

April 24, 1928.

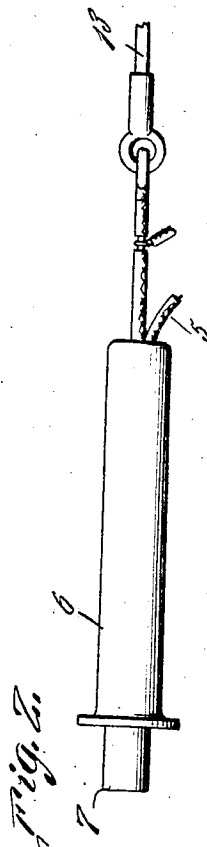
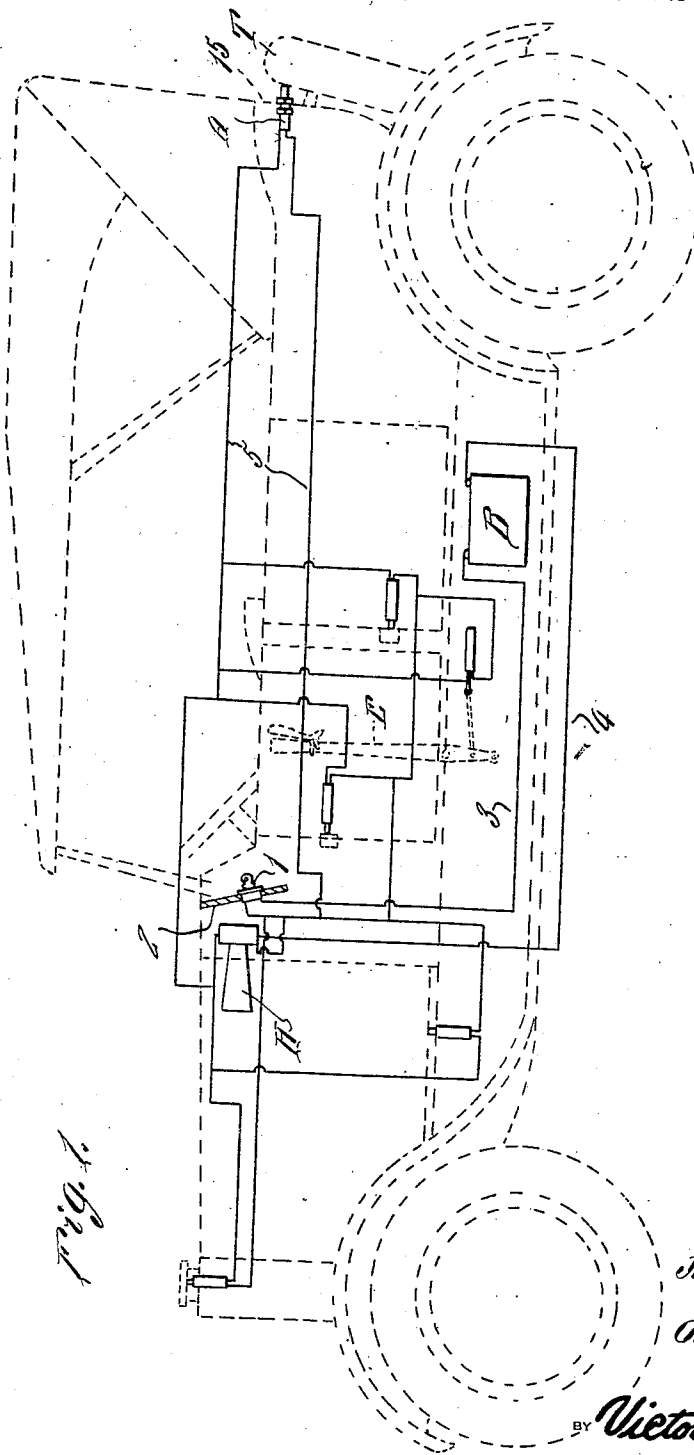
J. P. BRADLEY ET AL

