

Aug. 28, 1923.

1,466,279

S. L. GADBURY
IGNITION SWITCH LOCK
Filed Aug. 26, 1921

Fig. 1

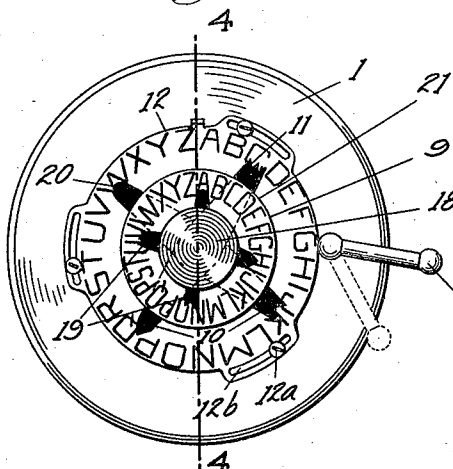


Fig. 2

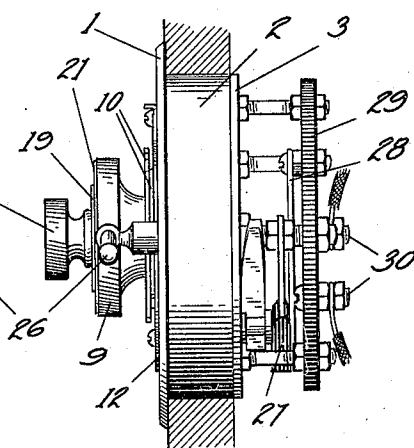


Fig. 3

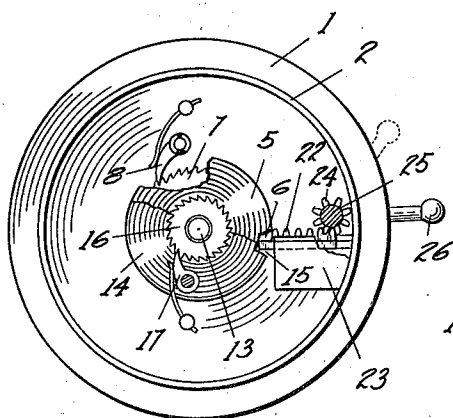


Fig. 4

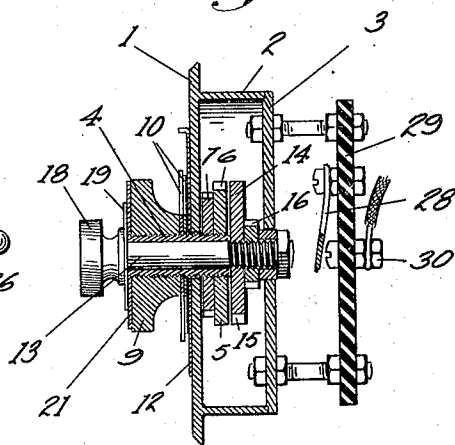
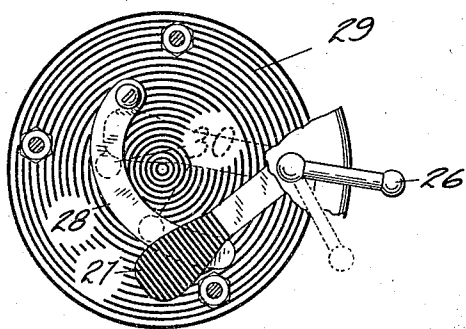


Fig. 5



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UNITED STATES PATENT OFFICE.

SAMUEL L. GADBURY, OF STOCKTON, CALIFORNIA.

IGNITION-SWITCH BLOCK.

Application filed August 26, 1921. Serial No. 495,682.

To all whom it may concern:

Be it known that I, SAMUEL L. GADBURY, a citizen of the United States, residing at Stockton, county of San Joaquin, State of California, have invented certain new and useful Improvements in Ignition-Switch Locks; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in accessories or attachments for automobiles and particularly to a device adapted to prevent the ignition circuit of the car being readily closed by any other than the rightful owner or driver, thereby preventing starting of the engine and the consequent theft of the car when the latter is left parked and unguarded at any time.

The principal object of the invention is to provide a combination lock mounted in connection with the switch or circuit closing member, the combination of which is only known to the proper parties.

This does away with the necessity of carrying the usual key, which can be easily duplicated, and frequently the owner fails to remove it from the switch box, or doing so, loses the same.

With my improved device, a key, or any removable member, is not necessary, all the operating mechanism being permanently mounted on the car.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Fig. 1 is a front view of the lock.

Fig. 2 is a side or edge view of the same.

Fig. 3 is a rear view, with the back plate removed to show the interior mechanism.

Fig. 4 is a section taken on a line 4-4 of Fig. 1.

Fig. 5 is a view of the insulation plate and contact member thereon.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes a flat and preferably circular face plate, adapted to be fastened onto the instrument board of a car, and having an annular and inwardly projecting flange or ring 2, covered on its inner end by a removable plate 3, these three members together thus forming a casing enclosing a definite area.

Turnably mounted in the plate 1 and projecting therethrough in both directions is a sleeve 4 fixed on the inner end of which is a disc 5 provided with a peripheral notch 6.

Likewise fixed on the sleeve between the plate 1 and the disc is a ratchet wheel 7, engaged by a spring-pressed pawl 8 mounted on said plate. On the outer end of the sleeve is a knob or handle 9 having a plurality of radial fingers 10 projecting therefrom, all of which are differently shaped, but only one being the actual indicating finger, all of said fingers being in the plane of a dial 12 on the plate 1, this dial being marked with letters or numbers all around.

