(No Model.)

O. M. DAYTON.

BURGLAR ALARM.

No. 540,582. Patented June 4, 1895.

Fig. 1.

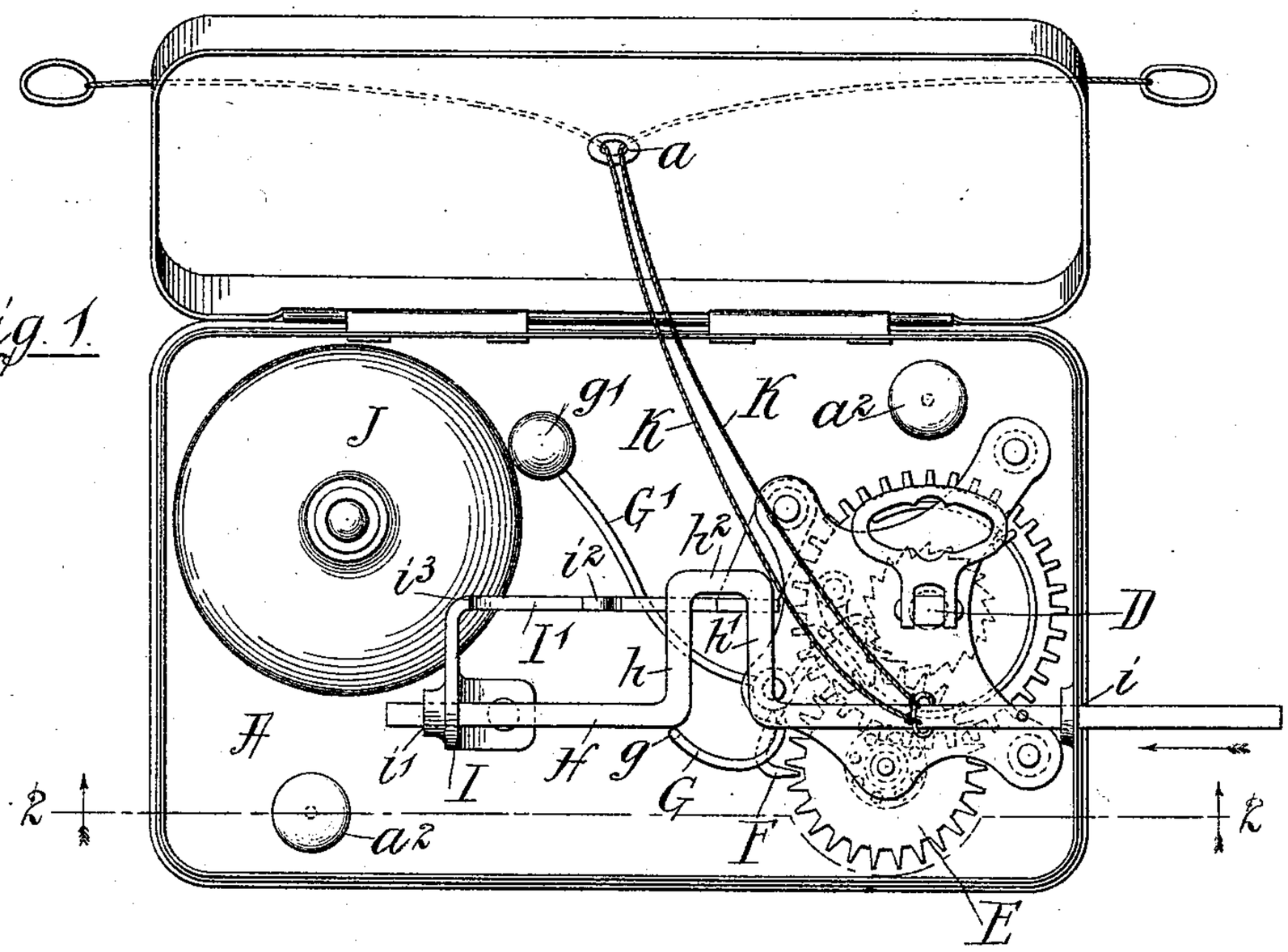


Fig. 2.

