Assuming for example a case in which I am treating only the inner surface of the glass member E^5 I apply to it the coating of gelatin E^7 and then precipitate upon the coating a dye or coloring substance, preferably light-fast and not

affected by the atmosphere. I may for example employ a manganese compound, permanganate of potash or some equivalent manganese compound, manganous or manganic. The latter is preferable. Preferably the substance precipitated is an oxide or a hydrous oxide of manganese. The manganese solution may be applied by brush or swab or wiper, or the glass may itself be dipped in the solution. Under some circumstances it is preferable to hasten the precipitation of the compound and some mechanical means may be employed. I may for example use copper sulphate or copper acetate, or an acid solution of one or both.

In applying the coloring matter it is necessary that the time of exposure, or the volume of material employed vary, increasing upwardly from the line E³. If the material is being flowed or wiped or brushed on, the treatment for the upper portion of the filter may be kept up longer than for the lower. For example a single even coating might be put on, and subsequent coats may be applied, each such coat starting somewhat higher up on the filter. On the other hand, when dipping the member E, the upper edge E¹ will be dipped more frequently in the solution or left longer in the solution than the lower edge, the area below the line E³ not being treated at all, if clear glass is desired throughout that area.

Referring to Figure 4, E⁸ indicates a thin layer of cement, whereby the glass members E⁴ and E⁵ are bonded or cemented together about the inner member E⁶. The result is, in effect, shatter proof glass. It will be understood, that whereas a surrounding layer of cement forms a ready means for securing E⁴ E⁵ together, other means may be employed, such as a surrounding metallic frame, or such as pressing or cementing the members together about or against the celluloid sheet E⁷.

It will be understood that while the employment of a lower band E² of clear glass is a practical solution of the problem, I do not wish to be limited to any specific disposition of coloring matter, except so far as the specific language of my claims sets out, and I wish the description and drawing to be taken as in a broad sense illustrative and diagrammatic rather than as limiting me to my specific showing.

The use and operation of my invention are as follows:

In employing the filter herein described I provide means, as shown in Figures 1 and 2, for adjustably positioning the filter forwardly of the eyes of the user. Assume that it is employed in an automobile. The member E, when in use, may be positioned considerably closer to the eye of the user, than the windshield, and is preferably positioned at such a level that the user, by tilting his neck or by raising or lowering himself somewhat in his seat can raise his eyes in relation to the member E. When used for night driving a practical setting is to position the filter so that the driver will naturally and easily look

through the clear strip E¹. If a car with bright lights approaches, the operator rises slightly so that his eyes are aligned with the shaded area E. The brighter the lights the higher will he lift his head, it being understood that the upper portion of the filter is sufficiently opaque to permit the user to drive into very bright lights without annoyance. Taking another case, if the user is driving into bright sunlight, at sunrise or sunset, or into any constant light, he may adjust the member E somewhat lower so that his eyes will at all times look through a relatively opaque portion of the filter.

It will be understood that whereas I have illustrated my filter as forming a separate panel mounted within the windshield, I consider it within the field of my invention and within the terms of my claims, unless specifically otherwise limited, that the filter may be mounted outside the windshield, or mounted just within the windshield, although I have shown it as spaced laterally well within the windshield in the particular embodiment illustrated as for example in Figure 2.

I claim:

1. The method of coloring a transparent body which comprises coating said body with a color absorptive material, dipping the coated body into a solution of a manganese compound, and causing said manganese compound to be precipitated in said color absorptive material.

2. The method of coloring a transparent body, which comprises coating said body with gelatin, dipping the gelatin coated body into a solution of a manganese compound, and causing said manganese compound to be precipitated in the gelatin coating.

3. The method of producing a colored ray filter which comprises applying a coating of gelatin to a sheet of transparent material, dipping the gelatin coated sheet edgewise into a water solution of a dye, and controlling the immersion by moving the sheet to cause the portion first entering the dye solution to remain in the solution a sufficiently longer time than the last inserted portion, whereby the gelatin coating will accept varying amounts of the dye, and whereby the coloring applied to the gelatin will increase in density progressively toward said first entering portion.

4. The method of producing a colored ray filter which comprises applying a coating of gelatin to a sheet of transparent material, dipping the gelatin coated sheet edgewise into a coloring solution, and controlling the immersion to cause the first entering portion to remain in the solution longer than the following portions, whereby the gelatin coating will accept varying amounts of the color, and whereby the coloring applied to the gelatin will increase in density progressively from the last portion dipped toward the first entering portion.

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