

J. J. RILEY.
 AUTOMATIC AUTOMOBILE PROTECTOR.
 APPLICATION FILED NOV. 26, 1915.

1,269,744.

Patented June 18, 1918.

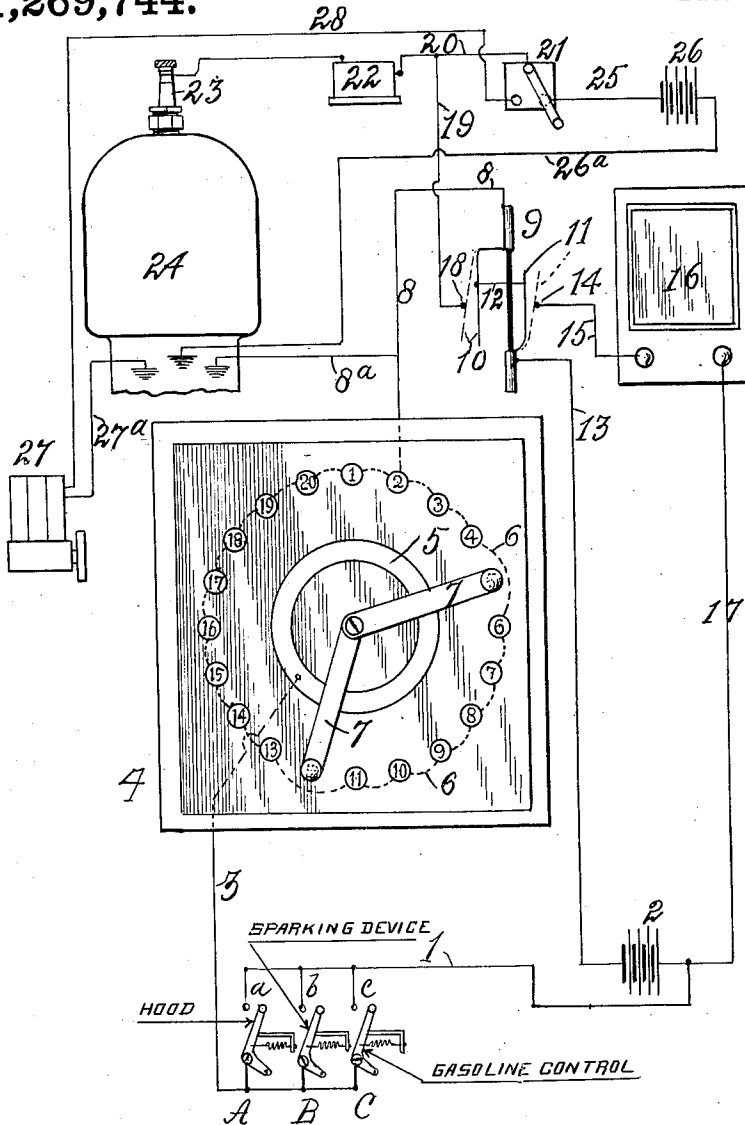


Fig. 1.

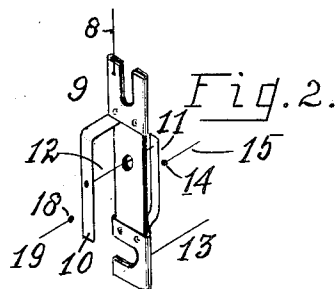


Fig. 2.

INVENTOR:
 Joseph J. Riley,
 By Alvin Hall, Atty.

UNITED STATES PATENT OFFICE.

JOSEPH J. RILEY, OF TOLEDO, OHIO.

AUTOMATIC AUTOMOBILE-PROTECTOR.

1,269,744.

Specification of Letters Patent. Patented June 18, 1918.

Application filed November 26, 1915. Serial No. 83,396.

