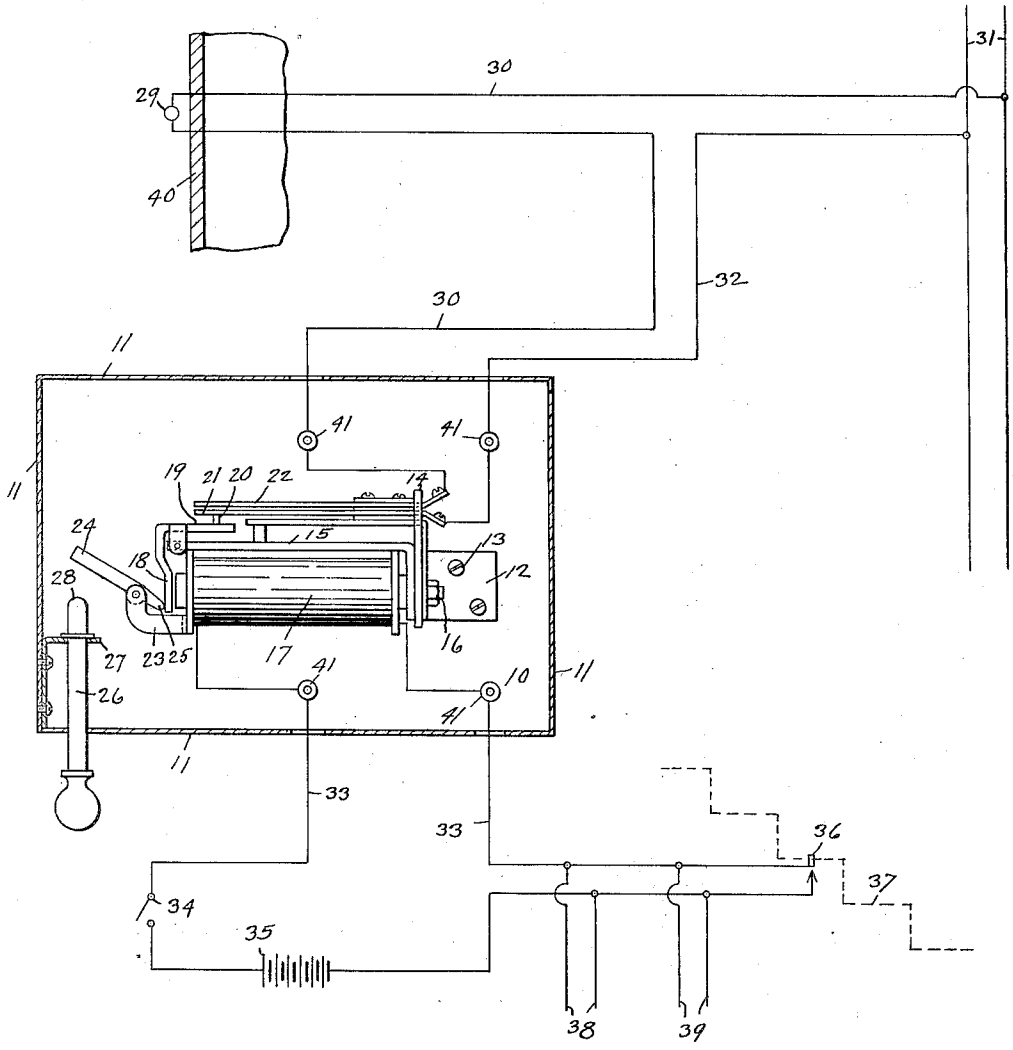
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SIGNAL APPARATUS

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SIGNAL APPARATUS

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This invention relates generally to the protection of life and property against burglars and other intruders, and particularly to means for assisting in their apprehension without the sounding of an alarm.

The first object of this invention is to provide a signal whereby a policeman or others outside of a dwelling or building can be informed that an unauthorized person has entered the premises without alarming the intruder, thereby frightening him away and preventing or adding to the difficulty of capturing him.

The second object is to provide a signal apparatus in which the signal is not noticeable from within the building, or at least from that point at which the signal is put into operation by the intruder.

The third object is to so construct the device that having once been put into operation by the intruder it will require a knowledge of the secret location of the releasing mechanism in order to stop the signaling taking place on the exterior of the building.

These, and other objects, will become more apparent from the specification following as illustrated in the accompanying drawing, in which:

The figure in the drawing is a somewhat diagrammatic view of the device which, for the sake of illustration, is shown as including a metal box having a bottom 10 and sides 11, preferably provided with a closure (not shown). For the sake of adding clearness the sides 11 are broken away in section. On the bottom 10 is secured a standard 12 by means of the screws 13.

