

No. 773,745.

PATENTED NOV. 1, 1904.

J. H. HOWARD.
BURGLAR ALARM.

APPLICATION FILED AUG. 23, 1902. RENEWED APR. 4, 1904.

NO MODEL.

Fig. 1.

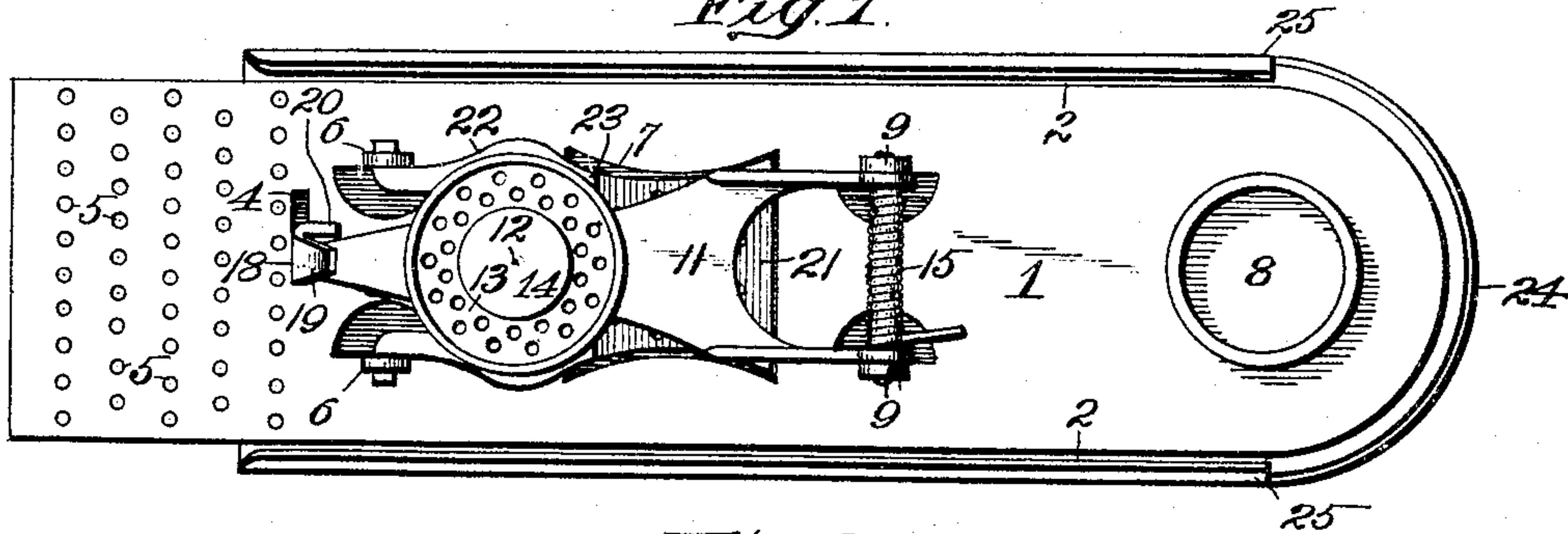


Fig. 2.

