

1,351,973.

Patented Sept. 7, 1920.

Fig. 1.

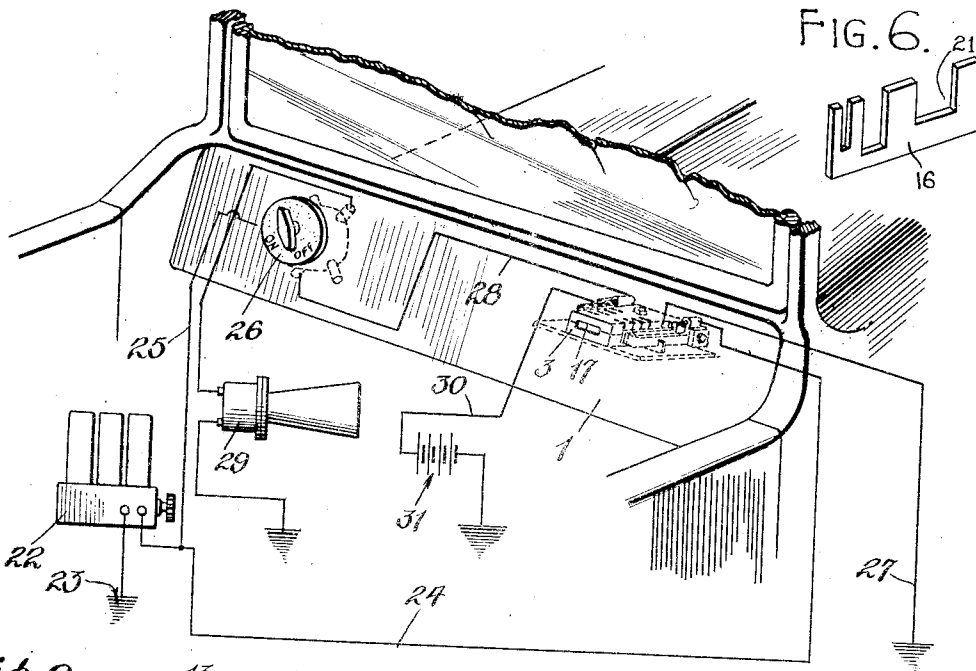


Fig. 2.

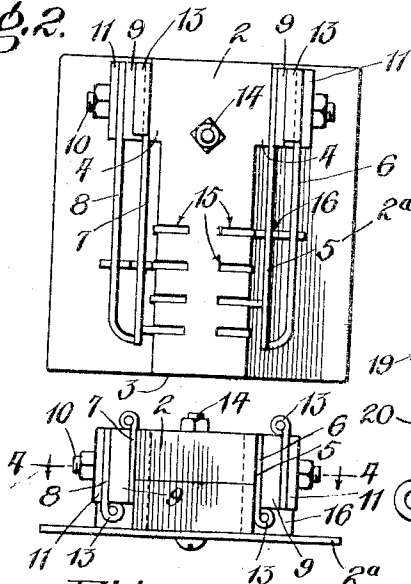


Fig. 7.

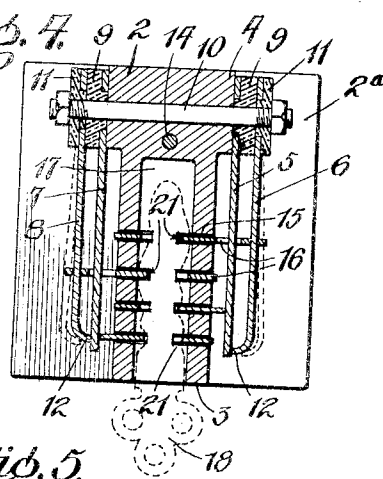


Fig. 5.

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UNITED STATES PATENT OFFICE.

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SWITCH-LOCK.

1,351,973.

Specification of Letters Patent.

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Application filed June 16, 1919. Serial No. 304,531.

To all whom it may concern:

Be it known that I, LLOYD B. STONE, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Switch-Locks, of which the following is a specification.

This invention relates to improvements in automatic burglar alarm systems for motor-vehicles.

The object of this invention is to provide an electrically operated alarm device in circuit with the usual ignition switch, on a motor-vehicle whereby if the car be tampered with by unauthorized persons a signal or alarm will be sounded.

Another object of the invention is to provide a device that will ground the magneto of the vehicle, thereby preventing the engine being started.

The invention also comprehends improvements in the details of construction and arrangement of parts which will be hereinafter more particularly described and pointed out in the claim.

