(No Model.)

C. H. DOWDEN.

CIRCUIT CLOSER FOR BURGLAR ALARMS.

No. 569,861. Patented Oct. 20, 1896.

Fig. 1.

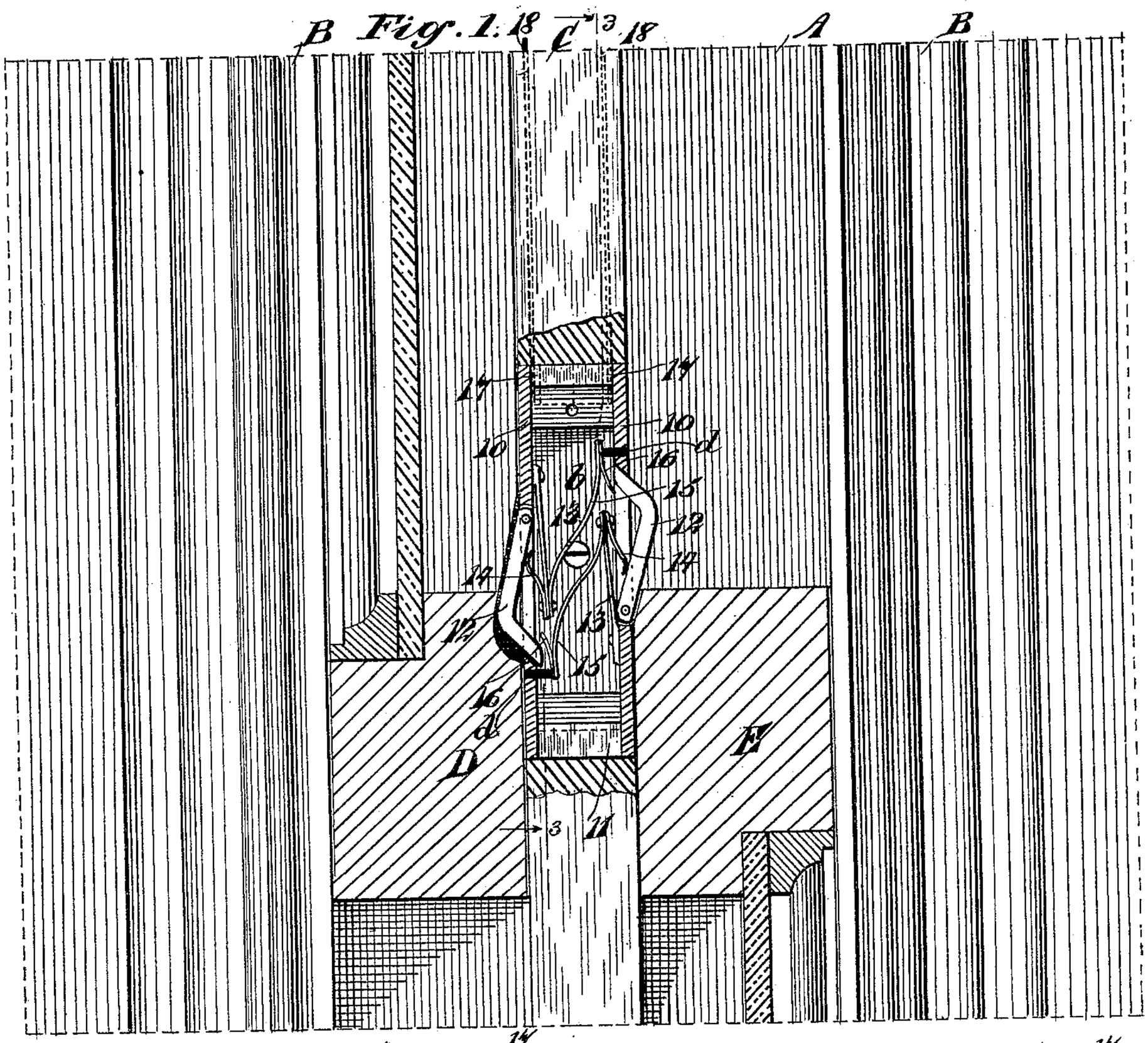


Fig. 2.

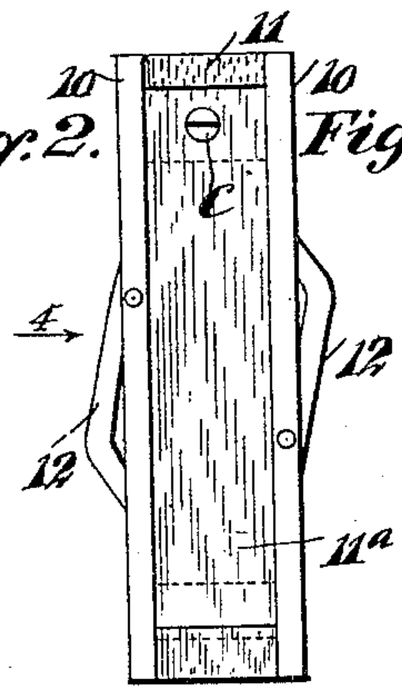


Fig. 3.