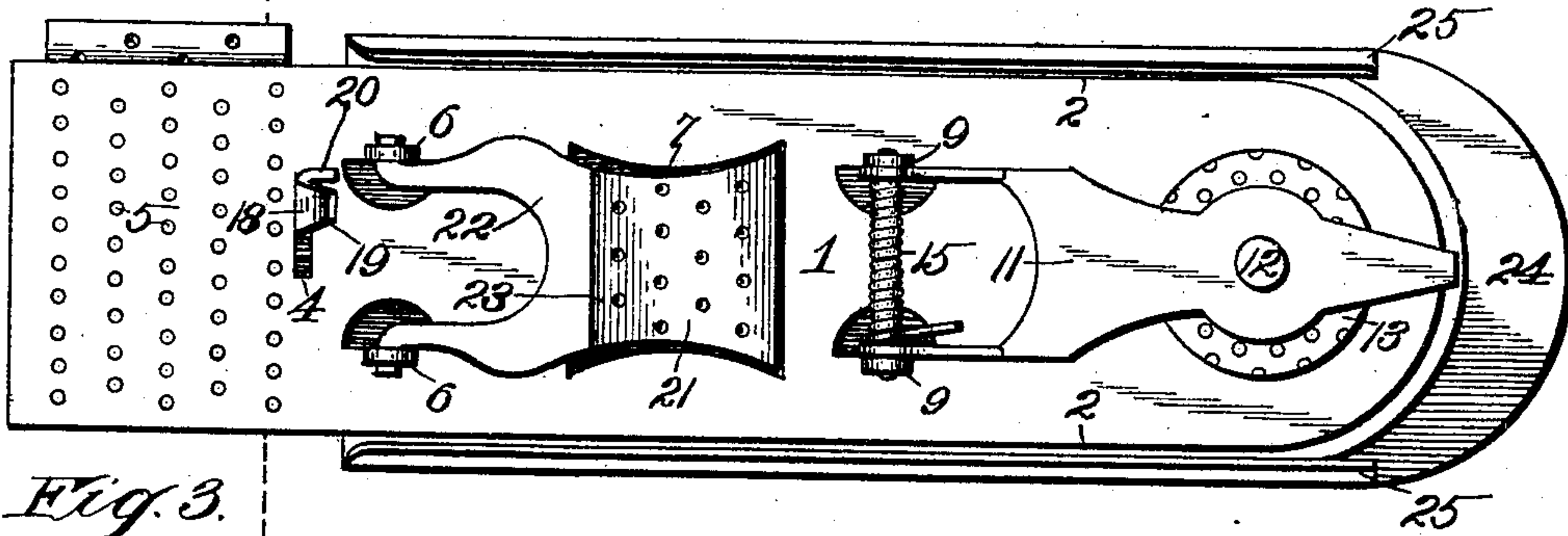
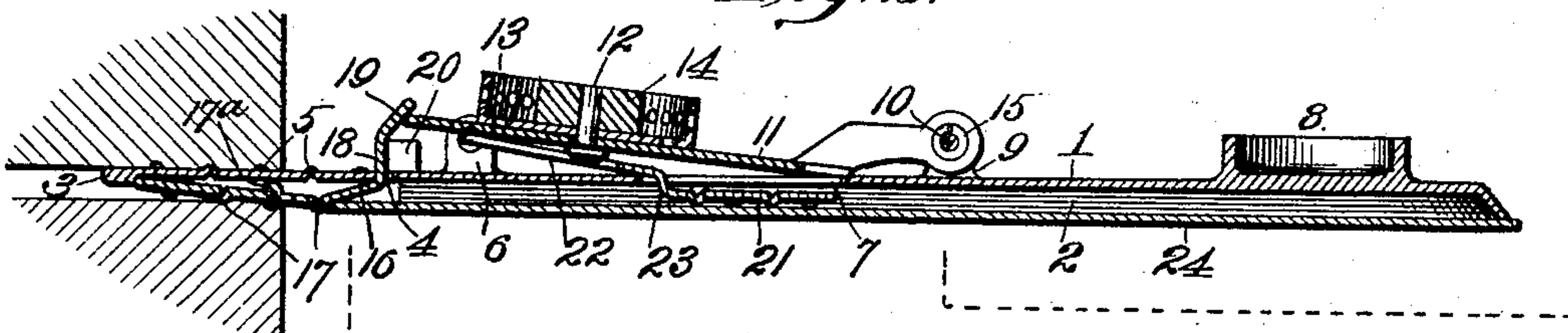


Fig. 3.

Fig. 4.

