Nov. 15, 1932. D. V. RHOADES 1,888,145

LIGHT CONTROL SWITCH

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Fig. 2.

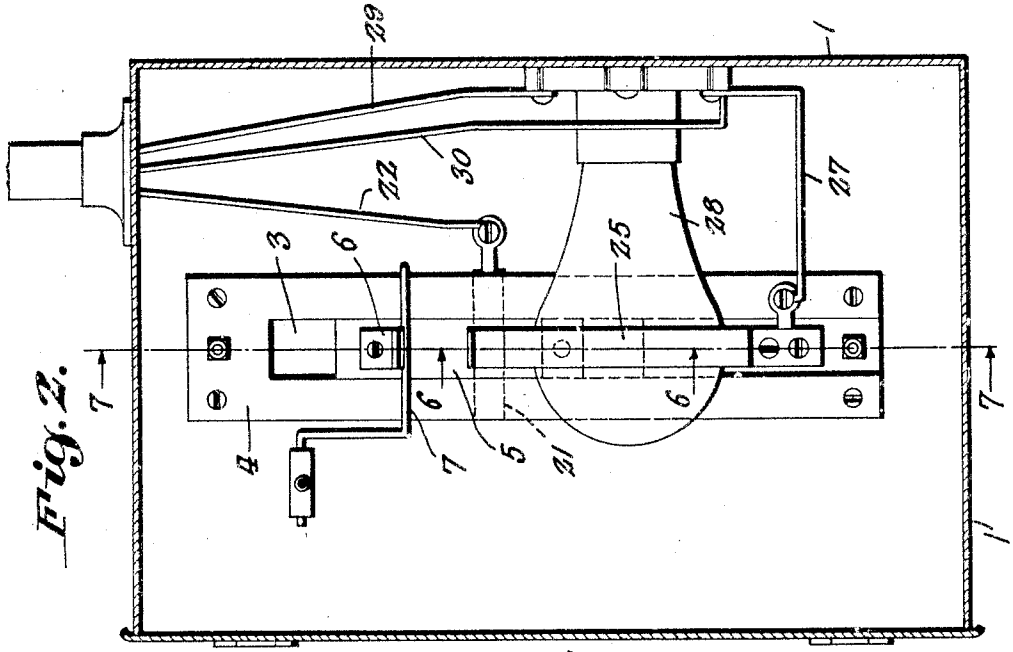


Fig. 7.

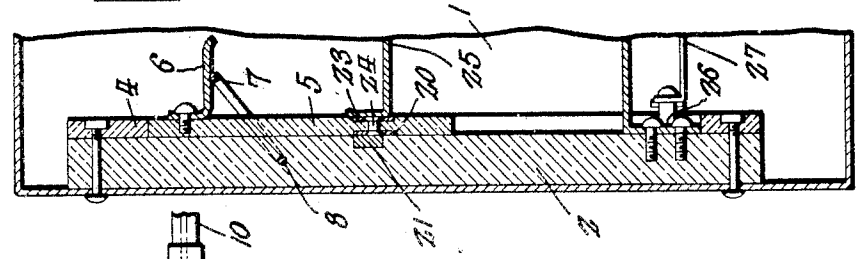


Fig. 1.

