Dec. 20, 1949 M. S. LEFCOURT 2,491,987

BURGLAR ALARM

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Fig. 1.

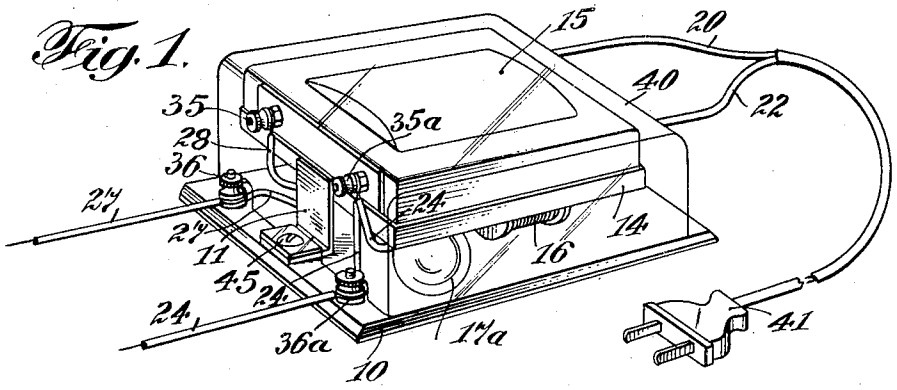


Fig. 2.

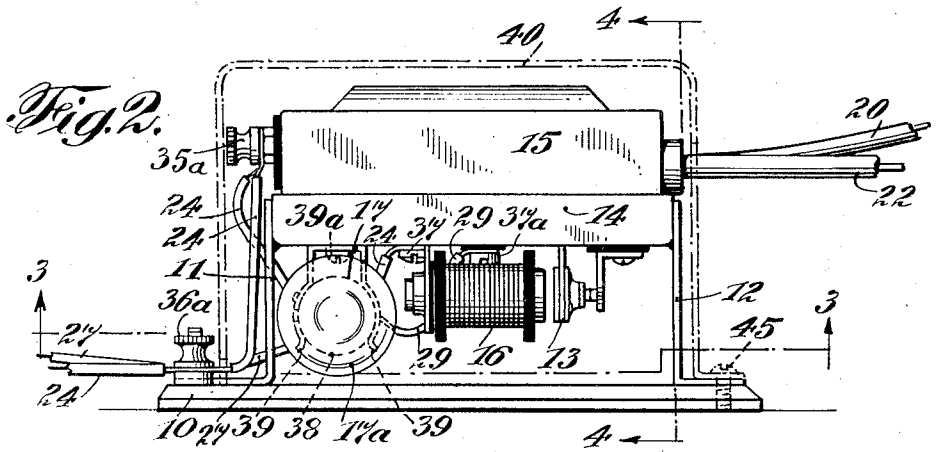
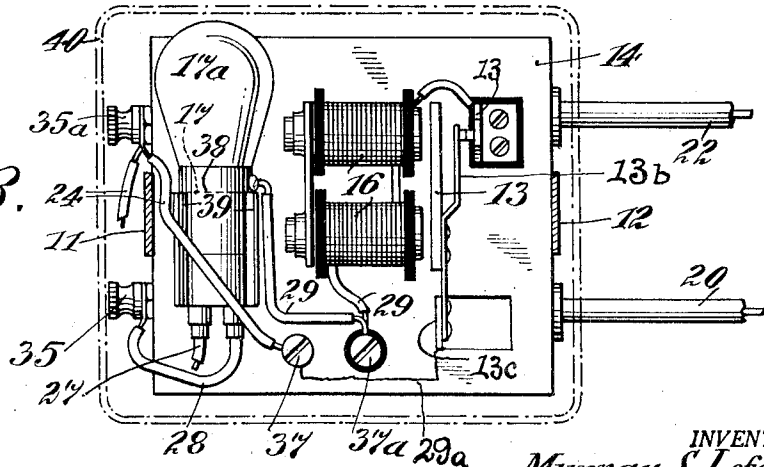


Fig. 3.



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Fig. 4.

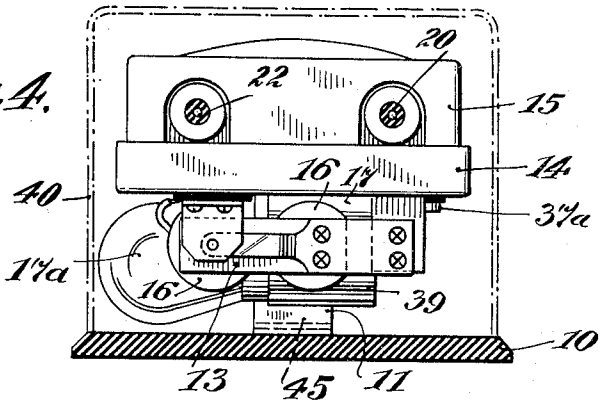


Fig. 5.

