Sept. 25, 1923. 1,468,750

C. F. SECHRIST

GLARE PROTECTOR

Filed Aug. 29, 1922

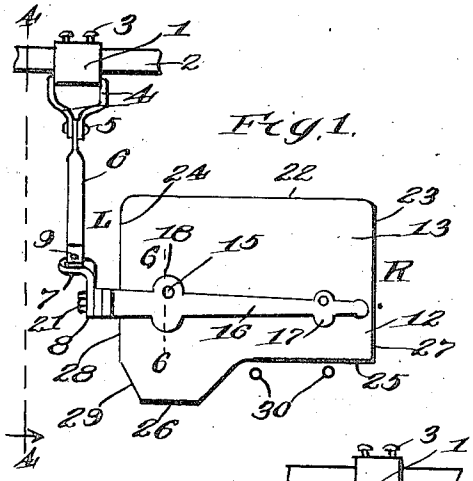


Fig. 1.

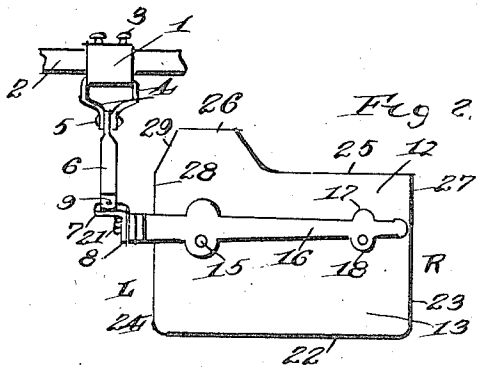


Fig 2.

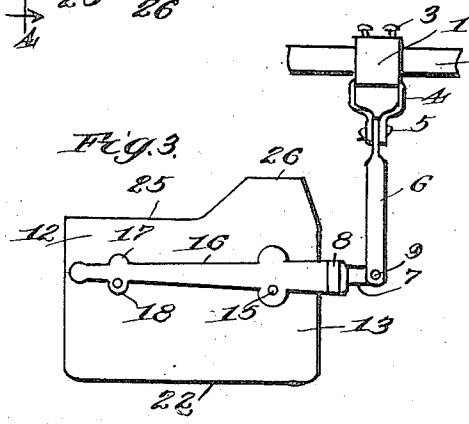


Fig. 3.

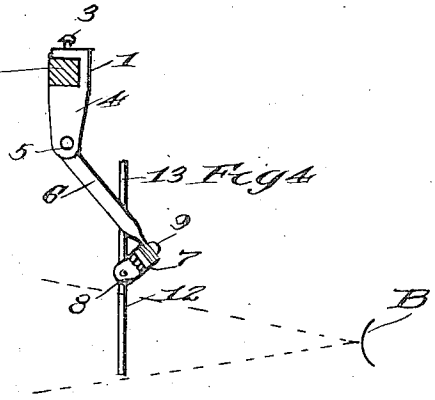


Fig 4

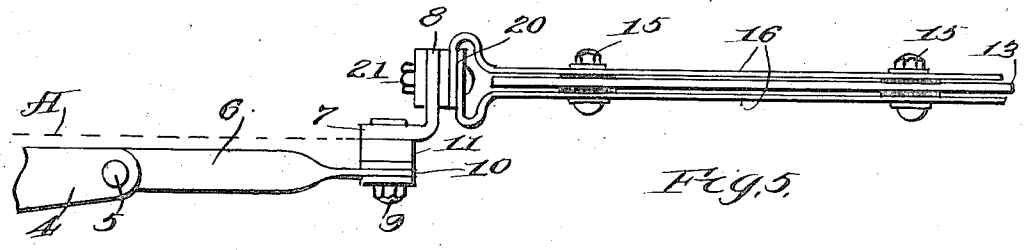


Fig. 5.

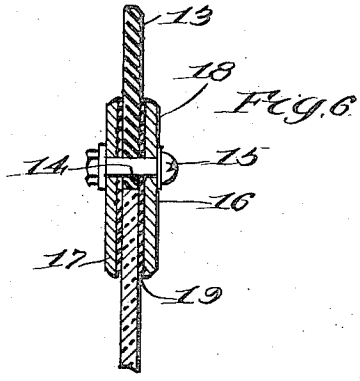


Fig. 6

Inventor

Charles F. Sechrist

by Carl A. Crawford

Attorney

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UNITED STATES PATENT OFFICE.

CHARLES F. SECHRIST, OF SPOKANE, WASHINGTON.

GLARE PROTECTOR.

Application filed August 29, 1922. Serial No. 584,964.

To all whom it may concern:

Be it known that I, CHARLES F. SECHRIST, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented new and useful Improvements in Glare Protectors, of which the following is a specification.

This invention relates to improvements in glare protectors for autos.