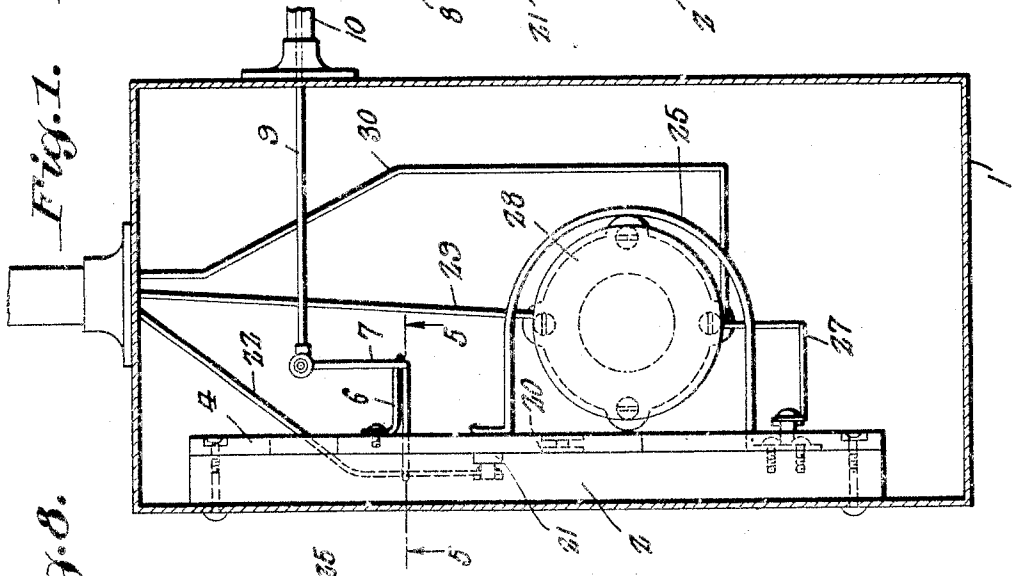
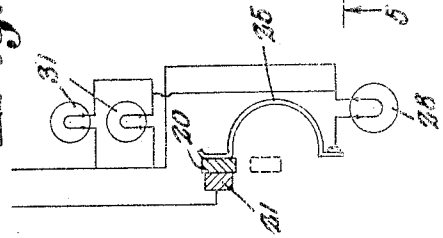


Fig. 8.



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LIGHT CONTROL SWITCH

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Fig. 5.

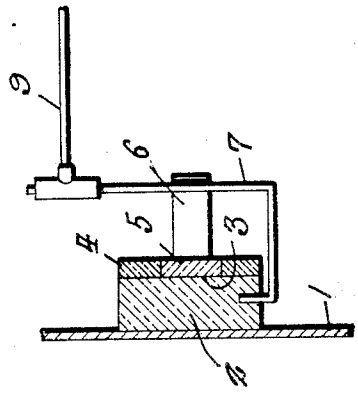


Fig. 6.

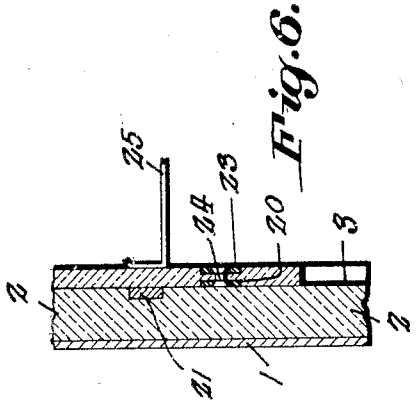


Fig. 3.

