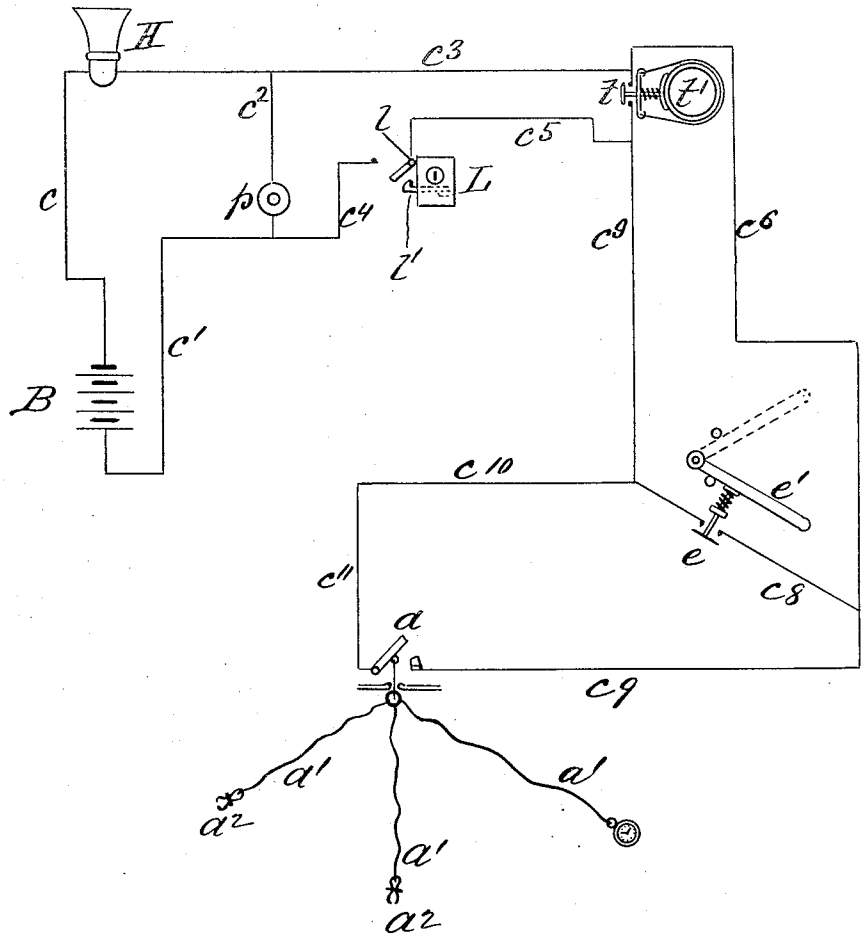
G. A. MERRILL.

ELECTRICAL PROTECTOR FOR AUTOMOBILES AND SIMILAR VEHICLES.

APPLICATION FILED FEB. 9, 1914.

1,131,405. Patented Mar. 9, 1915.



Witnesses:
Dorothy Miatt
W. J. Bird.

Inventor:
Guy Adams Merrill
By his Attorney
Geo. Wm. Miatt

UNITED STATES PATENT OFFICE.

GUY ADAMS MERRILL, OF NEW YORK, N. Y.

ELECTRICAL PROTECTOR FOR AUTOMOBILES AND SIMILAR VEHICLES.

1,131,405. Specification of Letters Patent. Patented Mar. 9, 1915.

Application filed February 9, 1914. Serial No. 817,385.

To all whom it may concern:

Be it known that I, GUY ADAMS MERRILL, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Electrical Protectors for Automobiles and Similar Vehicles, of which the following is a specification.

While applicable to vehicles ganerally my invention is intended more particularly for use on automobiles on which electrically actuated horns are used, and is designed to effect an automatic alarm by sounding of the horn in the absence of the chauffeur, should an intruder or thief attempt while the car is otherwise unoccupied to start the machine, steal the usual extra tire mounted thereon or any other article not permanently attached thereto, all as hereinafter described and claimed specifically.

In the accompanying diagram the essential features of the invention are illustrated symbolically, H, representing an electric horn of any desired or well known construction, such as is usually employed on automobiles, and B, the electric battery for actuating said horn when the circuit is closed. In this connection it is to be understood that the term horn H, as employed herein is used to designate any sounding device electrically operated. The horn or sounder and its battery may be positioned in any convenient manner upon the automobile, the battery being usually placed upon the left hand side of the running board.