One of the features of this invention is to provide a glare protector composed of two light intercepting plates of coextensive length and different character and disposed in edge to edge relation, together with supporting means permitting said protector to be revolubly adjusted to bring either plate into coacting relation with the vision of the driver.

In accordance with my invention, one of said plates is preferably opaque and its principal function is to intercept sun glare, and hence its main use is in driving by daylight. The remaining plate is semi-transparent and its principal function is to intercept or vitiate lamp glare, and hence its principal use is in night driving.

However, the semi-transparent and opaque plates have additional functions which they separately perform, and in some utilities, they conjointly perform functions which could not alone be performed by either.

A further feature of my invention resides in a protector having one or more plates each of which is provided with marginal edges free from any frame, bordering or other outlining obstruction whereby the free edges of said plates may effectively intercept or ease the vision of the driver, which these edges could not do, if they were bordered or framed.

My invention also includes an improved mounting or support for the protector enabling the driver quickly to adjust the same into a variety of different positions, and in addition thereto, the novel supporting means is attached to and clamps the plates in a manner to render the edges absolutely free and unobstructed for any desired coaction or modification of the range of vision of the driver.

My invention has many other features and objects which will be more particularly described in connection with the accompanying drawing and which will be more minutely pointed out in and by the appended claims.

In the drawing: —

Fig. 1, is a view in elevation of my protector adjusted for night driving, and viewing the same as the driver would if in position on the seat.

Fig. 2, is a similar view showing the protector adjusted for day-light driving.

Fig. 3, is a view showing the protector adjusted laterally of the wind-shield.

Fig. 4, is a sectional view on line 4—4 of Figure 1.

Fig. 5, is an edge view with the supporting means extended in straight lines.

Fig. 6, is a sectional view on line 6—6 of Fig. 1.

Like characters of reference designate similar parts throughout the different figures of the drawing.

Reference will first be made to my improved supporting mechanism.

A clamp 1, is adapted to be secured to the windshield frame of an open car, or on the frame work of a closed car, and may be anchored by screws 3. It may now be stated that when the protector is installed, this clamp will be located laterally in the correct position with respect to the vision of the driver. The clamp 1, has arms 4, between the lower ends of which is pivoted at 5, the upper end of a pendent link 6. It will be noted that this pivot is so disposed that its axis will be transverse with respect to the length of the auto, or rather the longitudinal axis of the latter.

The lower end of said link 6 is pivoted to one limb 7, of an angle bar, the remaining limb of which is indicated at 8. The axis of pivot 9, will, when the link 6 is vertically disposed, be parallel with the longitudinal axis of the auto. It will be noted that between the limb 7, and the link end 10, is interposed a relatively thick washer 11, which in addition to its function as a washer, also functions as a spacer. Thus, as indicated by

dotted lines A, the protector body can be adjusted laterally past link 6, without interference therewith.

Before entering into a description of the protector plates, designated at 12 and 13, I will first describe the manner in which they are mounted upon the supporting means.

Plate 13, is provided with openings, one of which is shown at 14. Bolts 15, extend through said openings. Clamp bars 16, extend along the line of edge abutment of plates 12 and 13 and overlap the same sufficiently to conceal this line of abutment. The bars have lugs 17 and 18, the latter being drilled for the bolts 15, and the former acting as friction holding lugs for plate 12. I prefer to interpose yielding material 19, as shown in Fig. 6, to render frictional grip of the lugs 17, effective. The bars 16, are shaped as indicated at 20, at their inner ends, in lapped relation, for swivelled connection with limb 8, by pivot 21. The axis of this pivot, is at right angles to the longitudinal axis of the auto. At all the pivotal connections, I will employ suitable yielding washers so that when the pivots are tightened, the parts will be frictionally retained in their adjusted positions.

I will next describe my improved protector plates and the functions they perform, and I may explain at this point that "right" and "left" are indicated by letters "R" and "L" and that the reader of the drawing is viewing the protector the same as the driver of an auto, the eye of the driver being indicated at "B" in Fig. 4.

In the preferred form, the plate 13, is made of rubber, and is thus opaque. It is a rectangular plate and the active edges 22, 23 and 24, are free and unobstructed as regards any frame. Because of the fact that plate 13, is of rubber, or like material, I prefer to perforate the latter for the bolts 15. The lower plate 12, is of glass and is either colored or otherwise rendered semi-transparent. It will be noted that the plates 12 and 13, are coextensive in length, and in practice, the distance between edges 23 and 24 is about eight inches.

Plate 12, has vision intercepting edges 25 and 26, at different elevations, and it will be noted that edges 27 and 28, are likewise free and unobstructed by frames. Thus, it will be seen that at the right hand portion, the lower edge of the plate 12, is cut away and that at the left hand portion, the lower edge of plate 12, projects downwardly. The edges 28 and 26 are joined by a cut away edge 29, the purpose of which will be later developed.