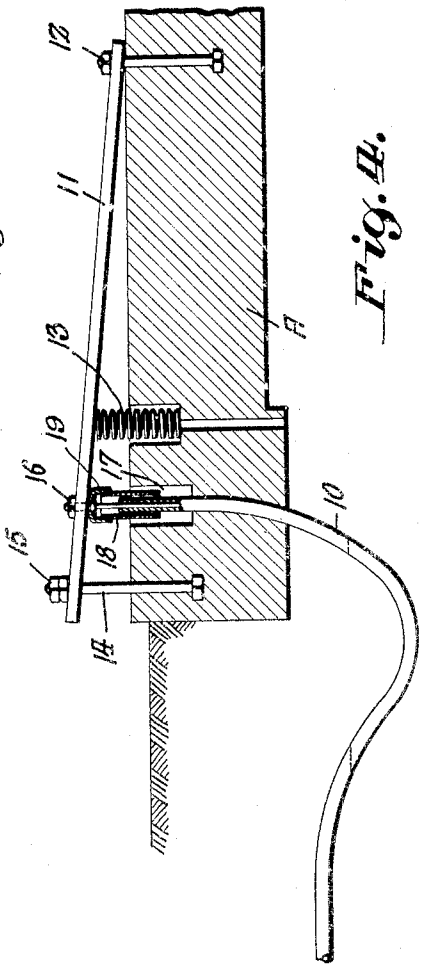
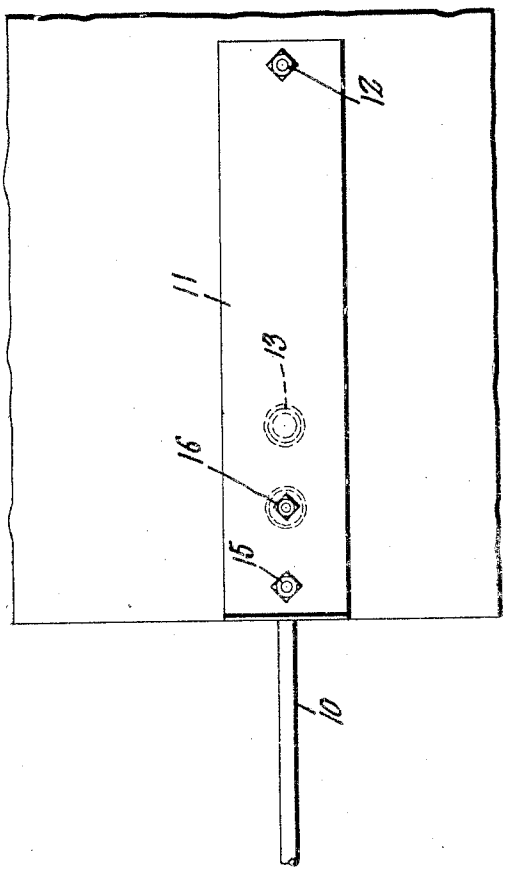


Fig. 4.



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LIGHT CONTROL SWITCH

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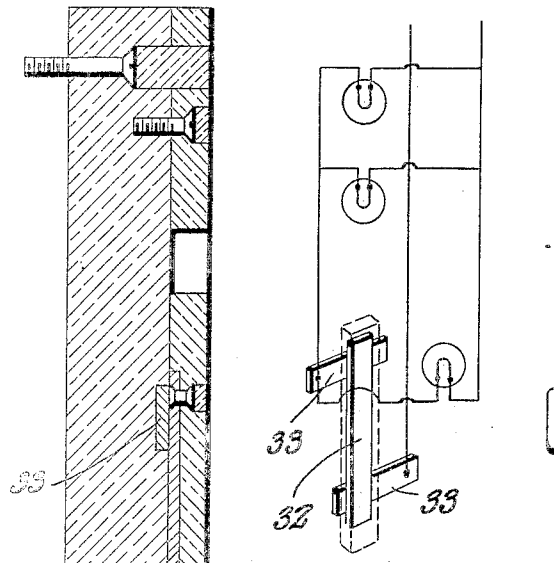


Fig. 11.

Fig. 10.

