July 6, 1926. 1,591,287

C. K. DAVIS

HEADLIGHT ANTIGLARE DEVICE

Filed Feb. 3, 1926

FIG 1

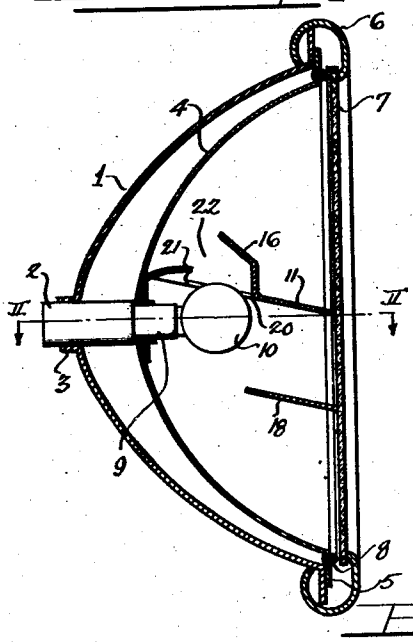


FIG 2

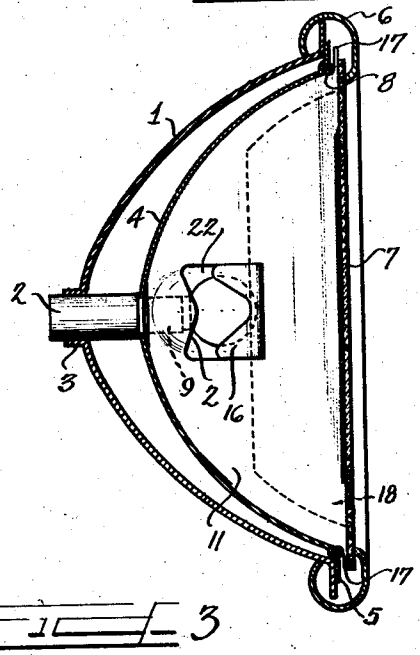


FIG 3

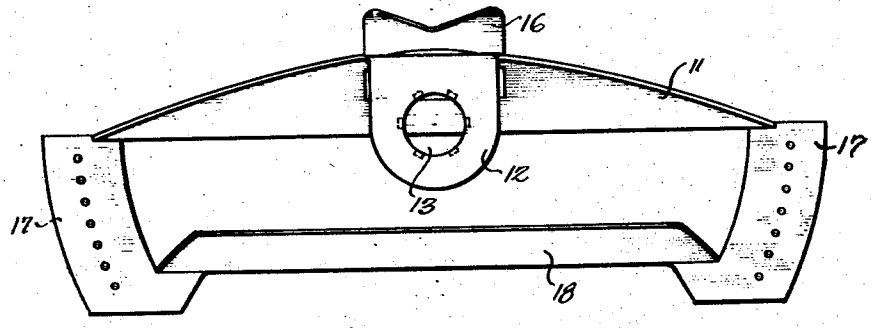
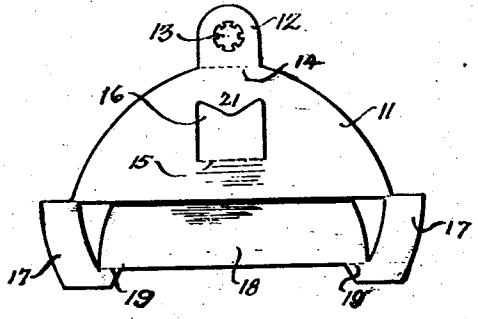


FIG 4



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UNITED STATES PATENT OFFICE.

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HEADLIGHT ANTIGLARE DEVICE.

Application filed February 3, 1926. Serial No. 85,623.

This invention relates to an anti-glare device for use with headlights on automobiles and the like. As is well known, the headlights on many cars, especially of the cheaper models are very glaring, causing great danger and inconvenience to drivers of approaching cars.

This invention, therefore, has for one of its objects to provide an inexpensive and simple device that may be readily attached to a headlight to substantially prevent all glare, without appreciably diminishing the light throwing power of the headlight.

Other and further important objects of this invention will be apparent from the disclosures in the accompanying drawings and specification.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is an elevational sectional view of a headlight with a device embodying the principles of my invention attached thereto, showing parts in elevation.

Figure 2 is a sectional view taken on line II—II of Figure 1 with parts in elevation.

Figure 3 is a perspective view of the device.

Figure 4 is a top plan view of a stamped form of my device.

