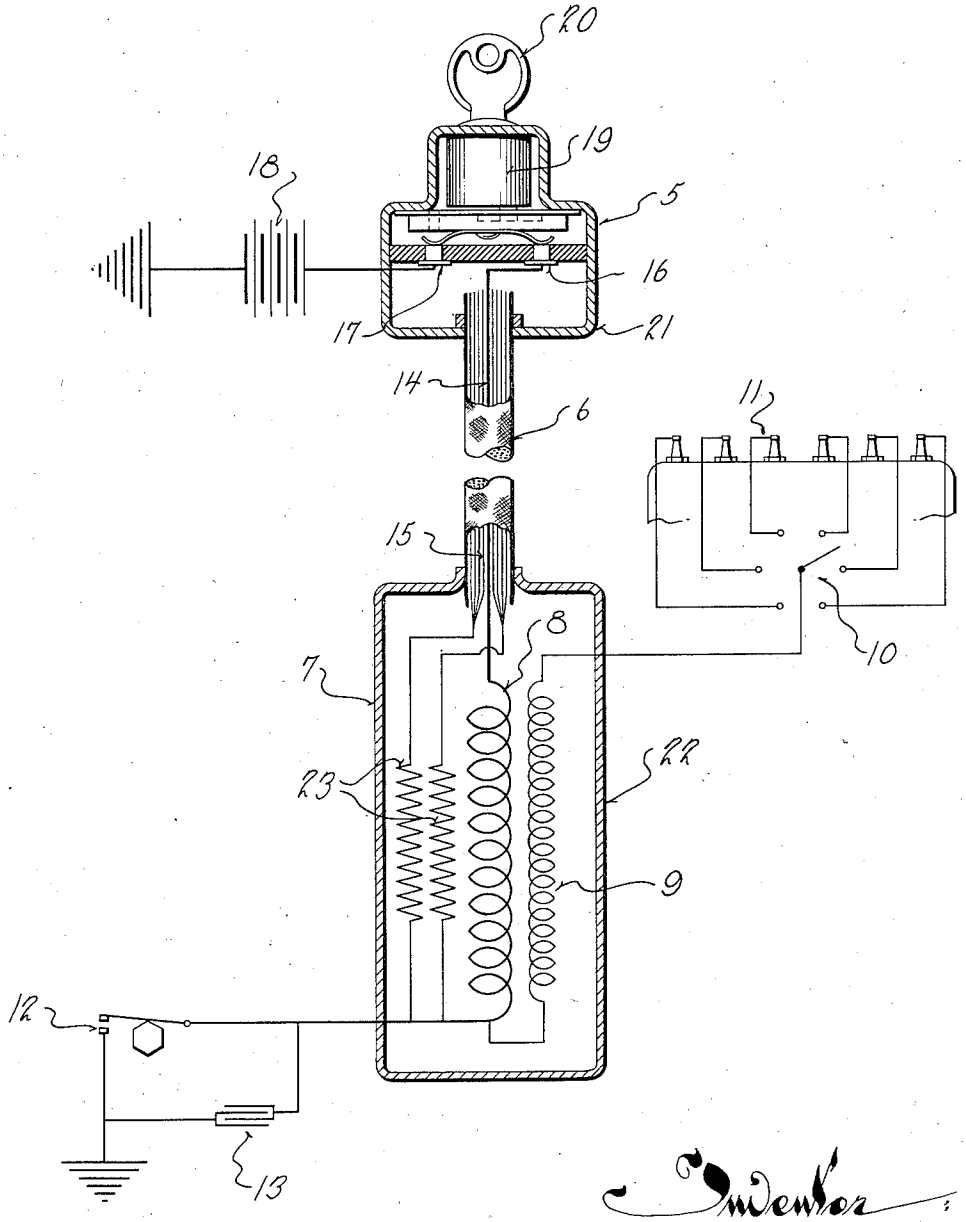
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LOCK

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LOCK

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4 Claims. (Cl. 123—146.5)

This invention relates to locking means for automobiles and refers more particularly to ignition locks.

Automobiles are now generally provided with coil locks of the armored type wherein the lock switch and the cable extending from the lock switch to the induction coil are enclosed in an armor. The necessity for an armored cable has objections and has not provided the degree of security desired.

It is therefore an object of this invention to provide protection for the ignition of an automobile which is not dependent upon an armored sheath for the cable, but which, through the provision of a maze of wires in the cable, only one of which connects with the coil, affords adequate protection against theft.

With the above and other objects in view which will appear as the description proceeds, this invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

The accompanying drawing illustrates one complete example of the physical embodiment of the invention constructed according to the best mode so far devised for the practical application of the principles thereof, and in which:

The single figure is a diagrammatic illustration of one embodiment of this invention.