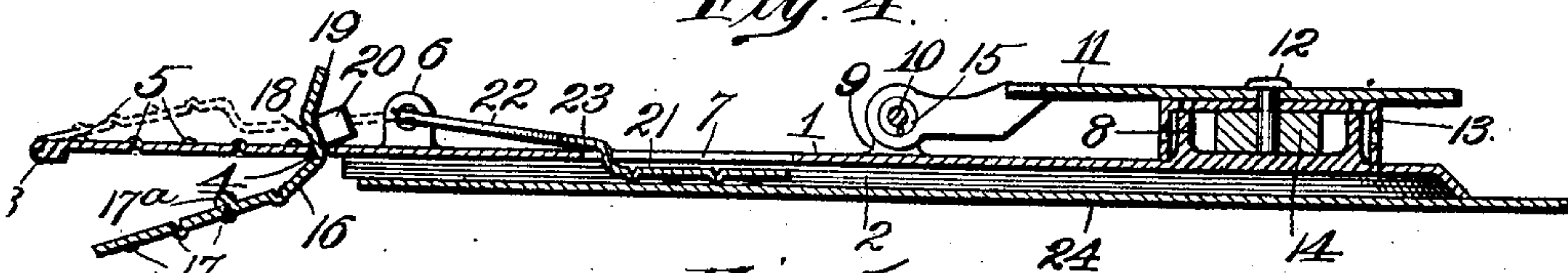
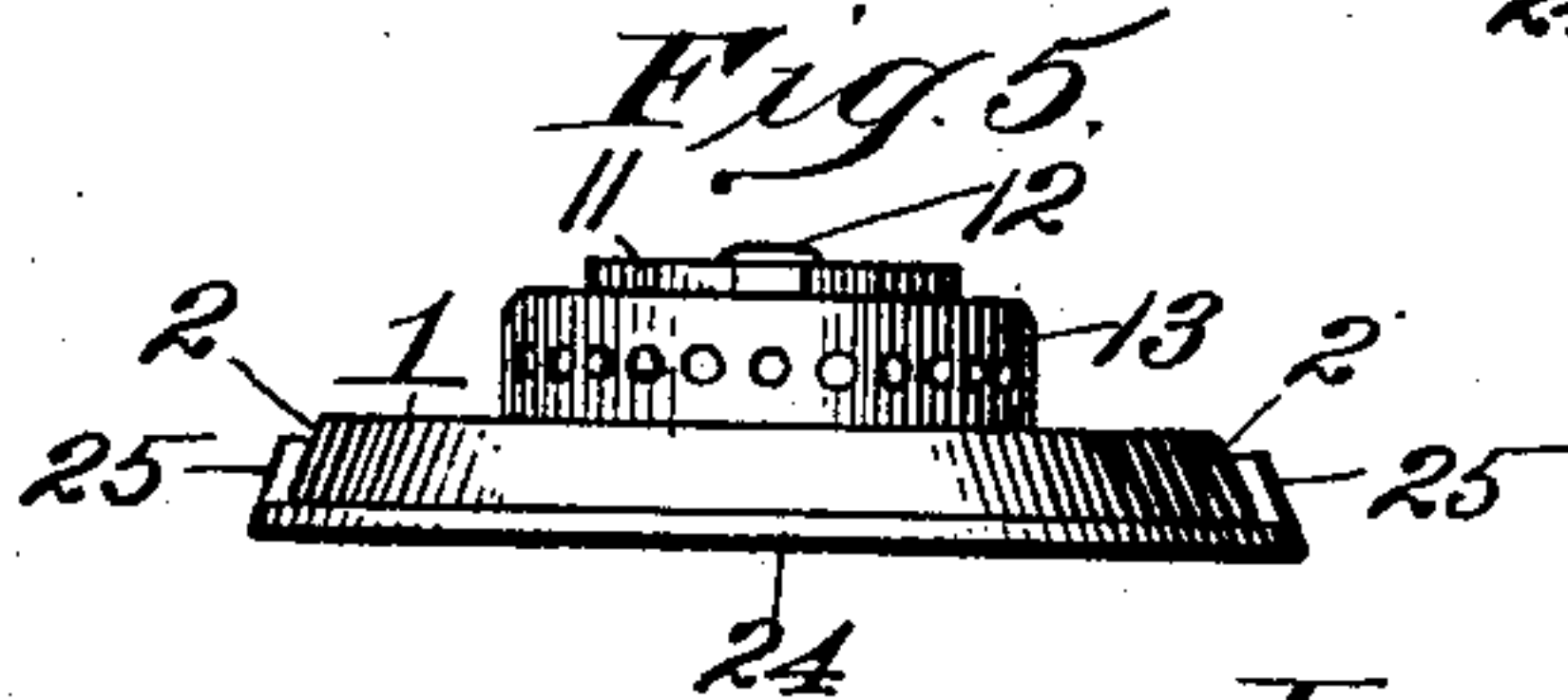


