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C. F. YOUNG

HEADLIGHT FOR MOTOR VEHICLES

Filed Aug. 26, 1924

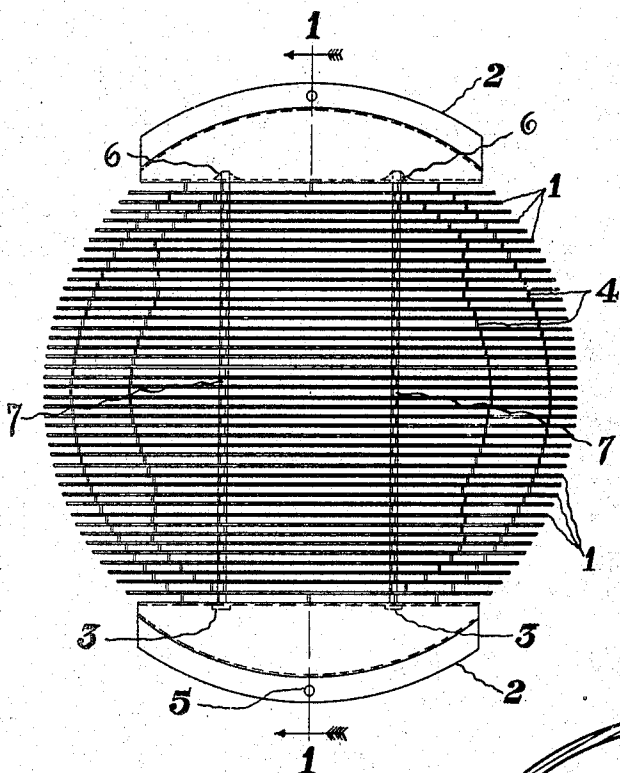


Fig. 1.

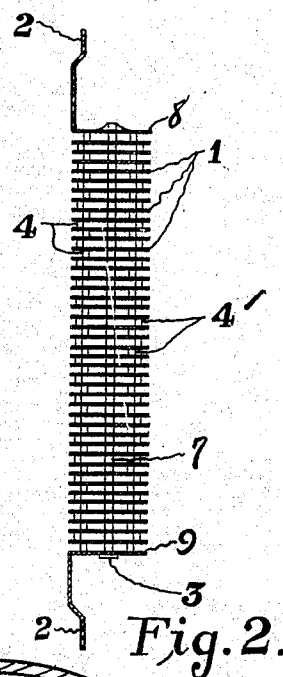


Fig. 2.

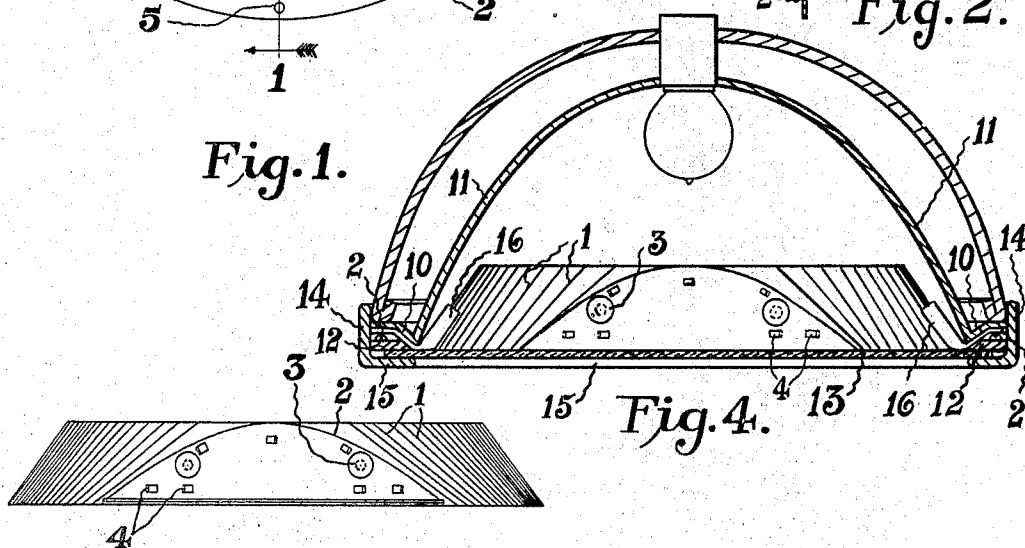


Fig. 3.

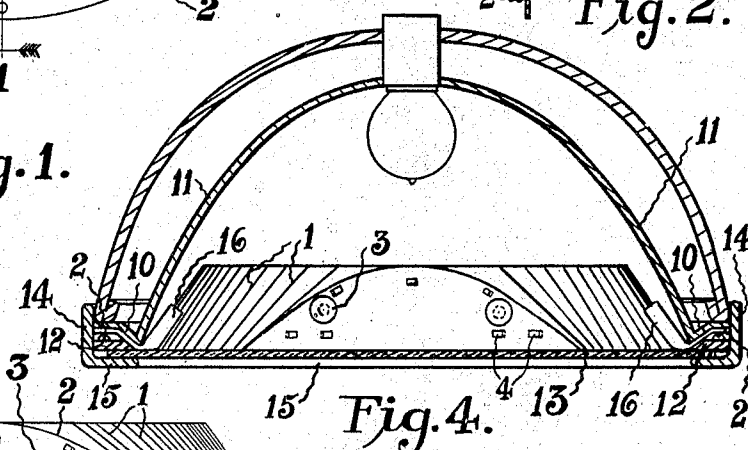


Fig. 4.

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HEADLIGHT FOR MOTOR VEHICLES.