Referring now more particularly to the accompanying drawing, the numeral 5 represents a lock switch of any conventional design connected through a cable 6 with a spark coil indicated generally by the numeral 7.

The coil 7 comprises a primary 8 and a secondary 9 in inductive relationship. One end of the secondary, as is customary, is connected with the distributor arm 10 to be connected thereby with the spark plugs 11. The opposite end of the secondary is connected to the adjacent end of the primary to be grounded upon closure of the breaker 12 connected in parallel with the usual condenser 13.

The opposite end of the primary 8 is connected to a conductor 14 which passes through the cable 6 and is one of a maze of wires 15. For purposes of illustration, the conductor 14 has been shown heavier than the other conductors 15, but in practice all of the wires have identically the same appearance.

The conductor 14 is connected to one terminal 16 of the ignition switch, the other terminal 17 of which is connected to the battery 18 so that upon actuation of the ignition switch to its closed position illustrated, current is supplied to the primary of the coil.

The switch is controlled by a lock indicated generally by the numeral 19 and operated by the proper key 20.

As illustrated, both the ignition lock switch 5 and the coil 7 are encased in metal housings 21 and 22 respectively, and the ends of the cable enter these housings.

The wires comprising the cable, other than the wire 14, are divided into two groups with all of the ends of each group within the coil housing 22 connected to a resistance element 23. The resistance elements have their opposite ends connected to the ground through the breaker points. These resistance elements have substantially the same resistance as the primary 8, for a purpose to be hereinafter described.

The outer casing of the cable is not armored, consequently, in an attempted theft of the automobile, the natural procedure is to first cut the cable and connect the ends of all of the wires of the part remaining connected to the coil, to the battery in an attempt to pass current through the primary of the coil. Upon so connecting all of the wires with the battery, current does pass through the primary of the coil, but it also passes through the resistance elements 23 which are in parallel with the primary of the coil 8. As a result, the coil will not function.

If upon discovering this fact, the thief attempts to locate the proper wire through the use of an ammeter in the circuit, he is again met with failure in that all of the wires when measured one at a time will show the same ammeter reading inasmuch as the resistance elements 23 have substantially the same resistance as the coil 8.

Hence, it will be obvious that the possibility of defeating the lock afforded by this invention is slight and requires so much time that unless the thief has an extra coil which can be connected in the ignition circuit in place of the coil with which the engine is equipped, the attempted theft will be successfully thwarted.

What I claim as my invention is:

1. In an ignition system for automotive vehicles including an induction coil having a primary and a secondary, and an ignition switch, both of which are encased, a cable connecting the ignition switch and the coil and having its ends firmly secured in the casings thereof, said cable comprising a plurality of wires, one of said wires

connecting the ignition switch with one end of the primary of the induction coil, electrical resistance means having one end connected with the other wires at their ends adjacent the induction coil, and means connected to the opposite ends of the induction coil primary and the electrical resistance means to ground the same.

2. In an ignition system for automotive vehicles including an induction coil having a primary and a secondary, and a breaker through which one side of the induction coil primary is intermittently grounded and having an ignition switch to control the supply of current to the primary of the induction coil, a multi-wired cable connecting the ignition switch and the induction coil, only one wire of which provides proper connection between the switch and the primary of the coil, and means to connect the remaining wires at their ends adjacent the coil with the breaker whereby upon severance of the cable and the connection of all of the wires of that part of the cable leading to the coil with a source of current, the coil is prevented from functioning.

3. In an ignition system for automotive vehicles including an induction coil having a primary and a secondary, and a breaker through which one end of the primary is connected with the ground, an ignition switch to control the connection of the primary with a source of current, a multi-wired cable connecting the ignition switch and the coil, one wire of which provides proper connection between the switch and the primary of the coil, electrical resistance means connecting the remaining wires of the cable with the breaker so that said electrical resistance means is in parallel with the primary of the induction coil whereby upon severance of the cable and the connection of all of the wires of that part of the cable connected with the coil with a source of current, the passage of current through said electrical resistance means precludes the functioning of the coil.

4. In an ignition system for automotive vehicles including an induction coil having a primary and a secondary, and a breaker through which one end of the primary is connected with the ground, an ignition switch to control the connection of the primary with a source of current, a multi-wired cable connecting the ignition switch and the coil, one wire of which provides proper connection between the switch and the primary of the coil, electrical resistance means connecting the remaining wires of the cable with the breaker so that said electrical resistance means is in parallel with the primary of the induction coil whereby upon severance of the cable and the connection of all of the wires of that part of the cable connected with the coil with a source of current, the passage of current through said electrical resistance means precludes the functioning of the coil, said electrical resistance means having substantially the same resistance as is offered by the primary of the coil so as to render it impossible to select the proper wire by means of ammeter readings.

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