Aug. 9, 1927. 1,638,408

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LIGHT DEFLECTING ATTACHMENT FOR HEADLIGHTS OF MOTOR VEHICLES

Filed March 18, 1926

FIG. 1.

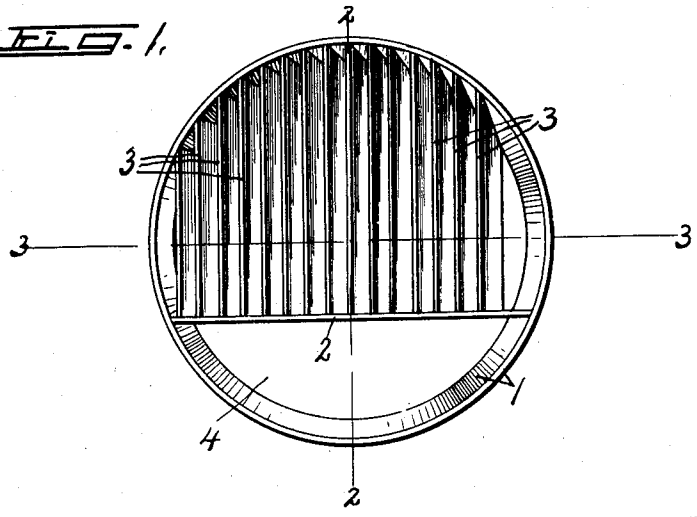


FIG. 2.

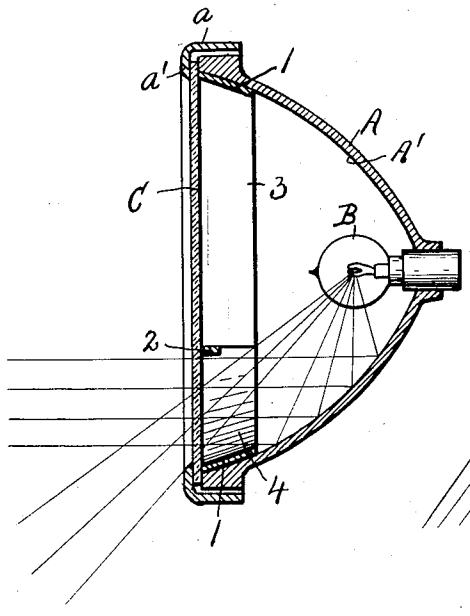
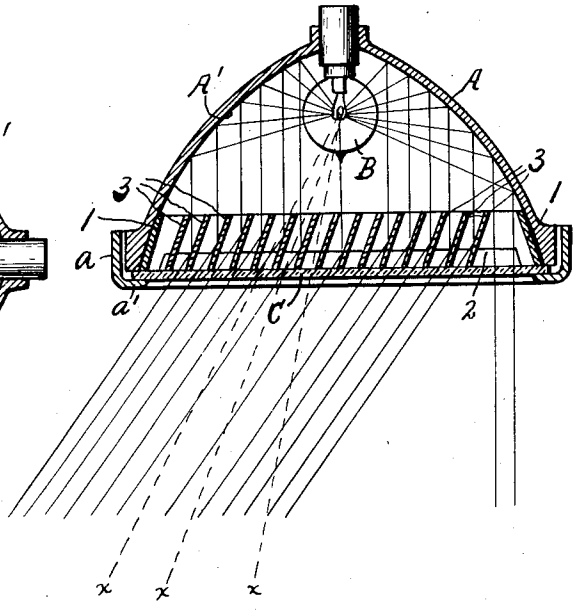


FIG. 3.



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LIGHT-DEFLECTING ATTACHMENT FOR HEADLIGHTS OF MOTOR VEHICLES.

Application filed March 18, 1926. Serial No. 95,592.

This invention relates to a light-deflecting attachment for automobiles and other motor vehicles for preventing excessive glare of the direct or reflected rays in the eyes of the drivers of approaching machines or pedestrians along the right of way of a moving machine and at the same time maintaining full intensity of the light in the roadway and field some distance ahead of the machine.

The main object is to provide a simple and comparatively inexpensive device of this character which may be easily and quickly installed in any of the standard forms of lamp casings immediately back of the lens and retained in operative position by the clamping ring usually employed for holding the lens in operative position.

Another object is to provide the device with a series of vertically disposed light deflecting vanes arranged in uniformly spaced relation and at equal angles to the focal axis of the reflector in such manner as to interrupt the forward projection of the direct and reflected rays to the left hand of said axis or in the path of an approaching machine and at the same time allowing both the direct and reflected rays to be projected forwardly to the right hand of said axis or upon the pavement and in the field of the right hand side of the road along which the machine is presumed to be traveling.