On the standard 12 is secured a laterally projecting arm 14 and a forwardly projecting arm 15 by means of the bolt 16 which forms a core for the electromagnet 17. On the end of the arm 15 is hinged the armature 18 whose extending lip 19 bears against the pin 20 on the spring contact arm 21 which is insulated from the contact arm 22, also mounted on the arm 15.

On the outer end of the magnet 17 is formed an arm 23 to which is pivotally attached a latch 24 whose end 25 is held by gravity in contact with the armature 18. A plunger 26 passes through a side 11 of the box and is supported by the guide 27. The end 28 of the plunger 26 is adapted to engage the under side of the latch 24 for the purpose of releasing same.

An electric lamp 29 of any desired color or combination of colors, preferably mounted at the gable of the house out of sight from any room liable to be entered by a burglar, and preferably easily accessible to the member of the household responsible for the setting of the signal.

A wire 30 connects the contact arm 22 with the lamp 29. The wire 30 connects the lamp 29 with one side of the lighting circuit 31. The wire 32 connects the contact arm 21 with the lighting circuit 31. A separate circuit consisting of the wire 33, including the switch 34 and connecting with the battery 35, is provided with a circuit-closing switch 36 of any desired type, which, for the purpose of illustration, is shown in connection with a stairway 37. Other lead wires 38 and 39 may be carried from the wires 33 to other circuit-closing devices (not shown), but located at points where it would be necessary for the intruder to pass and actuate same in a manner to energize the magnet 17.

It must be clearly understood that the lamp 29 is outside of the building whose wall is indicated at 40.

For the purpose of expediting the installation of the device, binding posts 41 are indicated on the bottom 10 of the box.

The operation of the device is as follows: For instance, when retiring for the night the occupant of the dwelling closes the switch 34. If the burglar enters the premises and in so doing or during his movements about the house, closes the switch 36, or any of the other circuit-closing devices placed along the wires 33, the magnet 17 will become energized drawing its armature 18 against the pole pieces. However short the duration that this circuit-closing operation may be it will permit the latch 24 to fall sufficiently far to have its end rest upon the upper end 28 of the plunger 26, which action will cause the end 25 of the latch 24 to hold the armature 18 against the pole pieces in the same manner as

it would be if the current were still flowing through the magnet 17.

When the armature 18 is in this position the contact arms 21 and 22 are in engagement, thereby causing the lamp 29 to be energized from the circuit 31, thus attracting the attention of a policeman or passers-by, who can take the necessary steps to effect the capture of the burglar.

It must be understood that the exact shape and arrangement of the parts above described are immaterial and that many changes can be made in the construction of this device without departing from the spirit of the invention.

I am aware that many forms of alarms and signaling devices have been constructed in the past, I therefore do not claim such devices broadly; but I do intend to cover all such forms and modifications thereof as fall fairly within the appended claims.

I claim:

1. In combination, a magnet, a straight lever spaced therefrom and centrally pivoted substantially in line with the axis of the magnet, an armature pivoted to hang between the lever and the magnet, means yieldingly holding said armature spaced from the magnet and in engagement with the lever to hold the end of the lever distant from the magnet in an elevated position, and means engaging the distant end of said lever so as to support the lever in line with the axis of the magnet when the armature releases the lever by being attracted to the magnet, said lever thereby locking the armature to the magnet.

2. The device of claim 1 in which the lever engaging means is a manually movable plunger whereby the distant end of the lever may be lifted to permit the armature to return to normal position spaced from the magnet, under urge of said yielding means.

3. In a switch for a burglar alarm, an electro-magnet having a core, a right angular armature for said magnet consisting of an arm substantially parallel to the axis of the core and one arm substantially at right angles to the said axis, said armature pivoted near the junction of its two arms, a gravity operated lever engaging one arm of the armature at an acute angle when the magnet is de-energized and tending to force the said arm against the core, said lever being pivoted near the armature engaging end, a leaf contact spring engaging the other arm of the armature and tending to force the first arm away from the core and to hold the lever in the position recited, a second contact spring in proximity to but spaced from the first mentioned spring, means carried by each spring for attachment to a circuit as for example a signal system, said lever upon the energizing of the magnet and consequent attraction of one arm of the armature moving to a position at right angles to said attracted arm, whereby upon momentary energization of the magnet, the contact springs are held together until the lever has been returned to its first mentioned position.

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