June 21, 1927. 1,633,190

M. A. RADER

GLARE SHIELD

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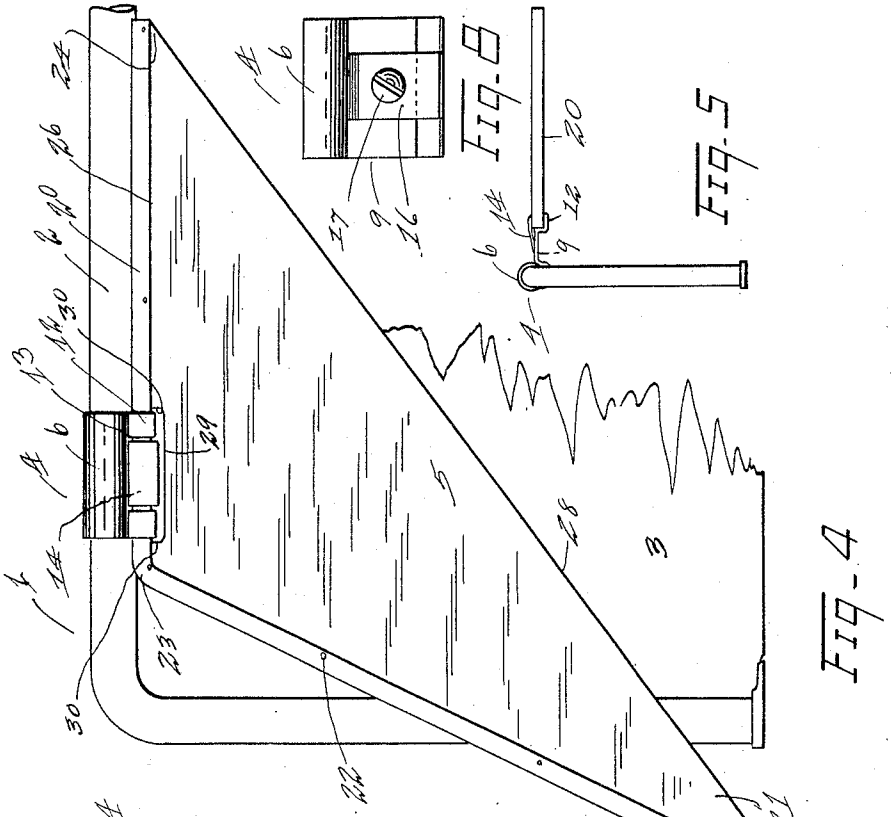


Fig. 4

Fig. 8

Fig. 5

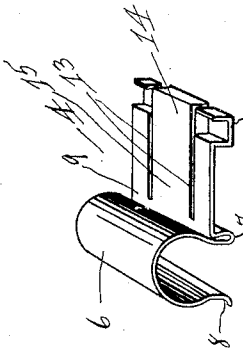


Fig. 1

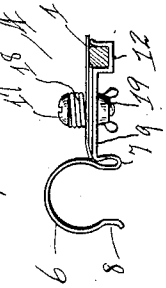


Fig. 2

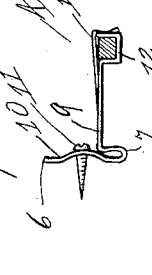


Fig. 3

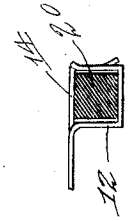


Fig. 6



Fig. 7

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UNITED STATES PATENT OFFICE.

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GLARE SHIELD.

Application filed October 20, 1925. Serial No. 63,599.

This invention relates to glare shields, more particularly applicable to the windshields of automobiles, and has as one of its objects to provide a glare shield that will protect the vision of the driver thereof against the glare of oncoming lights.

Another object of the invention is to provide a glare shield that will not interfere with the driver's vision of the road.

A further object of the invention is to provide a glare shield having a form corresponding to the path of the glare on the windshield as the glare approaches, thus reducing the amount of material required in its construction.

A further object of the invention is to provide a glare shield that is cheap and simple to manufacture, that is easy to install, and that is highly efficient in operation.

With these and other objects in view reference is now had to the accompanying drawings in which

Fig. 1 is a perspective view of my preferred form of clamp;

Fig. 2 is a side elevation of a modified form of clamp;

Fig. 3 is a side elevation of a modified form of clip used on the clamp;

Fig. 4 is an enlarged front elevation of the glare shield in the operable position;

Fig. 5 is a side elevation, reduced, of the glare shield in the raised position;

Fig. 6 shows the bar in cross section and seated in the clamping jaws;

Fig. 7 shows the bar in cross section and partly rotated in the clamp; and

Fig. 8 is a plan view of the modified form of clamp.

Having reference to the drawings like numerals refer to like parts throughout the several views and the numeral 1 refers to a portion of a windshield section comprising a frame 2 and a glass 3, and the glare shield comprises in general a clamp 4 and a transparent shield 5.

Specifically the clamp consists of a yielding material formed in a generally horseshoe shape in cross section to act as a supporting clip 6 to grip the frame 2 of the windshield, with one of the legs 7 of the horseshoe bent back upon itself to form a member corresponding to the other leg 8 thereof to form a supporting rest for an extended portion 9 that will carry the clamp proper, and at the same time elevate the parts to permit the shield 5 to be raised completely above the line of vision in a manner to be explained.