Turnably mounted in the sleeve and projecting therebeyond at both ends is a shaft 13, on the inner end of which adjacent the disc 5 is a similar disc 14 provided with a peripheral notch 15. Beyond the disc and fixed therewith is a ratchet wheel 16, oppositely disposed to the similar member 7, and engaged by a spring-pressed pawl 17 mounted on the plate 3.

The outer end of the shaft has an adjustable knob or handle 18 thereon, fixed with and projecting from which are fingers 19, all shaped different and one at a time serving as the actual indicating finger, all of which fingers point on a dial 21 marked similarly to the dial 12 and positioned on the outer face of the knob 9.

Positioned radially of the discs and in the plane thereof is a rack bar 22 slidably mounted in a block 23 in the casing, the notches 6 and 15 being of sufficient width to receive the outer end of the rack therein, the length of the latter being such that it extends from the casing wall to the discs, and can normally have no movement. Meshing with the rack is a pinion 24 fixed on a stem 25 turnably mounted in the plates 1 and 3, and projecting through both. The outer or forward end of the stem has a handle 26 thereon,

while on the other end is an insulated arm 27 adapted to pass over and bear down on a spring strip 28 mounted on an auxiliary plate 29 of insulation material fixed to the casing beyond the flange 2. This strip when pressed down contacts with a pair of binding post members 30 mounted on the plate 29 and interposed in an electrical circuit.

The dial 12 is preferably a flat ring separate from the plate 1, and mounted thereon by means of screws 12^a passing through peripheral slots 12^b in the dial plate so that the latter may be turned, a small finger lug 12^c being provided on the dial plate for the purpose.

In this manner, when the switch is closed and the knobs cannot be turned, thereby allowing any party to see the symbol against which the fingers point to work the combination, the dial itself can be turned to show the fingers pointing to different, and incorrect symbols.

Also, as an aid in the prevention of undesired opening of the combination, the fingers 10 may be formed of a pair of separate plates, so that the position of setting of the fingers relative to each other may be altered at any time, thereby helping to confuse any one attempting to work the combination.

In operation, when neither of the notches 6 and 15 are positioned to allow the rack to enter therein, the latter can have practically no movement, and neither of course can the stem 25 and switch arm 27.

When in this position, the said arm is turned out of engagement with the contact strip 28 and the circuit is broken.

To position the notches of both disks in alinement so that the stem and switch arm may be turned, the larger knob 9 is first rotated, which can be done only in one direction on account of the ratchet and pawl, until the notch in the disc 5, directly connected to the knob, is in alinement with the rack.

The correct positioning of the disc is controlled by the operator by reason of the finger 11 pointing to or registering directly with a certain one of the symbols on the dial 12, the disc itself is of course invisible when the parts are assembled within the casing. Having set the disc 5, the other disc 14 must then be similarly set, to bring the notches in both discs in alinement with each other. To do this, the knob 18 is turned until the finger points to a preselected symbol on the dial 21. This knob however must be turned in the opposite direction to the knob 9, on account of the opposed or reversed setting of the respective ratchet members, which prevents the turning of the knob first set when the other one is then turned.

By adjusting the position of the knob 18 and the fingers fixed thereto on the shaft 13, the dial-symbol to which the finger 20 must

point to bring the proper alinement of the disc-notch, may be varied at any time.

Also, one of the other fingers may be used instead of any certain one, thereby fooling anyone attempting to open the combination who might assume from once seeing the device operated, that a certain finger was the master or proper indicating finger. When the switch is opened, a movement of either of the knobs will serve to break the combination and prevent the switch from being closed.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent, is:—

1. In a switch lock, a fixed plate, a pair of dials, one such dial being adjacent the plate, a switch closing member, knobs for the dials turnably mounted on the plate, means whereby the knobs must be rotated to bear a predetermined relation to each other before the closing member may be actuated, fingers mounted with the knobs and pointing on the corresponding dials, the dial adjacent the plate having peripheral slots, and screws in the plate passing through said slots.

2. An ignition switch lock comprising a casing, a pair of independently turnable and concentrically mounted discs therein, means for turning the discs from outside the casing, the discs having peripheral notches therein, a switch, a rotatable switch-closing member mounted in the casing, a pinion on the switch closing member within the casing, a rack bar engaging the pinion and slidably mounted in the casing, and means whereby said bar can only have any such movement when the disc-notches are in alinement with each other.

3. An ignition switch lock comprising a casing, a pair of independently turnable and concentrically mounted discs therein, means for turning the discs from outside the casing, the discs having peripheral notches therein, a switch, a rotatable switch-closing member mounted in the casing, a pinion on the switch closing member within the casing, a rack bar engaging the pinion and slidably mounted in the casing substantially radial with the discs and extending across the edges of both discs, said bar extending from the casing-wall to the periphery of the discs and being adapted to enter the notches there-

in when the discs are moved to position both said notches in alinement with the bar.

4. In a switch lock, a pair of dials, a switch closing member, turnable knobs for the dials, means whereby the knobs must be
5 rotated to bear a predetermined relation to each other before the closing member may

be actuated and fingers projecting from the knobs and pointing on the corresponding dials, and means whereby one of said dials 10 may be rotatably adjusted relative to and independent of its knob.

In testimony whereof I affix my signature.

SAMUEL L. GADBURY.

Certificate of Correction.

It is hereby certified that in Letters Patent No. 1,466,279, granted August 28, 1923, upon the application of Samuel L. Gadbury, of Stockton, California, an error appears requiring correction as follows: In the grant and in the heading to the printed specification, title of invention, for "Ignition-Switch Blocks" read *Ignition-Switch Locks*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 9th day of October, A. D., 1923.

[SEAL.]

WM. A. KINNAN,
Acting Commissioner of Patents.