Marshall J. Hunt's, Improvement in Burglars Alarms.

110043 PATENTED DEC 13 1870

Fig. 1.

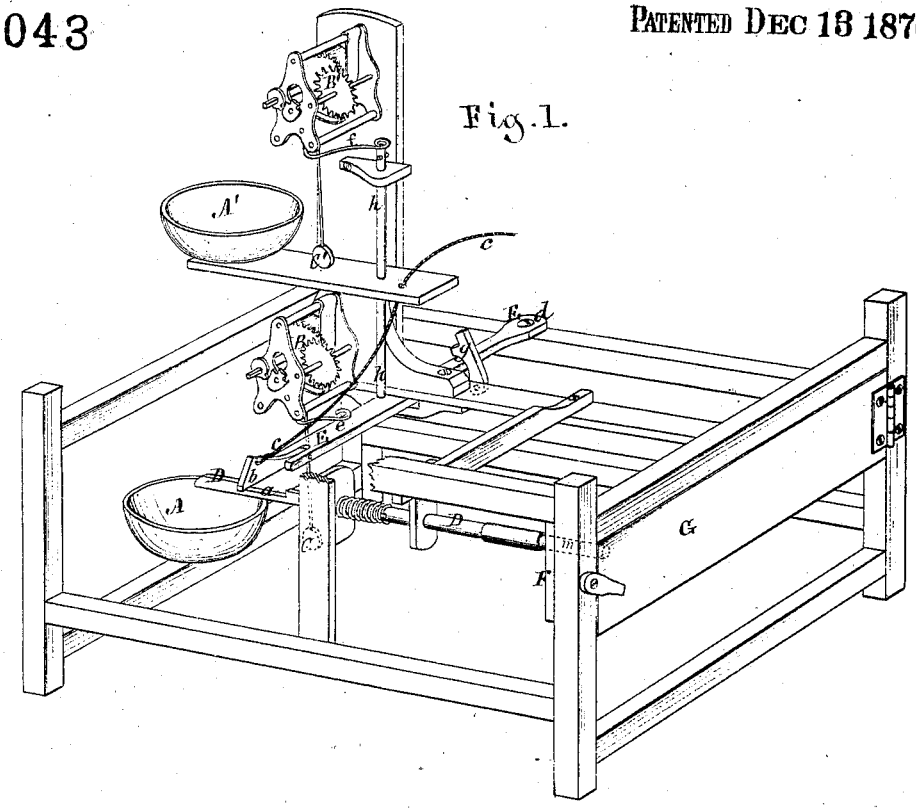
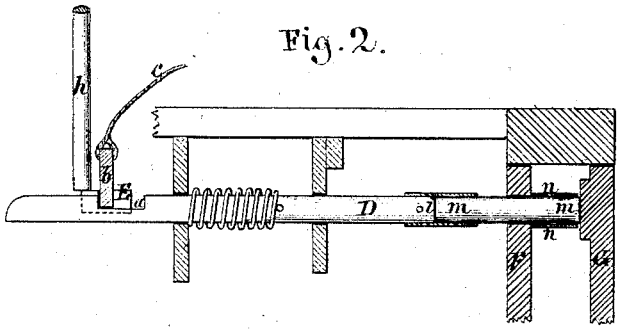


Fig. 2.



Witnesses.
Charles Wilson
Edmund Masson

Marshall J. Hunt,
By atty. A.B. Stoughton.

United States Patent Office.

MARSHALL J. HUNT, OF RISING SUN, MARYLAND.

Letters Patent No. 110,043, dated December 13, 1870.

IMPROVEMENT IN BURGLAR-ALARMS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MARSHALL J. HUNT, of Rising Sun, in the county of Cecil and State of Maryland, have invented certain new and useful Improvements in Burglar Alarms; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents in perspective the alarm apparatus arranged upon a table or support, and connected with or to vault-doors, so that the opening of the outer vault-door, will trip the alarm mechanism and cause the alarm to be sounded.

Figure 2 represents, on an enlarged scale, the trip or let-off mechanism, separated from the alarm mechanism.

Similar letters of reference, where they occur in the separate figures, denote like parts of the alarm mechanism in the drawing.

I am aware that many devices have been essayed for sounding an alarm by the opening of a door, forcibly or otherwise, but do not know that any one of them has been sufficiently practical and reliable to go into general use, desirable as such an alarm would be if effectual.

The object and purpose of my invention are two-fold.

First, to make the contrivance so as to insure its operation, and put it beyond the skill of the burglar to prevent it from sounding an alarm by boring and plugging, or clamping the trigger or let-off, and

Secondly, to make the alarm mechanism cheap and simple, and to ring the alarm not only in the vault, but in the watchman's room above, or at one side thereof, and where he can control said mechanism by throwing it into or out of action at pleasure, and as circumstances may require.

