

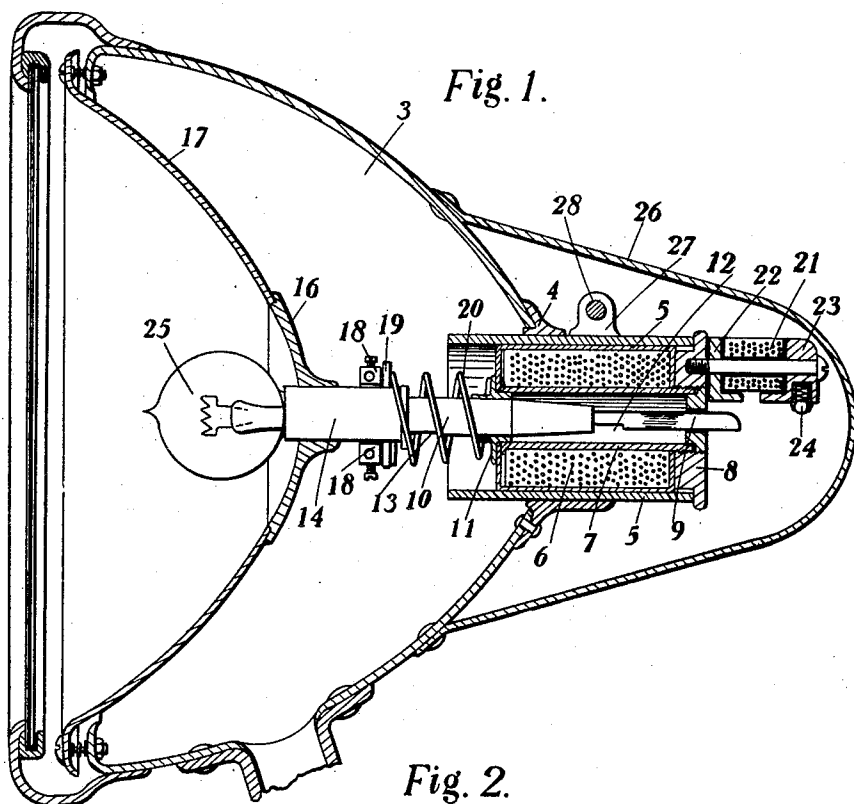
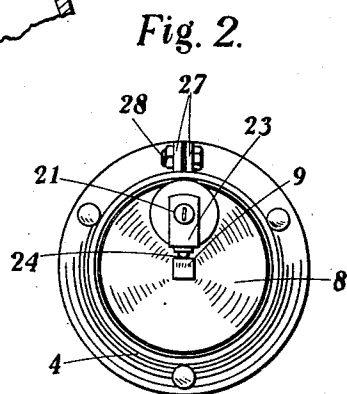
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CONTROL FOR HEAD LAMPS FOR MOTOR CARS

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CONTROL FOR HEAD LAMPS FOR MOTOR CARS

Application filed February 4, 1929, Serial No. 337,330, and in Great Britain February 11, 1928.

This invention comprises a new or improved control for headlamps for motor cars and the like, for use more particularly for that type of headlamp in which the bulb is moved out of focus in order to eliminate the glare, the object of the present invention being to provide a simple and efficient electrically controlled device for the specified purpose.

Referring to the drawings:—

Figure 1, is a section of a headlamp and control according to this invention, whilst,

Figure 2, is an end view of the solenoid casing with the cover removed.

At the rear of the lamp casing 3, a flange 4 is secured into which slides a tubular part 5, in which is mounted the coil 6 of the solenoid. The solenoid coil 6 is mounted on a bobbin 7, which at its rear is externally screwed, so as to screw into a closure member 8 which is adapted to be screwed or otherwise secured into the end of the tubular extension 5 on the lamp casing; a hole which is preferably of square shape is formed in the centre of said closure member 8 and provides a guide for a square rod 9 which is connected to the solenoid core 10 whilst the solenoid core 10 is provided with a guide which takes the form of a gland nut or the like 11, which is secured to the solenoid bobbin 7 and is positioned at the front of the solenoid coil.

