Sept. 5, 1933. J. W. MEIXELL 1,925,770

NONGLARE DEVICE

Filed Aug. 27, 1930

FIG. 1.

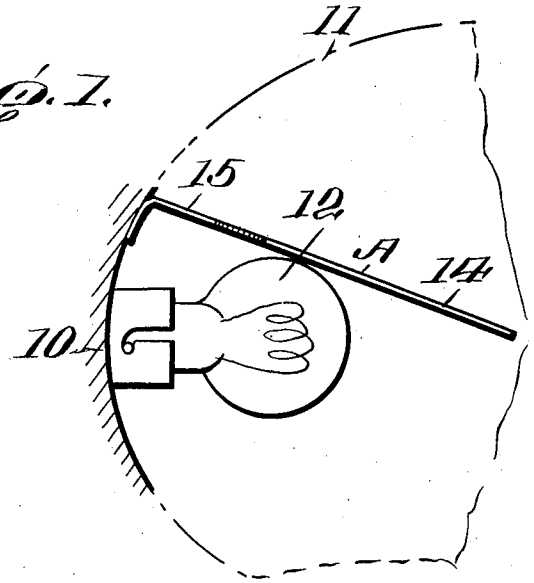


FIG. 5.

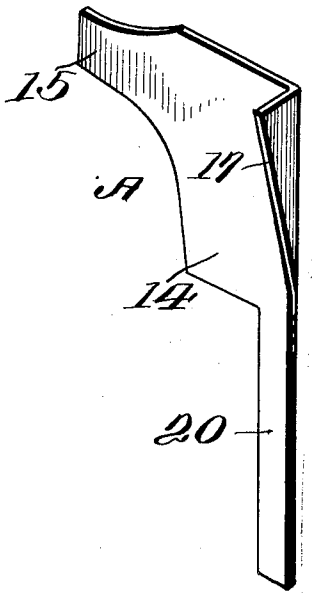


FIG. 2.

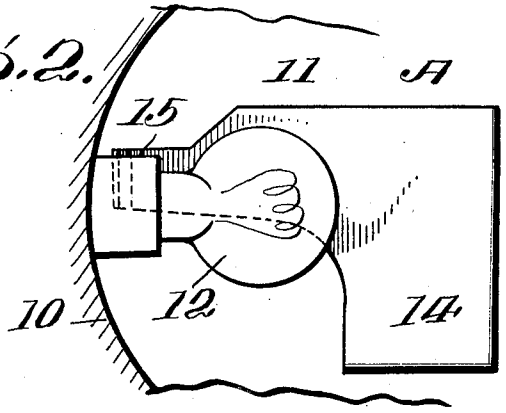


FIG. 3.

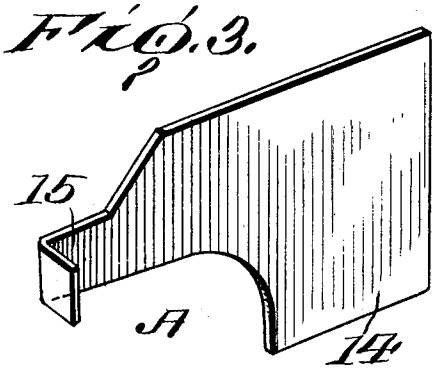
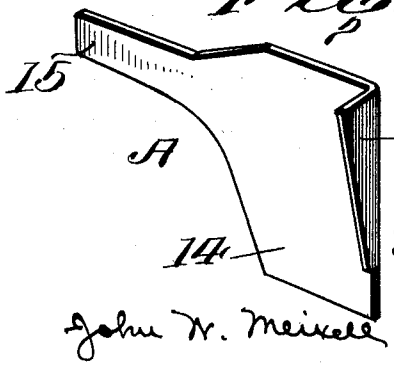


FIG. 4.



Inventor

John W. Meixell

By Wm. B. Hodges

Attorney

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NONGLARE DEVICE

John W. Meixell, Lewisburg, Pa.

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8 Claims. (Cl. 240—48.2)

This invention is a device for overcoming the objectionable glare effect of the headlights on motor vehicles, trolley cars and the like.

