(Model.) 2 Sheets—Sheet 1.

M. DECKER & J. K. DEMING.

BURGLAR ALARM.

No. 266,252. Patented Oct. 17, 1882.

Fig. 2.

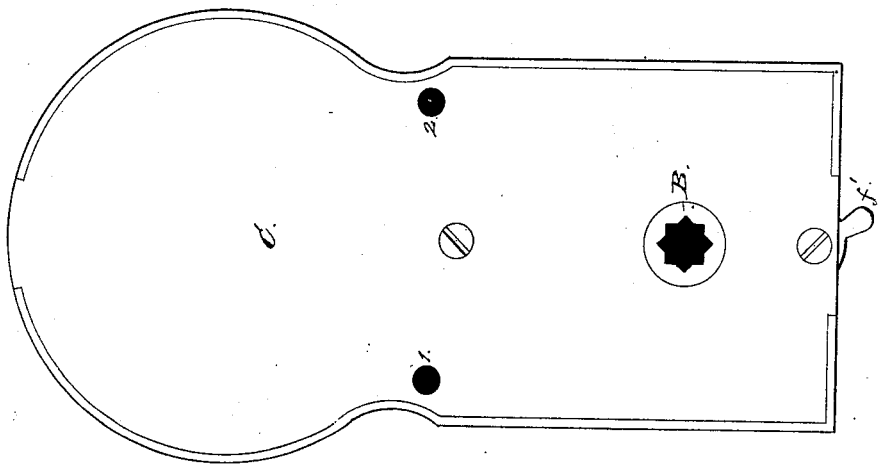

Fig. 1.

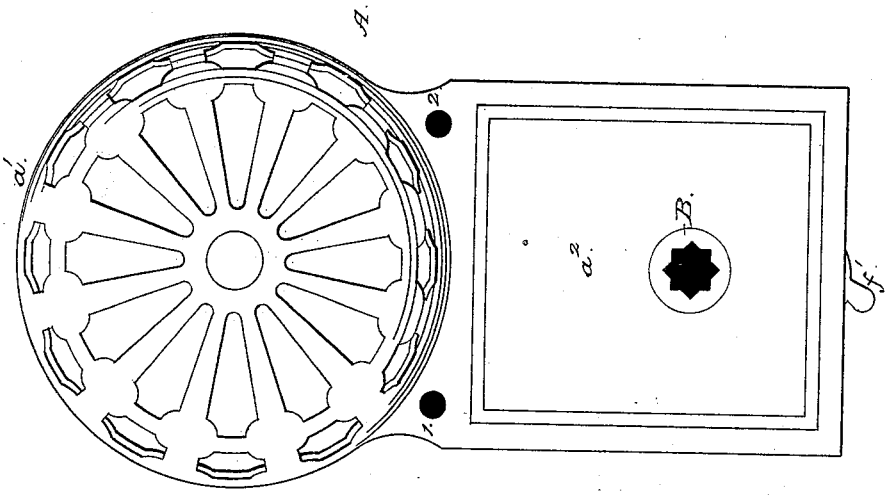

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Fig. 3.

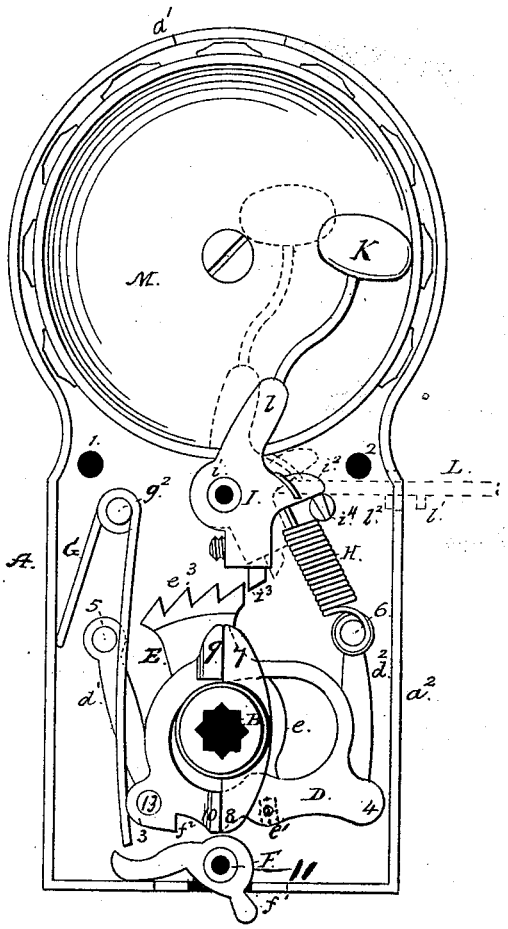
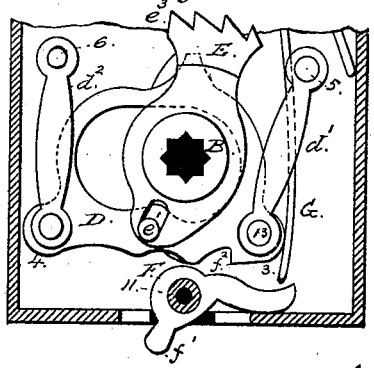


Fig. 4.



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UNITED STATES PATENT OFFICE.

MARCELLUS DECKER AND JAMES K. DEMING, OF CHICAGO, ILLINOIS.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 266,252, dated October 17, 1882.

Application filed June 5, 1882. (Model.)

To all whom it may concern:

Be it known that we, MARCELLUS DECKER and JAMES K. DEMING, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Burglar-Alarms; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of our invention is the construction of a burglar-alarm that can be applied to any door, and which will be an effective safeguard against sneak-thieves and tramps.

