

ST. GEORGE EVANS & E. B. BIRKENBEUEL.
 AUTOMOBILE THEFT PREVENTER.
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1,300,150.

Patented Apr. 8, 1919.

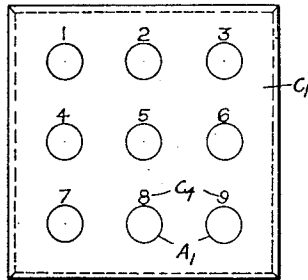


Fig. 1

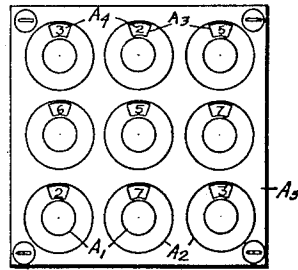


Fig. 2.

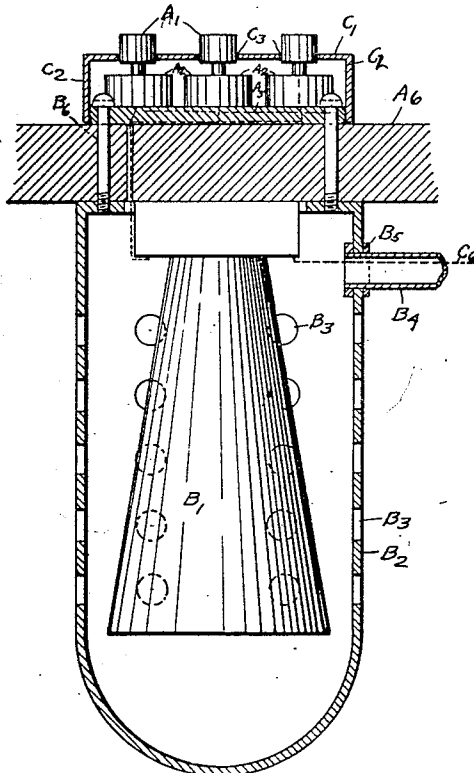


Fig. 3.

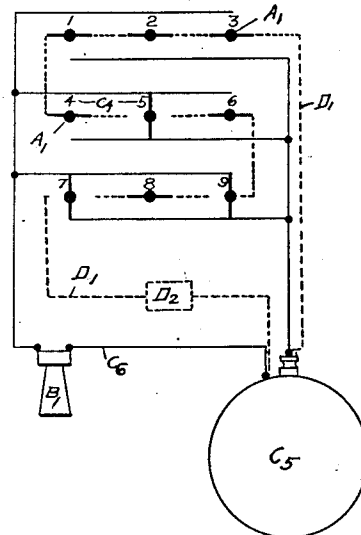


Fig. 4

WITNESSES:
Mrs. Elizabeth Evans
Julia Halbert Birkenbeuel

St. George Evans
Edward B. Birkenbeuel
 INVENTORS

UNITED STATES PATENT OFFICE.

ST. GEORGE EVANS AND EDWARD B. BIRKENBEUEL, OF PORTLAND, OREGON.

AUTOMOBILE-THEFT PREVENTER.

1,300,150.

Specification of Letters Patent.

Patented Apr. 8, 1919.

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To all whom it may concern:

Be it known that we, ST. GEORGE EVANS and EDWARD B. BIRKENBEUEL, citizens of the United States, residing at Portland, in the
5 county of Multnomah and State of Oregon, have invented a new and useful Automobile-Theft Preventer, of which the following is a specification.

Our invention relates more particularly to
10 that class of self propelled vehicles whose movement under power depends upon an electric circuit, either for ignition or propelling purposes.

The objects of our invention are to provide a means for automatically signaling an
15 attempt to move an automobile by unauthorized persons; and to provide a means for locking the electric circuit open, in which case it will be impossible to move the car by
20 its own power. Either object being attained at the will of the owner, as hereinafter described.

To accomplish these results we have constructed the mechanism as shown in the accompanying drawing, in which—

Figure 1 is a plan of a controlling switch board for setting an alarm upon leaving car, and releasing it upon returning to same, or for opening the ignition circuit to prevent
30 operation of the car; Fig. 2 is a plan of the switch board with the cover plate removed; Fig. 3 is a partial section through the device showing switch board cover, switch board, and horn cover partly cut away; Fig. 4 is a
35 diagram of wiring arrangement; Fig. 4 (dotted lines) shows a series wiring through the coil box instead of the horn for the purpose of breaking the circuit to disable the car.

40 Similar figures and numbers of reference refer to the same or similar parts throughout the several views.

A¹ is the key of an ordinary two-way indicator snap switch which has the usual
45 base A² and the indicator window A³ for observing the position of numbers A⁴. The snap switches are mounted upon a switch board A⁵ which is secured to any suitable place, preferably inside the dash, but can be
50 placed inside the tool box or in any convenient or concealed place

The electric horn B¹ may be the one already on the car, or one having a special horn guard B². The perforations B³ in the guard B² are used to allow the sound to escape. A pipe B⁴ is used to ground the circuits and conduct wires to generators, the object being, of course, to prevent tampering. The pipe B⁴ is secured to horn guard B² by
60 locked nuts B⁵ which are brazed in place to prevent removal. The switch board A⁵ is secured to horn guard B² by screws B⁶ which pass through the support A⁶.