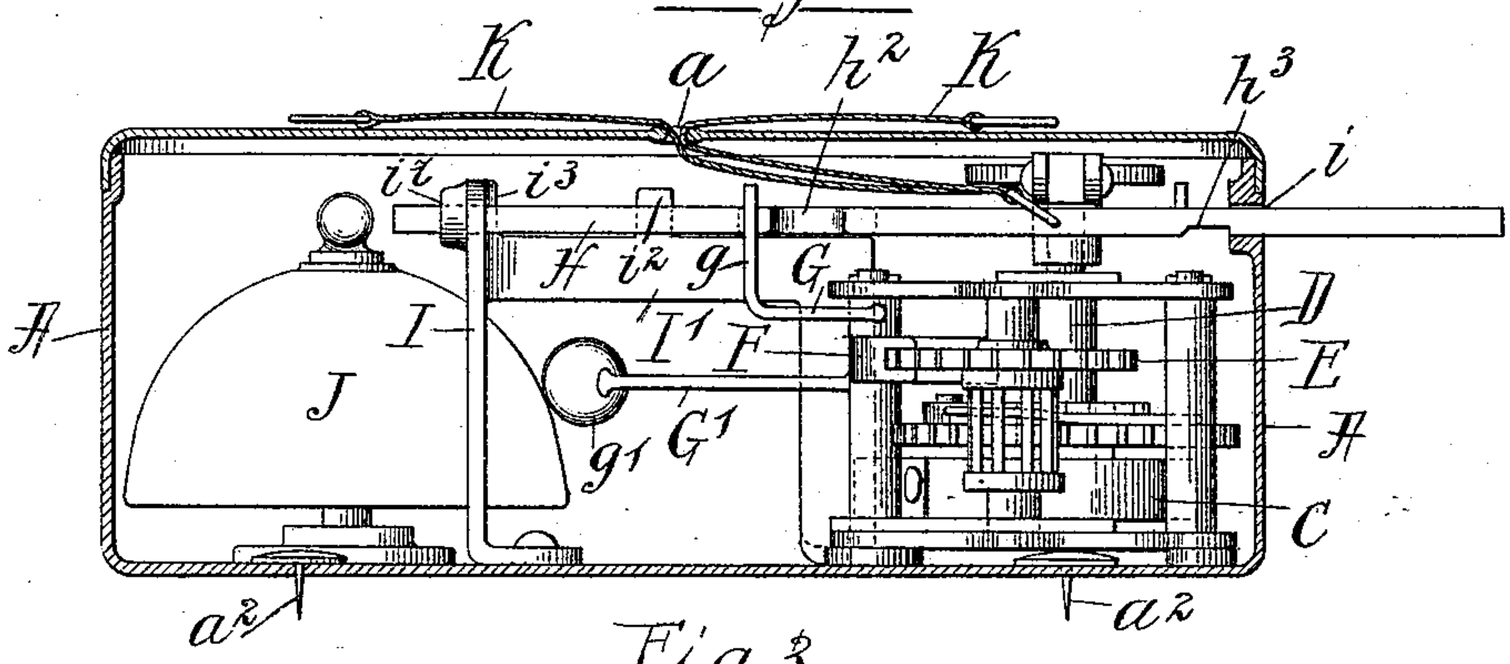
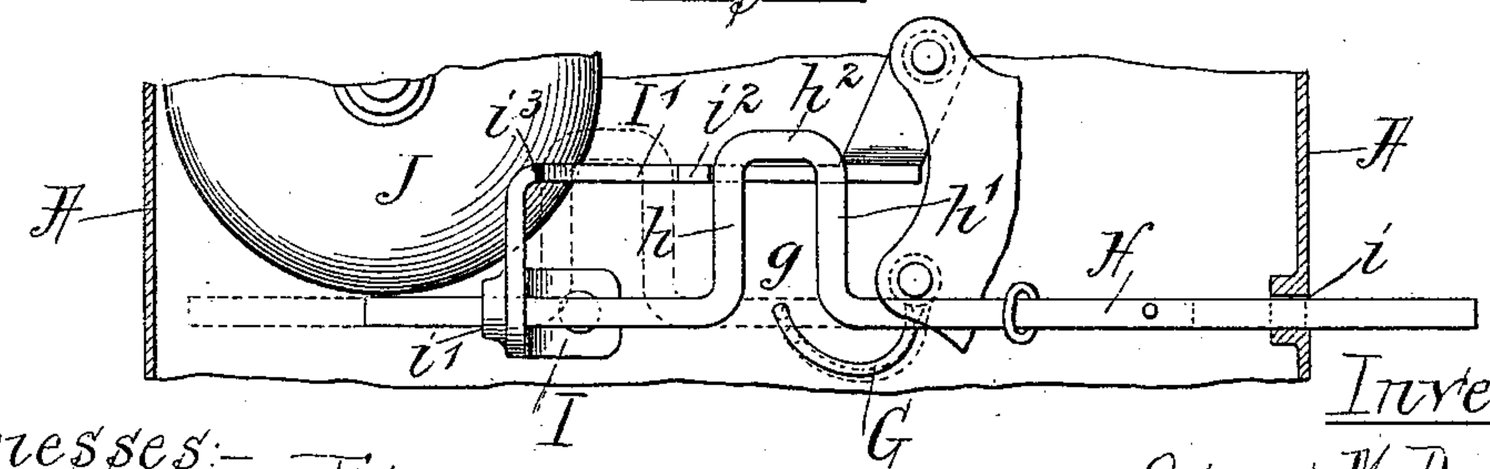


Fig. 3.