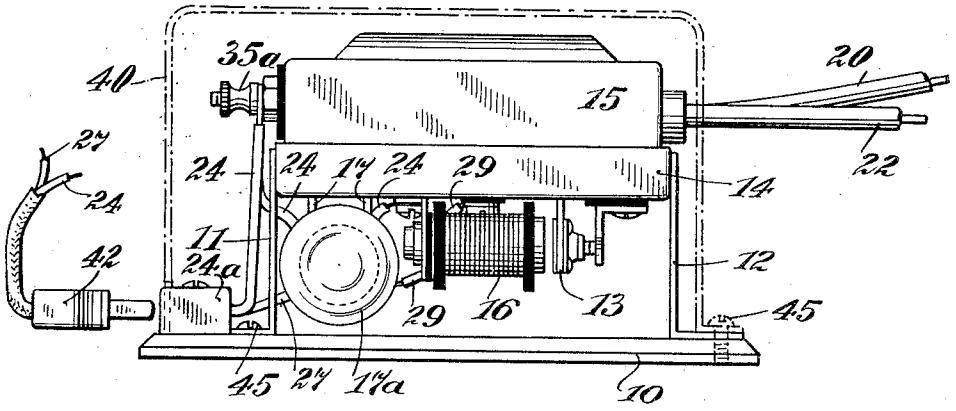
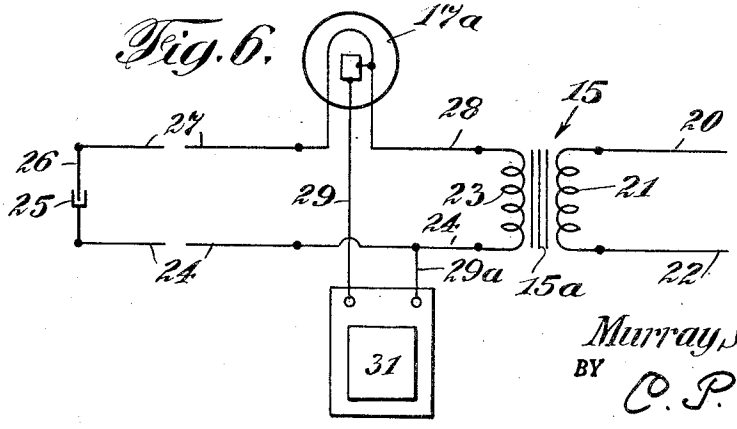


Fig. 6.



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2,491,987

BURGLAR ALARM

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Application October 5, 1948, Serial No. 52,859

5 Claims. (Cl. 177—314)

This invention relates to burglar alarms and has for its object to provide a self-contained transportable unit, which may be readily connected with an electrical supply circuit and with a door, window, etc.

The improved device when in safe state, gives off a steady glow of light which may be readily seen so that the user may be assured that the circuit is in operative condition, and all contacts are secure. It also gives an intermittent light signal and a sound alarm when danger exists, that is, when the window, door, or Venetian blind is being tampered with and contacts are broken. The underlying concept is the use of a two way bulb as a power consumer, either to constantly glow, or operate a buzzer with flickering of the light.

The invention consists of a self-contained unit having a base, and a two way pilot bulb and buzzer, electrically connected, with a connection to the source of supply and another to the door or window, the lamp giving a constant glow of light under safety conditions and a sound and intermittent light in danger conditions. Preferably a transformer connected with the house circuit is used.

The invention will be more fully described hereinafter, embodiments thereof shown in the drawings, and the invention will be finally pointed out in the claims.

In the accompanying drawings:

Fig. 1 is a perspective view of my improved unit;

Fig. 2 is a side view of the same;

Fig. 3 is a view taken from the line 3—3 of Fig. 2 in the direction of the arrows;

Fig. 4 is an end view;

Fig. 5 is a side view of a modified form; and

Fig. 6 is a wiring diagram.

Similar characters of reference indicate corresponding parts throughout the various views.

Referring to the drawings a base 10, has two upright supports 11 and 12, in which a transformer 15 is held in elevated position to provide a space between it, and the base 10.

Disposed between the supports 11 and 12, and supported by the transformer cover 14, is a buzzer coil 16, and clapper with points 13, and a lamp socket 17 with a lamp 17a. Connecting conductors and binding posts are provided, to provide the circuit diagrammatically shown in Fig. 6. Here, the source of electrical supply is connected to conductors 20 and 22. One conductor 20 is connected with the transformer coil 21, to which a conductor 22 is connected. The other transformer coil 23, has one conductor 24 connected

with one member of a breakable control 25, and the other member 26 of the breakable control 25 is connected with a conductor 27, which passes a two way pilot lamp 17a, and then by a conductor 28 connects with the other end of the transformer coil 23. Thus the owner can see by the steady light that everything is safe, and by the intermittent light that danger exists, in addition to the alarm sound. The transformer 15 has the usual iron core 15a.

Shunted across the conductor 24 and the lamp 17a are conductors 29 and 29a, both conductors 29 and 29a being connected with the buzzer 31. Thus, when the improved device is in circuit, the current causes the lamp 17a to provide a steady glow, and the buzzer is quiet. If, however, the breakable control 25, is disconnected, the main circuit is broken and the shunt current activates the buzzer 31, and the constantly interrupted current causes the lamp 17a to flicker. Instead of a buzzer, a bell or other noise producer may be used.

