

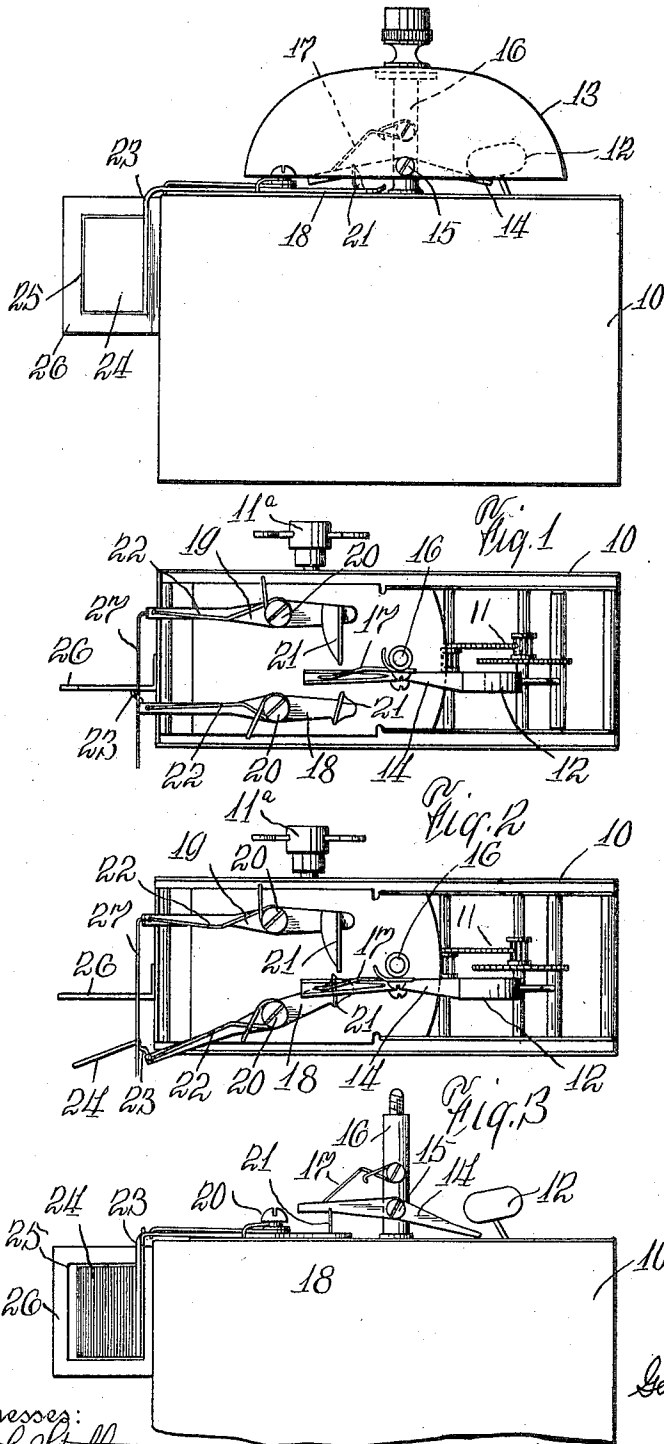
G. H. CHAPPELL.
 BURGLAR ALARM.

APPLICATION FILED NOV. 22, 1909.

971,729.

Patented Oct. 4, 1910.

2 SHEETS—SHEET 1.



Witnesses:
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 Arthur D. Danell,