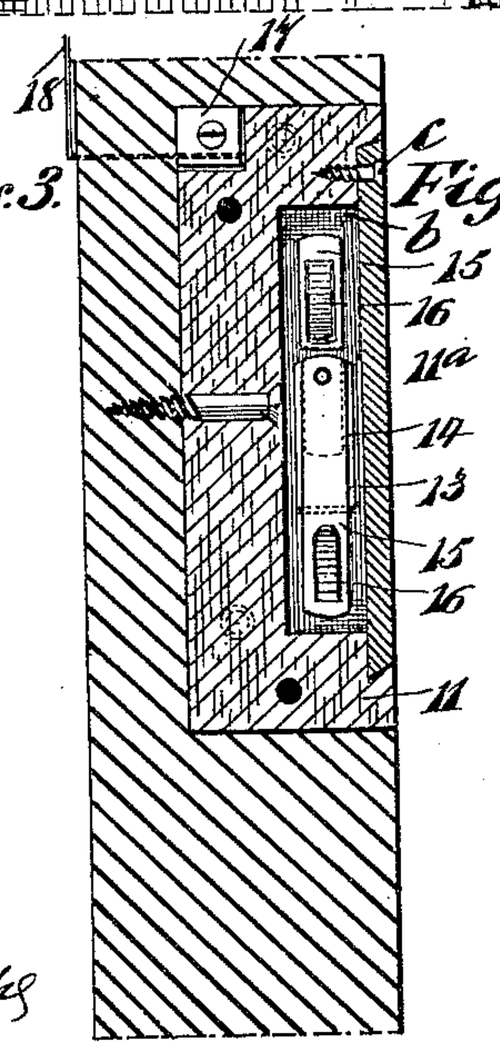


Fig. 4.

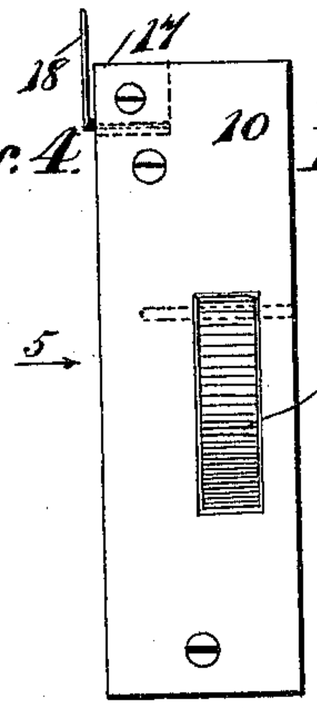
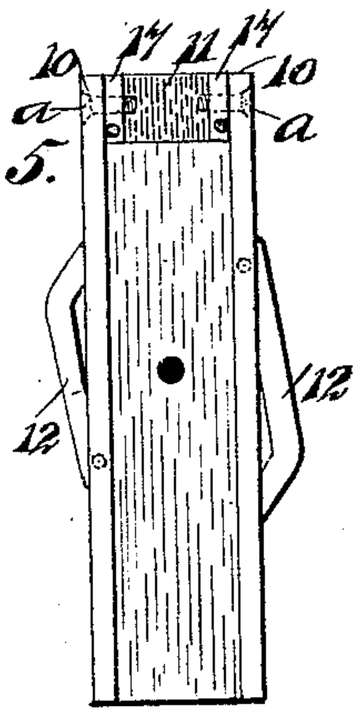


Fig. 5.



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CIRCUIT-CLOSER FOR BURGLAR-ALARMS.

SPECIFICATION forming part of Letters Patent No. 569,861, dated October 20, 1896.

Application filed February 29, 1896. Serial No. 581,333. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. DOWDEN, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Circuit-Closer for Burglar-Alarms, of which the following is a full, clear, and exact description.

This invention relates to circuit-closers for burglar-alarms that are adapted for use in connection with windows and which serve to close the electric circuit and send an alarm when either sash is moved to open the window.

The object of the invention is to provide a simple and novel constructed device of the indicated character which will be adapted for easy introduction within a recess formed in one of the parting-strips that separate the sash and instantly close the normally open electric circuit if either sash is moved, thus sounding an alarm on an electric bell that is in said circuit.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and indicated in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 represents a window-casement in part, a parting-strip thereon, a transverse sectional view of two window-sash portions at their meeting-rails, and the improvement in position embedded in the parting-strip and having a lid thereof removed to expose interior features of construction. Fig. 2 is a detached front side view of the improved circuit-closer device. Fig. 3 is a sectional side view of the circuit-closer in place, taken substantially on the line 3 3 in Fig. 1 Fig. 4 is a detached side view of the improvement in direction of the arrow 4 in Fig. 2, and Fig. 5 is a rear side view of the device seen in direction of the arrow 5 in Fig. 4.

In the drawings, A indicates an inner side portion of a window-casement having the usual bead-strips B and parting-strip C, that separates the upper-sash portion D from the lower-sash portion E in the usual manner.

