Feb. 24, 1942. R. M. GIBB 2,273,951

COMBINED FOG AND DRIVING LIGHT

Filed Nov. 30, 1939

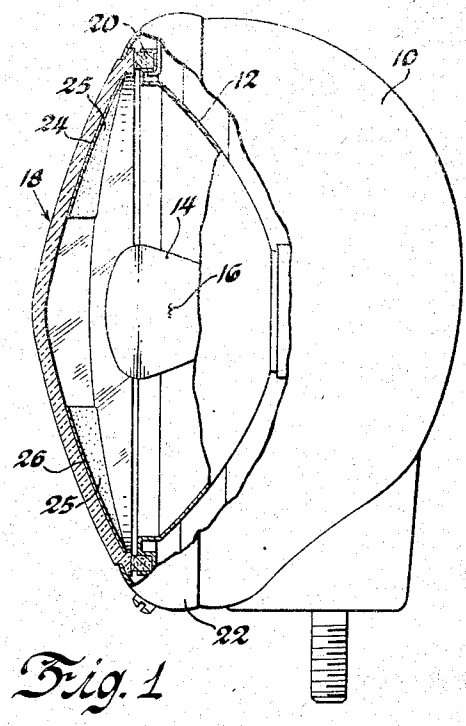


Fig. 1

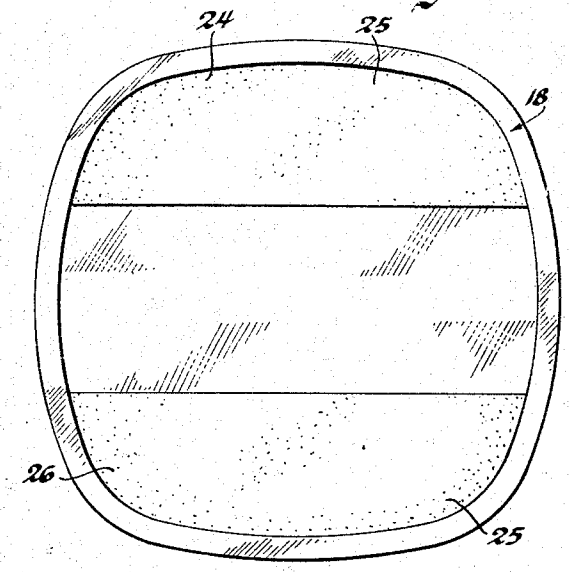


Fig. 2

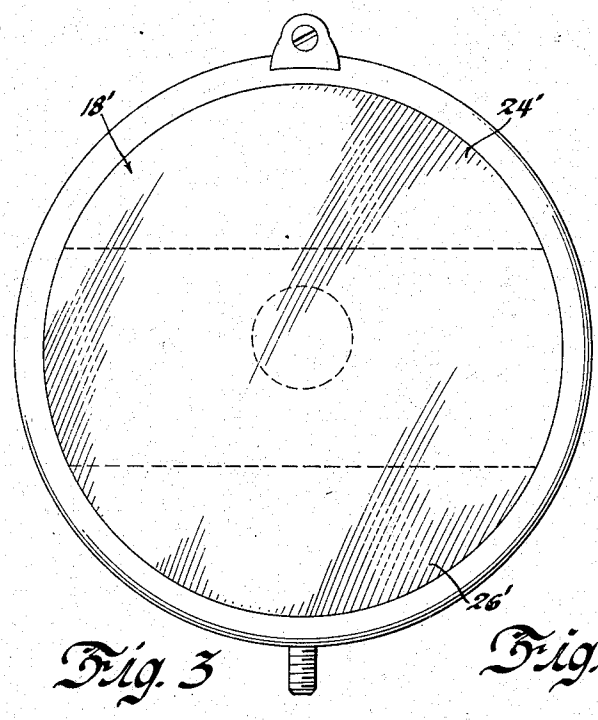


Fig. 3

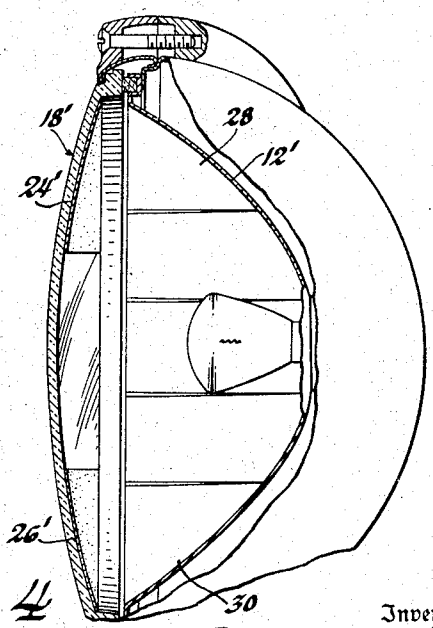


Fig. 4

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COMBINED FOG AND DRIVING LIGHT

