



# UNITED STATES PATENT OFFICE.

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## BURGLAR-ALARM.

No. 864,362.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, NELSON L. B. DOULL, a citizen of Canada, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Burglar-Alarms, of which the following is a specification.

My invention relates to an electrically operated alarm; and the object thereof is to provide an improved alarm device which may be set to sound an alarm when either the latch or the locking bolt is moved not quite far enough to permit the door to be opened if the same constituted the sole means for securing the door closed. I accomplish this object by the mechanism described herein and illustrated in the accompanying drawings in which:—

Figure 1— is a portion of a door and lock and a portion of my alarm device in section. Fig. 2— is a side elevation of a part of my alarm device. Fig. 3— is a section on the line 3—3 of Fig. 1. Fig. 4— is a side elevation of certain of the plates shown in Fig. 1.

In the drawings 5 is the door to which is secured the lock 6 having latch 7 and locking bolt 8, which lock is of any construction provided with these parts. The door jamb 9 is provided with the ordinary latch plate 10 secured thereto by the ordinary screws 11. Extending from the latch socket 12 in the door jamb is a recess 13 in which is mounted a casing 14 which is preferably circular and exteriorly threaded so as to hold it securely in place in recess 13 into which it is screwed. In the outer end of this casing is secured a plug 15 composed of insulating material. Through this plug extend the screws 16 and 17. To the head of screw 16 is fastened a wire 18 which passes through the jamb, and is secured to a plate 19, which plate is secured to the casement 20 secured to the outer case of the jamb, or the plate might be secured to the jamb itself. To screw 17 is secured wire 21 which passes through the jamb and is secured to plate 22 preferably secured to the casement in close proximity to plate 19, but separated therefrom. Extending from the lock bolt socket 23 in the door jamb is a recess 24 in which is mounted a casing 25 which is preferably circular and exteriorly threaded so as to hold it securely in place in the recess 24 into which it is screwed. In the outer end of this casing is screwed a plug 26 composed of insulating material. Through this plug extend screws 27 and 28. To the head of screw 27 is fastened a wire 29 which passes through the jamb and is secured to plate 19. To the head of screw 28 is fastened a wire 30 which is secured to plate 22.

In a portable case 31 is secured a battery preferably composed of a dry cell 32. One pole of this battery is connected by wire 33 to switch plug 34. The other pole of the battery is connected by wire 35 to switch 49 which is connected to the alarm bell 36. This

switch may be used to open and close the circuit when the apparatus is used for a length of time in one situation. The other side of alarm bell 36 is connected by wire 37 to switch plug 38. Plate 19 has a slot 39, the upper part 39' of which is larger than the bottom part and is large enough to receive and to permit to pass therethrough either of the plugs 34 or 38. Plate 22 has a slot 40 therethrough the upper part 40' of which is larger than the lower portion and is sufficiently large for the passage therethrough of either plug 34 or 38. Extending through casing 14 and plug 15 is a rod 41 which has a head 42 lying within the latch socket. To rod 41 within the casing is secured a collar 43 and surrounding the rod within the casing is a spring 44. Extending through casing 25 and plug 26 is a rod 45 which has a head 46 which lies within the lock bolt socket. Within the casing and secured to the bolt is a collar 47 and below the collar and surrounding the bolt is a spring 48. After the door is closed and the locking bolt is thrown to its locked position it will be seen that the latch engages the head of bolt 41 and prevents the collar secured thereto from engaging screws 16 and 17 and that the head of rod 41 does not touch either of said screws. It will also be seen that when the locking bolt is thrown to its locked position that it also prevents collar 47 from engaging screws 27 and 28. Now if it is desired that the occupant of the room shall know if any one from the outside thereof is trying to enter the room he pushes button 34 through the upper part of the slot in either plate 19 or 22 and draws the wire down into the lower part of the slot so that it cannot disengage therefrom. The other button passes through the other plate and brings it down into the lower part of the slot in like manner, thereby connecting the battery and bell to plates 19 and 22. Now if some one from the outside of the room throws the locking bolt so as to unlock it spring 48 will cause collar 47 to engage screws 27 and 28 thereby closing the circuit and the bell will ring. Before the locking bolt is thrown if a person should turn the latch to a position in which the door would open spring 44 would cause collar 43 to engage screws 16 and 17 thereby closing the circuit and causing the bell to ring.

By this construction I have provided an efficient alarm which will notify the occupant of the room whenever any one is tampering with the lock thereof. As the battery and bell are portable they can be set at any place in the room and during the day time can be detached if desired and placed in a closet. If desired my device could be permanently secured to the outside doors and a switch provided in the place of plate 19 and another for plate 22.

By putting a socket in a window casing the device can be used in a window, but in such case only one socket need be used.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

5 In a burglar alarm, the combination with a lock, a battery and an electric bell, of casings inserted in the door frame opposite the locking bolt and the latch bolt respectively, spring-pressed plungers within the casings, insulated plugs through which the ends of said plungers pass, contact points in each of said plugs, contact plates 19 and 22 in the door frame, electrical connections be-

tween said plates and the battery and bell, electrical con- 10  
nections between plate 19 and one contact point in each of said plugs, and electrical connections between plate 22 and the remaining contact points in the respective plugs.

In witness that I claim the foregoing I have hereunto  
subscribed my name this 4th day of December, 1905.

NELSON L. B. DOULL.

Witnesses:

G. E. HARRHAM,  
M. A. JONES.