(No Model.)

A. C. TONNER.

BURGLAR ALARM.

No. 338,319. Patented Mar. 23, 1886.

Fig. 3.

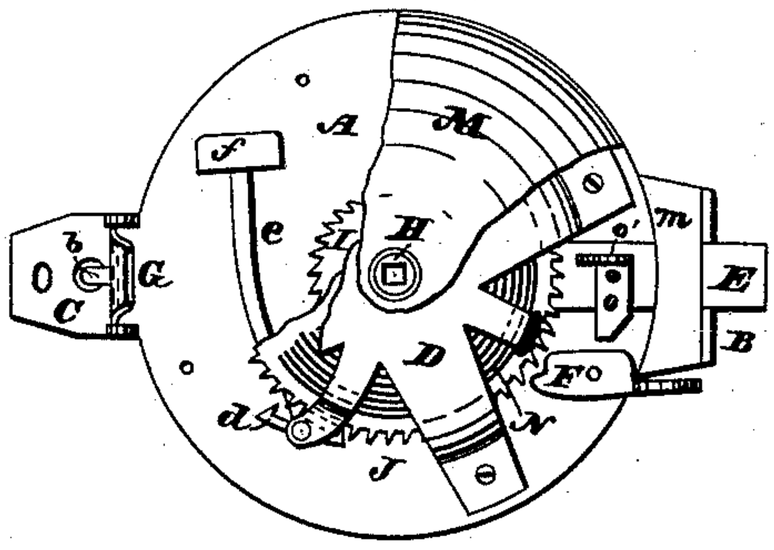


Fig. 4.

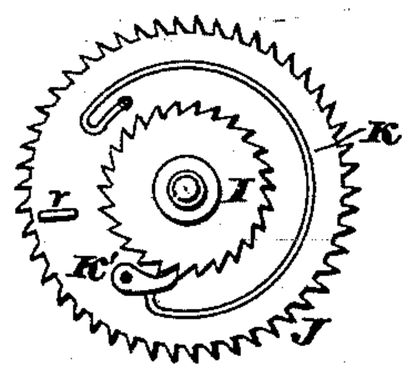
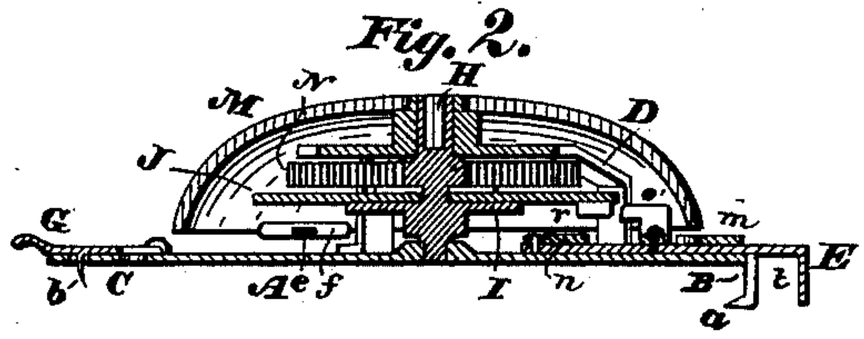


Fig. 2.