One of the objects of the invention is to provide a simple opaque device which may be placed within the casing of a standard type headlight, adjacent to the lamp, and so constructed that the projection of those portions of a beam of light which produce objectionable glare in the eyes of drivers of approaching vehicles, will be interrupted, and their glare effect destroyed. A further object is to provide a device of the character mentioned, to be secured within the lamp casing in suitable manner, and in a position which will not materially interfere with the usual functions of the standard type parabolic reflector. A further object is to provide a sheet-like device of small dimensions and of such effectiveness that the standard types of refracting headlight lenses may be dispensed with. A further object is to provide a device which will prevent the projection of glare into the rear view mirror of a preceding car.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawing:—

Figure 1 is a top plan view conventionally illustrating a standard type motor vehicle headlight, with the invention applied thereto. Figure 2 is a side view thereof. Figure 3 is a perspective view of the device shown in Figures 1 and 2. Figures 4 and 5 are perspective views illustrating slight modifications.

Referring to Figures 1, 2 and 3 of the drawing, 10 designates the casing of a headlight, such as the standard type parabolic reflector casing commonly used on automobiles, trolley headlights, and the like. Said casing contains the usual parabolic reflector 11 and the source of light consisting of the lamp 12. These parts may be of any standard or well known construction, and the casing may be closed at the front by a plain glass lens (not shown).

The non-glare device A consists of a sheet-like body of any suitable material, preferably sheet metal, which is thoroughly opaque with respect to light transmission. Said body is formed with a relatively wide forwardly located shield portion 14, and a straight and flat, relatively narrow rear supporting arm 15, the body depending from the forward portion of the arm a substantial distance, as shown. It will be observed that the body portion of the device A is provided with one longitudinal edge which is longer than the other longitudinal edge. The arm 15 is suitably anchored at its rear end, so that the body will project forwardly, to one side of the lamp with a slight lateral inclination toward the lamp, as shown. The body A may be rigidly supported in place in any manner which experience may dictate as desirable. As shown in the drawing, the rear end of the arm 15 is slightly offset and welded or otherwise anchored to the reflector casing, contiguous to the lamp socket. It will be observed that the narrow arm portion 15 lies opposite the side of the lamp, and that the widened portion 14, of the body extends to a position well forward of the lamp. If desired, the widened portion of the body may also be provided with a vertically disposed light-shield 17 (see Figure 4), shown as integral with the front edge of the body, but this shield may be omitted if desired. Said shield is of approximate triangular form with is widest portion at the top.

In practice, the device extends forwardly from a position contiguous to the rear end of the reflector 11, to the left of the lamp and is preferably inclined slightly toward the end of the lamp bulb, so that the filament of the lamp will lie in a position approximately parallel with the longitudinal median line of the arm 15, and the front edge of the body will slightly overlap the bulb. By this arrangement, the widened body portion 14, and the shield 17 are positioned some distance in advance of the position of the lamp. The shape of the device is such that certain portions of the beam of light, which is being projected from the lamp, namely of the portions projected laterally to the left are interrupted by the opaque body portions 14 and 15, at positions close to the lamp, so that they cannot be projected into the eyes of the driver of an approaching vehicle, or into a rear view mirror in a position ahead. The shield 17 may or may not be employed, but in practice it is useful to prevent the long distance projection of glare straight ahead, and also reduce the glare while the vehicle is travelling around curves.

In lieu of supporting the device by the arm 15, it may be supported at the front of the lamp casing, as shown in Figure 5. Referring to said figure, an arm 20 extends downwardly from the widened body portion 14, and is anchored to the lamp casing in suitable manner, not shown. The arm 15 is extended to the casing but not secured thereto.

