Aug. 22, 1933. T. H. AMBROSE ET AL 1,923,653

HEADLIGHT

Filed Feb. 8, 1932

Fig. 1

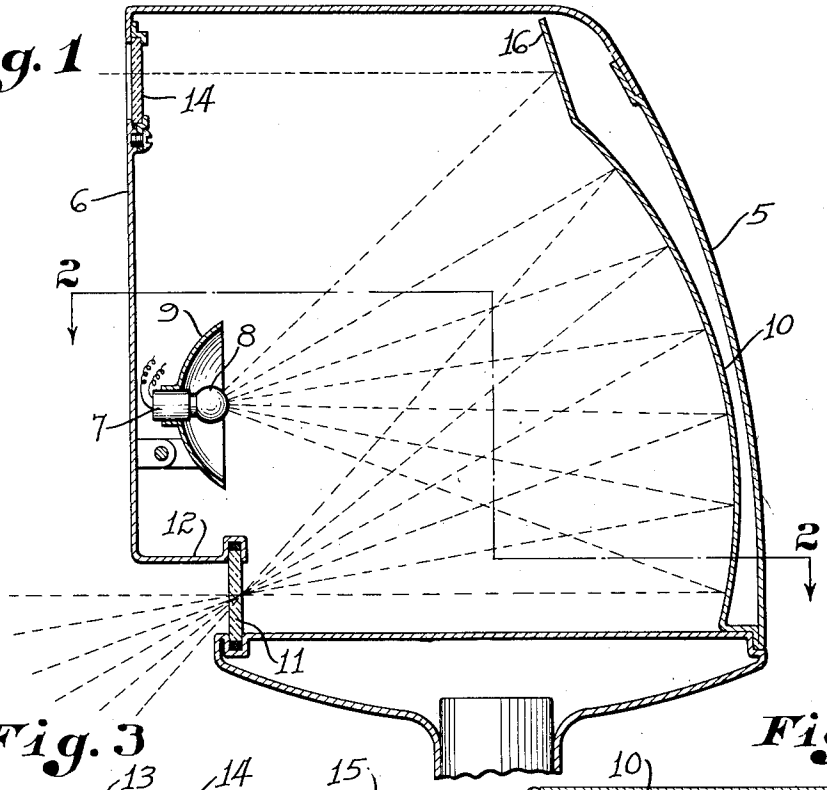


Fig. 3

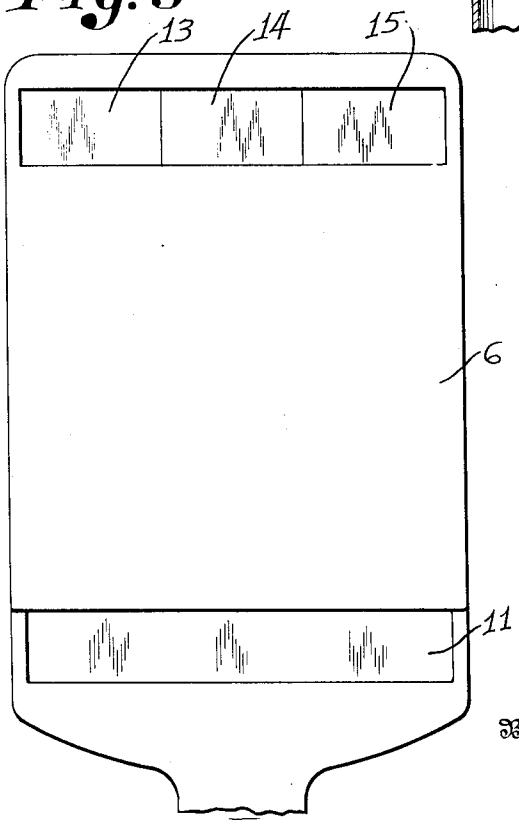
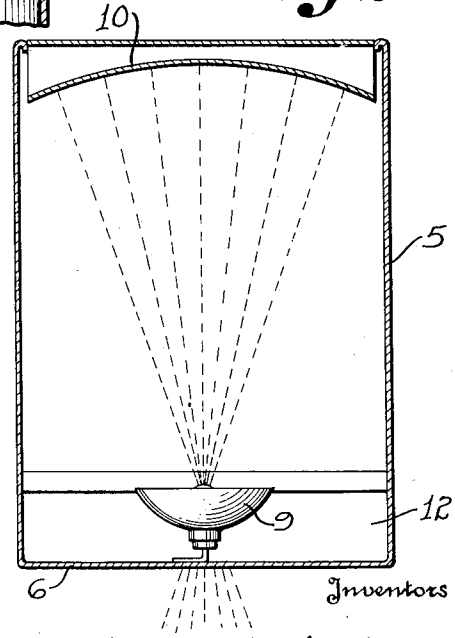