Witnesses:-
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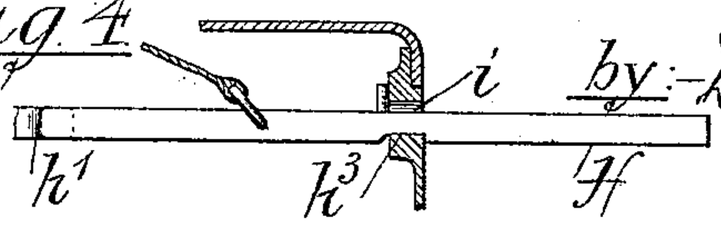
Fig. 4



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UNITED STATES PATENT OFFICE.

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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 540,582, dated June 4, 1895.

Application filed April 25, 1894. Serial No. 508,955. (No model.)

To all whom it may concern:

Be it known that I, OSCAR M. DAYTON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Burglar-Alarms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to burglar alarms of that class in which a spring-actuated clock mechanism is arranged to sound an alarm when released by an attempted intrusion, and relates more specifically to alarms of the class above mentioned which are so compactly constructed as to be readily carried in the pocket when not in use, and hence are generally denominated pocket burglar alarms.

Among the objects of the invention are to provide a simple, compact and convenient device which may be readily "set" so as to give an alarm upon any attempted intrusion, which will require no special appurtenances in order to set it to guard closures of various kinds, such as doors, windows, transoms, and the like, and which may be so arranged as to guard at the same as many different doors, windows, and other points of possible entrance, as may be desired.

The invention consists in the matters hereinafter set forth and described and more particularly pointed out in the appended claims and will be readily understood, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of the box, showing the cover thereof raised and exposing the interior mechanism. Fig. 2 is a vertical section of the closed box in the plane of line 2 2 of Fig. 1. Fig. 3 is a top view of a modification, and Fig. 4 is a detail of the construction shown in Fig. 3.

As shown in said drawings, A designates a sheet metal box, represented, in this instance, as of oblong, rectangular form and having rounded corners. Rigidly secured within and to the bottom of said box is a clock mechanism shown as comprising an ordinary clock spring C arranged to act upon a vertically arranged, rotary shaft D. A gear pinion upon this shaft engages with one of a train of suitable gears connecting the shaft with an escape wheel E controlled by a vibratory verge F in the usual manner. Rigidly secured to said verge or its shaft is an arm or detent G provided with an upturned end portion *g* arranged to engage a sliding bar H which, is mounted suitably to slide longitudinally in the box adjacent to the clock mechanism. For the purpose of this movement of the bar H said bar has one end extended through an aperture *i* formed in the end of the box, while at its other end it is supported in a bearing aperture *i'* formed in a support I which, in this instance is attached to and rises as a standard from the bottom of the box A, as best shown in Fig. 2.

The bar H is provided at a point between its bearings with two laterally directed shoulders *h h'*, here shown as being formed by a U-shaped bend h^2 which is so located with respect to the clock mechanism that when the bar H is in a central position with respect to its limits of movement the detent G will be free to vibrate between said shoulders, but when said bar is shifted in either direction from this central position the detent will engage one or the other of the said shoulders.

The bar H is rotatable by hand to place the bend h^2 in either of two positions in which it may be successively employed in different uses of the apparatus, but, in order to support the bar H from rotation when in either of said positions, an arm I' extends from the standard I parallel with the bar H in position for the bent portion h^2 thereof to slide thereon, as seen in Figs. 1 and 3; but other provision may obviously be made to secure the same result. As shown, the support I' is provided with two stops i^2 and i^3 which may engage the arms of the bend h^2 and limit the movements of the bar H.

The bar H is of such length as to project say, about one inch outside the box when shifted to its outermost limit in the direction of the box wall through which it protrudes, the object of this construction being to enable the device to be set adjacent to a door or the like in such position that the opening of the latter will strike the projecting end of the bar and move it inward for the release of the alarm.

A second arm G', rigidly secured to the

verge F or its shaft, carries at its outer end a hammer or clapper g' arranged to play upon a gong J when the verge is oscillated.