To all whom it may concern:

Be it known that I, JOSEPH J. RILEY, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Automatic Automobile-Proteectors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The loss and annoyance resulting from the theft or unauthorized use of automobiles are well understood and of frequent occurrence. My invention is designed to prevent these troubles by providing a device which will invariably set off an alarm and at the same time render the engine of the machine inoperative when any attempt is made to purloin the car. More particularly, my invention is designed to furnish an electrical safety device which includes a permutation switch and in which the knowledge of certain selected numbers is necessary in order to permit the use of the car, thus dispensing with the necessity for any key or lock or fastening device.

To these ends my invention consists of the devices hereinafter described, and shown and illustrated in the accompanying drawings, in which—

Figure 1 is a diagrammatic view of my safety device, and Fig. 2, a perspective view on an enlarged scale of the fuse-piece hereinafter referred to:

In the drawings, A represents a switch designed to be actuated by the opening of the hood of an automobile. B is a switch to be operated by throwing into service the sparking device of the engine, and C is a switch which is intended to be closed by turning on the gasoline. These three switches are held normally open by suitable springs and are thrown, respectively, into closed relation with their respective contact-points as stated. These contact points *a-b-c* are connected by line 1 with one side of battery 2. The switches are connected, respectively, with line 3 leading to a permutation switchboard fixed on the "dash-board" of the car. This permutation switchboard is

the only exposed part of my device, the remainder being inclosed within the hood. The batteries herein referred to, may, however, be disposed under the seats or elsewhere as may be most convenient, it being understood, however, that they and their connections are inclosed and inaccessible.

While I have shown three switches A—B and C in the line 1—3 it will be understood, without illustration, that this line may include other switches, actuated, for illustration, by the movement of the brake-lever or the motor-lever or any other part the movement of which is necessary in the operation of the car.

The permutation switchboard referred to consists of a dial-plate or board through which protrudes a series of metal contact-points arranged in a circle and plainly numbered for illustration, in the present instance, from one to twenty. The board 4 also carries a flat metal ring 5 within and concentric with the circle of contact-points. Behind the board the contact-points are, by means of wires 6, all connected together electrically except that two selected contact-points are omitted,—in the present instance the numbers five and twelve. The centrally pivotally mounted hands 7 slide upon the ring 5 and their outer ends are capable of being swung into contact with either of the numbered points. Line 3 is connected with the ring 5.

The line 6 is connected by line 8 with a fuse 9. This fuse consists of two spring-arms, 10 and 11, connected and held under tension by a fuse-wire 12. From the spring-arm 11 leads line 13 back to the battery 2. When the spring-arm 11 is released it contacts with point 14 from which leads line 15 to buzzer 16 which, in this instance, is an apparatus for making, when in a closed circuit, a loud and unusual noise. From the buzzer 16 leads a line 17 to the battery 2.

So long as the hands 7 are in contact with the neutral points 5—12 on the switchboard and the switches A—B and C may be opened and closed at will without any electrical effect, for the reason that the circuit is open between the ring 5 and the line 6. When the owner leaves his car with the gasoline turned off, the hood closed and the sparking switch turned out of service position, he moves one or both of the hands 7 into

contact with other numbered contact-points on the board 4. Now if either of the switch A—B—C be disturbed by opening the hood or turning on the gasoline or moving the sparking switch, or by disturbing any other working part provided with a suitable switch in line 1—3, the circuit will be closed through line 1, appropriate switch A—B or C, line 3, ring 5, hands 7, wire 6, wire 8, spring-arm 10, fuse-wire 12, spring-arm 11 and wire 13 back to battery 2. The closing of this circuit instantly burns off fuse-wire 12, permitting arm 11 to spring into contact with point 14, now causing the current to flow from battery 2 through line 13, arm 11, point 14, line 15, buzzer 16 and line 17 back to the battery. The closing of this latter circuit causes the noise making device 16 to operate, the noise continuing until the circuit is broken. The mere restoring of the hands 7 to the neutral points on the board 4 will not stop the noise as the noise-box is now in a circuit which excludes the switchboard.