Fig. 4. By his Attorney
 W. P. Hutchinson,

George H. Chappell,
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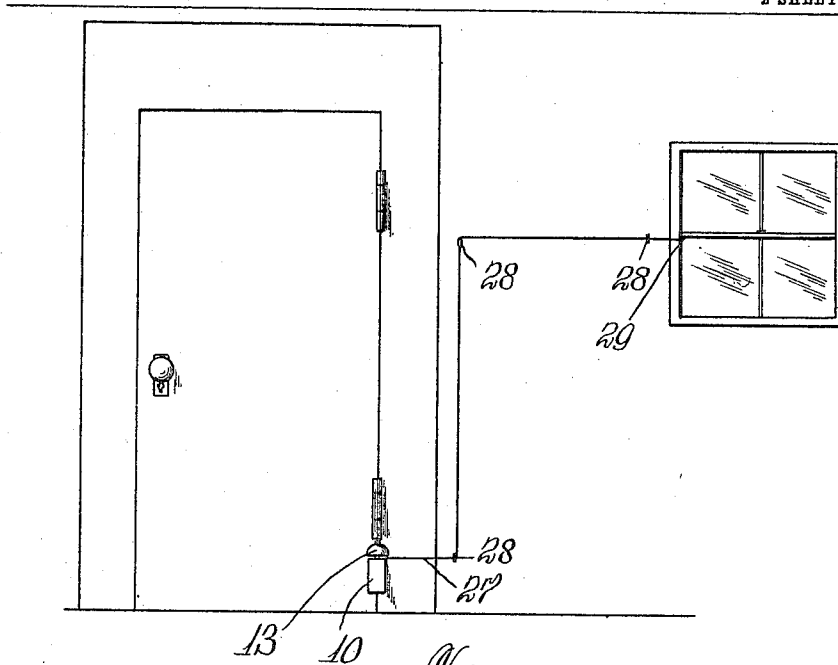


Fig. 5

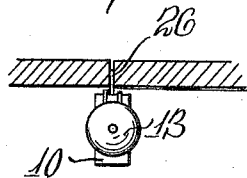


Fig. 6

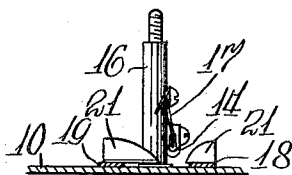


Fig. 7

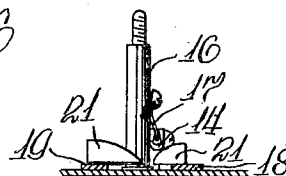


Fig. 8

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UNITED STATES PATENT OFFICE.

GEORGE H. CHAPPELL, OF NEW YORK, N. Y.

BURGLAR-ALARM.

971,729.

Specification of Letters Patent.

Patented Oct. 4, 1910.

Application filed November 22, 1909. Serial No. 529,170.

To all whom it may concern:

Be it known that I, GEORGE H. CHAPPELL, of the city, county, and State of New York, have invented a new and useful Improvement in Burglar-Alarms, of which the following is a full, clear, and exact description.

My invention relates to improvements in burglar alarms of the portable and purely mechanical type, in which the opening of a door or window operates to release the hammer of a clock-work mechanism so that it will strike against a gong.

The object of my invention is to produce a simple and reliable apparatus of this kind which is provided with an attachment which is adapted to enter the crack of a door and be fastened by closing the door, so that the apparatus is thus supported without other fastening.

My invention is further intended to produce an apparatus in which one of the moving parts or striking arms is held in the crack of the door as stated, while the second striking arm can be held by means of a cord connecting it with a window or other opening part of a building, so that in case either the door is opened or the window opened, one arm will be released by the opening of the door and the other by the opening of the window or analogous part, and the hammer of the alarm will be freed and set in operation with the double effect of waking anyone within hearing, and of frightening off the burglar.

My invention is intended also to produce a mechanism of very simple and inexpensive design which will accomplish the above results.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a side elevation of the apparatus embodying my invention. Fig. 2 is a plan view with the gong removed and with the striking arms out of engagement with the tripping lever which engages and locks the hammer of the alarm. Fig. 3 is a view similar to Fig. 2 but with one of the striking arms in position to tilt the tripping lever and free the hammer. Fig. 4 is a broken side elevation of the device in the position shown in Fig. 3. Fig. 5 is a diagram showing the application of the apparatus to a door and window. Fig. 6 is a detail section showing how the apparatus is fastened in

the crack of a door, and Figs. 7 and 8 are details showing the cam faces of the striking arms in and out of engagement with the tripping lever.

The apparatus has a small casing 10 which contains a clock-work 11, this being an ordinary clock mechanism without an escapement, and which when wound by the key 11^a will vibrate the hammer 12 and cause it to strike the gong 13, except when the hammer is held by the tripping lever 14, which is pivoted as shown at 15 on the post 16 which carries the gong 13. I have not shown this clock-work mechanism in detail because it can be any usual structure of this nature. The tripping lever 14 tilts vertically and is held normally in position to engage the hammer 12, as shown in Fig. 1, by the spring 17 attached to the post 16 and pressing down on one end of the tripping lever.

