

No. 732,727.

PATENTED JULY 7, 1903.

R. J. FLETCHER.
BURGLAR ALARM.
APPLICATION FILED FEB. 16, 1903.

NO MODEL.

Fig. 1.

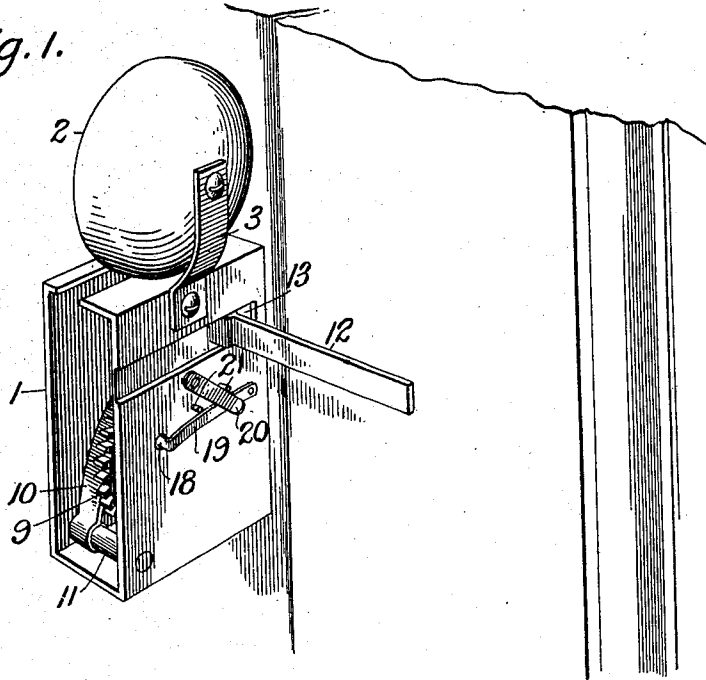


Fig. 2.

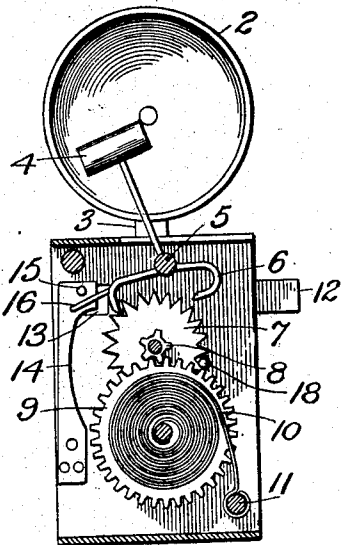


Fig. 3.

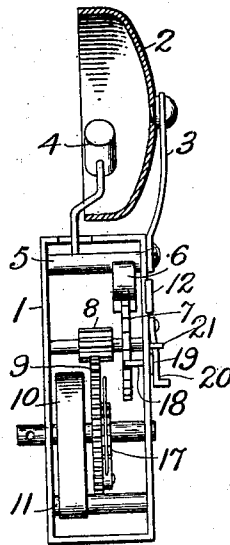
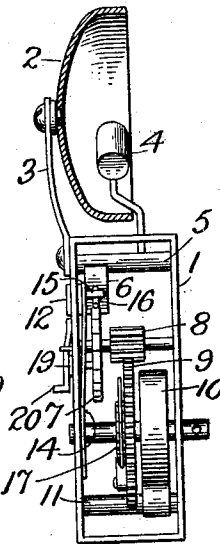


Fig. 4.



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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 732,727, dated July 7, 1903.

Application filed February 16, 1903. Serial No. 143,591. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. FLETCHER, a citizen of the United States, residing at 156 East Eighty-sixth street, in the borough of Manhattan, city, county, and State of New York, have invented a new and useful Burglar-Alarm, of which the following is a specification.

