(No Model.)

# C. PHELPS.

## BURGLAR ALARM.

No. 386,265. Patented July 17, 1888.

Fig. 1.

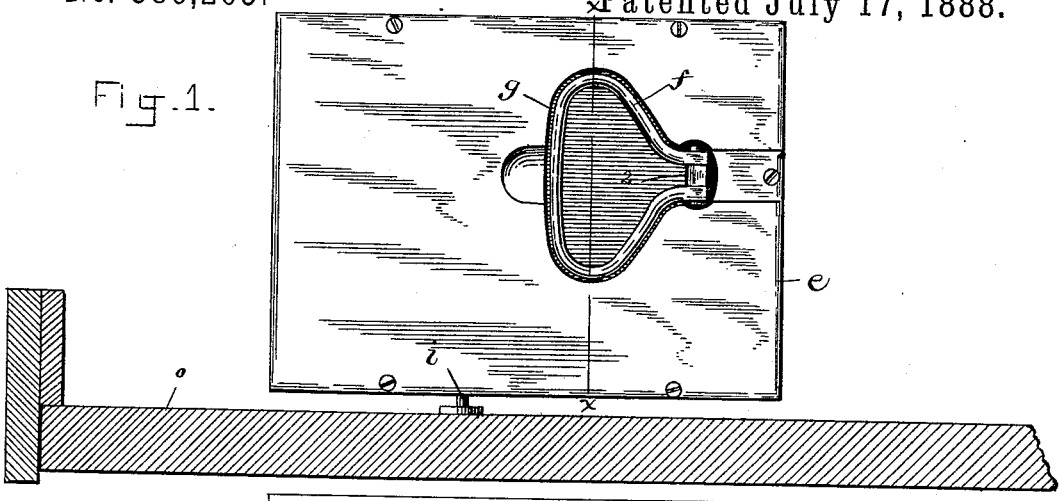



Fig. 2.

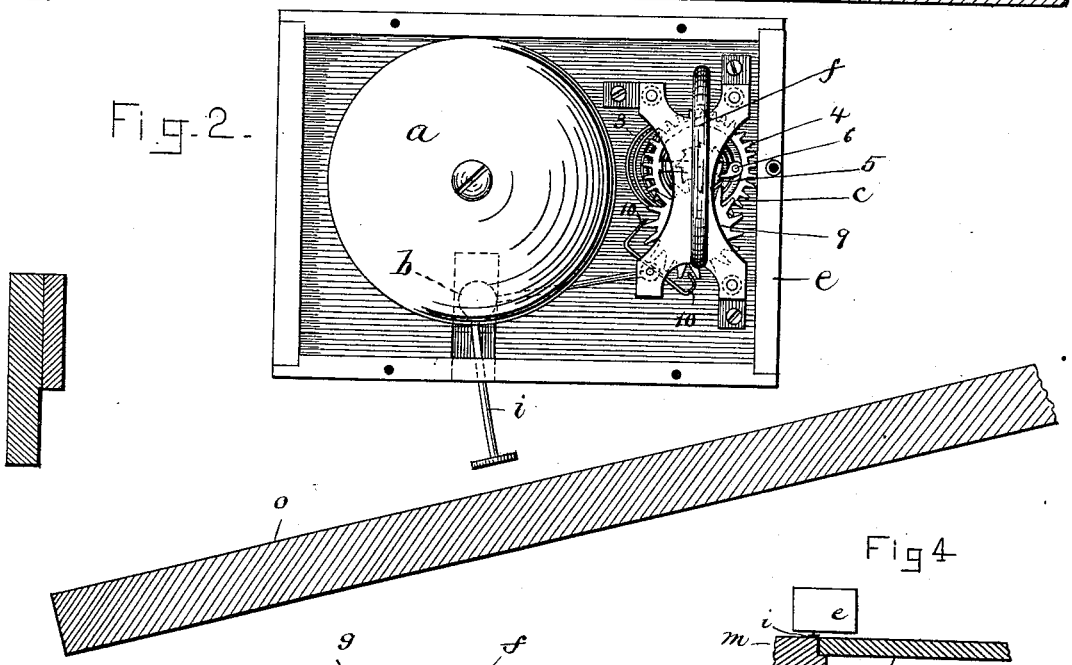



Fig 4

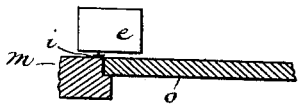



Fig. 3.

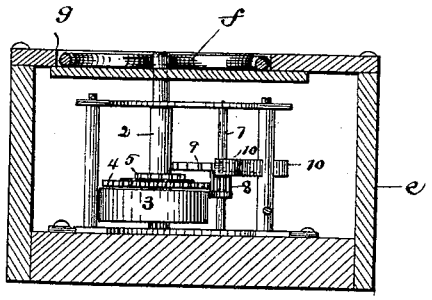
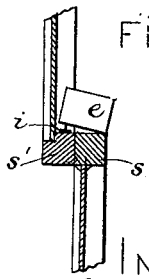



Fig. 5.