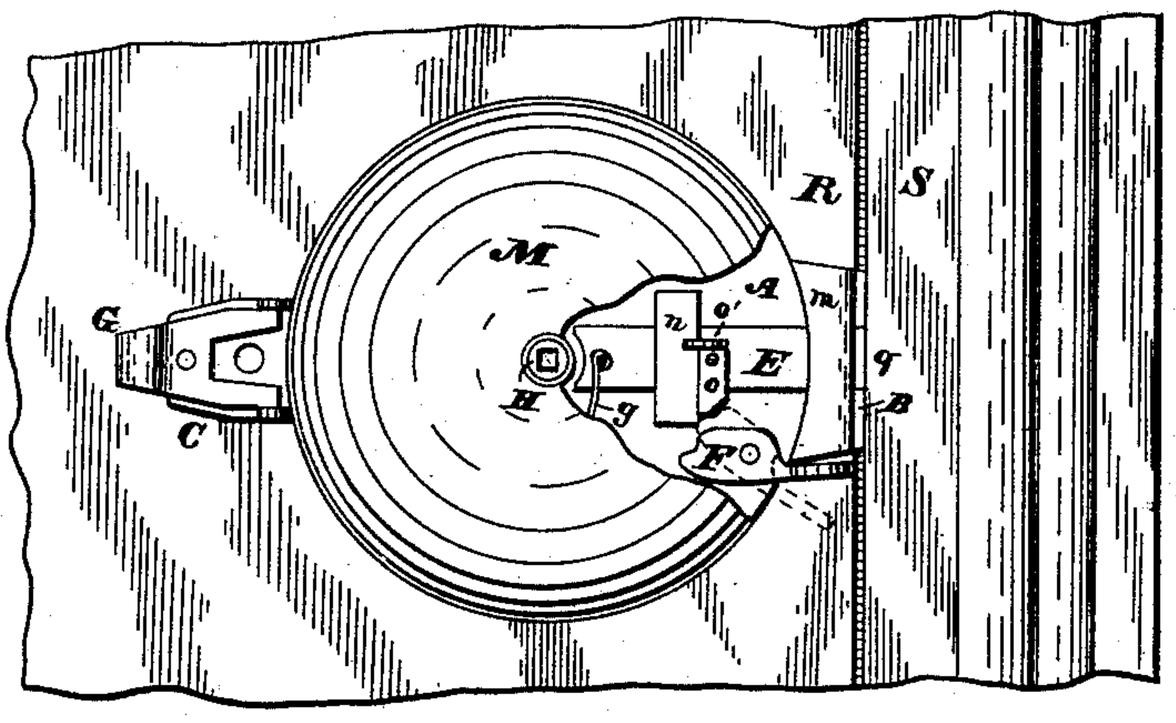


Fig. 1.

WITNESSES

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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 338,319, dated March 23, 1886.

Application filed January 2, 1886. Serial No. 187,418. (No model.)

To all whom it may concern:

Be it known that I, A. CLARKE TONNER, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Burglar-Alarms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in burglar-alarms, and particularly relates to the improvement of an alarm for which Letters Patent were granted to me bearing date the 26th day of May, 1885, and No. 318,834; and it consists in a better adaptation of the locking devices, as hereinafter described.

The present invention, as well as the one hereinbefore referred to, relates to a class of portable alarms that may be temporarily attached to a door in such a manner that upon the opening of the door an alarm will be sounded by the mechanism hereinafter described; and also relates to the details and combination of parts, as described, and set forth in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings hereunto attached.

Figure 1 is a top view showing the device placed in position on a door and set for an alarm. Fig. 2 is a transverse section showing a transverse section of the alarm sprung. Fig. 3 is a top view having a part of the alarm-bell and spider-plate cut away, showing a part of the interior detail. Fig. 4 is a detached view of scape-wheel, rack-wheel, and pawl and spring.

A represents the base-plate, as shown in Fig. 3. This plate is provided with extension-arms B and C.

To plate A is attached the spider plate or cap D, the locking-bar E, and locking-lever F.

The outer end of the arm B is bent, as shown in Fig. 2, and is provided with the desired number of piercing-points, *a*. This bent or curved portion of the arm B is formed thin, so as not to interfere with the closing of a door when the alarm is placed in proper position.

The arm C is provided with the hinged cap G, which is substantially of the form shown in the drawings, and is provided with the desired number of piercing-points, *b*, which are inclined toward the arm B, so that they will cause the points *a* to be forced into the door or casing, as the case may be, as the cap G is forced downwardly, thereby holding the alarm in position.

