(No Model.)

W. H. REIFF.

BURGLAR ALARM.

No. 376,909. Patented Jan. 24, 1888.

Fig. 1

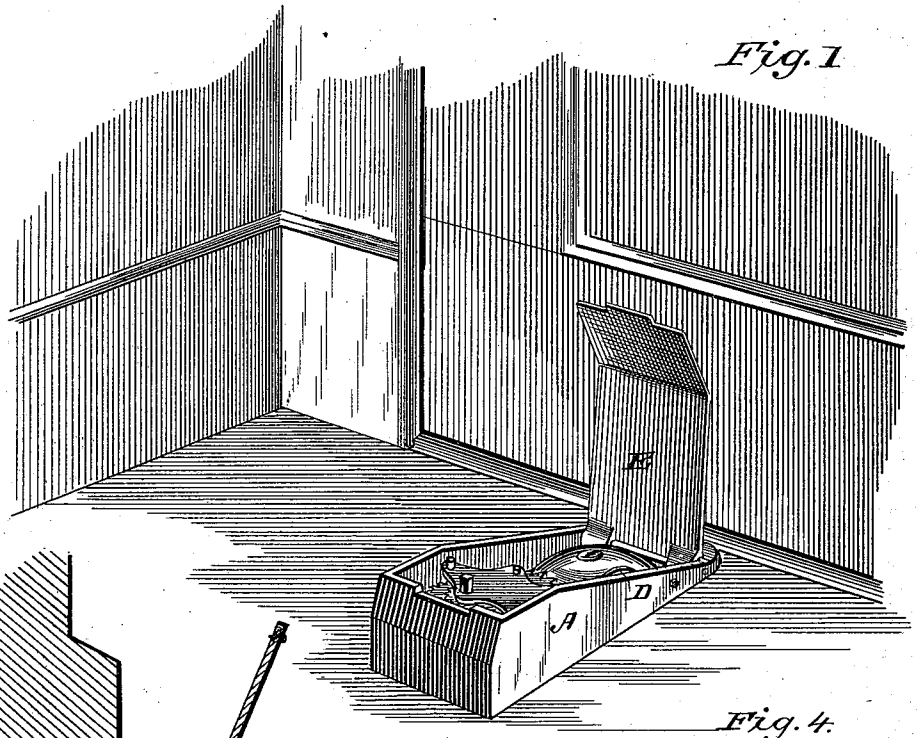


Fig. 4.

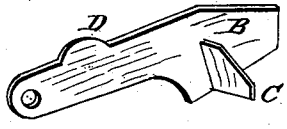
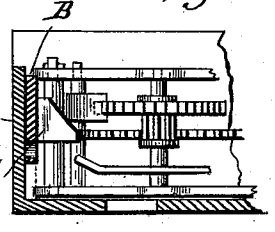


Fig. 2

Fig. 3.



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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 376,909, dated January 24, 1888.

Application filed September 2, 1887. Serial No. 248,591. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. REIFF, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Burglar-Alarms, of which the following is a specification.

This invention is an improvement in burglar-alarms; and it comprises a power-alarm gong or bell—that is to say, a bell operated or rung by a power, a detent or tumbler for stopping the power mechanism, and a pivoted trip which in practice is elevated and set in position for engagement by a door in the opening of the latter, which door causes the trip to fall, and the trip in falling releases the detent or tumbler, permitting the alarm to sound.

The particular mechanism employed will be more fully described in the following description.

The invention consists in certain features of construction and novel combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my invention as in use. Fig. 2 is a longitudinal section of the device in connection with a door, the trip being elevated in full lines and lowered in dotted lines. Fig. 3 is a detached cross-section drawn in front of the stop-lug of the detent and on about line *x x* of Fig. 2, and Fig. 4 is a detail view of the detent or tumbler.

The case A is shown as provided with a tooth or prong, *a*, for engaging the floor, is wedge-shaped, and contains an alarm bell or gong and power mechanism for striking the same, such power mechanism having an escape-wheel and a pallet. A detent or tumbler, B, is provided whereby to stop such power mechanism, and such tumbler is held movably in position to stop the mechanism by means of the spring *b*. This tumbler is shown as movable into and out of contact with the pallet, and such arrangement is preferred; but manifestly the detent may be arranged in connection with some other moving part of the power mechanism without departing from some of the broad principles of my invention.

