March 17, 1925.

1,530,238

E. CORLETT

MEANS FOR PREVENTING THE GLARE FROM VEHICLE LAMPS

Filed May 19, 1923

2 Sheets-Sheet 1

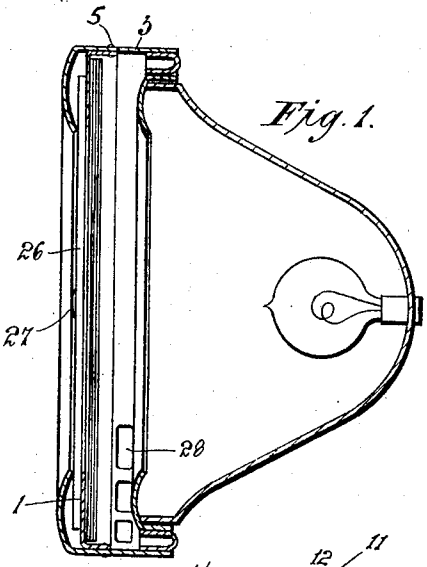


Fig. 1.

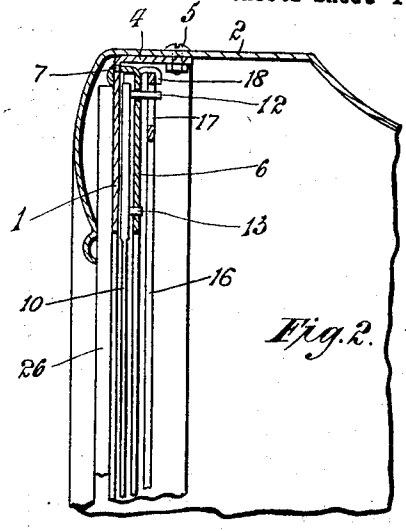


Fig. 2.

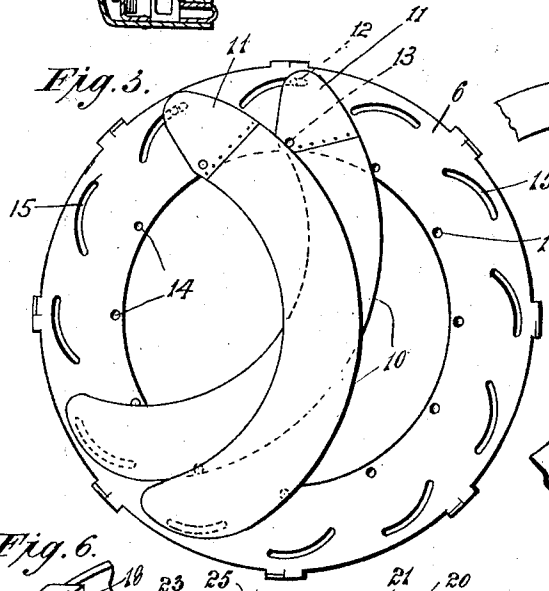


Fig. 3.

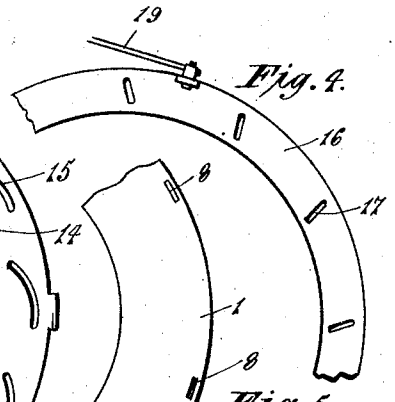


Fig. 4.

Fig. 5.

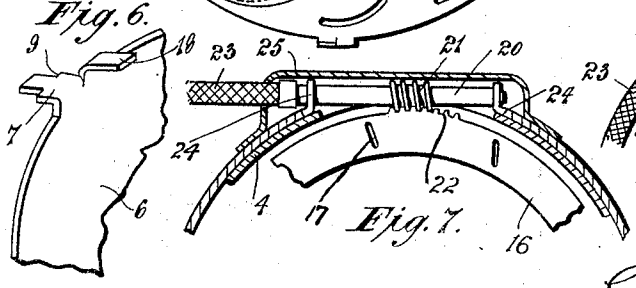


Fig. 6.

Fig. 7.

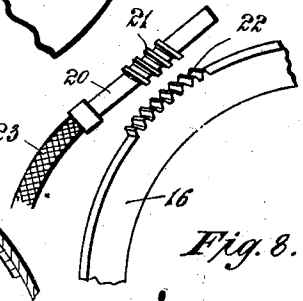


Fig. 8.

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E. CORLETT

MEANS FOR PREVENTING THE GLARE FROM VEHICLE LAMPS

Filed May 19, 1923 2 Sheets-Sheet 2

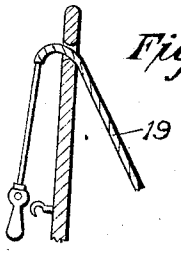


Fig. 9.