My invention relates to improvements in the means of warning inhabitants of a building that an intruder is trying to gain access; and the objects of my improvement are to provide a small device that by any simple means may be at the time desired attached to the jamb of a door, the sash of a window, or similar place and may be easily removed when it is not wanted, that will when placed in a certain position give a continuous alarm when an arm attached to it is struck or pushed, and that may be thrown in and out of operation, as desired, so that it will not be set off at an unseasonable time by the accidental striking of the arm. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the entire device or machine attached to the jamb of a door in such position that the opening of the door inward will revolve the arm extended at right angles from the machine. For the purpose of explaining the other figures or views I will divide Fig. 1 into front face and rear face, left side and right side. The side of the machine from which the arms are extended is the "front face." The side opposite to that is the "rear face." The open side in this figure, which partly exposes the mechanism, is the "left side," and the side opposite that is the "right side." In this figure only the front face and the left side can be seen. Fig. 2 is a vertical section of the machine looking at it from its rear face. Fig. 3 is a vertical section of the machine viewing it from its left side, and Fig. 4 is a vertical section of the machine viewing it from its right side.

Similar numbers refer to similar parts throughout the several views.

The mechanism of the machine is contained within an oblong metallic case, closed on all sides, but with an opening at the top for

the wire handle of the bell-hammer to pass through and large enough to allow it to freely vibrate, with an opening in the front face 13 to permit the extended arm 12 to make its connection with the interior mechanism and with an opening to permit the lock 18 19 to pass through the case. The axis of the driving-spring passes through the case in the fashion of the ordinary alarm-clock for the purpose of winding the spring. The spring is wound, as in an ordinary clock; also, the axes of the various wheels are journaled or pivoted in the case.

The clock-spring 10 revolves the main driver 9, which has a sprocket attachment for winding 17. The main driver 9 meshes into the pinion 8, which revolves the scape-wheel 7. This by means of a clock-anchor 6 gives a vibratory motion to the axis 5, into which is set the handle of the hammer 4, to which is communicated the vibratory motion of the axis 5. The bell 2 is placed so that the hammer 4 will strike it, the result being when the spring is wound a continuous ring until the spring has been unwound.

The arm 12, made of a flat strip of stiff metal, is divided into two parts by an axis set in the case in the opening 13, on which it revolves. The long arm extends outside the case and the short part inside. The short arm is not more than one-fourth of an inch in length and is slightly bell-shaped. When this arm is revolved so that it is at right angles to the case, the long arm extending outward, the short arm inward, the short arm depresses the flat spring 14, one end of which is riveted to the inside of the case. On the mechanism side of this spring near the free end is placed a little pin 15. When the spring 14 is depressed, this pin catches the pin 16, extending from the anchor 6, to which it is permanently attached, and prevents the anchor from moving. The anchor must move in and out in order to ring the bell, and its failure to do so locks the mechanism. The flat spring 14 also serves to hold the arm 12 steadily in place when the arm is either closed or extended.

When the arm 12 is closed or is revolved to a plane parallel to the case 1, the flat spring 14 is released and springs in close to

the case, and thus removes the pin 15 out of the way of the pin 16 and permits the anchor 6 to work properly, thus freeing or unlocking the mechanism.

5 Thus if the machine be attached to the jamb of a door or the sash of a window, as previously indicated, with the arm at right angles to the case, and the opening of the door, &c., will hit this arm, it will be impos-
10 sible to get into the room without ringing the bell.

So that the arm 12 may be closed even when the driving-spring is wound without ringing the bell a special lock is provided.
15 This consists of a flat spring 19, one end of which is riveted to the front face of the case and the other is free. The free end is bent at right angles to the rest of the spring and toward the interior of the mechanism. This
20 bent end 18 is pointed like a pin and passes through an aperture in the case, and is located in such position that if the spring 19 be depressed the bent end 18 will catch in the teeth of the scape-wheel 7 and prevent it
25 from moving. For the purpose of depressing the spring 19 the lever 20 is provided, which turns in a plane parallel to the case, one end of which is hinged to the front face of the case, and as this lever is turned to the
30 left it depresses the spring 19, and thus causes the point 18 to catch in the teeth of the scape-wheel and lock the mechanism. Turning it to the right releases the flat spring 19 and unlocks the mechanism. The two little pins
35 21 are set in the way of this lever, so that its movement is restricted by them, allowing it to move only the distance that is actually required to depress and release the flat spring.