p, represents a push button or other form of circuit closer used by the chauffeur when he desires to close the primary circuit c, c', c^2, to sound the horn H, in the usual way. This push button p, is situated on the car in convenient proximity to the chauffeur's seat. Also within convenient reach of the chauffeur is positioned the lock switch L. This switch is arranged to automatically lock the connection between wires c', c^4, c^5, when the bell crank lever l, is swung down into contact with the conductor c^4,—the spring latch l', engaging the lower arm of the bell crank lever and retaining it until released by a special key designed to afford exclusiveness, such as a yale lock, or tumbler key. In fact any form of automatic safety lock may be employed for the purpose, which when the chauffeur leaves his car he may be enabled by a simple movement to connect the conductors c^4, c^5, which connection cannot be broken except by the use of an individual key inserted in the key hole l^3 of the lock L. The locked connection of the wires c^4, c^5 does not close the electric circuit. It simply renders possible the completing of the auxiliary circuit by any one of the closing devices t, e, or a, and possibly others that might be interposed in the circuit system considered as a whole, so that during the chauffeur's absence the closing of any one of these auxiliary switches will sound an alarm on the horn H. Thus the automatic circuit closer t, is arranged for the protection of the extra tire t', (indicated in cross section in the drawing) almost invariably carried upon automobiles and which is apt to be an object of special attention on the part of sneak thieves who usually cut the retaining straps, by which the tires are secured in position, as a preliminary to carrying off the tire. To obviate this I so arrange that the tire (or one portion of it at least) shall when strapped to its holder, press back a spring plunger carrying a circuit closer or contact bridge as will be readily understood by reference to t, of the drawing. Obviously if the fastenings are severed and the tire t', withdrawn the spring plunger will close the circuit c, c^3, c^5, c^4, c', and sound the alarm.

A similar spring plunger e, may be arranged to act in conjunction with the emergency brake lever e', of the machine, the lever when thrown on pressing the plunger back against the resistance of the spring as indicated in the drawing and maintaining the circuit in open condition. Should the emergency brake lever e', be tampered with or reversed,—the spring immediately causes the plunger e, to close the circuit c, c^3, c^6, c^8, c^9, c^5, c^4, c', and sound the alarm. In like manner a knife switch a, or equivalent may be arranged to protect extra wraps, clothing or other articles left temporarily in the car, or any object such as a time watch, clock or other article of convenience used on but not permanently attached to the car. Thus by attaching one end of a flexible connection to the knife blade or similar switch a, with a ring or similar contrivance at the other end of said connection, cords a', a', may be run from the latter, said cords being provided with clamps a^2, for attachment to any article otherwise loose and removable. The theft of convertible personal property of the

character last designated is usually attempted by boys or small sneak thieves, not bold enough, to otherwise tamper with the car,—thieves of the snatch and run class who would not dare to take time to unfasten the clamps a^2, while the horn was sounding an alarm, so that by making the connections a', a', metallic, as of wire or chain, the closing of the switch a, when any one of its connections was pulled would afford ample protection.

It is obvious that it would be very improbable that either of the switches t, e, or a, would be brought into action simultaneously, as they represent each a different class of theft. A car stealer would reverse the emergency lever, while a tire thief would be apt to neglect the emergency lever, clothing &c. In any event the alarm would sound continuously whether one or a plural number of switches were closed which is the whole object of the invention. It is also obvious as before intimated that additional switches may be included in the general circuit, to be used in like manner for the purpose of sounding the horn in certain emergencies not herein specified, and that the switches shown and described may be used for various purposes other than those illustrated so that I do not limit myself in this respect.

What I claim as my invention and desire to secure by Letters Patent is,

1. An electric alarm system of the character designated, comprising a primary circuit, an electric sounding device, a battery, a manually operated circuit closer interposed in said primary circuit, an auxiliary circuit in which is interposed a plurality of switches each adapted to be held normally open by contact with a removable article and to close automatically when said article is withdrawn, a single lock switch controlling the common connection between said primary circuit and said auxiliary circuit and locking the same without closing the electric circuit, and permitting completion of the auxiliary circuit by any one of the plurality of closing devices each independently of the other.

2. An electric alarm of the character designated, comprising an electric sounding device, a primary circuit to sound the same, a manual control therefor, a lock switch embodying a spring latch and a bell crank lever coöperating with and controlled by said latch and having one arm movable for contact with a conductor for automatically controlling a circuit and enabling the completion of an auxiliary circuit, and a plurality of closing devices included in the circuit system for completing such auxiliary circuit.

3. An electric alarm system of the character designated, comprising an electric sounding device and a manually operated circuit closer, a primary circuit in which said circuit closer is interposed, an auxiliary circuit, a plurality of normally open switches interposed therein, each adapted to be closed by the withdrawal of an article connected therewith, a lock switch embodying a spring latch and a bell crank lever coöperating with and controlled by said latch and having one arm movable for contact with a conductor for automatically locking the connection between a portion of the wires of the circuit without closing such circuit and permitting completion of the auxiliary circuit by any one of said normally open switches.

GUY ADAMS MERRILL.

Witnesses:
GEO. WM. MIATT,
DOROTHY MIATT.