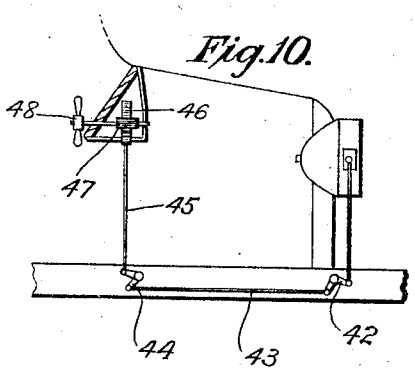


Fig. 10.

Inventor:
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Patented Mar. 17, 1925, 1,530,238

UNITED STATES PATENT OFFICE.

EDWARD CORLETT, OF STRATFORD, NEW ZEALAND.

MEANS FOR PREVENTING THE GLARE FROM VEHICLE LAMPS.

Application filed May 19, 1923. Serial No. 639,995.

To all whom it may concern:

Be it known that I, EDWARD CORLETT, a subject of the King of Great Britain and Ireland, residing in Stratford, New Zealand, have invented a new and useful Improvement in Means for Preventing the Glare from Vehicle Lamps; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to means for controlling the area of the front opening of lamps and is particularly adapted to motor vehicle lamps whereby the opening may be closed or partially closed as desired, in order to shut off the light or to prevent the glare from such lamps.

According to the present invention, the front of the lamp is provided with a sheet or sheets of material adapted to close the front of the lamp at the will of the operator, such material being translucent such that will allow light to pass through and provide illumination for the driver but will prevent the full glare from the lamps passing through the material.

In one form of the invention I employ a number of vanes or leaves preferably celluloid, either clear, coloured or rendered partly opaque by means of roughening. These vanes are arranged and controlled on the same principle as the iris diaphragm employed with camera lenses.

The invention is illustrated in the accompanying drawings, wherein:—

Figure 1, is a sectional elevation of a lamp embodying my invention.

Figure 2, is a fragmentary section drawn to a larger scale.

Figure 3, is an elevation of two vanes upon a carrier ring.

Figure 4, is a part view of the actuating ring.

Figure 5, is a view of a detail.

Figure 6, is a view of another detail.

Figure 7, is a sectional elevation showing means for operating the vanes.

Figure 8, is a perspective view of the means shown in Figure 7.

Figure 9, is a view of a detail.

Figure 10, is an elevation of means for operating the dimming means.

According to Figures 1 to 8, I employ a face ring 1 fixed within the rim 2 of the lamp, as in Figure 2, or in the case of existing lamps, fixed within a rim 3 to be secured in front of the lamp as in Figure 1. The ring 1 has a rearwardly extending flange 4 and is fixed by means of studs 5 or the like passing through the flange 4 and into the rim of the lamp. On the outside of this face ring 1 a carrier ring 6 is employed fixed to the face ring 1 in a suitable way, e. g., by means of lugs 7 (see Figure 6) which are cut from the exterior edge of the ring and which are bent outwardly and pass through holes 8 (see Figure 5) in the face of the ring 1. These lugs are then bent downwardly to secure the carrier ring in position. The lugs are formed with a shoulder 9 to retain the carrier ring the required distance from the face ring 1. Vanes 10 having a width corresponding approximately with the depth of the ring, are cut arcuately and have the same centre as the rings (see Figure 3) and such vanes 10 extend partly around the rings. Each vane 10 has its end fixed in a metal socket 11 from which project pins 12 and 13. The pin 13 on each vane 10 is pivoted in a hole 14 in the carrier ring 6, and such holes 14 are disposed around the inner circumference of the carrier ring (see Figure 3), so that each vane can oscillate upon its pivot. The vanes 10 are arranged between the face ring 1 and the carrier ring 6 and overlap and interlock at their centres in the same way as the vanes in the iris diaphragm. The other pins 12 on the vanes form operating pins and extend through arcuate slots 15 arranged at intervals around the carrier ring 6 so that when the vanes move, the pins 12 are free to move in such slots. A loose ring 16 forming an actuating ring lying upon the outer side of the carrier ring 6 is provided with a number of straight slots 17 corresponding in number to the operating pins 12 projecting from the vanes. This actuating ring is guided against the outer face of the carrier ring 6 by means of lugs 18 upon the carrier ring 6, such lugs being bent downwards as shown in Figure 2. The slots 17 in the actuating ring 16 are arranged so that as the vanes 10 and ring oscillate the operating pins 12 will be free to move throughout their radial movement. The actuating ring 16 is adapted to be oscillated by any convenient means, such as a Bowden wire 19 which is led to a

convenient part on the dashboard or a convenient position to be operated by the driver. Such wire is preferably fixed to a pin fixed to the actuating ring 16 and projecting through a slot in the rim. Upon the Bowden wire being operated, the ring 16 is oscillated and will oscillate the vanes through the medium of the operating pins 12, such pins being placed at a position behind the pivot pins 13 so as to give the necessary leverage.