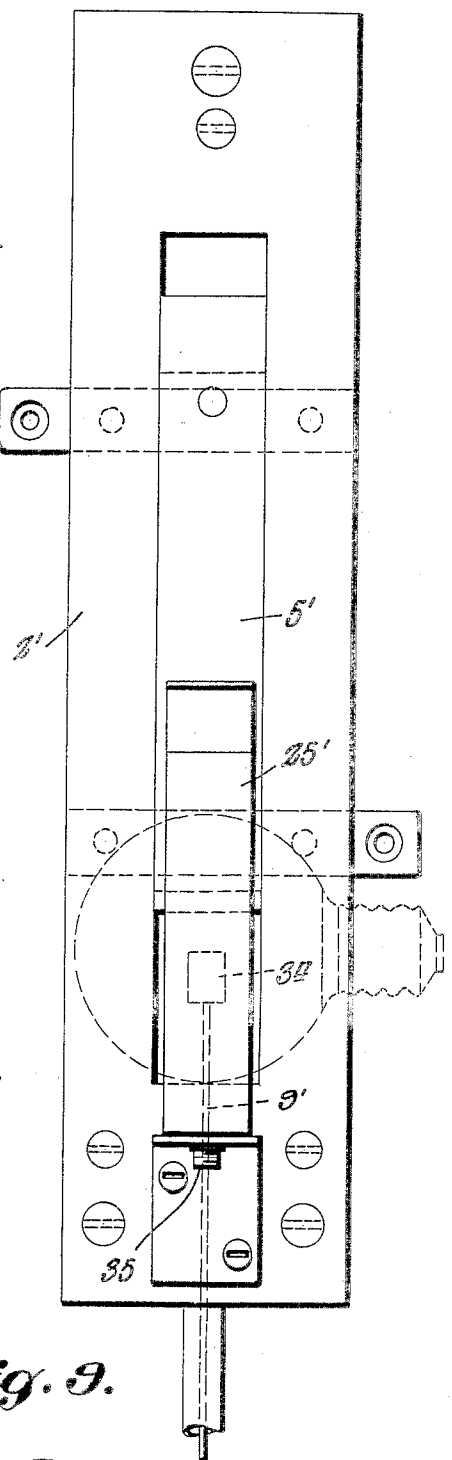


Fig. 9.

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Patented Nov. 15, 1932 1,888,145

UNITED STATES PATENT OFFICE

DEWEY VERNON RHOADES, OF WICHITA, KANSAS, ASSIGNOR TO CHARLES E. FARROW AND HARLAN W. FARROW, BOTH OF WICHITA, KANSAS

LIGHT CONTROL SWITCH

Application filed August 1, 1930. Serial No. 472,424.

This invention relates to a switch for controlling a lighting system, the general object of the invention being to provide means whereby a vehicle entering a garage will automatically close the circuit to a lamp in the garage and to a porch lamp and other lamps if desired, with means for automatically breaking the circuit or circuits after a predetermined time.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a side view of the switch means, with the casing enclosing the means in section.

Figure 2 is a front view, with the casing in section.

Figure 3 is a sectional view through the pedal means operated by the vehicle.

Figure 4 is a top plan view of such means.

Figure 5 is a section on line 5—5 of Figure 1.

Figure 6 is a section on line 6—6 of Figure 2.

Figure 7 is a section on line 7—7 of Figure 2, but showing the slide in raised position and the circuit closed.

Figure 8 is a diagrammatic view of the circuits.

Figure 9 is a front view showing a modification.

Figure 10 is a vertical sectional view through Figure 9.

Figure 11 is a view of the circuits of the modification.

In these drawings, the numeral 1 indicates a casing which may be placed in any suitable location, such as the basement of a building or in a garage, and the numeral 2 indicates a block of non-conducting material fastened to an internal wall of the casing, the block being arranged in vertical position. Said block has a vertically arranged groove 3 therein, this groove being formed by placing a strip or strips 4 on the block 2 and fastening the same to the block, but it will, of course, be understood that the groove may be formed directly in the block. An elongated plate 5, also of non-conducting material, is vertically movable in the groove and has attached to its outer face adjacent the upper end thereof a bracket 6 which has an outwardly extending part which is engaged by a part of a crank shaft 7 having one end rotatably arranged in the block, as shown at 8, and its other end, which is positioned in a vertical plane, is pivotally connected to a wire 9 which extends through a conduit 10 which has one end connected with the casing and its other end extending through an outer edge of a cement road A which leads to a garage. A pedal 11 is movably connected with a part of the road by a bolt 12, the pedal being so located that a wheel of a vehicle can pass over the same by guiding the vehicle to the outer part of the roadway. This pedal is normally held in raised position by a spring 13 which should be strong enough to prevent the pedal being depressed by a child and its outer end is guided by a bolt 14 embedded in the concrete roadway and passing through a hole in the pedal, nuts 15 on this bolt 14 limiting the upward movement of the pedal. The wire 9 is connected with the pedal, as shown at 16.