18 is a switch-point with which the spring-arm 10 contacts when released by the burning of the fuse-wire 12. From the point 18 leads wire 19 which is connected with wire 20 leading from the sparking switch 21 through the sparking-coil-box 22 to the spark-plug 23 on the engine 24. Sparking switch 21 is connected through line 25 with one side of battery 26 the other side of which is grounded through line 26^a on the engine. The sparking switch 21 is also connected with one side of magneto 27 by line 28 the other side of the magneto being grounded through line 27^a upon the engine.

At the instant that the fuse-wire 12 is burned the sparking circuit either from the battery 26 or the magneto 27 is short circuited, cutting out the sparking coil 22 and the sparking plug 23. If the battery 26 be connected with the sparking circuit then the short circuit will be through line 25, switch 21, line 20, line 19, spring-arm 10 and line 8—8^a to ground on the engine, the other side of the battery 26 being also grounded on the engine through line 26^a. If the magneto be switched into the sparking circuit then the burning of the fuse will short circuit through line 28, switch 21, lines 20 and 19, spring-arm 10 and line 8—8^a to ground on the engine, the magneto being also grounded upon the engine through the line 27^a.

It will now be seen that when an unauthorized use of the car is attempted, after the hands 7 have been set against such use, an alarm will be sounded and the sparking mechanism will at once be rendered inoperative. Upon the return of the owner to his car, assuming that it has not been disturbed, it is only necessary for him to restore the hands to the neutral numbers, known only to himself and to other proper persons, to

avoid the sounding of the alarm or the short circuiting of the sparking devices.

To those skilled in the art of constructing and wiring electrical apparatuses many alterations widely differing from this illustrative embodiment of my invention will suggest themselves. Therefore these disclosures are not intended to be in any sense limiting.

Having described my invention what I claim and desire to secure by Letters Patent, is—

1. In a device of the described character, a car, an alarm, an electric sparking device adapted for the ignition of an explosive charge in a combustion engine, controlling devices for starting the car, and means governed by said controlling devices for simultaneously rendering inoperative the sparking device and for starting but not silencing said alarm.

2. In a device of the described character, a car, a controlling device for starting the car, an alarm, a normally open electric circuit, means actuated by said controlling device for closing said circuit, a fuse in said circuit, and means controlled by the burning of said fuse for actuating the alarm.

3. In a device of the described character, a car, a controlling device for starting the car, a sparking mechanism adapted to ignite an explosive charge in a combustion engine, a normally open circuit, means actuated by said controlling device for closing said circuit, a fuse in said circuit, and means controlled by the burning of said fuse for rendering inoperative said sparking mechanism.

4. In a device of the character described, a car, a movable element upon the car, an alarm, a sparking mechanism adapted for the ignition of an explosive charge in a combustion engine, a normally open electric circuit, means actuated by said movable element for closing said circuit, a fuse in said circuit, means controlled by the burning of said fuse for simultaneously actuating said alarm and for rendering inoperable said sparking mechanism.

5. In a device of the character described, a car, a movable element upon the car, a normally open electric circuit, in said circuit a make-and-break device controlled by said element, an engine sparking mechanism in combination with a switch-board having a series of points some of which are capable and other of which are incapable of electric connection with said circuit, means for connecting any of said former points in said circuit, and devices controlled by the closing of said circuit for rendering inoperable said sparking mechanism.

6. In a device of the character described, a car, a movable element upon the car, a normally open electric circuit, in said circuit a make-and-break device controlled by said

element, an alarm, an engine sparking mechanism, a switch-board having a series of points some of which are capable and others of which are incapable of electrical connection with said circuit, means for connecting
5 any of said former points in said circuit, and devices controlled by the closing of said circuit for simultaneously actuating said alarm

and for rendering inoperable said sparking mechanism.

In testimony whereof I affix my signature
in presence of two witnesses. 10

JOSEPH J. RILEY.

Witnesses:

GERTRUDE BRACKEY,
JOHN H. JAMESON.