In Figs. 2 and 5 the supports 11 and 12 are fused to the transformer case, and suitable insulation is provided for other parts where necessary.

In the practical embodiments given as examples, one has the buzzer and lamp socket attached to the transformer cover, and the other, has these parts substantially integral with the transformer cover. A Bakelite or the like enclosing hood 40 preferably translucent encloses all the parts.

In the practical embodiment, shown in Figs. 1 to 4, the transformer has two terminal connections 35 and 35a projecting out of its transformer case, and the base 10 has two terminal connections 36 and 36a. The bottom of the transformer 15 has the connectors 37 and 37a. A lamp base 38 is supported by the bottom of the transformer by a spring clip 39, secured by a screw 39a to the bottom of the transformer 15.

A plug 41 for the supply wires 20 and 22, is provided for convenient connection with a house circuit. A similar plug 42 may be used in Fig. 5, to conveniently connect the selfcontained unit to the breakable connection 25.

The terminal connections 36 and 36a are preferably exterior to the case 40, to enable the conductors which lead to the breakable parts, as a window screen door, Venetian blind, etc. to be electrically united to the selfcontained unit.

In the embodiment in Fig. 5, the buzzer and lamp socket are made integrally a part of the bottom cap 14 by welding the parts of the buzzer

and the support for the standard lamp socket directly to the bottom plate of the transformer. Preferably a joined pair of terminals in a casing 24a takes the place of the two terminals 36 and 36a of Fig. 1, which may be attachably engaged by a female connector 42 to embrace the two terminals in the casing 24a. Such an electrical connection is well known, as used in electrical household appliances, as bread toasters, irons, heaters, etc.

Suitable screws 45 fasten the uprights 11 and 12 to the base 10, which may be bolted or screwed into the base. Some of these hold down the cover 40.

It will be particularly noted that in Fig. 3, the current after it leaves the coils 16 passes to a vertical abutment 13a, which is intermittently pressed by the spring 13b, which conducts the current to its support 13c, which is connected with the conductor 24 at the post 37.

It is noted that the essential feature of the invention is the circuit with the breakable member, supplied by any source of electricity whether a transformer connected by the house circuit, or, a battery, and a circuit for the buzzer across the main circuit, but connected with the third contact of a two way bulb, the bulb under normal condition, that is when the constant glow takes place acts as a consumer of the power, and then when that circuit is broken, the current flows through the bulb (the third contact) and is consumed in the buzzer during the action of the buzzer.

It is seen that a self-contained appliance has been provided, which may be readily connected with a source of electrical energy, and with a detachable control member applied to a window, or a door, etc., of a house, a cellar, a garage, a barn, etc. by any unskilled person, and as readily detached, and does not act as a fixture to the premises, but may be taken along when the owner of the unit moves from place to place. Its use adds an element of security to users of the unit. When used it takes so little space that it is not readily seen, but the glow of light or its flickering is at all times visible.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

I claim:

1. In a burglar alarm, a self-contained unit including the combination of a base, a transformer spaced from and supported by said base, a lamp holder supported by said transformer and between the transformer and the base, adapted to support a three way lamp bulb in said holder, a noise producing device supported by said transformer and between the transformer and the

base, electrical conductors connected with a source of supply and with said transformer, with said lamp and with said noise producer, and a member for breaking the closed circuit connected with said conductors and said member, said conductors being arranged to provide a closed circuit when said circuit member is closed with a constant glow of the lamp, and on the breaking of said circuit member, provide a flickering light and a noise production.

2. The structure of claim 1, in which the lamp support and noise producer are substantially integral with a bottom cap of the transformer.

3. The structure of claim 1, in which the main circuit includes the transformer coils, main coil of the lamp, and closed circuit member, and a shunt circuit includes the coil of the noise producer and the other coil of the lamp.

4. The structure of claim 1, with a translucent hood enclosing all parts save the terminals for the circuit member, and connections with the source of supply, the unit being transportable to any door or window or the like.

5. In a burglar alarm, the combination of electrical conductors having spaced terminals connected with a source of electrical supply, a transformer having its primary connected with said conductors, and its secondary connected with a second pair of conductors, said second pair of conductors forming a closed circuit, a member for breaking said closed circuit forming a first and a second part, a two way, three contact lamp having two of its contacts connected in series with the first part of said circuit, between said member and the secondary, a current interrupting noise producing device having one terminal connected with the third contact of the two way lamp and its other terminal connected with the second part of said circuit between said member and the secondary, whereby, when said circuit is unbroken, said closed circuit energizes only the said two contacts of the lamp to a constant glow without visibly energizing the third contact and operating the noise producer, and when said circuit is broken, the said third contact of the lamp in circuit with said noise producing device is energized without visibly energizing the said two contacts, and a flickering of the lamp and a noise producing takes place.

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