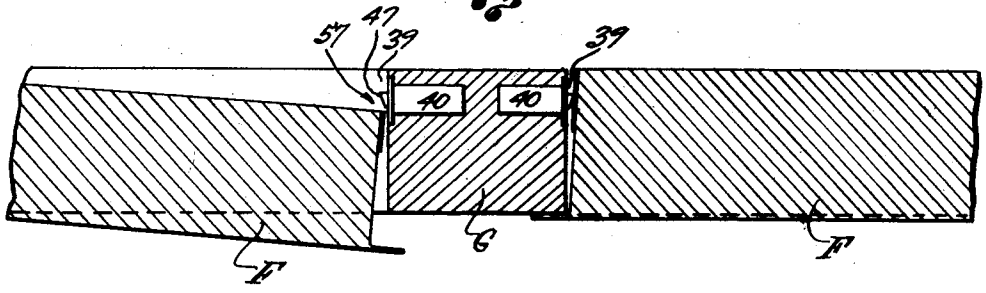
Oct. 3, 1933. E. B. HUDDLESON 1,928,691

ELECTRIC SWITCH

Filed May 6, 1931

Fig. 1.



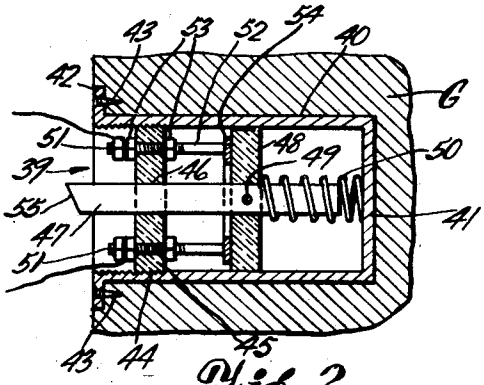


Fig. 2.

INVENTOR:
Ernest B. Huddleson
BY
Adam E. Fisher
ATTORNEY

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ELECTRIC SWITCH

Ernest B. Huddleson, Santa Fe, N. Mex.

Application May 6, 1931. Serial No. 535,432

1 Claim. (Cl. 200—159)

This invention relates to electric switches suitable for mounting upon the door of an automobile to be operated when the door is opened.

The main object of the invention is to provide a signal which will give an audible alarm when the doors of an automobile or motor vehicle are left open or unlocked.

Another object is to provide a signal of this kind in a simple and efficient form which may be readily mounted on the vehicle for use.

With these and other objects in view the invention resides in the novel construction and arrangement of parts as hereinafter set forth and claimed reference being had to the accompanying drawing wherein:

Figure 1 is an enlarged section through a portion of the automobile body and doors showing the door switches therein.

Figure 2 is an enlarged longitudinal section through one of the door switches.

In Figures 1 and 2 the construction of the door switches is shown, these switches being indicated generally at 39 and being provided for each door F of the automobile. Each switch 39 comprises a cylindrical housing or box 40 closed at one end 41 and flanged around its other open outer end as shown at 42 whereby the switch may be seated in the door post G and secured therein by screws 43. Adjacent its outer end the housing 40 is internally threaded at 44 and an end piece 45 of insulating material and having a central aperture 46 is screwed in the housing for some distance within its open end. A plunger 47 is slidably mounted through the aperture 46 and adjacent its inner end is provided with a carrier 48 of insulating material slidable in the housing and located inwardly of the end piece 45. The carrier 48 is secured to the plunger 47 by a pin 49 and an expansion coil spring 50 is seated over the inner end of the plunger and braced between the carrier 48 and the closed end 41 of the housing 40 so as to normally urge said carrier and plunger outward. Contacts 51 are provided at diametrically opposite points in the end piece 45 and comprise bolts 52 passed through the said end piece and secured in place thereon by nuts 53 at each side. A contact ring 54 is secured on the face of the carrier 48 nearest the end piece 45 and is of such size as to leave a space both within and without and so rest out of contact with either the housing 40 or plunger 47. The ring 54 is normally held in engagement with the inner ends of the bolts 52 by the spring 50 and the circuit through the contacts 51 is thus normally closed. In this position the outer end of the plunger 47 projects beyond the face of the door post G so that the door as it is closed will strike the plunger and force it inward. This of course will move the contact ring 54 out of engagement with the bolts 52 and break the circuit when the door is closed. The outer end of the plunger is beveled at 55 to facilitate its inward movement as the door is closed. The contacts 51 are electrically connected by any conventional form of wiring with a battery (not shown). It will be noted in Figure 1 that the switches 39 are located immediately adjacent the inner edges of the door posts G so that the contacts 51 will remain closed when the doors are only partially closed as indicated at 57 thus giving a warning when the doors are not completely closed though they may be apparently closed and locked.

From the foregoing it will be apparent that I have provided a simple and efficient arrangement whereby the driver of a vehicle will be warned that one or more doors are not completely closed thus preventing his leaving the vehicle in such dangerous condition. It will be further apparent that the arrangement may be used on vehicles of all kinds with but minor alterations.

While I have herein set forth a certain preferred embodiment of my invention it is understood that I may vary from the same in minor structural details so as best to construct a practical device for the purposes intended, not departing from the spirit of the invention and within the scope of the appended claim.

I claim:

In an electrical switch, a cylindrical housing closed at one end and open at the other end, an end piece of insulating material seated within the open end of the housing, the same having a central plunger aperture and laterally spaced terminal bolt apertures, a plunger slidably mounted through said central aperture, a carrier of insulating material mounted near the inner end of the plunger, a coil spring seated over the inner end of the plunger and braced between the said carrier and the closed end of the said housing whereby the carrier and plunger are normally urged outwardly, a contact ring mounted upon the face of the said carrier facing the end piece in the mouth of the housing, terminal bolts anchored through the lateral apertures of the said end piece, the inner ends of the bolts being adapted to contact with the said contact ring upon the reciprocation of the carrier, being normally held in such contact through the action of the spring, but adapted to be thrown out of contact through the inward movement of the plunger.

ERNEST B. HUDDLESON.