The post H is substantially of the form shown in Fig. 2, and turns in suitable bearings in the base-plate A and the spider-cap D. To this post is rigidly attached the ratchet-wheel I, which is of the form shown in Fig. 4. On this post is loosely placed the scape-wheel J. To this wheel is attached the spring K and pawl K′, adapted for engagement with the ratchet-wheel I. The pallet *d* is located as seen in Fig. 3, and is so arranged that it will engage the teeth of the wheel J. To the verge is rigidly attached the hammer-arm *e*, said arm being bent or curved, as shown in the drawings. To this hammer-arm is attached the hammer *f*, as shown.

The bell M is substantially of the form shown in the drawings, and is rigidly attached to and supported by the spider-plate D, and is so arranged that the hammer will strike said bell as the alarm is run down, motion being communicated to the hammer by means of the spring N, said spring N being attached at one end to the winding-post H, the other end being attached to one of the arms of the spider-plate D.

On the top of the plate A are cross-plates *m* and *n*, (see Figs. 1 and 3,) which form loops or guideways for the locking-bar E, which is passed into the loops thus formed.

To the inner end of the bar E is connected an actuating-spring, *g*. On the upper face is a plate, *o*, one end of which projects upwardly, as shown at *o′*, Figs. 1 and 2. The other or free end projects to one side of the bar E, and is adapted for engagement with the locking-lever F, which has a pivotal connection with the plate A. One end of this lever is adapted to engage with the end of the plate *o*. The other or free end is passed out from under the bell, so as to be accessible to the operator. The outer or free end of the locking-bar E is bent down to form a right angle, *t*, to that part of the bar resting upon the top of the plate A.

In the outer face of the arm B is a groove, formed to receive the bent section of the bar E when pressed in, as shown by letter *q*, Fig. 1.

On the under side of the wheel J there is provided a pendent stud, *r*, adapted for engagement with the upwardly-projected end *o'* of the plate *o*. When the locking-bar is pressed in and the locking-lever F brought into position, as shown by the dotted lines in Fig. 1, the upwardly-projected end *o'* of the plate *o* is brought into the annular path of the pendent stud *r*, and thereby arrests the rotary movement of the scape-wheel. The actuating-spring N may then be wound by placing a key in the end of and turning the post H, the pawl K' engaging with the ratchet-wheel, by which the recoil of the spring is prevented, and when so wound the device may be applied to a door in the following manner: Place the arm B against the open edge of the door, the plate A resting flat against the inside face. Press the points *a* into the edge of the door, and the point *b* on the plate G into the face. Close the door. This will bring the arm B with the locking-bar E between the door R and the jamb S, as shown in Fig. 1. The free end of the locking-lever F may now be raised up, as shown in Figs. 1 and 3, releasing the locking-bar E, which will then be forced against the jamb S by the spring *g*. If the door be now opened, as the bent end of the bar E leaves the jamb S the spring *g* will throw the bar out, as shown in Figs. 2 and 3, disengaging the stop *o'* from the pendent stud *r*, releasing the wheel J, the actuating-spring N setting in motion the escapement. The hammer, striking the bell, sounds the alarm.

Having described the nature and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. In combination with the herein-described alarm, the sliding locking-bar E, having its outer or free end adapted to pass between the swinging door and the latching-jamb, the other end provided with an upwardly-projecting stop, *o'*, adapted to engage with and arrest the movement of the wheel J, substantially as described, and for the purpose set forth.

2. In combination with the herein described alarm, the locking-bar E, having its outer or free end adapted to pass between the swinging door and the latching-jamb when the door is closed, the other end provided with an upwardly-projecting stop, *o'*, adapted to engage with the rotating mechanism, thereby locking the same, and the spring *g*, by which, when the door is opened, the locking-bar will be thrown out, releasing the mechanism, which will then sound an alarm, all operating jointly, as described, and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 31st day of December, A. D. 1885.

A. CLARKE TONNER.

Witnesses:
W. K. MILLER,
CHAS. R. MILLER.