April 28, 1931. F. C. KUEPPERS 1,802,976

ILLUMINATION DETECTOR FOR HEADLIGHTS

Filed Sept. 6, 1930

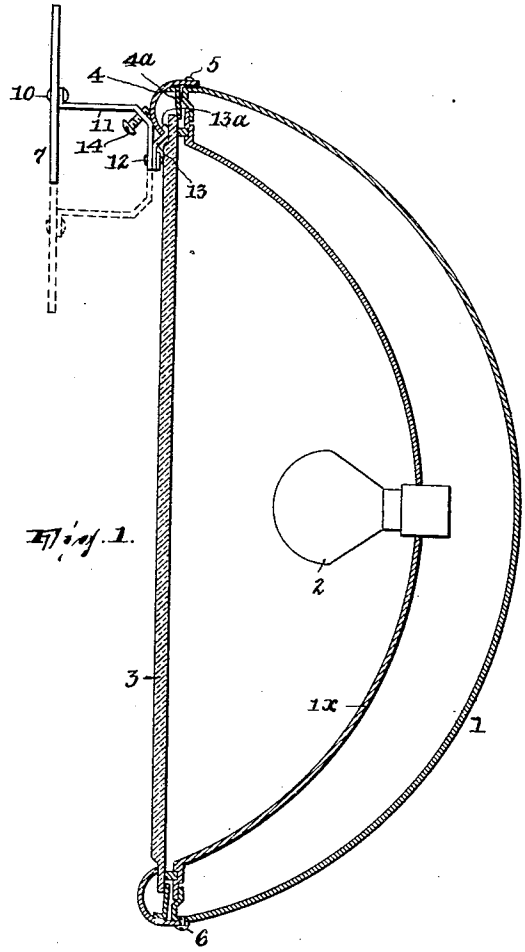


Fig. 1.

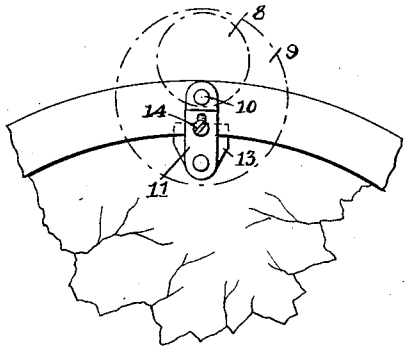


Fig. 2.

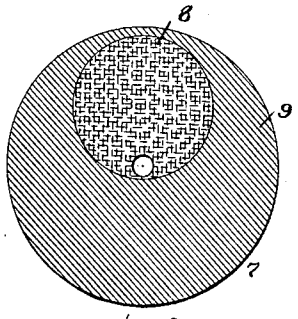


Fig. 3.

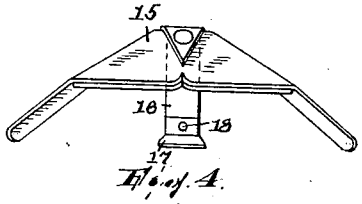


Fig. 4.

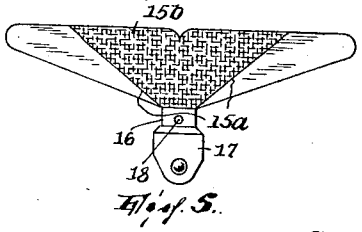


Fig. 5.

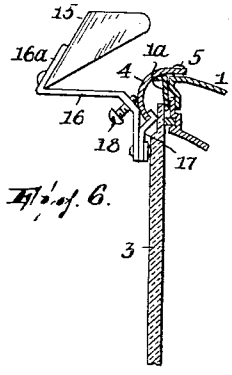


Fig. 6.

Inventor,

Frederick C. Kueppers,

By his Attorney

John Lawrence.

Patented Apr. 28, 1931 1,802,976

UNITED STATES PATENT OFFICE

FREDERICK C. KUEPPERS, OF HAWTHORNE, NEW JERSEY

ILLUMINATION DETECTOR FOR HEADLIGHTS

Application filed September 6, 1930. Serial No. 480,163.

The object of this invention is to provide an illumination detector or telltale for headlights which will be efficient in functioning as such a detector and capable of being made and sold at little cost and which may be readily applied to any conventional headlight.

The drawing shows in

Fig. 1, a vertical longitudinal section of a headlight with my detector applied thereto;

Fig. 2, a front elevation of the headlight and detector, with the reflector member of the latter appearing in dotted outline;

Fig. 3, a rear elevation of the reflector member;

Figs. 4 and 5 a plan and rear elevation of a modified form of the detector; and

Fig. 6 a fragmentary vertical longitudinal section of the headlight with the modified form of the detector applied thereto.

