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VEHICLE LAMP

Filed Jan. 28, 1960

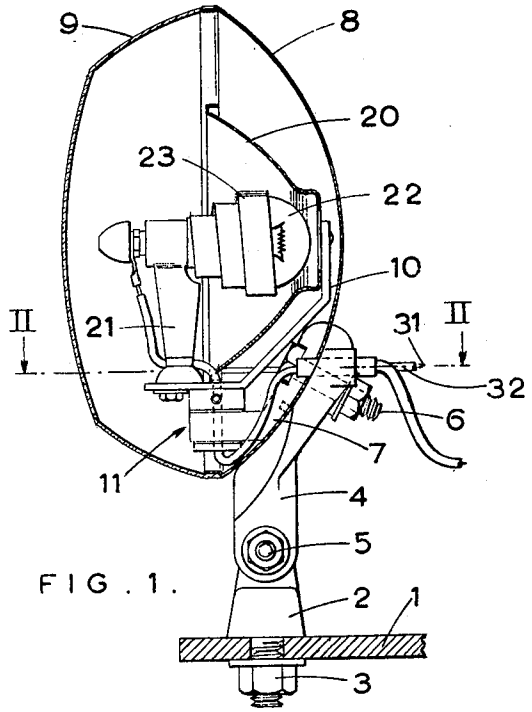


FIG. 1.

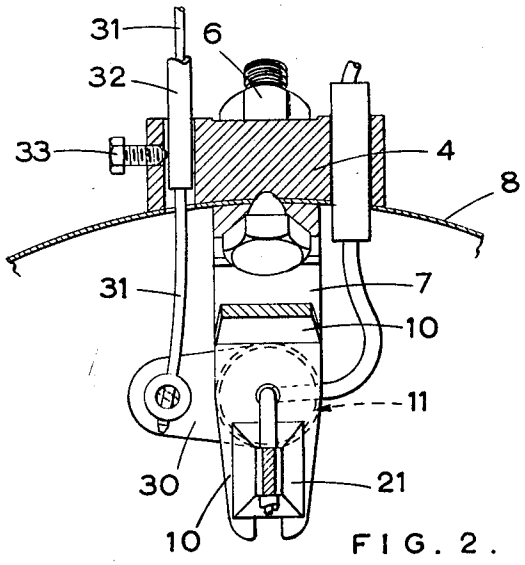


FIG. 2.

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VEHICLE LAMP

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This invention relates to lamps for vehicles and more particularly to spot lamps or fog lamps although the invention may be applied also to vehicle headlamps.

The invention has for its object to provide improved arrangements of vehicle lamps whose beams may be deflected, such deflection being controlled suitably from within the driving compartment of the vehicle.

Broadly stated, the invention comprises providing a vehicle lamp with a concave reflector which can be rotated through about 90°, said reflector having a light source such as an electric incandescent bulb so located with respect to the centre of the reflector that the beam emanating from the lamp is swung as the reflector is rotated.

In the case of a fog lamp for a motor vehicle, previous lamps have been designed to provide a beam having a wide "spread" resulting in lack of light intensity over the area which the driver desires to illuminate. With the present invention a narrower, more intensive beam is advantageously provided which can be deflected from the kerb to the crown of the road at will by the driver.

In a fog lamp according to the present invention the reflector, together with a light source such as a bulb, is contained within a stationary lamp housing mounted on the vehicle said reflector being supported by a strut which latter also supports a pedestal member by which the bulb is carried and is pivotally mounted with respect to the lamp housing, such that the strut together with the reflector and the bulb can be rotated through about 90° relative to the housing by means of a coaxial cable connected to a crank on the strut and operated from a push-pull plunger located in the driving compartment.

The housing will be provided with means for mounting the lamp on the vehicle and the mounting will include clamping means to enable the position of the lamp housing to be adjustable on release of said clamping means.

Reference will now be had to the accompanying drawings in which one embodiment is illustrated and in which FIGURE 1 is a cross-sectional side elevation while FIGURE 2 is a cross-sectional view through the line II—II of FIGURE 1.