I am aware that prior to my invention de-
40 vices have been made that will ring a bell upon the opening of a door. I therefore do not claim such a combination broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

45 1. In combination with a gong or bell, a bell-hammer, an anchor-escapement and clock-driving mechanism, a case to inclose the same, a pin or catch attached to one of the ends of the scape-anchor, an arm pivoted in
50 the edges of an opening in the front face of the case in such manner as to permit the arm to turn in a plane at right angles to the front face of the case, and so pivoted as to divide the arm into two unequal portions, the short
55 arm extending, when revolved, into the case, the long arm, outside the case, a flat spring attached to the inner side of the front face of the case in such position as to allow its free end to cover the opening in the case for the
60 arm, a pin or lug attached to the inner side of this flat spring in such position as to engage with the catch or projection attached to the anchor, should it be moved inwardly the length of the short end of the arm, the said
65 arm when extended at right angles to the

front face of the case depressing the flat spring against its tension, so as to cause the catch on the flat spring to engage with the catch or lug on the scape-anchor, thereby locking the bell-hammer, which is attached to
70 the anchor, and said arm being so located that when the case is attached to the jamb of a door, the opening of the door will cause its stile to engage with this arm and move it to a line parallel with the front face of the case,
75 thereby releasing the flat spring, which returns to its normal position taking the catch or lug secured to its back out of the way of the catch on the scape-anchor, freeing the bell-hammer, and permitting a prolonged
80 ring to the bell, and when attached to the lower bar of the top sash or the top bar of the lower sash, so that the arm will be struck, in the lowering of the first, or the raising of the second, will cause a like result to follow,
85 substantially as described.

2. In combination with a gong or bell, a bell-hammer, an anchor-escapement, a clock-driving mechanism, a case to inclose the same, a lug or catch attached to the scape-
90 anchor, an arm pivoted in the edges of an opening in the front of the case, being so pivoted as to divide it into two unequal parts, a flat spring so attached to the inner side of the front of the case as to permit its free end
95 to engage with the shorter end of the arm, with a lug or catch attached to its (flat spring's) inner side, so that the extension of the arm at right angles will cause this catch to engage with the catch or lug on the scape-
100 anchor, locking the bell-hammer, and the return of the flat spring to its natural position by the removal of the pressure of the arm caused by its revolution to a line parallel with the front of the case, removing the flat spring
105 catch or lug from engagement with the scape-anchor catch and unlocking the bell-hammer, permitting the alarm to be sounded, a second and smaller flat spring attached to the out-
110 side of the front face of the case, its free end being pointed and bent at right angles to the rest of the spring in the direction of the interior of the case, the spring being held against its tension when its free end is in
115 contact with the front of the case, and so located that its bent end will, when the spring is depressed, catch in the teeth of the second of the train of driving-wheels, and lock it, thereby locking the driving mechanism and removing the power which drives the scape-
120 wheel, anchor and bell-hammer, a small revolving lever pivoted on the front of the case so that when it is turned in one direction it will move over and depress the small flat spring, and when turned the reverse direc-
125 tion, will move off the flat spring, releasing it, thereby locking and unlocking the mechanism according to the direction in which it is moved, thereby preventing or permitting the oscillation of the bell-hammer, two little pins
130

set in the way of this small lever, one to stop
it when it goes in a direction far enough to
cover the spring, locking the mechanism, the
other to stop it when it goes far enough in
5 the opposite direction to release the small
flat spring, releasing the mechanism, sub-
stantially as described.

In testimony whereof I have hereunto sub-
scribed my name in the presence of two wit-
nesses.

ROBERT J. FLETCHER.

Witnesses:

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