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ANTI-GLARE ATTACHMENT FOR HEADLIGHTS

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Fig. 1

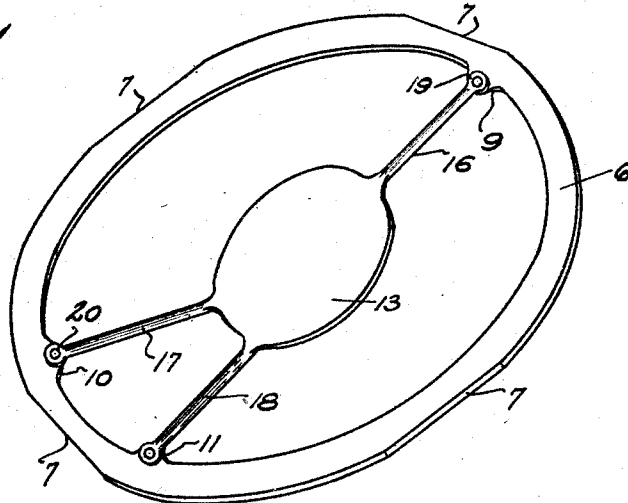


Fig. 2

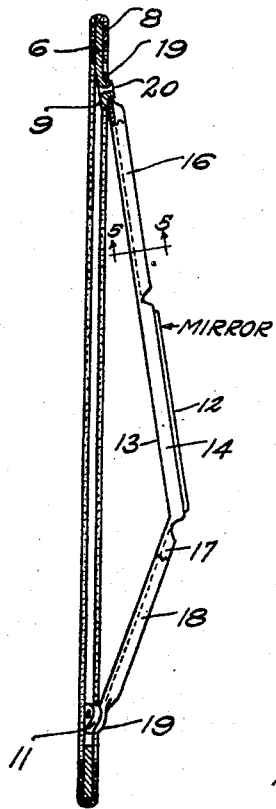


Fig. 4

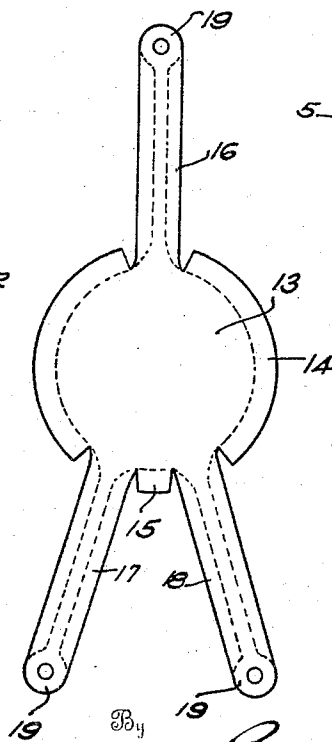


Fig. 3

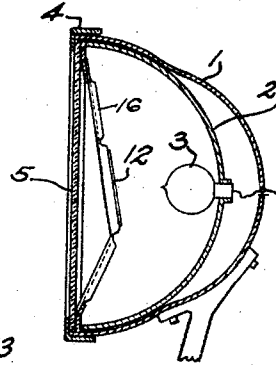


Fig. 5



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UNITED STATES PATENT OFFICE.

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ANTI-GLARE ATTACHMENT FOR HEADLIGHTS.

Application filed February 5, 1925. Serial No. 7,163.

To all whom it may concern:

Be it known that I, ROBERT A. OSBURN, a citizen of the United States of America, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Antiglare Attachments for Headlights, of which the following is a specification.

My invention relates to an anti-glare attachment for the headlights of automobiles, and consists essentially in a novel means of arranging a small mirror in line with the axis of the reflector and at such an angle as to cause the central or focal zone of light to be deflected upwardly and thence downwardly so that the more direct or glare producing rays of light will not tend to blind an approaching driver.

More particularly my present invention is concerned with the provision of a bracket for mounting the reflector on the headlight frame within the headlight, as I show in my pending application, Serial No. 38,371, other means for mounting the reflector on the inner surface of the lens, therefore I have elected to confine the subject matter and the claims of this application to a bracket attached to the headlight frame.

A further object of my invention is to simplify and perfect a means for mounting this light-intercepting and deflecting mirror so that it will not be unattractive in appearance; can be mounted in place without trouble or expense; will not become misplaced in service; and will enable the anti-glare attachment to be produced at a relative small expense.

My invention comprises the novel details of construction and arrangement of parts, which in their preferred embodiment only are illustrated in the accompanying drawings which form a part of this specification, and in which:—

Fig. 1 is a detail perspective view from the front of my anti-glare attachment.

Fig. 2 is a cross-sectional view showing the mirror and its supports in side elevation and the marginal mounting ring with its felt pad in cross-section.

Fig. 3 is a reduced vertical cross-sectional view of a typical headlight equipped with my invention.

Fig. 4 is a detail plan view of the blank from which the mirror bracket is formed.

Fig. 5 is a cross-sectional view on the line 5—5 of Fig. 1.

Similar reference numerals refer to similar parts throughout the drawings.