1,667,650

THEFT SIGNAL SWITCH

Original Filed April 29, 1925

2 Sheets-Sheet 1



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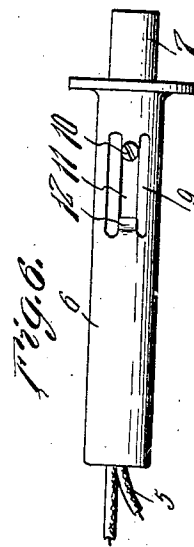
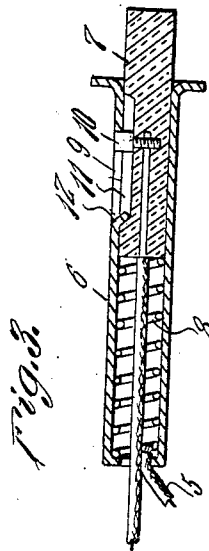
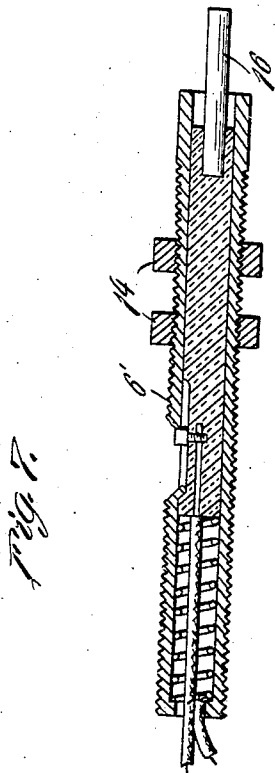
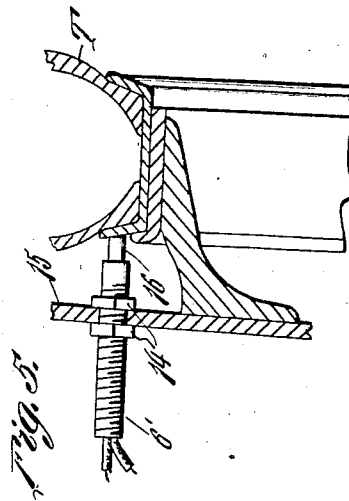
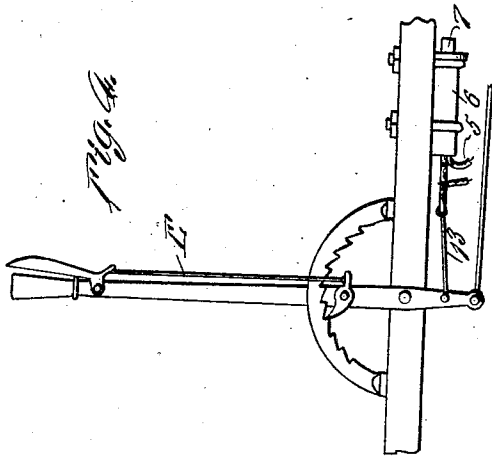
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UNITED STATES PATENT OFFICE.

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THEFT SIGNAL SWITCH.

Application filed April 29, 1925, Serial No. 26,798. Renewed February 6, 1928.

This invention relates to a theft alarm for motor vehicles, the general object of the invention being to provide means for sounding an alarm when an attempt is made to steal the vehicle or to remove certain parts therefrom.

Another object of the invention is to provide spring plungers having contacts thereon for closing an alarm circuit when the plungers are in projected position the plungers being held in retracted position by the parts which are liable to be moved by a theft so that the circuit to the alarm will be closed when any one of these parts are moved.

This invention 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 diagrammatic view showing the invention applied to an automobile.

Figure 2 is a view of the circuit closer or plunger which is attached to the emergency lever.

Figure 3 is a sectional view through the plunger which is actuated by the opening of the door or the removal of another part.