The end of the conduit 10 passes through the concrete into a chamber 17 formed therein and a tubular part 18, attached to a cap 19 fastened to the pedal, encloses the end of the conduit and the wire.

Thus it will be seen that when a wheel of a vehicle rides over the pedal, the wire 9 will cause the crank shaft 7 to be tilted and the engagement of the crank shaft with the bracket 6 will move the slide or plate 5 upwardly, as shown in Figure 7. When the plate moves to its upper position, a contact 20 on its under face will engage a stationary contact 21 in the block 2 which is connected by a conductor 22 to lamps placed in the garage, on the porch of the dwelling or at any other suitable place. A contact 23 is

embedded in the front face of the slide 5 and is connected with the contact 20 by a rivet 24 or the like and when the slide is in raised position, this contact 23 will engage the flattened end of a substantially U-shaped thermostatic strip 25 which has its other end flattened and fastened by the screws 26 to the lower part of the block. The fastened end of the thermostatic strip is connected by a conductor 27 to a lamp 28 located in the casing and extending under the thermostatic strip. The other terminal of the lamp is connected to a conductor 29 which forms part of the lighting circuit and a conductor 30 is connected with the conductor 27 and with the circuits of the lamps 31 which may be a lamp in the garage and a lamp on the porch or lamps otherwise located.

From the foregoing it will be seen that when it is desired to light the lamps, the car is steered so that it will depress the pedal 11 and the depression of the pedal will raise the slide 5, which closes the circuits of the lamps and places the thermostatic strip in the circuit. The heat from the lamp 28 in the casing will, after a certain length of time, cause the thermostatic strip to expand so that its free end will move off of the contact 23 and thus break the circuit so that the lamps will be extinguished and as the free end of the thermostatic strip moves off the slide, the slide will drop under the action of gravity as the spring 13 has already raised the pedal and moved the crank shaft 7 from under the bracket 6. Thus the lamps will be lighted by the car approaching the garage and will stay lighted long enough for the car to be placed in the garage and the door shut and the occupants enter the house. The lamps are then automatically extinguished by the breaking of the circuits by the thermostatic member. This member can be adjusted to break the circuit at any desired time by loosening or tightening the upper screw 26.

In the modification shown in Figures 9, 10 and 11, the slide 5′ has embedded in its inner face a metal strip 32 and the conductors are connected with the upper and lower transversely arranged metal strips 33, the strip 32 being always in contact with the lower strip 33 and when raised will contact the upper strip 33 so as to complete the circuit. When in lowered position, the strip 32 will be out of contact with the upper strip 33 and thus the circuit will be broken. In this form of the invention, the wire 9′ extends into the lower part of the groove in the block 2′ and has a small block 34 of non-conducting material on its extremity which will engage the slide 5′ when the wire is pushed upon by the pedal so as to raise the slide. In this form, the thermostatic strip 25′ is fastened to an outwardly extending arm of a bracket 26′ and a set screw 35 passing through a threaded hole in said outwardly extending part engages the strip and acts as adjusting means for the same.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

In a device of the class described, an insulating block adapted to be mounted upon a support and having a longitudinal groove therein, said block having a pair of spaced contacts located at the bed of the groove and adapted to be arranged in a normally open electric circuit, an insulated elongated plate movably mounted in the groove and having means for bridging the contacts to constitute a switch for closing said electric circuit, a bracket mounted upon the block beyond one end of the groove, a substantially U-shaped thermostatic strip carried by the bracket and having one end engaging the plate for releasably holding the same in position for the closing of said circuit, an extension on the plate, and a crank located with respect to the extension for action thereon for the moving of the plate in one direction and manually operable.

In testimony whereof I affix my signature.

DEWEY VERNON RHOADES.