Other objects and uses relating to specific parts of the device will be brought out in the following description.

Figure 1 is a face view of the detached light deflecting attachment, detached from the head light case.

Figures 2 and 3 are sectional views of the same device taken on lines 2—2 and 3—3 respectively in operative position within the head light case which is also shown in section together with the lamp therein.

This device is adapted to be used in connection with any standard form of head light case —A— having the usual lamp —B—, lens —C— and clamping ring —*a*— for holding the lens in operative position, said clamping ring being provided with the usual means for retaining it upon the rim of the casing —A— and permitting it to be removed when necessary to adjust or replace the lens.

As illustrated, the light deflecting device comprises a frusto-conical circular ring —1—, a horizontal bar —2— extending across the core of the ring below its axis and a plurality of vertically disposed vanes arranged in uniformly spaced parallel relation between the cross bar —2— and upper portion of the ring —1—.

The ring —1— is preferably made of comparatively thin and resilient sheet metal of a diameter and taper to conform closely to the interior diameter and taper of the larger end of the case A so as to fit snugly against the inner face thereof adjacent the lens —C—, the axial length of the ring being approximately equal to or slightly greater than the corresponding axial length of the clamping ring —*a*— so as to lie mainly within the marginal edge thereof when the various parts of the lamp are assembled for use.

This inward taper of the ring —1— and corresponding taper of the adjacent portion of the case A with which it is engaged serves to hold the ring against undue inward movement within the case. The lens —C— may be planed, clear glass or of any other suitable construction, but is preferably circular and of slighter greater diameter than the ring —1— so that when placed in operative position against the front face of the rim of the case A it will hold said ring against forward displacement.

The clamping ring —*a*— is adapted to fit over and upon the rim of the case A and is provided at its forward end with an inturned flange —*a'*— for engaging the front face of the marginal edge of the lens —C— to hold the latter in place and thereby to retain the ring —1— in operative position.

The cross bar —2— may also be made of thin sheet metal and extends horizontally from side to side of the ring in a plane substantially midway between the axis and lower portion of the ring thereby forming a segmental open space —4— between the bar and underlying portion of the ring through which the direct and reflected rays of light from the lamp —B— are free to pass.

The vanes —3— are inclined transversely or forwardly and rearwardly at one and the same angle to the vertical plane of the ring and to the axis. In other words, these vanes are disposed in parallel vertical planes equal distances apart and all at the same angle with reference to the axis of the ring so as to incline forwardly and laterally to the

right hand of the driver and thereby to expose their right hand surfaces to the reflected rays of light while the same surfaces of the blades or vanes at the left hand side of the axis of the ring will receive and reflect the direct rays from the lamp —B—.

It will also be observed that this arrangement of the reflecting vanes —3— will allow direct rays from the lamp to pass between some of the intermediate vanes, but under all conditions the position of the vanes will prevent the projection of both the direct and reflected rays at the driver's left hand side of the lamps so that the driver of an approaching machine or a pedestrian at the left hand side and ahead of the machine will not be affected by any glaring rays from the lamp.

The surfaces of the vanes —3— facing rearwardly are preferably polished for reflecting purposes and serve to deflect the more intense reflected rays from the reflector as —A'— on the inner side of the case —A— forwardly toward the right hand of the driver while the opposite surfaces which may be unpolished or even coated black faces more or less forwardly and to the left hand of the driver or toward the driver of an approaching machine for interrupting or entirely obscuring the intense reflected rays.

The direct rays from the lamp —B— passing between some of the intermediate vanes are indicated by the dotted lines x—x, Figure 3, but it will be observed that even those rays are projected at an angle to and at the left hand of the axis of the reflector —A'— and ring —1—.

What I claim is:

A light deflecting device for headlights comprising a ring adapted to fit into the open end of a lamp casing, a horizontal cross-member joining the edges of the ring in a plane below the axis of the ring and defining a substantial unobstructed circular segment of the ring, and a series of vertically disposed parallel vanes mounted on said cross member and extending upwardly to the periphery of the ring, said vanes being disposed at equal angles to the axis of the ring, and being spaced in overlapping relation to prevent the direct passage of the reflected rays of light through the intervening spaces.

In witness whereof I have hereunto set my hand this 16th day of March 1926.

WILLIAM H. RATNOUR.