In Figures 7 and 8, a flexible shaft 23 is attached to a shaft 20 having a worm 21 gearing with teeth 22 on the rim of the actuating ring 16, the shaft 20 being mounted in brackets 24 fixed upon the flange 4 of the face ring 1, while a cover 25 on the rim of the lamp protects the parts. A wheel on the dash-board oscillates the Bowden wire which thereby oscillates the ring 16 and operates the vanes.

In order to obviate the bringing together, of the edges of the vanes where they meet at the centre the glass 26 forming the front of the lamp may be frosted at its centre or a piece of similar material to that of the vanes cemented upon the centre of the glass, as shown at 27, Figure 1.

If desired, slots 28 (Figure 1) may be provided upon the underside of the rim and such may be closed by celluloid. By means of these slots reflected light from the lamp may strike down upon the ground and so provide a certain amount of illumination.

By means of this invention, the whole of the face of the lamp may be closed by the translucent material which will allow sufficient light to pass through and provide illumination for the driver, but such material will prevent the full glare from the lamps shining ahead of the vehicle, thus enabling the driver of an approaching vehicle to move past the other vehicle without in any way having his vision interferred with.

By this construction the opening in the front of the lamp may be regulated to any desired diameter of a circle.

In Figure 10, the rod or cord 19 or 35 is led to a bell crank lever 42 which is pivoted upon the vehicle frame and which is connected by a rod 43 to another bell crank lever 44, which in turn is connected to the lower end of a rod 45 having its upper end containing rack teeth 46. A toothed wheel 47 gears with the teeth and is carried upon a rod having an operating wheel 48 mounted upon the dash-board. By rotating the hand-wheel the vanes, louvres or blind are actuated.

What I claim is:—

1. In means for preventing the glare from vehicle lamps, the combination with the lamp casing, of a carrier ring secured within said lamp casing, a number of curved vanes of translucent material extending across the entire face of the lamp and pivoted in the said carrier ring, so that their rear ends will provide sufficient leverage to enable the said vanes to be oscillated about their pivots, the other ends of the said vanes being free and arranged so as to interlock at their centers when closed, and a common means for positively actuating said rear ends to move the said vanes into and out of interlocking position.

2. In means for preventing the glare from the lamps of vehicles the combination with the lamp casing, of a carrier ring fixed within said lamp casing, a number of curved vanes of translucent material extending across the entire face of the lamp and pivoted in said carrier ring at a position so that the rear ends of said vanes will provide sufficient leverage to enable the vanes to be oscillated at about their pivots, the other ends of said vanes being free and arranged so as to interlock at their centres when closed, and means for positively actuating said rear ends.

3. In means for preventing the glare from the lamps of vehicles, the combination with the lamp casing, of a carrier ring fixed within said lamp casing, a number of curved vanes of translucent material extending across the entire face of the lamp pivoted to said carrier ring and having each a short rear end beyond the point of pivoting, the other ends of said vanes being free and arranged to allow such free ends to interlock at their centre when closed, operating pins projecting from said rear ends through arcuate slots in said carrier ring, an actuating ring rotatable upon said carrier ring and having slots for said operating pins to enter, whereby as said actuating ring is oscillated said vanes are oscillated about their pivots.

4. In means for preventing the glare from the lamps of vehicles, the combination with the lamp casing, of a carrier ring within said lamp casing, a number of curved translucent vanes, metal sockets holding said vanes and pivoted to said carrier ring so as to leave a rear end of the vanes beyond the point of pivoting, the said vanes being arranged allowing their free ends to interlock at their centre when closed, operating pins projecting from the rear ends of said metal sockets through arcuate slots in said carrier ring, an actuating ring rotatable upon said carrier ring and having slots for said pins to enter whereby as said actuating ring is oscillated said vanes are oscillated.

5. In means for preventing the glare from the lamps of vehicles, the combination with the lamp casing, of a carrier ring fixed within said lamp casing, a number of curved vanes pivoted in said carrier ring at a position so that the rear ends of said vanes will provide sufficient leverage to enable said vanes to be oscillated about their pivots, the other ends of said vanes being free and ar-

ranged allowing them to interlock at their centres when closed, teeth formed in the edge of said operating ring, a shaft mounted in the rim of said lamp casing, a worm on said shaft gearing with said teeth, and means for rotating said shaft.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD CORLETT.

Witnesses:
WILLIAM O. REA,
EDWARD L. PAYNE.