It consists of a combination of door-spindle, dogs, springs, ratchets, an alarm-bell, properly-formed solid back, and an outside protecting-casing, to be so applied to a door that the latch or catch cannot be moved without sounding the alarm.

It is illustrated in the following drawings, which represent the invention in full size, and in which—

Figure 1 is a front view of the invention; Fig. 2, a back view, showing the form of back protecting-plate; Fig. 3, an interior view with the back plate removed, showing the operating mechanism, and Fig. 4 a sectional rear view of the lower part of the same.

Like letters represent like parts in the several views.

A is a casing cast in one piece, the upper part, a', being open circular work surrounding the bell, and the lower part, a^2, being formed flat and square, and provided with a suitable opening for insertion of the spindle B. The upper part of the casing, a', is made with open-work, as shown, to protect the bell from being reached or tampered with or manipulated in any way from the outer side of the door, and also to give the same an exterior neat and attractive appearance.

C is a plate screwed into the back of the case and formed of chilled steel, to protect the works from access, being bored into, or otherwise tampered with by burglars.

The device is applied to the door by means of screws inserted through holes 1 and 2.

D is a swinging frame, having lugs 3 and 4, to which are pivoted arms d' d^2. The said arms are held at their upper ends on pins 5 6, projecting from the inner side of the case. The frame D is also provided with shoulders 9 and 10. The spindle-tumbler B is provided with arms 7 and 8, which are intended to bear against shoulders 9 and 10 when the latch is turned, as hereinafter described.

E is a swinging plate, lying next to the casing, and provided at its center with a hole to admit of the passage of the spindle of tumbler B. The plate E is pivoted to the swinging frame B at a point, e', by means of a pin working in a vertically-formed slot in plate E at that point and provided with a ratchet, e^3. The swinging frame D is held between the arms 7 and 8 of tumbler B and the plate E.

F is a dog used to set the alarm from operating, and turns loosely on pin 11, projecting from the bottom and inner side of the case, and is provided with a thumb-piece, f', projecting through the casing and operating against notch f^2 on lug 3 of frame D.

G is a side spring, its upper end wound around pin g^2 and its lower end bearing on projecting pin 13 on lug 3 of swinging plate D.

H is a spiral spring, attached to pin 6, extending up through hanger d^2, and its upper end attached to arm i^2 of lever I. The lever I swings on pin i', and is provided with beveled spring-catch i^3, which slides at the proper time, as hereinafter described, into notches in ratchet e^3. The arm i^2 bears against projecting pin i^4 when the alarm is at rest.

K is a bell-hammer, attached to arm l of lever I, and strikes against bell M.

L is a dog on one side of casing, (shown in dotted lines,) which may be used as a substitute for dog F in setting the alarm, and provided with lug l', arranged to work in recess l^2. Sufficient space is to be allowed in the casing for operation of dog L.

The operation of the device is as follows: On turning the knob-spindle either way, one of the arms, 7 or 8, of the tumbler B is pressed against one of the shoulders, 9 or 10, of the swinging frame D, which pressure forces the ratchet e^3 against the spring-catch i^3, which in turn throws

the pivoted bell-hammer lever I either in or out. As the catch i^3 descends into each notch of the ratchet the action of spiral spring H serves to throw the bell-hammer against the bell M, giving the alarm. The spring G, bearing against the pin 13 on swinging frame D, serves to force the ratchet back to its normal position after the knob is turned. The catch i^3, sliding up over the notches, permits the ratchet to swing back without ringing the bell. When it is desired to set the alarm so that it shall not sound the spindle is turned until the last notch in the ratchet is passed, when, by means of the thumb-piece f', the tongue 14 of dog F is forced into notch f^2 of swinging frame D, and holds the latter so that it is not operated by the turning of the knob-spindle.

It will be seen that by the use of dog F the whole number of notches will have to be passed in order to set the alarm from ringing, and that the alarm cannot be so set without first ringing the bell. To obviate this, if desired, and also to provide a dog that can be operated to thus hold the alarm on doors in which the lock has but a short throw, not admitting or requiring the whole number of notches to be passed in order to open the door, we have provided the dog L on one side of the case, (shown in dotted lines in Fig. 3,) and arranged to be attached directly to arm i^2 of the bell-lever I. By pushing this dog in the bell is forced back, as also shown in dotted lines, and there held by means of the projection l', resting in a recess, l^2.

Among the advantages possessed by our improvement are simplicity, cheapness, and durability of construction, ease and rapidity of adjustment, adaptability to every form of door, certainty of operation whenever a door is attempted to be opened, and security against being tampered with or rendered inoperative from the outside. Not only can it be used as a perfect safeguard against thieves, but it is also exceedingly useful on any door to give warning to persons in adjacent rooms of the entrance or exit of visitors, customers, or others.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination, in a burglar-alarm, of the swinging frame D, tumbler B, the plate **E**, pivoted to frame D and provided with ratchet e^3, and the dog and the thumb-piece F f', substantially as and for the purpose described.

2. The combination of the knob-spindle, the spindle-tumbler, the ratchet-plate, and the swinging frame with bell-lever and bell-hammer, whereby on turning the knob either way the alarm is made to sound, substantially as described.

3. The combination of the ratchet-frame pivoted to the swinging frame, the spindle-tumbler, the swinging frame located between said tumbler and ratchet-frame, and suitable operating mechanism, substantially as described.

4. In a burglar-alarm, the combination of the swinging frame, the side hangers, and the bell-lever with suitable intermediate connection with swinging frame and the spindle-tumbler, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

MARCELLUS DECKER.
JAMES K. DEMING.

Witnesses for Marcellus Decker:
ROBT. GREENHALGH,
WILLIAM F. CARROLL.

Witnesses for James K. Deming:
E. D. TOWN,
JNO. R. YOUNG.