The headlight may be of any conventional form, and it here includes the concavo-convex body 1 provided with a reflector 1*x* and an electric bulb 2 forming the light source, a lens 3 closing its open or front side, and an annular frontal rim 4 which surrounds the marginal or forward portion of body 1 and has a returned inner edge between which and an annular yielding part 4*a* of the rim said lens is held in place in the rim, the rim itself being removably held in place in some well-known way, as by being penetrated by a pin 5 on the body and a screw 6 which penetrates the rim diametrically opposite the pin and is screwed into the body.

In Figs. 1 to 3 the detector is formed as follows: The reflector member may be a disk 7. Whether all or only part of the member is reflective is not material, but I prefer that only part of it be reflective and the remainder adapted to pass the light rays forward to approaching drivers in some distinctive color, as green, so that the member 7 will not only act as a telltale to the driver of the car having the headlight but signify to drivers of approaching vehicles that the car is headed toward them. Hence 8 is the reflective part and 9 a translucent part. Both parts may be made of celluloid or equivalent, either in two pieces or a single piece treated so that the part 8 is primarily reflective and part 9 translucent; a good color for the part 8, so that it will be reflective but not so as to be obtrusive to the driver of the car having the headlight, is amber, and the part 9 may be colored green as and for the reason specified. If the member 7 has circular form and only part of it is reflective said part 8 is eccentrically arranged.

The member 7 is secured by a rivet 10 to one arm of an angle-bracket 11 and this has pivoted to the other or free arm thereof, by means of a rivet 12, a clip 13; the bracket and clip are adapted to move on the pivot 12 shear-fashion, one relatively to the other and into and out of clamping relation thereto. The free end of the clip is bent off and is adapted to engage inward of the returned or inner edge of the rim upon repressing the lens against the yielding part 4*a* of the rim 4. When this has been done, with the bracket in the dotted-line and the clip in the full-line positions in Fig. 1 and when thereupon the bracket has been shifted to the full-line position, the bracket and clip will clamp between them the rim and thus the detector will be supported. Preferably the said free end 13*a* of the clip is hook-shaped and receives in its hook the inner edge of the rim, so as to ensure the security of the interlock effected by the clamping. And in the best form I provide as a portion of the bracket a set screw 14 tapped into the supporting arm of the bracket and adapted to be screwed against the rim, as shown. As indicated by Fig. 2, the position of the reflector member relatively to the support afforded by the bracket and clip is such that when the device is attached to the headlight the reflecting portion 8 is up, so that it appears above the top of the headlight.

In Figs. 4 to 6 the reflector member is formed by an isosceles triangular piece 15 bent as at 15*a* on lines converging toward the angle opposite its base, and the mid-triangular portion 15*b* is treated in some way to give it the reflective power, as by securing thereto (say by cementing) a piece of amber colored celluloid. The bracket 16, clip 17 and screw 18 are the same as before except that the forward arm of the bracket has an extension 16*a* which is inclined upwardly

and rearwardly and to which the reflector member is riveted, with its mentioned angle down, so that the reflecting portion 15*b* is desirably canted at the same angle.

In the second form as well as in the first the device is so positioned with reference to the headlight that light reflected by the reflector 1*x* is again reflected by the surface portion 15*b* of the reflector member back over the headlight to the driver.

Having thus fully described my invention what I claim is:

1. In an illumination detector for a headlight, the combination of a reflector-carrying bracket and a clip coactive to clamp between them a portion of the headlight, said bracket and clip being pivoted together so that one is movable shear-fashion relatively to the other into and out of position to coact therewith to clamp said portion between them.

2. In combination, a headlight having a frontal rim formed with a returned edge, a reflector-carrying bracket bearing against the rim, and a clip having a hook receiving said edge of the rim, the bracket and clip being pivoted together and clamping the rim between them and one being movable shear-fashion on the other out of position to coact therewith to clamp the rim.

3. In combination, a headlight having a frontal rim, a bracket including a reflector-carrying part and a screw tapped into said part and bearing against the exterior of the rim, and a clip bearing against the interior of the rim; the bracket and clip being pivoted together and clamping the rim between them and one being movable shear-fashion on the other out of position to coact therewith to clamp the rim.

In testimony whereof I affix my signature.

FREDERICK C. KUEPPERS.