In the drawings, 1 represents a member such as a body panel to which the lamp is attached by means of a clamp 2 having a nut 3. At the upper end of the clamp 2 a mounting member 4 is pivotally attached by a horizontal bolt 5. A rotation strut 10 is pivotally mounted by a ball race indicated at 11 on a bracket member 7 which is rigidly attached to the member 4 by a clamping bolt 6. Between the members 4 and 7 is clamped the housing 8, having a glass front 9, of the lamp.

At the upper end of the strut 10 is mounted the centre of the reflector 20 which may be parabolic while the lower end of the strut 10 carries an upstanding pedestal 21 on which a bulb 22 is carried. A spiral baffle 23 surrounds the bulb minimizing dazzle from the light emanating from the bulb and reflector and concentrating the beam. A crank 30 is connected to the lower end of the strut 10 and to this crank is attached the inner wire 31 of a Bowden type cable whose outer part, or sheath, 32 is fixed by a releasable set-screw 33 so as to be immovable in relation to mounting member 4 and the housing 8.

In operation when the wire 31 of the Bowden cable is moved relative to the sheath 32 by a push-pull button, not shown, in the driving compartment of the vehicle it moves the crank 30 of the strut 10 which latter together with the reflector 20 and bulb 22, is caused to move in rotational manner through maximum angle of about 90° on the bearing 11, relative to the bracket member 7 and the housing 8 thereby varying the horizontal direction of the beam of the lamp. Single or twin insulated flexible leads may supply current to the electric bulb, passing upwardly through the centre of the pivotal mounting of the reflector 20 and having an on-off switch, say adjacent to the push-pull beam control.

The desired angle of the beam above or below the horizontal is set by adjusting the mounting member 4 about the horizontal bolt 5 before tightening the nut on the latter.

It will be appreciated that the improved lamp is also suitable for many other uses such as a directional spot beam on a crane, or for yachts and ships for assistance when berthing or mooring.

By the present invention improved vehicle lamps are obtained.

What I claim is:

1. A lamp for vehicles comprising a concave reflector contained within a housing composed in part by a glass front part and in part by a concave metal housing back part, a mounting means for securement to a vehicle, an electric light source located in the reflector, said reflector and said light source being pivotally mounted on a single bearing carried by the housing, such bearing allowing pivotal movement of said reflector about the axes of the bearing relative to the housing to enable the beam emanating from the light source to be swung through at least 45° and including means for swinging said reflector relative to the housing and for maintaining it in any predetermined position in its arc of travel, said means being controllable externally of the housing, said bearing being formed in a bracket secured in the housing and the reflector being carried on a strut member pivotal in said bearing, the light source being carried separately on a pedestal mounted on said strut member, a crank lever on said strut member, the said means controllable from externally of the housing for swinging the reflector comprising a Bowden type cable embodying a sheath and a wire therein and having the end of the wire passing through the housing and connected to the crank lever, the end of the sheath being fixed to the housing, the movement of the said wire relative to the sheath resulting in movement of the crank lever together with the reflector relative to the housing.

2. A lamp according to claim 1 wherein the single bearing pivotally carrying the reflector is located below the light source to turn about a vertical axis.

3. A lamp according to claim 1 wherein the pedestal extends upwardly from the strut member in front of the reflector and such that the light source is mounted near the principal focus of the reflector.

4. A vehicle lamp comprising a mounting member, a housing embodying a light transmitting front part and a back part, said mounting member having a part formed to have a lower portion of said housing back part mounted thereagainst, a bracket located within the lower part of the housing and having a portion in juxtaposed relation with the said part of the mounting member with said lower portion of the housing back part between said bracket portion and said part of the mounting member, means securing together the mounting member, the housing and the bracket, a strut having a lower end portion pivotally mounted upon a single bearing on said bracket to turn about a vertical axis, the strut extending rear-

wardly and upwardly in the housing, a light reflector attached to the upper part of said strut, a pedestal supported upon and rising from the said lower end portion of the strut, an electric incandescent light unit supported upon the top of said pedestal and directed into said reflector and locating the light source substantially at the focal center of the reflector, and a remote control means operatively coupled with said strut for effecting rotation of the strut and parts supported thereby about said axis.

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