April 11, 1933. P. J. McMANAMAN 1,903,428

ELECTRIC SWITCH

Filed Nov. 3, 1931

FIG. 1

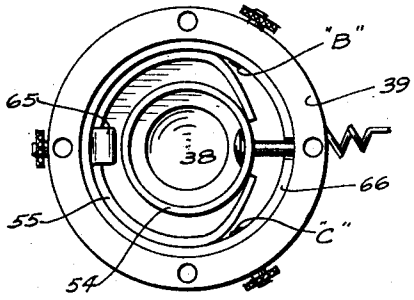


FIG. 2

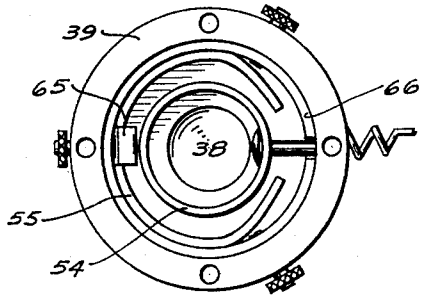


FIG. 3

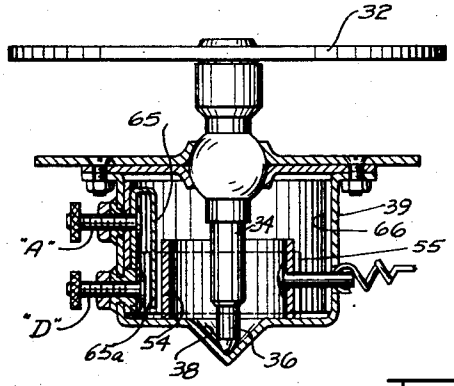


FIG. 4

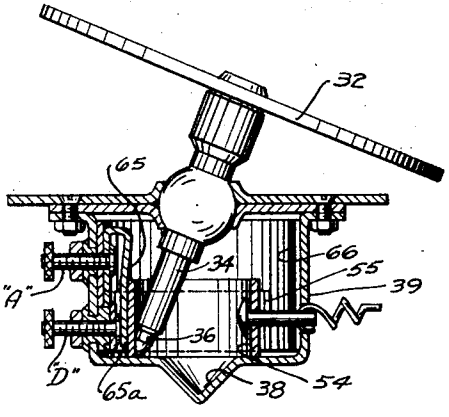
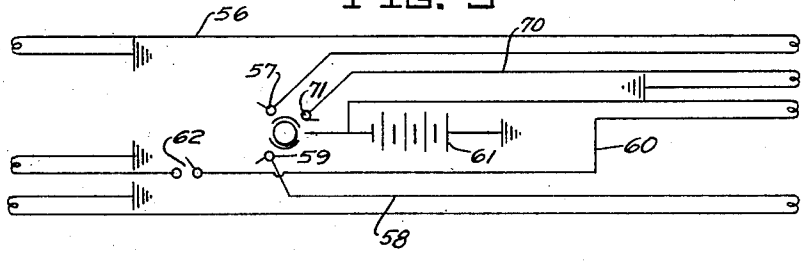


FIG. 5



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UNITED STATES PATENT OFFICE

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ELECTRIC SWITCH

Application filed November 3, 1931. Serial No. 572,780.

This invention relates to improvements on electric switches, particularly foot switches to control stop, back up and direction signals for automobiles.

The object is to provide an improvement upon the switch shown in my pending application Serial No. 446,509, now Patent No. 1,847,407, by the addition of a contact hook which gives an additional pair of circuits that when closed will light a backing-up light above the tail light, of which it is a part.

One form of the invention is shown in the accompanying drawing, in which:

Figure 1 is a top plan view of the invention with the foot plates removed and with a switch not in contact.

Fig. 2 is a view similar to Fig. 1 but with the switch in contact position to light the backing-up light.

Fig. 3 is a transverse section taken through the center of the invention in the position shown in Fig. 1.

Fig. 4 is a section similar to Fig. 3 but with the invention shown in contact position as in Fig. 2.

Fig. 5 is a wiring diagram for the invention.

Referring to the drawing, the foot plate 32, tilting stem 34 and pin 36 are the same as described in the above mentioned patent and operate in the same manner to shift a contact spring 55 to close selected circuits, except that the metal contact spring 55 has a contact hook or bent finger 65 which is an integral part of said contact spring, and is attached to the wall of the switch box 39 through the fibre ring 66 by the terminal "A", at its upper end, the contact "D" being in the position occupied by the said terminal "A" in said patent.

By shifting the foot plate 32 with its attached tilting stem 34 and pin 36 forward in the position shown in Fig. 4, the pin 36 is swung up out of the depression 38 in the switch box 39 and against the inner wall of the fibre ring 54 which in turn presses back against the contact finger 65 of the contact spring 55 and forces back the free end 65*a* of the said finger and makes a contact with the contact pin "D" thus closing the circuit and lighting the back-up light (not shown).

All other parts pertaining to the above mentioned switch are the same and function in the same manner as in the said patent.

The left hand signal lights are connected by the conductors 56 and terminal 57, while conductors 58 connect the right hand signal lights and the terminal 59. The center lights of both the front and rear signals are connected together by the conductors 60 and to the battery 61 and to a dash-board switch 62, the back-up light is connected by the conductors 70 and the terminal 71.

The foot plate 32, having universal movement by reason of its ball and socket mounting, may be swung to either side, front or rear by tilting the plate 32 by pressure of the foot, thus, by tilting the plate the contacts "B", "C", or "D" may be closed selectively and light either the right hand signals, the left hand signals, all signals simultaneously, or the backing-up light.

I claim:

1. A switch comprising a casing, a pivoted pedal and its stem having tilting movements in said casing in various directions, a contact spring extending around in the casing and arranged to close contacts at different places around the outer wall of the casing, said spring having at one point a bent finger contact cooperating with one of the contacts around the outer wall, and means actuated by the tilting of the pedal to selectively close said contacts.

2. A switch comprising a casing, a shiftable ring of insulating material loosely mounted and shiftable in various directions on the bottom of said casing, a contact spring extending around in the casing between said

ring and the outer wall of the casing, said spring being provided with a bent finger forming one contact, a plurality of contacts arranged around the wall of the casing and cooperating with said spring and finger selectively, and means to shift said ring laterally in various directions to press selected contacts together.

In testimony whereof, I do affix my signature.

PATRICK J. McMANAMAN.