As shown on the drawings:

The reference numeral 1 indicates an outer casing of a headlight of an ordinary type. Said casing 1 is provided with a central aperture through which extends an electrical connection 2, secured to said casing by flanges 3 surrounding said aperture. An inner parabolic reflector 4 is mounted coaxially with said casing 1 and joined thereto at its circumferentially flanged edge 5. A rim 6 of the usual construction is adapted to enclose the flanged edges of the casing 1 and hold a glass or lens 7 in position in the face of the headlight, a gasket ring 8 being provided between the abutting faces of the glass and the flange 5. A reduced end of the connection 2 forms a socket 9 which extends through the reflector 4 and is adapted to receive a lamp bulb 10, so positioned as to be at the focal point of the parabolic reflector. While I have illustrated a headlight of the usual inexpensive type it will be understood that the anti-glare device of my invention may be used with any type of headlight of this general nature.

My device comprises a series of definitely arranged deflectors adapted to be mounted within the headlight without in any way altering any part of the headlight. I prefer to form my anti-glare device from sheet metal, preferably by stamping the same, as shown in Figure 4. The sheet after stamping comprises a main portion forming an upper plate 11, parabolic in shape to conform with the parabolic reflector of the headlight. At the apex of the parobolic body portion there is formed a tab 12 having a central opening 13 and adapted to be folded downwardly at right angles along the dotted line 14. A central portion of the plate 11 is stamped out on three sides to provide, when bent upwardly along the dotted line 15, a deflector plate 16. Along the straight edge of the plate 11 near the end thereof there are formed integral spacing strips 17 adapted to be folded downwardly at right angles to said plate 11, and a lower plate 18 integral with said strips 17 and adapted to be bent along the lines 19 into a position parallel to and directly beneath the plate 11. After being stamped out and bent into shape the device is ready to be attached to a headlight as shown in Figures 1 and 2. It is mounted over the lamp socket 9 with said socket 9 extending through the hole 13 in the tab 12. The spacing strips 17 are adapted to be clamped between the gasket 8 and the glass 7 to hold the device against displacement. In adjusted position the parallel plates 11 and 18 are substantially horizontal with a slight downward inclination from the rear to the front. The deflector portion 16 provides an opening 20 which is centered directly above the bulb 10 and through which the bulb 10 partially projects.

The rearwardly extending deflector portion 16 forms with the upwardly struck portion 21 at the rear of the opening 20 a restricted passage 22 for the light rays directed toward the upper half of the parabolic reflector 4. The result is that only the central portion of the upper half of the reflector is available for reflecting the beams of light from the lamp 10, thereby greatly reducing the amount of light that would be reflected above the horizontal axis of the headlight

and almost entirely preventing the reflection of glare producing light. The deflector 16 together with the plate 11 further eliminate the direct rays of light that would naturally pass through the upper half of the lens 7. The lower plate 18 aids materially in reducing the number of rays that would be reflected upwardly from the lower half of the reflector 4. On the other hand, neither the plate 11 nor the plate 18 are sufficiently inclined to reduce the number of horizontal beams thrown from the reflecting surface. If desired the surface of the plates 11 and 18 may be polished to aid in the downwardly reflection of the light, the other surfaces being preferably non-reflective.

In view of the flexible character of the sheet metal from which my device is formed it will be apparent that the various deflecting surfaces may be readily bent into different positions whereby the most efficient glare preventing results may be obtained.

I am aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. The combination with a headlight having a lamp and a reflector, of a device stamped from sheet metal and adapted to be secured to the base of said lamp, said device comprising a pair of spaced parallel plates positioned above and below said lamp, the upper of said plates being provided with an opening and a rearwardly curved deflector for said opening to restrict the area available for reflection on the upper portion of said reflector.

2. The combination with a headlight having a lamp and a reflector, of a device adapted to be secured within said headlight, said device comprising spaced parallel plates positioned above and below said lamp, the upper of said plates being provided with an opening and a shield therefor for the purpose set forth.

3. The combination with a headlight, of a device comprising a pair of spaced plates adapted to be secured within said headlight with the light therebetween, the upper of said plates being provided with an opening above said light and a shield projecting rearwardly above said opening.

4. A device of the class described stamped from a single sheet of metal and comprising a plurality of substantially parallel plates, members joining said plates for holding them in spaced relation, fastening means on one of said plates, and a portion of that plate struck up to form an opening therein, the portion so struck up forming a shield over said opening for the purpose set forth.

5. In combination with headlight, a device comprising a pair of parallel plates adapted to conform with the inner contour of said headlight, strips joining and spacing the outer edges of said plates, means for attaching said device to said headlight with the plates inclined downwardly and forwardly, the upper of said plates being provided with an opening, and curved shield portions formed at the front and rear of said opening.

6. The combination with a headlight, of a device comprising a pair of plates adapted to conform with the inner contour of said headlight, the upper of said plates being provided with an opening and a shield therefor, and strips joining said plates adapted to be clampingly engaged by said headlight.

7. An anti-glare device for headlights comprising substantially parallel plates adapted to be positioned within said headlight with the source of light therebetween, the upper of said plates having an opening therein directly above the light source, and a deflector in front of said opening.

In testimony whereof I have hereunto subscribed my name.

CHARLES K. DAVIS.