In the particular construction shown in Figs. 2 and 3 the detent is a plate pivoted at one end and provided near its other or movable end with a stop-lug, C, which moves into and out of a position in rear of the pallet. To facilitate the passage of the stop-lug to a position in rear of the pallet, I form its edge which engages said pallet beveled or on an incline, so it will pass readily to position for stopping the movement of the pallet. A portion, D, of the detent projects into position to be engaged by the trip E, which I will now describe. This trip is pivoted or hinged at one end to the case, and is movable when lowered from its elevated position onto the detent, so as to depress said detent, release the power mechanism, and permit the alarm to ring. The trip, when set, is raised and moved to a point slightly back from the vertical, being stopped in such position, and the device is placed on the floor close to the moving edge of the door, the spur or prong being pressed into the floor.

It will be seen that should the door be opened it will strike and knock the trip down. The trip in falling will depress the detent and the alarm will sound. The weight of the trip will retain the detent in depressed position, so that the alarm will continue to sound until its drive-power has been expended.

The trip is a special feature of this invention. It will be seen that it is a pivoted balanced drop-trip, and that its operating movement is not by the force of the opening of the door, but by the force of gravity of the trip itself—that is to say, the operating power of the trip is within the trip itself, the door serving not to give such trip its operating force, but simply to move such trip from its balanced position to a position in which it may fall of its own gravity.

A particular advantage results from the use of the balanced drop-trip, as in the use thereof a thief or other person opening a door guarded by one of my devices will not feel any resistance offered by such device prior to the dropping of the trip and the sounding of the alarm. This is so because no perceptible force or resistance is offered against the door by the trip in the movement of such trip off its balance, so it will fall.

It is preferred to construct the door-trip as shown to form the top of the box or casing, it being fitted to the box or casing and closing snugly therein when the device is not in use.

In setting the device, the lid or trip is raised,

when the detent or tumbler rises to position to stop the alarm mechanism. The mechanism can then be wound and the apparatus placed to a door so that the slightest movement of the door will throw the trip off its center, when it will fall and sound the alarm. After the alarm is once started the closing of the door by the burglar will not affect it or stop the alarm, which will continue to ring until it has run down.

It will be seen that no considerable movement of the door is necessary to start the alarm, so that a burglar has no opportunity to open the door slightly and move the alarm out of place before it will start to sound, as the slightest opening of the door will suffice to throw the trip-lid down, sound the alarm, and wake the occupants of the room.

The pallet and escape-wheel may be of ordinary construction.

Having thus described my invention, what I claim as new is—

1. A burglar-alarm comprising a box or case, an alarm device, a detent or tumbler for restraining the sounding of such alarm device, and a balanced pivoted drop-trip, the detent being arranged in the path of the drop-trip, and such trip being constructed to operate by its gravity and the power acquired in falling to release such detent, whereby all springs and other independent operating means for the trip may be dispensed with, substantially as and for the purposes specified.

2. The combination of the casing, the power gong or bell therein, the lid forming the trip and fitted to said case and pivoted or hinged at its lower end thereto, whereby it will be balanced when raised and will only fall when thrown off its balance, and the detent arranged in the path of the lid, whereby it will be disengaged by the same in its descent, substantially as and for the purposes specified.

3. A burglar-alarm consisting of the box or casing, the power gong or bell having an escape-wheel and pallet, the detent movable into and out of engagement with said pallet and resting normally in such engagement, and the balanced pivoted drop-trip arranged to engage such detent whereby to release the pallet, substantially as and for the purposes specified.

4. The combination, in a burglar-alarm, of the case A, the alarm bell or gong and its operating mechanism having an escape-wheel and pallet, the detent or tumbler B, pivoted at one end and provided near its opposite end with a stop-lug, C, movable into and out of position in rear of the pallet, the spring for operating said detent or tumbler, and the trip E, pivoted at one end and adapted to be raised and set slightly back of a vertical line, whereby it will be overbalanced and will fall and release the detent when tripped by opening the door, substantially as set forth.

5. The combination, in a burglar-alarm, of a case, an arm and operating mechanism therefor, a detent or tumbler for restraining the sounding of such alarm, such detent being pivoted at one end, and a gravity drop-trip pivoted substantially as described, whereby it may be elevated and balanced in elevated position and arranged to engage and depress the detent or tumbler when lowered, substantially as set forth.

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