Now assuming that the user were driving at night with the protector in the adjustment shown in Fig. 1; the vision of the driver, as indicated at 30, would be unobstructed as regards the road surface directly in front of the line of travel. However, any glare at an elevation above the road surface would be vitiated by the marginal edge 25, of the plate 12. As regards any glare of an approaching machine to the left of the driver, the edge 26, would intercept and vitiate as this marginal edge would be below the axial lines of vision and would protect the driver's eyes wholly from angular glare. However, suppose the driver wished to view a pedestrian crossing from the left of the street, then, the cut away portion or edge 29, would afford clear and un-restricted vision. Further, the adjustment in Fig. 1, would cause the opaque plate to intercept and cut off sun glare, if the driver wished to view the road almost wholly through the semi-transparent plate, in day-light driving. However, in the latter case, the usual adjustment will be that shown in Fig. 2, wherein the protector has been revolubly adjusted one hundred and eighty degrees, from the position shown in Fig. 1, disposing the opaque plate 13, lowermost. It will be noted that the depth of plate 13, from edge 22 to bar 16, is greater than the depth of plate 12, even from edge 26. Thus, when the adjustment shown in Fig. 2, is made, the protector will be slightly elevated from the position shown in Fig. 1, which is effected by inclining link 6, slightly upwardly. Now it will be clear that the edge 22 will intercept the sun rays and absolutely cut off sun glare from the driver's eyes. If the sun is high, medium or low, and also if going up grade or down grade, the protector may be adjusted to corresponding elevations.

In Fig. 3, I have shown a lateral adjustment with the protector outside the windshield to cut off lateral sun or other glare. This adjustment is possible by reason of the swivelled connection whereby the whole protector body may be revolved about the axis of pivot 9. After or prior to this adjustment, the protector may be rotatively adjusted to dispose either plate uppermost. Further, because of the angle bar, the protector may be adjusted to any desired angular position with respect to the line of travel, when outside the windshield.

If at any time, the device is not desired at all, as in rainy weather, the protector may be adjusted out of vision of the driver and against the top of the auto.

I desire to point out that there are conditions where the opaque plate 12, coacts with the semi-transparent plate 13.

Where the protector is adjusted at a relatively low elevation, corresponding to the position shown in Fig. 1, that portion of the glare above bars 16, would be intercepted by plate 13, for the protection of the occupant of the rear seat.

Supposing a driver is approaching a sun which is projecting its rays substantially

horizontally toward the windshield, with a strong reflection upwardly from the road, then, the driver will adjust the protector relatively low, and will get all his road vision through the semi-transparent plate, and the opaque plate will cut off the sun's rays during such low adjustment usage. In this adjustment, the lower edge 25 will not intercept, or be in coacting relation with the driver's vision because it will be below his line of vision, and the driver will view the entire approaching range through the semi-transparent plate.

The bars 16, will preferably be of nickel finish, or at least some finish which is graphically different from either the opaque or semi-transparent plates. Thus the line of demarcation will not be merely the abutting or edge to edge line of the two plates, which would visually confuse, but this line of demarcation will take the form of a visually different appearing surface, namely, the bars 16. Further, by reason of this novel means of securing the plates at their abutting junctures, I am able to avoid any kind of frame or marginal obstruction and thus, the driver, if he cares to or must view an object just past one of the side edges of either plate, he can do so without visual interference of any frame.

Because of the greater heighth of the plate 13, I am enabled to correspondingly reduce the heighth of plate 12, which is a distinct feature.

For the public's information, it is noted that the protector will be subtantially eighteen inches in front of the eyes of the driver, this distance varying slightly with different adjustments.

It is believed that the invention will be clearly understood from the foregoing, and I do not wish to be limited thereto, except for such limitations as the claims may import.

I claim:—

1. A glare protector comprising opaque and semi-transparent plates in super-posed edge to edge relation, a clamp device extending along adjacent margins of said plates abreast of the line of abutment thereof and rigidly holding said plates in the same plane leaving the opposite edges of said plates free and un-obstructed, and means adjustably and rotatively supporting said protector, whereby the latter may be reversibly adjusted to dispose a free marginal edge of either plate in the desired intercepting relation to the line of vision of the driver.

2. A glare protector comprising opaque and semi-transparent plates of coextensive length in super-posed edge to edge relation, means fixed to one of said plates and frictionally gripping the other of said plates to firmly hold the same in such relation, and mechanism adjustably supporting said means.

3. A glare protector comprising a plate of opaque material and a plate of semi-transparent glass mounted in horizontal edge to edge relation and the plates being coextensive in horizontal length, and clamp bars extending along and covering the line of abutment of said plates on opposite sides thereof, and bolts extending through said opaque plate and said bars and energizing the latter to frictionally clamp said glass plate in position.

In testimony that I claim the foregoing as my own, I hereby affix my signature.

CHARLES F. SECHRIST.