In setting the device as so far described, ready for operation, the bar H is, by rotating it far enough to lift the bend h^2 clear of the stop i^2, placed in the position shown in Figs. 1 and 2, or with the said bend of the arm back of the stop i^2 and with the verge arm G in bearing against the bar, as also indicated in Figs. 1 and 2. The spring of the clock work is then wound and the box is closed, when the device may be placed on the floor or elsewhere with the protruding end of the arm H directed toward a door or other thing in the path of its movement so as to be struck endwise thereby when the door is opened. The endwise movement of the bar H produced by the door carries the bar to the position shown in Fig. 3 where the bend h^3 is seen to have been arrested in its movement by the stop i^2. In this position of the bar H the verge arm G is free to play and the gong hammer arm to vibrate so that the gong will be sounded until the clock work mechanism runs down or is otherwise arrested.

As an additional means of shifting the bar so as to release the verge arm G, I attach thereto one or more cords K K which lead out of the box through an aperture a in the box cover, said aperture a being so located that when the cover is closed it will be vertically above the bar H and at some distance to the left (or in the direction in which it is necessary to shift the bar in order to release the alarm) of the point of attachment of the cords thereto. These cords may be severally led to various points of possible ingress to a room which it is desired to guard, as a door, window, transom, &c., and attached thereto in such manner that the opening of any of them will cause a pull on one of the cords. This may be conveniently accomplished by training the cord through some fixed guide adjacent to the closure, as for instance, through a small screw eye supplied with the alarm, or beneath a chair, before attaching it to the closure.

In order that the tripping cords may be drawn taut and so adjusted when setting the alarm that a very slight pull will release the alarm, the longitudinally sliding bar H is provided in its under side with a notch h^3 so located that when the bar H is protruded to its greatest extent this notch will engage the under side of the wall of the aperture i in the end of the box and hold the bar from being retracted by a pull on either of the cords. After the cords have been properly adjusted the bar will be lifted by hand out of engagement with the notch and pushed in slightly, but of course not sufficiently to release the detent.

When it is desired to arrange the alarm for carrying in the pocket, the cords K K are unfastened, the cover of the box opened and the cords drawn back and coiled within the box. The bar H is then shifted back to its innermost limit of movement, the U-shaped portion being lifted up so as to pass over the stop i^2 and to lie between the stops i^2 and i^3, in which position the outer end of the bar H will be just flush with the outer surface of the box. When thus shifted the bar H will prevent the verge arm or detent G from vibrating, and it will, therefore, be unnecessary to allow the clock mechanism to unwind or "run down" when arranging the alarm for carrying, while the stop i^2 will hold the bar H from being accidentally shifted so as to release the alarm mechanism. The stop projection i^2 is preferably long enough to touch or proximate the cover of the box when the latter is closed, as indicated in Fig. 2, so as to prevent the bend of the bar H from accidentally passing said stop and allowing the alarm to be sounded, when the device is being carried in a wound up condition.

As the weight of the device might not be sufficient to prevent the box from sliding upon its support instead of causing the bar H to be shifted by a pull upon one of the cords, said box may be secured to the floor or other support upon which it is placed by any convenient means, but preferably by means of thumb-tacks a^2 a^2 inserted through holes formed in the bottom of the box; these tacks being withdrawn from their apertures and carried loosely in the box when not in use.

I claim as my invention—

1. A burglar alarm comprising a casing, a spring actuated clock or gear mechanism therein, a hammer actuated by said mechanism, a gong upon which said hammer is arranged to strike, a detent, and a tripping device comprising a shiftable bar provided with a laterally extended part, and a stop arranged to engage said lateral extension, said bar being rotatable in its bearings to permit its lateral extension to be shifted past said stop, substantially as set forth.

2. A burglar alarm comprising a casing, a spring actuated clock or gear mechanism therein, a hammer actuated by said mechanism, a gong upon which said hammer is arranged to strike, a detent, and a tripping device comprising a shiftable bar adapted to be protruded through the casing and arranged to engage said detent when shifted to either its outer or inner position but to release said detent when in an intermediate position, a cord attached to said tripping device, and means for locking said bar in its inner position and a notch or stop for holding it from retraction when in its outer position substantially as set forth.

3. A burglar alarm comprising a casing, a spring actuated clock or gear mechanism therein, a hammer actuated by mechanism, a gong upon which said hammer is arranged to strike, a detent, and a tripping device comprising a shiftable bar adapted to be protruded through the casing and arranged to engage said detent when shifted to either its

outer or inner position but to release said detent when in an intermediate position, a cord attached to said tripping device, stops arranged to arrest said tripping device in each of its positions, means for locking said bar in its inner position and a notch or stop for holding it from retraction when at its outermost position substantially as set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

OSCAR M. DAYTON.

Witnesses:
ALBERT H. GRAVES,
TAYLOR E. BROWN.