Figure 4 is a view of the emergency lever with its circuit breaker attached thereto.

Figure 5 is a sectional view showing the circuit breaker for the spare tire in use.

Figure 6 is a plan view of one of the circuit breakers.

Figure 7 is a sectional view through the circuit breaker for the spare tire.

As shown in these views, we provide a circuit breaker made in the form of a spring plunger for each part, or for any desired part of an automobile which is likely to be moved by a theft in stealing the car or parts thereof. These plungers are electrically connected to a controlling switch 1, preferably placed on the instrument board 2 of the vehicle, and which is connected to the battery B of the car by the conductor 3. The horn H is connected to the battery by the conductor 4 and circuit wires 5 connect each circuit breaker A with the switch and with

the horn so that when the circuit breaker moves to a position where it will close the circuit the horn will be sounded, provided the switch 1 is closed. Of course it will be understood that any other alarm may be used in place of the horn. The circuit breakers are substantially the same in construction, though some of them are slightly different to suit the conditions under which they are used. Each circuit breaker consists of a casing 6, a plunger 7 of insulating material and a spring 8 for holding the plunger in projected position. A slot 9 is formed in each casing and a pin 10 is carried by the plunger and has its head engaging the slot. One of the conductors 5 is connected with the pin and the other with the casing. These parts are so formed that when the pin is intermediate the ends of the slot the circuit will be broken but when the pin engages an end wall of the slot the circuit will be completed through the pin and casing to the conductors. A groove 11 is formed in the plunger and a lip 12 is formed at one end of the slot by pressing the metal downwardly, and engages the slot to limit the movement of the plunger. The circuit breakers are so arranged that when they engage the object which is liable to be moved by a theft the plunger will be partly retracted so that the circuit will be broken but when the object is moved the spring will project the plunger so that the pin will strike the casing and thus complete the circuit to the alarm. For instance, the devices of the type shown in Figures 3 and 6 are placed in the body of the vehicle with the plunger engaging parts on the doors so that when a door is opened the spring will project the plunger and thus close the circuit to the alarm. This will notify the owner or the police authorities that some one is tampering with the car. A similar device may be placed to protect the radiator cap and also to sound an alarm when the hood of the car is raised. A device is also attached to the emergency lever E of the car by a cable 13 so that when the emergency lever is moved to releasing position the spring will project the plunger and close the circuit to the alarm. When the lever is in set position it will tension the cable and thus move the plunger to partly retracted position.

The device for protecting the spare tire

comprises a casing 6' threaded to receive the nuts 14, which clamp a part 15 of the car to hold the casing in position. The plunger is provided with a projection 16 which en-
5 engages the rim of the spare tire T which holds the plunger in partly retracted position. If the spare tire should be removed from its rack the spring will project the plunger and thus close the circuit to the alarm.

10 It will thus be seen that we have provided simple means for protecting the car and the various parts thereof against theft by causing an alarm to be sounded when the doors or movable parts of the car are moved. It
15 must be understood that the device can be placed in other situations than those shown in Figure 1, if desired.

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

We desire it to be understood that we may make changes 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. 25

What we claim is:—

A theft alarm for a motor vehicle comprising an alarm circuit, a casing connected with one part of the circuit and having a longitudinal slot, a plunger in the casing
30 formed of non-conducting material, a groove in the plunger adapted to register with the slot, a headed pin carried by the plunger in the groove and movable in the slot, said headed pin being connected with the other
35 part of the circuit, a lip at one end of the slot turned into the groove for engaging one end thereof to limit the movement of the plunger in one direction, and a spring in the
40 cylinder for engaging the plunger to retain the head of the pin in contact with a part of the cylinder when the plunger is in projected position and means for normally holding the plunger in retracted position.

In testimony whereof we affix our signatures. 45

JAMES P. BRADLEY.
OMRI A. PROUGH.