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By Lucie Grinsole, Attorney.
This invention relates to the ordinary type of motor vehicle head lamp and its object is to provide improvements therein by the employment of which, provision is made for the dazzling rays of the full powered lamp being cut off, whenever desired, through the operation of a control device disposed in a position convenient to the driver. The dazzle caused by the full rays and its effect upon an approaching driver are thus eliminated.

This cut off of the dazzling rays is in this invention effected by the employment of a shield or baffles arranged around the light bulb and which is mounted and controlled so that it may be projected to cut off the light rays from the lamp's reflector, or retracted to expose the light to the reflector in the usual way. In this latter position the light beams will have their full power, but in the former position of the shield, the reflective rays will be cut out and only the rays from the bulb itself thrown forward. This therefore will ensure of the dimming of the lamps without any interference with the electric current supply thereto.

The invention consists broadly in the combination with an ordinary lamp, of a cylindrical sleeve arranged to surround the light bulb thereof and so mounted that it may slide forwardly and rearwardly in the lamp, that is spring controlled so that it extends normally to encircle the bulb and has means associated therewith whereby it may be drawn back to uncover the bulb and be retained in the drawn back position. To dim the lamp therefore it is only necessary to release these means, and then when the need for dimming has passed, to again draw the sleeve back.

The invention in its details may vary somewhat to suit different designs of lamps, but in all cases the same general features are employed.

A suitable manner of carrying out the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a sectional elevation of a lamp fitted with the invention, and with the shield in its projected position.

Figure 2 is a cross section on the line 2—2 of Figure 1 and looking in the direction of the arrow.

Figures 3 and 4 are detail views showing an alternative manner of mounting the cylindrical sleeve.

A is the lamp casing and B the usual bowl shaped reflector plate fitted therein. C is the light bulb which is fitted in the forward end of a carrier D. This carrier is surrounded by a cylinder E attached to the casing A, and extending throughout a space left between the reflector and casing. This carrier also is of such a length that the bulb C is positioned in front of the reflector so that the full rays thereof will be caught and thrown forward by the reflector in the usual way.

F is a cylindrical sleeve of suitable material that is fitted to surround the cylinder E and is made to form a neat sliding fit thereon in order that it may slide to and fro. This sleeve passes through the reflector and is made of such a length that it may slide forwardly sufficiently far to encircle the bulb and cut its rays off from the reflector, or may be drawn back to uncover such bulb. If desired this sleeve may be formed, as shown in Figures 3 and 4, with longitudinal grooves upon its inner surface which fit over anti-friction balls G contained in a race e upon the outside of the cylinder E, and thus be made capable of sliding freely and without friction.

The rear end of the sleeve F is formed with a flange F'. A helical spring H is provided and arranged around the cylinder E and such spring is placed in compression between this flange F' and the back of the lamp casing so that the sleeve is normally projected to encircle the light bulb C.

The said sleeve is adapted to be drawn back against this spring H by means of a light bridle frame J that slides through the back of the lamp casing A and has its forward ends attached to the sleeve flange F'. Such bridles is connected, by means of a flexible wire K, with any device through which the wire may be pulled on to draw the bridle and sleeve back and to retain them. This device may be positioned in any position convenient to the driver of the vehicle so that it may be actuated at will, and forms no special feature of this invention as numerous suitable devices are already known in the art.

Both lamps of a vehicle thus made and operated may be controlled simultaneously by connection with the same actuating means, to cause the respective sleeves to project and shield the light bulbs from the lamp reflectors or to expose such to the re-
In a head lamp, the combination, with a lamp casing, a reflector disposed therein, and a light arranged in front of the reflector; of a cylinder disposed behind the light and extending rearwardly of the reflector; a cylindrical cut-off sleeve mounted to slide upon said cylinder and having an out-turned flange at its rear end; an expandible helical spring encircling the cylinder and bearing at opposite ends against said flange and the back of the casing to normally project the sleeve forward into position to enclose the light; and a U-shaped bridle frame having its arms slidably mounted in the said casing back and attached at their forward ends to the sleeve flange, the rear portion of the frame being disposed outside the casing for connection to an operating element, to enable the sleeve to be retracted into position to uncover the light.

In testimony whereof, we affix our signatures.

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