Fig. 2



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HEADLIGHT

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Application February 8, 1932. Serial No. 591,578

1 Claim. (Cl. 240—41.1)

This invention relates to an improved headlight which is primarily intended for use on motor vehicles and which have been developed with the object of projecting the light in front of the vehicle in a manner to illuminate the roadway sufficiently without causing such a glare as to become a menace to vehicles approaching from the opposite direction.

A further object of the invention is to provide a headlight with a plurality of lenses of different colors or different degrees of transparency, in addition to the road illuminating feature, in order to assist an approaching driver in judging his distance therefrom.

The nature of our invention and the advantages thereof will be more particularly explained in connection with the accompanying drawing, in which—

Figure 1 is a vertical longitudinal section of the invention;

Figure 2 is a horizontal section taken on the line 2—2 of Fig. 1; and

Figure 3 is a front elevation of the headlight.

Referring in detail to the drawing, the invention comprises a casing 5 having a vertical opaque front wall behind which is a socket 7 for receiving a light bulb 8. There is a small reflector 9 which has a concave surface for reflecting the rays of light rearwardly. Inside of the rear wall of the casing 5 there is a reflecting surface 10 adapted to reflect the rays downwardly and forwardly in the direction of a glass pane 11 which is comparatively narrow and extends from side to side of the casing. The vertical section of the reflector 10 as shown in Fig. 1 is substantially elliptical with the bulb 8 at one focus of the ellipse, the other focus being substantially central to the pane 11. Thus the rays emitted from the bulb 8 directly toward the reflector 10, as well as the rays reflected from the small reflector 9, converge toward the pane 11 whence they are diffused about the region immediately in front of the headlight and below the eyes of an approaching driver. In order to more fully eliminate the possibility of light rays being emitted at an upward angle from the headlight, the pane 11 is offset rearwardly from the front wall 6 and the rearward continuation 12 of the front wall cuts off substantially all rays which might otherwise be projected at an upward angle from the reflector 10.

It is also to be noted from Fig. 2 that the reflector 10 is transversely curved so that all direct or indirect rays from the light bulb 8 after striking the reflector 10 will be diffused throughout a sector extending forwardly at a divergent angle from the headlight casing.

The diffusion of light in front of the headlight and the reflection of the same from the roadway will ordinarily be clearly visible to drivers approaching from the opposite direction, but will not cause an objectionable glare. For some weather conditions, however, it is desirable but by no means essential to have a part of the light rays projected directly ahead and preferably to provide different colored lenses for this purpose. In the present embodiment of the invention, we have provided a plurality of small lenses in the upper part of the front wall 6 of the casing as indicated at 13, 14 and 15. These lenses may be red, green and amber respectively, and will have different degrees of transparency so that one lens, as 15 for example, will first become visible to the approaching driver, the green lens 14 will next become visible and finally the red lens 13. In order that a small proportion of the light emitted by the bulb 8 may be projected through these lenses 13, 14 and 15 the upper part 16 of the reflector 10 is more nearly vertical than the curved part of the reflector so that the rays from the bulb 8 striking the same will be reflected directly forwardly.

While we have shown and described in detail the present preferred embodiment of the invention, it will be understood that the same includes all such modifications as may fall within the scope of the appended claim.

What is claimed is:

A headlight comprising a casing with an opaque front wall, a light source behind said front wall, a glass pane in the front wall below the light source, lenses of different colors in the front wall above the light source, means for projecting the greater proportion of the light rays forwardly and downwardly through said pane, a shield connected with said front wall precluding upward dispersion of rays thus projected, and means for projecting a smaller proportion of the light rays forwardly through said colored lenses.

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