In the drawings:—

Figure 1 is a diagrammatic view of the alarm system showing same applied.

Fig. 2 is a plan view of the control switch.

Fig. 3 is a rear elevation of the switch.

Fig. 4 is a horizontal section on line 4—4 of Fig. 3.

Fig. 5 is a plan view of the key.

Fig. 6 is a perspective view of one of the slides.

The control switch forming one of the essential features of the invention is fitted into the instrument board 1, of an automobile, with one end 3, flush with the face of the board, and the body 2, extending to the rear thereof. At the other end of the body 2, are extensions 4, elongated contact members 5 and 6 being mounted on one extension 4, and contact members 7 and 8 on the other extension 4.

The contact members are spaced by insulating pieces 9, a bolt 10, passing through the body 2, and insulated from the contact members by washers 11, secures the contact members to the ends of extensions 4. The contact members are constructed of resilient material, the contacts 6 and 8, having their free ends bent inwardly at 12, to form convenient contact with members 5 and 7, said contacts having their free ends normally in

engagement and the opposite end portions provided with bent over portions 13, to form convenient means for connecting leads thereto.

The body 2, is formed of two sections, 60 securely held together by a bolt 14 to a base 2^a, and has a plurality of transverse slots 15, in which are mounted slides 16, for engaging and operating the contact member.

17 indicates a longitudinal slot in body 2, 65 which receives a key 18, having shoulders 19, and cut-away portions 20, for actuating the slides 16. As shown in Fig. 4, two slides 16, extend and engage the outer contact members 6 and 8, while two others engage the contacts 5 and 7. When key 18 70 is inserted in the slot 17, the shoulders 19 engage one side of recesses 21, in two slides forcing them outward disengaging the outer contacts from the inner. The portions 20 75 of the key allow recesses 21, of the other two slides to register therewith, permitting the inner contact members to retain their normal position.

It will be noted that if a key having a different shape than the one shown is used it may operate two of the slides to move the contacts 6 and 8, outwardly, but it will also operate the two idler slides and move the contacts 5 and 7, outwardly keeping them 85 in contact with 6 and 8, unless recesses are provided for the slides which actuate 5 and 7 as in the key used.

22 indicates a magneto with one part of its circuit grounded at 23, and a lead 24, connecting the other side of the circuit with contact member 6. The magneto also has the usual connection 25, with the ignition switch 26, in the ignition circuit (not shown). The contact member 5, is grounded 95 at 27, and when contacts 5 and 6 are engaged, a circuit is formed which conducts all the current from the magneto to the ground.

The contact 7 is connected to switch 26, 100 by a wire 28, another terminal of the switch 26, being connected to one terminal of an electric horn or signal 29, so that a circuit will be formed through the switch when it is in the "on position." The other terminal of signal 29 is grounded. Contact 8 is 105 connected by a lead 30 to a battery 31, the other terminal of the battery being grounded.

It will be seen, that when the contacts 7 110

and 8 are engaged and switch 26 is in the "on position," a circuit is formed with the battery and the signal; thereby closing the signal circuit and sounding an alarm.

5 When the operator of a motor-vehicle equipped with this invention desires to operate the machine, he inserts key 18, in the recess 17, putting the signal device or horn in inoperative position. By turning the control switch 26, to the "on position" the engine may be started and the vehicle operated in the usual way.

10 If the operator leaves his machine, he removes the key 18, and leaves switch 26, in the "off position." The invention is now in operative position. Now, if a person attempts to operate the machine, the signal 29 will be sounded as soon as the switch 26, is turned to the "on position." The signal will continue to operate as long as the switch 26 is in the "on position."

20 It is also impossible to start the engine when the key 18, is not in the slot 17, the contacts 5 and 6, forming a circuit with the

magneto through the ground rendering the 25 ignition circuit inoperative.

The construction of body 2, may be changed slightly to permit the use of various shapes of keys or other tumbler operating means, without departing from the objects or spirit of the invention. 30

What I claim is:—

A switch comprising a base, a body secured thereto, having extensions on one end thereof, a slot extending longitudinally therein and transverse slots in the sides and bottom portion thereof, slides mounted in the transverse slots, two pairs of contact members having the contacts of each normally engaged, mounted on the extensions on either side of the body and adapted to be engaged by the slides, and a key having shoulders and recesses for cooperating with the slides to disengage the contacts of each pair of contact members. 40 45

In testimony whereof I affix my signature.

LLOYD B. STONE.