The advantages of the invention will be clearly apparent to those skilled in the art to which it belongs. For instance, it will be readily under-

stood that by equipping each of the two lamps of a motor vehicle with an opaque body A, positioned to the left of the source of light, as described, those portions of the beam of light which would be projected to the left of the vehicle and into the eyes of an approaching driver will be absolutely interrupted, and by reason of the opaque character of the device will not be reflected in any manner. At the same time a sufficient volume of light is projected ahead and laterally to effectively illuminate the roadway for all driving purposes, so that the normal functions of the headlight are practically unimpaired while the non-glare functions are efficiently performed. Of course, where but one lamp is used on a vehicle, but one device is necessary. It will be noted also that in view of the effectiveness of the device above set forth, the use of refracting headlight lenses is made unnecessary. An important advantage is that the device may be placed in standard types of lamps, with the clearest lenses, and the most powerful lights, so that in addition to preventing glare, the visibility of roadway will be much better than with present day practice, and the danger of colliding with obstructions, striking pedestrians and the like, is greatly reduced. It is to be understood that although the invention has been illustrated and described as associated with the headlight of a motor vehicle, it is not limited thereto, but is equally applicable to motor vehicle headlights, trolley car headlights, and any other headlight or similar device, which is so operated as to produce dangerous glare.

Having thus explained the nature of the invention and described an operative manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the forms of its use, what is claimed is:—

1. In a non-glare device, the combination with a headlight casing of an opaque member located within and supported by the casing and having a straight body portion laterally spaced with respect to the normal position of the lamp, so as to be out of contact with the lamp, said body having a rearwardly extended portion of reduced width lying opposite the lamp, so that a part of the lateral beam of the lamp may be projected beneath it.

2. In a non-glare device, the combination with a headlight casing, of an opaque body located within the casing and positioned laterally with respect to the lamp, said body having a lateral inclination toward the lamp with its forward end projected beyond and slightly across the lamp, said body also having a rearwardly extended narrowed portion so positioned that a portion of the lateral beam of the lamp may be projected beneath it.

3. In a non-glare device, the combination with a headlight casing, of an opaque body located within the casing and positioned laterally with respect to the lamp, with its forward portion projected beyond the lamp, and having a rearwardly extended narrowed portion lying opposite to the lamp, so that a portion of the lateral beam of the lamp may be projected beneath it, the front portion of said body having a laterally extended shield.

4. In a non-glare device, the combination with a headlight casing, of an opaque body located within the casing and positioned laterally with respect to the lamp, with its forward portion projected beyond the lamp, and having a rearwardly extended narrowed portion lying opposite to the lamp, so that a portion of the lateral beam of the lamp may be projected beneath it, the front edge of said opaque body having an angularly bent portion extended laterally in front of the lamp.

5. In a non-glare device, the combination with a headlight casing, of an opaque body located within the casing and positioned laterally with respect to the lamp, with its forward portion projected beyond the lamp, and having a rearwardly extended narrowed portion lying opposite to the lamp, so that a portion of the lateral beam of the lamp may be projected beneath it, said narrowed portion having an angular end attached to said headlight casing.

6. In a non-glare device, the combination with a headlight casing, of an opaque body located within the casing and positioned laterally with respect to the lamp, with its forward portion projected beyond the lamp, and having a rearwardly extended narrowed portion lying opposite to the lamp, so that a portion of the lateral beam of the lamp may be projected beneath it, said opaque body having a depending supporting arm.

7. A non-glare device of the character described comprising a body of opaque sheet-like material, the surfaces of which are arranged to be vertically disposed while the device is in operative position, said body having a shield member, one longitudinal edge of which is longer than the other longitudinal edge thereof, said shield member having a flat relatively narrow supporting arm extended longitudinally therefrom, said arm being so proportioned, positioned and arranged with respect to the shorter edge of said shield as to provide a clearance space for the passage of a portion of a beam of light which may emanate from a source located to one side of the device.

8. A non-glare device of the character described comprising a straight body of opaque sheet-like material, said body having a shield member, one longitudinal edge of which is longer than the other longitudinal edge thereof, said shield member having a relatively narrow arm extending longitudinally therefrom, said arm having a longitudinal edge located in a plane different from that of the shorter edge of said body but parallel therewith, and supporting means constructed and arranged to engage a headlight casing and to support said body with its surfaces in approximately vertical position, said arm being so positioned, proportioned and arranged with respect to the shorter edge of said shield member as to provide a clearance space for the passage of a portion of a beam of light which may emanate from a source located to one side of said body.

JOHN W. MEIXELL.