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Application November 30, 1939, Serial No. 306,931

1 Claim. (Cl. 240—41.4)

This invention has to do with the lamps especially useful for driving through fog and particularly with an improved lens for use in such lamps.

Heretofore fog lamps have usually been provided with lenses of amber color because many drivers say that they are able to see better through the fog with yellow light. The yellow light is also considered advantageous because it reduces glare. However the absorption of light by the amber lens cuts down the amount of light thrown on the road and this is objectionable.

According to the present invention the top and bottom zones of the fog lamp are treated to transmit yellow light while the central zone is left uncolored. This is preferably accomplished by employing a lens with colored top and bottom zones. The arrangement is especially desirable when applied to lamps of well-known design in which the light from the top and bottom zones is directed downwardly to light the foreground.

The beam from the improved lamp consists of colored light illuminating the foreground and a concentrated beam of uncolored light directed substantially horizontally to illuminate the distant road. The colored lens sections also absorb some of the stray light that causes glare and is also particularly objectionable in a fog because it is reflected from suspended particles of moisture, illuminating the fog and making it difficult to see the road.

In the drawing:

Figure 1 is a side view partly in section of one form of the improved lamp.

Figure 2 is a rear view of the lens of Figure 1.

Figure 3 is a front view of a modified design of lamp.

Figure 4 is a side view partly in section of the lamp of Figure 3.

In the form shown in Figures 1 and 2, 10 indicates the lamp housing within which is a reflector 12 equipped with a bulb 14 having a filament 16 at the focus of the reflector. 18 indicates the lens seated on gasket 20 supported by the reflector 12 and held in place by lens ring 22 suitably secured to the housing 10.

In this form of the invention the top and bottom sections 24 and 26 of the lens 18 are coated with translucent material of amber color. This may be done by applying a coating 25 of translucent amber colored enamel or lacquer to the inner surface of these zones of the lens. The lens may thereafter be heated to bake the coating on the lens so that it forms substantially an integral part of it.

In the modification shown in Figures 3 and 4 the reflector 12' is preferably of the type described and claimed in the patent to Clarence A. Michel et al., No. 2,033,387, granted March 10, 1936. The top and bottom zones 28 and 30 of the reflector 12' are preferably tilted down as described in the patent to throw the top and bottom light toward the bottom of the beam. The lens 18' is preferably provided over the top and bottom zones 24' and 26' with an amber colored translucent coating as in the form previously described. In both cases the central zone of the lens is left uncolored.

With the described arrangements all of the light passing through the top and bottom zones of the lens, whether reflected light or light issuing directly from the filament, is colored yellow. This cuts down the intensity of the light and at the same time it has been found that the colored light reflected from the suspended particles of moisture constituting the fog is less objectionable so that most drivers can see a greater distance ahead. The colored lens sections likewise cut down the intensity and glare of upwardly directed stray light that might otherwise be annoying to an approaching driver.

The invention is capable of considerable modification. Thus instead of so treating the top and bottom zones of the lens, this treatment might be applied to the top and bottom zones of the reflector. The coating could likewise be applied to lenses commonly used with two beam headlamps equipped with conventional reflectors and having down-bending prisms over the top and bottom zones of the lenses. In such case the colored coating would be applied to these down bending prisms.

While reference has been made to the use of amber color it is obvious that any other color or tint could be employed that will be effective in reducing glare or improving vision through fog.

Various other modifications will occur to those skilled in the art.

I claim:

A combination fog and driving light comprising: a source of light, a lens and reflector structure surrounding said light source and divided into upper, lower and intermediate transversely-extending zones, said intermediate zone having means to condense the light intercepted thereby into the form of a long-range clear horizontal driving beam, said upper and lower zones having means to depress the light intercepted thereby into the form of a short-range road beam depressed with respect to the horizontal, and transparent color filter means associated solely with the upper and lower zones of the lens and reflector structure to transmit a yellow-tinted depressed beam for improved road visibility in foggy weather.

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