Pivoted on the top of the casing are two striking arms 18 and 19, which when set for use lie essentially parallel as in Fig. 2, and these are secured on vertical pivots 20 and each has a cam surface 21 adapted to enter beneath and engage the rear end of the tripping lever 14 so as to tilt the lever and release the hammer 12, as shown in Figs. 4 and 8. These striking arms are normally thrown into position to trip the lever 14 by springs 22 which are attached to the post 20, but when the apparatus is set, the striking arms are held out of engagement with the tripping lever. The arm 18 is bent downward and inward as shown at 23, and terminates in a plate 24 which closes into the opening 25 cut in the wing or plate 26 which projects from the back end of the casing 10, preferably near the top. Of course the plates 24 and 26 might abut, but usually it is better to have them swing one within the other, because this prevents them from being unduly thick, as in use the plate 26 and also the plate 24 are held in the crack of the door, as presently described. The striking arm 19 is held repressed when the apparatus is set, by the cord 27 which can be extended through suitable guides 28 as shown in Fig. 5, and connected with the sash of the window as at 29.

When the apparatus is to be used, the clock-work is wound up by the key 11^a as usual, the striking arms 18 and 19 have their outer ends pressed toward each other as shown in Fig. 2, so that the plate 24 goes into the opening 25 of the plate 26, and these

plates 24 and 26 are inserted in the crack of a door as shown in Fig. 5, and when the door is closed the apparatus is held in place without further fastening. The striking arm 19 is held by the cord 27 which is applied as already described. If, now, the door is opened, the plate 24 and striking arm 18 are released, and the spring 22 impels the cam surface 21 of the striking arm beneath the tripping lever 14, thus tilting the lever and releasing the hammer 12, which immediately starts and rings an alarm. If, on the other hand, the window is raised, the cord 27 is broken and the striking arm 19 is swung so as to release the tripping arm and start the alarm.

It is obvious that the particular formation of some of the operating parts can be changed without affecting the principle of this invention, but the essential things are to have the arrangement of the tripping arm and hammer preserved, the arrangement of tilting the striking arms or levers to operate the tripping lever, and means to hold the striking arms in released position. Also it is important to provide the means for fastening the structure by simply closing the door over the protruding rear end of it, which as illustrated is in the form of the plates 26 and 24.

In the specification and claims I have referred to the fact of supporting the alarm in the crack of the door, meaning by this the space between the door and the adjoining frame when the door is closed.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patents:—

1. A burglar alarm comprising a clock-work mechanism including an alarm, and an alarm hammer, a spring pressed tripping lever to engage the alarm hammer, a spring pressed pivoted striking arm to engage the tripping lever and release the alarm hammer, a plate secured to the outer end of the pivoted striking arm, a plate secured to the casing of the mechanism, the former plate being adapted to be brought into proximate and parallel relation with the latter plate

and at the same time release the striking arm from contact with the tripping lever. 50

2. A burglar alarm comprising a clock work mechanism, a containing case for the mechanism, an alarm hammer, a plate secured to the case, said plate being adapted to be held between a door and the door casing, an alarm operated by the clock work mechanism, a tripping lever secured to the mechanism and adapted to normally engage the alarm hammer, a spring pressed pivoted striking arm adapted normally to engage the tripping lever and release the alarm hammer, a plate secured to the outer end of the striking arm and adapted to be brought into contact with the former plate and at the same time move the inner end of the arm out of contact with the tilting lever, said plate being adapted when in contact and inserted between a door and the door frame to form a spring pressed support for the containing case. 70

3. A burglar alarm comprising a casing containing a clock-work mechanism which includes an alarm, and a lever to hold the alarm unreleased, a spring pressed arm to engage the lever and release the alarm, a plate attached to the casing and contacting with the outer end of the arm when the arm is not in engagement with the lever, said plate and arm when held together between a closed door and the door frame forming a support for the burglar alarm. 80

4. A burglar alarm comprising a casing containing a clock-work mechanism which includes an alarm, a tilting tripping lever extending normally into the path of the alarm hammer, spring pressed striking arms to engage and release the tripping lever, a perforated plate on the casing, said plate adapted to enter between the door and its frame, and a second plate on the end of one of the striking arms, said plate entering the perforation in the first plate. 90

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Witnesses:

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