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# UNITED STATES PATENT OFFICE.

CHARLES PHELPS, OF SALEM, MASSACHUSETTS.

## BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 386,265, dated July 17, 1888.

Application filed January 27, 1886.. Serial No. 189,927. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES PHELPS, of Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification.

This invention has for its object to provide a simple and compact portable alarm apparatus capable of being carried in a trunk or valise and of being readily placed in such relation to the door of a room that the opening thereof will operate the alarm and give notice of any attempt to enter the room.

The invention consists in an alarm composed of a bell, a hammer therefor, and a spring-motor to oscillate the hammer, combined with a holding-arm attached directly to the hammer and projecting from the alarm, the arrangement being such that when the alarm is placed in close proximity to a door, the holding device or detent being in contact with the door or with the casing thereof, the hammer will be held inoperative, but when the door is opened the hammer will be released and the alarm will operate, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top view of my improved alarm held in an inoperative condition by a door, against which the holding device or detent bears. Fig. 2 represents a similar view, the top of the casing of the alarm being removed and the door opened. Fig. 3 represents a section on line *x x*, Fig. 1. Figs. 4 and 5 represent views showing different methods of using the apparatus.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I provide a portable alarm apparatus consisting of a bell, *a*, a hammer, *b*, therefor, and a spring-motor, *c*, constructed to oscillate the hammer. Said parts are mounted on a suitable base or support, which is preferably the bottom of a box, *e*, inclosing the alarm apparatus. The spring-motor may be of any suitable construction. In the present instance I have shown it as composed of an arbor, 2, impelled by a spring, 3, one end of which is affixed to the arbor and the other to the casing, a gear-wheel, 4, mounted loosely on said arbor and engaged therewith, so as to be rotated thereby in one direction by a ratchet, 5, affixed to the arbor, and a pawl, 6, pivoted to the wheel 4, a second arbor, 7, having a pinion, 8, meshing with the wheel 4, and a spur-wheel, 9, which acts on pallets 10 10, attached to the shank of the hammer. The arbor has pivoted to its upper end a key or handle, *f*, whereby it may be turned to wind up the spring. Said handle is located above the cover of the box, and said cover has a recess, *g*, formed to receive said handle when the latter is turned downwardly, as shown in Figs. 1 and 3, the arbor 2 being held so that it cannot be rotated by the spring when the handle is placed in said recess. When the arbor 2 is rotated by the spring, it rotates the arbor 7, and the spur-wheel of the latter, acting on the pallets 10 10, oscillates the hammer and causes it to operate the alarm.

*i* represents an arm secured to the hammer *b* and projecting therefrom through the side of the casing of the alarm, so that when the alarm is placed beside a door, *o*, as shown in Fig. 1, the arm *i* will bear against the door, and thus prevent the movement of the hammer, the casing resting on the floor or door-sill. When the door is opened, as shown in Fig. 2, the arm *i* and hammer *b* are released, and the hammer is immediately vibrated by the motor *c*, and thus gives notice of the opening of the door.

The alarm is operated as above described when the door opens outwardly from the room in which the alarm is located; but when the door opens inwardly the alarm is placed as shown in Fig. 4, so that the arm *i* bears against the casing *m* of the door, and the casing of the alarm will be moved by the opening of the door, thus separating the arm *i* from the casing and producing the result already described.

The alarm can be used in connection with windows by placing the casing on the upper edge of the lower sash, *s*, with the arm *i* bearing upon the lower edge of the upper sash, *s'*, as shown in Fig. 5.

It will be observed that the hammer vibrates in directions substantially at right angles with the side of the casing through which the arm *i* projects, so that said arm moves directly out and in or at right angles with said side of the casing. This arrangement prevents the arm *i* from being released by a slight displacement of the casing, such as might be caused by a jar

or other accidental cause, a positive movement either of the casing or of the door being required to release the hammer.

I claim—

1. In a burglar-alarm, the combination of the portable box or casing, the bell, the spring-motor having an arbor extending through one side of the box, said arbor having a handle at its outer end, the hammer arranged to be vibrated by said motor, and the arm *i*, attached directly to and vibrated with the hammer and projecting through an orifice in the box, the arrangement being such that said arm when vibrated by the hammer moves substantially at right angles with the side of the casing through which it projects, and when prevented from so moving by contact with an object outside of the box holds the hammer to which it is attached away from the bell, as set forth.

2. The combination of the casing, the alarm mechanism therein, consisting of the bell, the hammer, and the spring-motor having an arbor extending through one side of the box, a pivoted handle on said arbor outside of the box, the recess *g*, formed to hold said handle and the motor, and a hammer-controlling arm or detent projecting outwardly from the alarm, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 22d day of January, 1886.

CHARLES PHELPS.

Witnesses:
DAVID P. IVES,
EDWARD F. BROWN.