Covering the group of switches is cover C¹ whose walls C² completely surround
65 switch board A⁵. Cover C¹ may be held in place by a spring latch, friction, gravity, or by hinges and locks as seems most desirable. In the top of cover C¹ are holes C³ which are just large enough to admit the switch keys
70 A¹. Near each hole C³ is placed the key number C⁴. The current is supplied from the magneto C⁵, or if batteries are used to operate the car, that circuit may take the place of the magneto circuit. One pair of
75 poles of each snap switch is wired in parallel through the alarm circuit C⁶, and the other pair of poles is wired in series to ignition circuit D¹ in which D² represents the coil box.

The operation of our device is as follows: Upon leaving his car and desiring to protect it against theft the driver will operate one or more of the switches A¹, taking care to remember which number or numbers he operates. Let us assume that he operates
85 numbers 5, 7 and 9, as shown in Fig. 1. To outward appearance the device shows no change; however, by inspecting Fig. 4 we will see that at keys 5, 7 and 9 contacts are
90 made across the parallel circuit C⁶, which, if charged with electricity, will sound the alarm B¹. This alarm will sound as long as the current passes through the circuit.

If the thief merely cranks a car equipped
95 with this device the alarm is sounded provided the magneto switch is turned on. If he attempts to start on the batteries the result will be the same, except that the alarm will continue to sound as long as the battery
100 switch is turned on. In other words, any current which is offered to the spark plug is

shunted through the alarm circuit unless every switch in our device is turned so as to permit the current from the batteries or the magneto to pass through its pair of poles which are in the series circuit. It will be readily seen that if every switch is turned toward the series circuit it will be impossible to shunt the current through the alarm, but when the driver of the car operates the switches 5, 7 and 9, as suggested, he not only sets the alarm, but, in addition, makes three breaks in the series wiring D¹ by means of the same switches in which he made a contact in the parallel wiring C². It must be evident that unless the circuit is restored it will be impossible to get the slightest ignition or to apply electric power to the circuits without sounding the alarm.

We have assumed that the thief did not see the device because of its being concealed, but let us suppose that he discovered it and endeavored to re-set the keys. The difficulty of this undertaking does not require description. He has no way of trying the ignition system without exposing himself by the sounding of the alarm. Let us suppose that cover C² is not locked and he removes same. Through the windows A³ appear the numbers A⁴. These can be set in any position when the device is installed, but when the device is set to operate the car without sounding the alarm they have a fixed value which is only altered when it is thought that someone has secured the combination.

Let us suppose that the driver returns and attempts to start his car. The first thing he should do is to operate the same switches he did before leaving his car. This should release the alarm and restore the ignition circuit. If, upon attempting to start his engine, he finds that the alarm has sounded and no power results he knows at once that either he has not operated the proper keys upon his return or someone has tampered with his car. He now removes the cover C² and a glance at the numbers A⁴ in the windows A³ tells him what has happened, and all that it is necessary for him to do is to turn the keys back to the proper position. He, of course, having a mental or written record of the correct combination of the numbers.

For example:—In Fig. 2 the combination would be 3, 2, 5; 6, 5, 7; and 2, 7, 3, and he would know that it would be impossible to start his car unless these numbers appeared in the windows.

If the engine then fails to start he will know at once that the fault lies elsewhere. He will then turn one of the switches and if he sounds the alarm, the next time he attempts to start the car, he can rest assured that the fault is not in the electrical unit.

We will refer to the windows A³ and the

numbers A⁴ as "a cover key position determining means."

It will be seen that none of the keys need be in both the ignition and the alarm circuits; that all may be in both; that some may not be in either of the circuits, the various combinations being arranged at the option of the owner without departing from the spirit of our invention.

What we claim as new and desire to protect by Letters Patent of the United States, is:

1. In an automobile theft preventer, the combination of a number of two-way switches, an ignition circuit wired through said switches in series, an electric generator, an alarm circuit wired through said switches in parallel, and an alarm means, substantially as described.

2. In an automobile theft preventer, the combination of a number of two-way indicator snap switches each consisting of a four pole switch having a rotatable blade member carried on a central key stem and arranged to bridge the gap between either of the pairs of poles, a covered key position determining means, an electric generator, an ignition circuit wired through said switches in series, an alarm circuit wired through said switches in parallel, and an alarm means.

3. In an automobile theft preventer, an ignition system comprising a generator and circuit wires in combination with a number of two-way indicator snap switches each consisting of a four pole switch having a rotatable blade member carried on a central key stem and arranged to bridge the gap between either of the pairs of poles, one pair of poles on each switch being wired in series in said ignition circuit. The other pair of poles being wired in parallel across said alarm circuit, an alarm circuit forming a shunt past said ignition circuit, and a key position determining means comprising a numbered dial mounted on each separate switch in a manner that only one number will show through an opening in said switch covering, a means for concealing said exposed numbers comprising a cover for inclosing entire group of switches but allowing openings for the operation of said switch keys, and an alarm member, for the purpose set forth substantially as described.

4. In an automobile theft preventer, the combination of an ignition circuit, two-way indicator snap switches each consisting of a four pole switch having a rotatable blade member carried on a central key stem and arranged to bridge the gap between either of the pairs of poles, one pair of poles being interposed in series in said ignition circuit, an alarm circuit, a power supplying means for both of said circuits, an electric alarm

member wired in series in said alarm circuit, said alarm circuit passing in parallel through the other pair of poles of said two-way switches, a key position determining
5 means constituting indicator numbers on said switches, and a position concealing member consisting of a cover for the entire group of switches except the key portion and having an identifying means for the

various switches consisting of a character 10 set near each of the respective openings in said concealing member.

ST. GEORGE EVANS.

EDWARD B. BIRKENBEULL.

Witnesses:

FLORA ELIZABETH EVANS,

JULIA HALBERT BIRKENBEULL.