In closed cars where this form of clip cannot be used owing to the omission of a windshield frame of the above nature, and the close proximity of the top, the clip will consist of an upright piece 10, as shown in Fig. 3, and in this a screw 11 will be utilized to attach the clip to the car.

The extended portion 9 projects horizontally and terminates in a shaped lower jaw 12 and is split, as at 13, to provide for a yieldingly operable upper jaw 14 that is cooperable with the first mentioned jaw.

The clamp is preferably constructed of one piece of material in which case the lower jaw 12 is formed of two upturned and U shaped jaws positioned on the outer end of the extended piece 9, and on either side of a central piece 15 that is downturned on its outer end to provide the said yieldingly operable jaw 14.

Obviously the horizontally extended portion may be kept solid if desired and have its outer end upturned, as for the above mentioned lower jaw, and in this case a separate piece 16 may be provided that will seat at the juncture of the extended portion and the clip, and project forward to cooperate with the lower jaw to form the clamp, with this piece secured to the extended portion by means of a bolt 17 carrying a spring 18, the bolt being secured in place by a thumbnut 19 that will also be used to regulate the yielding tension of the jaws.

While the thumbnut may be used to adjust the last mentioned form of clamp, adjustment may be made to the first mentioned form of clamp by manipulating the respective jaws, straining them toward or away from each other, depending upon the requirements whether it be a greater or less tension respectively.

The transparent shield 5 comprises a frame 20 that forms a cross bar having a cross section complemental to the form of the above mentioned jaws, with the cross sectional shape of the bar being such that the jaws will normally rest against its shorter diameter and thus yieldingly secure the bar on either one of two quarters thereof for adjustment purposes and to maintain the shield in either a vertical or horizontal position.

The shield 5 includes preferably a sheet of transparent material 21 that is rigidly se-

cured to the frame 20 by means of rivets 22, or other convenient means, and the frame thereof is bent to form an obtuse angle 23, and the transparent piece is designed to conform to the frame and to form an obtuse angled triangle.

The bar is mounted in the clamp with the clamp positioned adjacent to the obtuse angle, and on the base of the triangle at a position of balance between the two remaining acute angles 24 and 25 of the triangle, whereby ease of adjustment and reduction of vibration is obtained.

By thus positioning the shield in the clamp the acute angle 24 of the base 26 is extended in one direction, while the acute angle 25 forming the apex 27 is extended in an opposite direction from the clamp.

By this arrangement, and where the custom is to pass approaching vehicles on the right, the base will extend to the right at the top thus covering the greater amount of glare that invariably occurs at the top of the windshield, and the depending apex 27 will extend to the left, toward the oncoming glare, to cover the lesser amount of glare that occurs as the source of glare approaches.

The diagonal line 28 of the triangle will obviously extend between the two acute angles and thus will cover the right hand edge of the path of the glare, and thus eliminates any unnecessary surplus of the transparent material that would tend to interfere otherwise with the vision of the driver.

While any suitable means may be utilized to prevent a longitudinal movement of the frame 20 in the clamp a recess 29 is cut in the transparent piece 21 to render the bar free to move in the clamp, and the sides 30 of the recess are utilized to prevent longitudinal movement, in the usual manner, the sides mentioned being deemed of sufficient strength as the strain thereon is reduced to a minimum by the balanced suspension of the shield.

In use the clip may be yieldingly attached to the top frame of the windshield, or to the woodwork of the car (not shown) by the screw 11, as conditions may require, and the clip may be positioned thereon to bring the apex of the shield within the frame, or at any desired position thereon.

With the clip in place the shield may be lowered to a vertical position when it will be interposed between the glare and the vision of the driver, and when in this position the broad part of the shield (the base 26) will cover the top of the windshield broadly, while the narrow part (the apex 27) will be in a position opposite the lower part of the windshield section and at a point in the line of vision of the driver when observing the road. By this arrangement the broad part of the shield affords the greatest protection at the point of greatest glare, and the narrow part of the shield with its small dimensions will not obstruct the vision necessary to safe driving, nor of pedestrians along the road, or the like.

The shield may be used against the glare of the sun, or the glare of pavements, as well as against the glare of headlights, and, when not in use may be raised to the horizontal position where it will rest near the top of the car completely out of the way, raising being accomplished by a simple manual operation.

The transparent piece may be colored to best suit its purpose, in this case green being the desired color.

Having thus described my invention, I claim

1. In a glare shield, a clamp provided with a supporting clip and a horizontally extending portion terminating in a shaped lower jaw, and provided with a yieldingly operable upper jaw cooperable with said first mentioned jaw, a shield comprising a transparent piece formed to an obtuse angled triangle, said piece being adjustably mounted in said clamp adjacent to the obtuse angle, and in a position of balance between the two acute angles, and means to prevent longitudinal movement of the shield in said clamp.

2. In a glare shield, a clamp provided with a supporting clip, and an extended portion having its upper end upturned to form a shaped yielding lower jaw, and provided with a shaped yieldingly operable upper jaw cooperable with said first mentioned jaw, a shield comprising a frame and a transparent piece rigidly secured to said frame, said frame forming a cross bar having a cross section complemental to the form of said clamp for adjustable engagement therewith, and said transparent piece formed of an obtuse angle triangle and mounted in said clamp adjacent to said obtuse angle thereof, and in a position of balance between the two acute angles of said triangle, and having the apex of the shield depending and directed toward the side of the oncoming glare, and means to prevent longitudinal movement of the frame in said clamp.

In testimony whereof I affix my signature.

MARION A. RADER.