The solenoid core 10 at its rear end is tapered so as to permit of it tilting slightly when it is withdrawn and the gap 12 in the rod 9 registering with the square hole formed in the closure cover 8.

The solenoid core 10, may have a small recess 13, formed on its under side so as to facilitate the rocking of the solenoid core when the gap 12 formed in the rod 9 engages the square hole in the closure member 8. The purpose of the rocking of the solenoid core 10 will be more fully explained hereafter.

Mounted on the end of the solenoid core 10 is a lampholder 14, on which is mounted the segmental reflector 16, which forms part of the main reflector 17. The lampholder 14 is provided with contact members 18 to which the usual connections are made; mounted on

the solenoid core 10 and positioned between the projection 19 and gland nut or the like 11, is a compression spring 20, which normally retains the segmental reflector and lampholder in the position shown in Figure 1.

On the rear of the closure member 8 is mounted the trip coil 21, together with the pole pieces 22, 23, the pole piece 23, has mounted therein a spring controlled ball or plunger 24, so that when the solenoid core 10 is retracted the top of the square rod 9 will engage the spring controlled ball 24, which exerts thereon a slight pressure so that when the gap 12 registers with the square hole formed in the closure member 8, the pressure exerted by the ball 24 will cause the solenoid core 10 to rock slightly and be locked in its retracted position thereby retaining the bulb 25 in this position.

In order to withdraw the segmental reflector 16, and bulb 25, into a non-glaring position the solenoid coil 6 is energized and the solenoid core 10 is withdrawn against the action of the tension spring 20, when it is automatically retained in its retracted position by reason of the gap 12, engaging the edge of the square hole formed in the closure member 8 through which the square rod 9 passes.

In order to operate the solenoid and the trip magnet suitable controls are provided in the form of press contacts or switches which are positioned adjacent to the driver in order to control the beforedescribed operations.

To return the segmental reflector 16, and bulb 25 to their normal position as shown in Figure 1 of the drawing the trip coil 21 is energized the square rod 9 is drawn towards the magnets 22, 23, thereby disengaging the gap 12 from the lower edge of the square hole formed in the closure member 8 and permitting the solenoid together with the segmental reflector 16 and bulb holder 14, to return to their normal position under the action of the compression spring 20.

To provide for a longitudinal adjustment of the solenoid, the flange 4 is split and is provided with lugs 27, through which passes the bolt 28, so that by loosening the bolt 28 the

tubular part 5 can be slidably adjusted therein.

A casing 26 is provided which is adapted to cover the solenoid casing and the other parts of the device, said casing being secured to the headlamp casing 3.

What we claim is:—

1. A control for headlamps for motor cars comprising in combination a solenoid, a solenoid core, a bulb holder mounted on said solenoid core, an extension of said solenoid core, a trip coil mounted adjacent to said extension, a spring controlled member mounted on said trip coil and adapted to engage and depress the solenoid core extension when in its retracted position, a gap formed in said solenoid core extension, a stop which is adapted to engage the gap in the solenoid core extension and retain the solenoid core in its retracted position, the energization of the trip coil lifting the solenoid core extension and permitting the solenoid core to automatically return to its normal position.

2. A headlamp for motor cars comprising in combination a casing, a reflector disposed in said casing having an aperture therein, a solenoid mounted on said casing, a core mounted in said solenoid, a bulb holder mounted on the solenoid core, a reflector adapted to close the aperture formed in the reflector mounted adjacent to the bulb holder on said solenoid core, an extension of said solenoid core, a trip coil mounted adjacent to said extension, a spring controlled member mounted on said trip coil and adapted to engage and depress the solenoid core extension when in its retracted position, a gap formed in said solenoid core extension, a stop which is adapted to engage the gap in the solenoid core extension and retain the solenoid core in its retracted position, the energization of the trip coil lifting the solenoid core extension and permitting the solenoid core to automatically return to its normal position.

In testimony whereof, we have signed our names to this specification.

WILLIAM ERNEST HUTCHISON.

DAVID EDWARD WILLIAM REES.

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