Fig. 5.



Witnesses:

A. M. [Signature]

H. C. Rodgers.

Inventor:
James H. Howard.

By *Fischer & Thorpe*
attys.

UNITED STATES PATENT OFFICE.

JAMES H. HOWARD, OF KANSAS CITY, KANSAS.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 773,745, dated November 1, 1904.

Application filed August 23, 1902. Renewed April 4, 1904. Serial No. 201,623. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. HOWARD, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification.

My invention relates to burglar-alarms, and more especially to that class for use by travelers and adapted to be carried in one's pocket or grip; and my object is to produce a device of this character which may be applied quickly and easily to or removed from a door or window and operates efficiently in either connection and which is of simple, strong, durable, and cheap construction.

To this end the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents a plan view of a burglar-alarm embodying my invention with the parts in the position they occupy as it is applied to a door or window casing. Fig. 2 is a central vertical section of the same as applied to a door, but before it is arranged for automatic operation on the opening of the same. Fig. 3 is a plan view of the device as applied to a window and after the automatic operation has occurred. Fig. 4 is a central vertical section of the same with the parts disposed as they would appear immediately after the opening of the door or window occurred. Fig. 5 is a rear end view of the same.

Referring now to the drawings in detail, 1 designates the base-plate of the device, the same being preferably of elongated rectangular form and constructed of sheet metal and bent to form marginal flanges 2, which extend divergently outward. The front end of the plate is of increased thickness, as at 3, this result being produced, preferably, by bending the end of the plate back upon itself. At a suitable point the plate is provided with a transverse slot 4, and between such slot and the thickened end 3 is a roughened surface 5, the roughened surface being at the opposite side from that occupied by the bent portion

3. Contiguous to slot 4 a pair of perforated lugs 6 project from the plate, at the roughened side thereof, and rearward of said lugs the plate is formed with a large opening 7. At the same side and opposite end the plate is provided with a cylindrical socket 8 and between the same and opening 7 with a pair of perforated ears 9, in which is journaled a rod 10, carrying a hammer 11, and secured to the hammer near its free end by means of rivet 12 is a perforated cap 13 of such proportion as to fit snugly over socket 8 and a hammer-head 14 to enter such socket and produce an alarm, preferably by exploding a percussion-cap arranged within such socket, the action of the hammer being made forcible and positive by means of a spring 15 upon and secured at one end to rod 10 and at its opposite end bearing against the base-plate.

The trigger 16 is of obtuse-angle form and is adapted in conjunction with the roughened front end of the plate to form a wedge, the major or front portion of the trigger being roughened, as at 17, at its side opposite to the roughened surface of the plate and of such proportion that its front edge shall fit behind and be flush with the thickened portion 3, as shown in Fig. 2. At 17^a the trigger is oppositely indented to provide a stiffening-rib which by engagement with the base-plate will prevent the trigger bending or springing materially, and thus losing some of its effectiveness as a wedge.

Projecting through slot 4 from the rear edge of the trigger is an angle-arm consisting of a shank 18, arranged to operate pivotally or slide in said slot, and a lip 19 to engage the hammer and hold the same against the resistance of spring 15 in position for operation, and said arm is provided with a lug 20 to prevent accidental disengagement from the slot.