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To all whom it may concern:

Be it known that I, CHARLES F. YOUNG, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Headlights for Motor Vehicles, of which the following is a specification.

My invention relates to improvements in headlights for motor vehicles and particularly to motor vehicles provided with a lighting system; and the objects are to provide means for directing and conserving the light emanating from the light-giving element and directing the same where it is most needed and at the same time providing devices which will serve as anti-glare means for avoiding the blinding effects on the driver of motor vehicles by the bright lights of approaching vehicles. Another object is to provide an anti-glare means and a light directing means which is adapted for use with standard fixtures in headlights. Another object is to provide devices which comply with the requirements of the various regulations of the States of the United States. Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application.

Fig. 1 is a front elevation of the improvements detached from the headlight. Fig. 2 is a vertical section taken on the line 1-1 of Fig. 1. Fig. 3 is a plan view of the same. Fig. 4 is a plan view of the improvement, showing a variation in the locking devices and showing a section of a reflector and casing therefor.

Similar characters of reference are used to indicate the same parts throughout the several views.

This invention includes a series of relatively thin vanes or fins 1, which are horizontally disposed and which have flat parallel horizontal surfaces. The vanes or fins are locked together to form a unitary device, which may be mounted back of a lens within a reflector. The vanes are attached together by two wires or rods 7, which are run through all of the vanes from top to bottom. These rods or wires have attaching heads 3 on one end and the other end 6 secured or attached by solder, that is, solder

is applied to the upper ends to hold the vanes in fixed position. The vanes or fins 1 are spaced apart by spacers 4, which are struck from the metal of the vanes and bent at right angles thereto, the ends of the spacers resting against the adjacent vane. There are preferably two rows of such tongues or spacers 4' symmetrically disposed on each side of the central portion of the vanes. The upper vane 8 and the lower vane 9 are used in connection with attaching devices; the attaching devices consist of portions of metal 2 extending from the vanes 8 and 9 upwardly and downwardly to serve as attaching devices, that is, devices to hold the unitary structure fixedly in the headlight. The attaching devices 2 are to be caught in between a flange 10 of the reflector 11 and a clamping ring 12. The lens 13 is held in place by a rim 14, which has a flange 15. The lens 13 is thus held in place by the annular ring-clamp 12 and the flange 15 of the rim 14. The clamp 12 and flange 15 are to be secured together in the usual manner, this invention not including any improvement in the lens holding means.

It will be understood that the attaching devices 2 will have to be changed to meet the requirements of different types of lens holding structures. The attaching devices 2 are merely caught in between the flange 10 of the reflector and the lens holding structure so that the light modifying and directing means will be held rigidly in place in the head light.

The attaching devices may be provided at other places than at the upper and lower sides of the structure. Fig. 4 illustrates attaching devices which are located on the sides of the unitary structure. These devices include body members 16, which are secured to the ends of the vanes or fins and are provided with the same attaching members 2, which are to be caught in between the flange 10 of the reflector and the lens holding devices 12 and 15.

When this improvement is mounted in the head light, as above described, the rods 7 and the attaching members 2, hold the light directing unitary structure rigid with the headlight, secure against rattling or displacement.

Various changes in the sizes, proportions, structure and arrangement of the several parts above described, may be made without departing from my invention.

What I claim, is,—

1. In a headlight provided with a reflector and lens holder and a light-giving element; light-directing means comprising a series of relatively thin vanes horizontally disposed and rigidly spaced apart, rods running through said vanes at right-angles thereto and rigidly connected to the upper and lower vanes, the uppermost vane and the lowermost vane having respectively upward and downward integral extensions forming attaching devices rigid with said light-directing means and projected between and held rigid by said reflector and lens holder.
2. In a headlight provided with a reflector having a radial flange, a lens holder and a light-giving element; a light-directing means comprising a series of relatively thin vanes horizontally disposed across the axis of the light-giving element and spaced apart, the vane-holding rods running through said vanes at right-angles thereto for aligning and bracing said vanes, spacers for said vanes adjacent to said rods, and rows of other spacers symmetrically disposed between said rods and the outer ends of said vanes for holding said vanes rigid, means connecting the extreme ends of said rods with the upper and lower vanes for holding said vanes rigidly on said spacers, and attaching means integral with the upper and lower vanes and projecting radially therefrom between said flange and lens holder for rigidly connecting said light-directing means to said headlight.
3. In a headlight provided with a reflector having a radial flange and a lens holder and

a light-giving element; a light-directing means comprising a series of relatively thin vanes horizontally disposed across the axis of the light-giving element and extending at their ends in close proximity to said reflector, a plurality of rows of spacers between said vanes, aligning rods extending vertically through said vanes at right-angles thereto and attached to the upper and lower vanes for holding said vanes rigid in their spaced relation, and integral extensions of the uppermost vane and the lowermost vane projected between said lens holder and reflector for attaching the light-directing means rigid with the headlight.

4. In a headlight provided with a reflector and a lens holder and a light-giving element; a light-directing means disposed between said lens and reflector and comprising a series of relatively thin vanes horizontally disposed and extending substantially over the entire area of the front of said reflector and out of contact with the reflector and having unobstructed passage for light between the end portions of the vanes, means for attaching said vanes in rigid spaced relation comprising rods running vertically through said vanes, spacers adjacent to said rods struck from the vanes and bearing against the adjacent vanes and rows of spacers symmetrically disposed between said rods and the outer ends of said vanes and means on said rods for holding said vanes rigidly against said spacers.

In testimony whereof, I set my hand, this 22nd day of August, 1924.

CHARLES F. YOUNG.