I show my invention associated with a typical headlight lamp 1, comprising a reflector 2, an electric lamp 3, and a retaining ring 4 for the lens 5. All of these parts are of standard construction. My device is intended to be applied to such a headlight without requiring any mechanical change in the latter and to this end I provide a mounting ring 6 adapted to fit into the headlight frame between the lamp 3 and the lens and having its marginal edges appropriately cut away at the points 7 so that it will conform to and fit in the correspondingly shaped open end of the lamp frame and be held against rotation by the engagement of the lamp frame with such portions 7. This ring 6 preferably receives a felt lining 8 to prevent rattling, this lining, as shown, being folded so as to lie on both sides of the ring which will thus hold it in position on the ring.

The ring is provided with an internally projecting lug 9 at its top and with two similar lugs 10 and 11 at its bottom. The bracket for supporting the mirror 12 is illustrated in Fig. 4, the full lines showing the blank and the dotted lines showing the shaped bracket. The bracket comprises a center plate 13 which conforms to the shape of the mirror, which, as shown, is circular, but the particular shape of the mirror may be changed as desired. This plate 13 is provided with side crimping flanges 14 and a bottom flange 15, which flanges are crimped over the mirror frame or the mirror itself, as may be desired, so as to hold the same in position on the center plate 13 as a backing. The bracket blank has an upper leg 16 and two different bottom legs 17 and 18, the several bracket legs being formed by narrow strips of the sheet metal which are bent down into U-shape, as shown in cross section, Fig. 5, except at their ends 19 which are left flat so that they can be secured by rivets or grommets 20 to the ring projections 9, 10 and 11, thereby mounting the bracket rigidly with the three point support on the ring. The lower legs 17 and 18 are bent in a plane inclined outwardly and downwardly at an angle to the upper leg 16 and center plate 13 which results in set-

ting the mirror at an inclination, as shown in Fig. 2. The bracket sets the mirror with its center appropriately in line with the axis of the reflector and in the path of the direct rays from the lamp 3 so that the central zone of light, in which occurs the brightest light rays, has the opaque mirror set therein so that all such rays are deflected thereby upwardly against the upper zone of the reflector and thence downwardly towards the ground. The light rays passing off marginally about the mirror are not of such character as to produce an objectionable glare and yet at the same time they enable the full lighting effect from the lamp to be obtained with a minimum of light obstruction from the bracket due to the small size of the inclined mirror and the thin bracket legs 16, 17 and 18. The mirror itself does not, in effect, reduce the lighting efficiency but merely deflects the rays of light. I thus provide an anti-glare attachment which can be very cheaply manufactured; which can be installed without requiring tools or skilled labor; which will positively hold its position; and which will not noticeably affect the lighting efficiency of the headlights but will merely intercept and deflect downwardly such part of the light rays as now produce the objectionable glare.

Though I have described with great particularity the details of the embodiment of the invention herein shown, it is not to be construed that I am limited thereto, as changes in arrangement and substitution of equivalents may be made by those skilled in the art without departing from the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. An anti-glare attachment for headlights, comprising a bracket having a plurality of narrow radially disposed supporting legs, marginal means to mount the bracket in the lamp by means of said legs, and means to mount a small mirror on the bracket with an upward inclination and in position to intercept the central zone of direct rays from the headlight.

2. An anti-glare attachment for headlights, according to claim 1, in which the

marginal mounting means for the bracket comprises a ring adapted to be received in the headlight frame.

3. An anti-glare attachment for headlights, according to claim 1, in which the marginal mounting means for the bracket comprises a ring adapted to be received in and concealed by the headlight frame.

4. An anti-glare attachment for headlights, according to claim 1, in which the mounting means for the bracket comprises a ring adapted to be received in the headlight frame and having portions thereof adapted to interlock with the headlight frame to prevent rotation of the ring.

5. The combination with a headlight having a reflector, a lens, and a lens retaining ring, of a bracket mounting ring adapted to be inserted in the headlight on the inside of the lens, and having elements adapted to engage the headlight to prevent rotation of the ring, a bracket having radial narrow divergent legs connected to the ring and adapted to provide a central mirror support near the transverse center of the headlight, and means to mount a mirror at an upward inclination on said support.

6. A headlight according to claim 5, in which the bracket is formed in an integral structure comprising the legs and the central mirror support.

7. In an anti-glare attachment for headlights, comprising a marginal ring having elements adapted by engagement with the headlight frame to prevent its rotation thereon, a mirror, a mounting bracket for the mirror having radial narrow legs, and means to connect said legs to said ring.

8. A headlight attachment according to claim 7, in which the legs are formed by bending narrow strips of metal integral with the bracket to a U-shape except at their ends where they are adapted to be jointed to the ring.

9. A headlight attachment according to claim 7, in which the ring has internal projections adapted to be overlapped by flattened ends of the bracket legs, and means to rigidly rivet said ends of the bracket legs to said projections on the ring.

In testimony whereof I affix my signature.

ROBERT A. OSBURN.