A supplemental wedge to be used when the space between the door and door-casing or window and window-casing is too wide to properly receive the wedge composed of the plate and trigger consists of the roughened body portion 21, the bifurcated or skeleton shank 22, pivoted in lugs 6, and the connecting portion 23 between the shank and body

portion to enable the latter to swing down through opening 7 of the plate for a purpose which hereinafter appears.

24 designates a guard-plate provided with marginal flanges 25, paralleling and adapted to engage the flanges of the base-plate with a dovetail relation in order that said guard-plate may be slid forwardly on the base-plate and by pressure against the angular trigger reliably hold the same with its front edge against the base-plate, and therefore forming in conjunction with the latter a wedge and through the instrumentality of lip 19 holding the hammer in position for operation, as shown most clearly in Figs. 1 and 2.

Assuming that the parts are arranged as shown in the last-named figures, in which position they are preferably disposed when occupying a leather or equivalent pocket-case, (not shown,) and that it is desired to secure a door or window against opening without an alarm being sounded, the person in charge slips the device between the door or window and casing, as shown in Fig. 2, and then slides the guard back upon the base-plate until it occupies the position in Figs. 3 and 4, so as to leave the trigger free to operate when the door is opened or the window-sash is slightly moved. When the door is opened, the device drops to the floor, the trigger at the same time swinging out of the path of the hammer as the latter under the power of its spring 15 swings from the position shown in Figs. 1 and 2 to the position shown in Figs. 3 and 4, in which action the hammer-head explodes a percussion-cap or its equivalent (not shown) in the socket 8, the perforated cap 13 incidentally enveloping the socket to prevent any possibility of sparks flying therefrom, as explained in my allowed application for patent on burglar-alarm, Serial No. 100,943, filed April 1, 1902.

When the device is arranged for action in conjunction with a window-sash, the roughened surfaces are slightly embedded in the woodwork, so that a slight movement of the sash results in a relative lateral sliding action between the plate and trigger, the one engaging the casing remaining stationary and the other moving with the sash. The result is such parts assume the position shown in Fig. 3, where it will be noticed the movement of the trigger has withdrawn its arm from the path of and permitted the hammer to operate.

For use in places where the space between the door and casing or window and casing is too large to enable the plate and trigger 16 to be fitted tightly therein I provide the supplemental wedge, the same being pivoted at the opposite side of and above the plate from the trigger, so that when swung to the position shown in dotted lines, Fig. 4, it will act in conjunction with the trigger to form a wedge thick enough to properly engage any door or window-sash and its casing. This supplemen-

tal wedge has its shank bifurcated or of skeleton form to permit the arm of the trigger to project up and have the necessary play through the same when in operative position or when in inoperative position to permit the hammer to be properly engaged by the trigger.

The particular construction whereby the hammer and trigger are permitted to be engaged when the supplemental wedge is inoperative lies in the opening 7 of the base-plate and in the bend 23 in the shank of the supplemental wedge, such bent portion extending through said opening, with the body portion of the wedge lying between the plate and guard.

After setting the device for operation and finding it in the same position in the morning the occupant of the room first slides the guard forwardly until it engages and clamps wedge 16 tightly against the plate. He then withdraws the device bodily from the door or window casing and slips it, with the hammer still cocked, if desired, into its proper casement, hereinbefore referred to.

From the above description it will be apparent that I have produced a burglar-alarm which embodies the features of advantage enumerated as desirable in the statement of invention and that while I have illustrated and described the type of construction which I believe to be best from a practical and commercial standpoint I do not intend to exclude myself from the privilege of making changes which properly fall within the spirit and scope of the invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A burglar-alarm, comprising a base-plate, a hammer, a trigger adapted to form a wedge in conjunction with the base-plate and at the same time hold the hammer cocked, and a guard mounted on the base-plate and holding the trigger against the base-plate and the hammer.