The circuit-closer comprises two flat parallel-edged sheet-metal strips or plates 10 of similar dimensions. These plates, which are good conductors of electricity, form the side walls of the circuit-closer case and are held suitably spaced apart by the non-conducting block 11, which is preferably formed of hard wood. The block 11 is similar in contour to that of the side plates 10 and is secured between them by screws *a*.

The normally front side of the spacing-block 11 is recessed, as at *b*, to afford a receptacle wherein working parts of the device are located, and, as best shown in Fig. 3, the cavity *b* is covered by a lid 11^a, that is seated in a suitable depression formed in the block 11 at each end of said cavity, one end of the lid being beveled, so as to interlock with the undercut end wall of the depression, and the other end of the same as secured to the block by a screw *c*.

The side plates 10 are apertured in proper form for the reception of the rocking blocks 12, that are pivoted at opposite ends, so as to freely move in said apertures, and are angularly bent, the elbows thus produced projecting outwardly when the said blocks are in position for service, and the degree of their outward movement is limited by contact of the free ends of the blocks with the end walls of the apertures they occupy, as shown in Fig. 1.

On each side plate 10 there is an elastic bracket-plate 13, secured by one end adjacent to the pivoted end of each rocking block 12, and the latter are outwardly pressed by spring-fingers 14, each one of said fingers being secured at one end to the free extremity of one of the bracket-plates.

On the free end of the bracket-plates 13 two similarly-bent presser-springs 15 are affixed at one end of each spring, preferably by the same rivets that secure the spring-fingers 14 thereto, and from the free extremities of the presser-springs short limbs 16 are extended, the latter being curved toward the free ends of the rocking blocks 12, to which they are near, but avoid contact with, when the parts are in normal condition.

To prevent an improper contact of the free ends of the presser-springs 15 with the side plates 10 an abutment-block *d* is secured to each plate, so as to project a suitable distance therefrom on the inner sides of said plates 10, so that the ends of the presser-springs will rest thereon and retain the limbs

16 in position to be impinged by the ends of the rocking blocks 12.

The complete circuit-closer device is embedded and secured in a recess formed to receive it in the parting-strip C at a point which will locate the angularly-bent rocking blocks 12 close to the upper edges of the sashes D and E, that may be notched, as indicated in Fig. 1, to accommodate the said blocks, if this should be necessary to avoid improper pressure on said blocks by the sashes when the latter are closed.

An open recess is formed in the wooden block 11 at the rear upper corner of the same, and two contact-plates 17 are clamped by screws to the inner sides of the side plates 10 within said recess, the plates 17 serving to hold the ends of the circuit-wires 18 in secured engagement with the sides 10 of the circuit-closer.

The wires 18 (shown broken) are to be extended to a source of electric supply, such as a primary battery or the like, and both wires are to be thereto connected in the usual manner, the circuit being open at the window, as the side plates 10 are normally insulated by the spacing-block 11.

It will be seen that if the upper sash D is drawn down but a slight degree, or the lower sash E slid upward, the attempt to open the window by movement of either sash will press inwardly one of the rocking blocks 12, so that its free end will bear on the adjacent limb 16, causing an electric contact and direct connection of the side plates 10 by means of the presser-springs 15, fingers 14, and bracket-plates 13, which will sound an alarm on a bell that is located at any desired point and is in the circuit afforded by the extended wires 18.

By providing a lid for the device which is of non-conducting material the mechanism within the cavity *b* is protected and the location of the circuit-closer is measurably concealed.

It is to be understood that the wires 18 are embedded in the groove of the window-stile that receives the parting-strip C and from the window extend in any suitable direction for connection with the bell and battery before mentioned.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. An electric-circuit closer, comprising two side plates, a recessed insulating-block secured between said side plates, two rockable contact-blocks pivoted in apertures in the side plates, and a set of independent spring devices for each contact-block, located in the recess of the spacing-block, said spring devices being adapted to separately project the rockable contact-blocks, and complete an electric circuit between the side plates when either contact-block is pressed inwardly.

2. An electric-circuit closer, comprising side plates, an insulating spacing-block recessed at the front, and provided with a securable lid, the side plates being affixed to said block, and two independent contact devices operative in the recess in the spacing-block, each comprising an angular metal block pivoted at one end in an aperture in one of the side plates, a spring bracket-plate secured at one end to the inner side of a side plate near the pivoted end of the adjacent angular block, a bent presser-spring extended from the bracket-plate toward the free end of the opposite rockable block, and a spring-finger on the bracket-plate normally pressing the adjacent rockable arm outward, substantially as described.

3. An electric-circuit closer for windows and adapted for embedment in a parting-strip of the window, comprising two metal side plates having elongated apertures, a recessed insulating-block on which the side plates are oppositely secured, angularly-formed blocks pivoted at one end of each to rock in the apertures in the side plates, two spring contact devices within the recess in the spacing-block, each of said contact devices being adapted to throw outward a respective rocking block, and to effect electric contact between the side plates and circuit-wires attached thereto, when either of said rockable blocks is inwardly pressed, substantially as described

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