And my invention consists, first, in the use of a removable and replaceable plug and sleeve, in combination with the outer door of the vault, and with a spring-trigger bolt within the vault or watchman's room, for setting and letting off the alarm, and for preventing any one from the exterior from knowing the locality of the let-off, or from boring and clamping the let-off to prevent the action of the alarm when the door is opened.

And my invention further consists in the combination of two separate alarms, remote from each other, but let off by one and the same mechanism, and controllable by the watchman at his station, as will be explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawing.

A and A′ represent two bells, and

B and B′, two ordinary gear-trains, driven by the uncoiling of a wound-up spring, or falling weights, in the usual well-known manner, so as to operate hammers C C′ to strike against said bells.

D is a spring-trigger, which is set by the shutting of the vault-door, as will be explained hereafter, and in a recess, *a*, in the rear of this trigger, a pivoted or hinged sear or dog, *b*, can rest when the alarm is set and ready to be sounded when the vault-door is opened, or which may be drawn up out of said recess by means of a cord or wire, *c*, when the door is opened for business, or by the authorized person, in which case the alarm is not required.

E is a lever, pivoted at one end, as at *d*, so that it may be moved laterally in a horizontal plane, and the opposite end of this lever E carries the hinged sear or dog *b*, above mentioned.

When this lever is swung into one of its positions, viz., that shown in fig. 1, it catches and holds or supports both of the escape-levers *e f*, one for each train of gears, and in this position said lever may be locked by letting down the dog *g*, which prevents its movement, and consequently any let-off of the trains of gears.

This dog *g*, like the one *b*, may have a cord or wire attached to it so as to raise it up out of action, or allow it to drop by its own gravity, or by a spring into action with the lever, and through it the other mechanism.

The escape-lever *e* rests directly upon the lever E; the other escape-lever *f* is supported by a rod, *h*, which in turn rests upon the lever E, so that if the lever be swung into its other position, or to the right from that shown in fig. 1, it slips out from under both the escape-lever *e*, and the rod that holds the other escape-lever *f*, and both trains of gears are let off and cause their hammers to strike their respective bells, sounding an alarm not only in the vault, but in the room or apartment in which the second alarm is placed.

Bank-vaults are generally constructed with two doors, an inner one and an outer one, which are represented at F G. The alarm mechanism is entirely within the vault and in the watchman's room or apartment, and to connect it with the outer door G of the vault so that the opening of that door will trip and let off the alarms.

I arrange as follows:

The spring-trigger D terminates in the vault at *i*, and to connect with this trigger a hole is bored through the inner door F, and a plug, *m*, is inserted so as to come against the end of said trigger; and to prevent this plug from being tampered with, wedged, or held by boring through the outer door, and feeling for it with an instrument used by burglars, it is passed through a tube, sleeve, or boss *n*, which may be griped

from the exterior, but which allows the plug to play through it. This plug *m* extends far enough through the inner door to be struck by the outer door when it is closed, which movement pushes in the trigger D until the dog *b* drops into the recess *a*, where it may remain. This sets the alarm.

Now, if the outer door G of the vault be opened, forcibly or otherwise, when the alarm mechanism is set as above, the spring *o* on the trigger D, expanding, shoots out the trigger, and the trigger in turn moves the lever E out from under the escape-levers *e f*, and the trains of gears are let off, each sounding an alarm. If it be desirable to open the vault without letting off the alarms, it is only necessary, by means of the cord *c*, to draw the dog *b* out of the notch *a*, which disconnects the trigger from the alarm mechanism.

The plug *m* and sleeve *n* are removable and replaceable at pleasure. They may be laid aside during the day, when the vault is used by the authorized persons, but when it is to be closed and set, then the plug and sleeve are put in their proper position, as shown in fig. 2, and when the outer door G is closed, the alarm is set, and will go off the moment said door is opened.

Having thus fully described my invention—

What I claim is—

1. In combination with the spring-trigger D, the plug *m*, for making a connection between said trigger and the outer door G, and so as to set and let off said trigger by the closing and opening of said door, substantially as described.

2. In combination with the trigger, door, and plug, the sleeve *n* around said plug, to prevent the latter from being reached and held from the exterior of the door, should it be bored for that purpose, substantially as described.

3. In combination with a spring-trigger set and let-off, as herein described, the hinged-lever E, and the escape-levers *e f* resting thereon, for the purpose of letting off by one operation two alarms remote from each other, as and for the purpose described and represented.

MARSHALL J. HUNT.

Witnesses:
JESSE A. KIRK,
JOB HAINES.