2. A burglar-alarm, comprising a slotted base-plate, a trigger pivoted in and extending through said slot, a hammer mounted on the opposite side of the base-plate from the body portion of the trigger and held cocked by the contiguous portion of the latter, and a sliding guard mounted on the base-plate and adapted to hold the trigger with its front end against the base-plate.

3. A burglar-alarm, comprising a base-plate, a trigger fulcrumed rearward of its front end on and rearward of the front end of the base-plate, and adapted to form a wedge in conjunction with the front end of said plate, a hammer held cocked by said trigger when the latter is acting as a wedge member, and a spring engaging the hammer and adapted to instantly operate it and thereby swing the trigger so as to widely separate the same and the base-plate at their front ends.

4. A burglar-alarm, comprising a base-plate,

having one side of its front end roughened, a trigger fulcrumed rearward of its front end on and rearward of the front end of the base-plate and having its outer face roughened and its inner face adapted for sliding movement against the corresponding or non-roughened face of the base-plate, a hammer hinged to the base-plate and adapted to be held cocked by the trigger when the latter is held flatly against the base-plate, and a spring to operate said hammer and thereby the trigger the instant pressure is removed which holds the trigger and base-plate together.

5. A burglar-alarm, comprising a base-plate, a trigger forming a wedge in conjunction with the base-plate and adapted to slide laterally thereof, and provided with a lip, a hammer mounted on the base-plate and held cocked by said lip, and a spring to operate the hammer when the trigger has been slid a sufficient distance to disengage its lip from the hammer.

6. A burglar-alarm, comprising a base-plate, a trigger fulcrumed thereon so as to be capable of pivotal or sliding movement, a hammer mounted on the base-plate and engaging and held cocked by said trigger when the latter is pressed tightly against the base-plate, and a spring for operating said hammer after the trigger has either slid a sufficient distance on the base-plate or the pressure has been removed which holds the trigger flatly against the same.

7. A burglar-alarm, comprising a slotted base-plate, a trigger adapted to fit flatly against the base-plate and having an angle-arm projecting loosely through the slot thereof, a hammer mounted on the base-plate, and adapted to be held cocked by said angle-arm when the trigger is clamped against the opposite side of the base-plate, and a spring to operate the hammer at the instant the pressure is removed which holds the base-plate and trigger together, or the instant the angle-arm is disengaged from the hammer by the trigger sliding laterally on the base-plate.

8. A burglar-alarm, comprising a base-plate,

a trigger fulcrumed near the front end of and adapted to converge or diverge forwardly with said plate, a hammer adapted to be held cocked by the trigger when converging forwardly with the plate, and means to operate the hammer and trigger when the latter is free to operate pivotally.

9. A burglar-alarm, comprising a base-plate, an adjustable wedge thereon, a trigger fulcrumed on the base-plate and adapted to form a wedge in conjunction with the base-plate, and the said adjustable wedge, a hammer held cocked by said trigger when the latter is acting as a wedge member, and a spring engaging the hammer and adapted to instantly operate it and thereby swing the trigger so as to widely separate the same and the base-plate at their front ends.

10. A burglar-alarm, comprising a base-plate, a trigger adapted to converge forwardly with the base-plate to form a wedge therewith or to diverge forwardly with said plate, and a hammer adapted to be held cocked by the trigger when converging forwardly.

11. A burglar-alarm, comprising a base-plate, a trigger adapted to converge forwardly with the base-plate to form a wedge therewith or to diverge forwardly with said plate, a hammer adapted to be held cocked by the trigger when converging forwardly, and means to cause the trigger to diverge forwardly with the base-plate when free to do so and to operate the hammer.

12. A burglar-alarm, comprising a base-plate, a trigger adapted to converge forwardly with the base-plate to form a wedge therewith or to diverge forwardly with said plate, a hammer, and a guard engaging the base-plate and adapted to hold the hammer cocked and the trigger converging forwardly with the base-plate.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES H. HOWARD.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.