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Patented July 15, 1902.

W. B. THOMAS.
BURGLAR ALARM.

(Application filed June 17, 1901.)

(No Model.)

2 Sheets—Sheet 1.

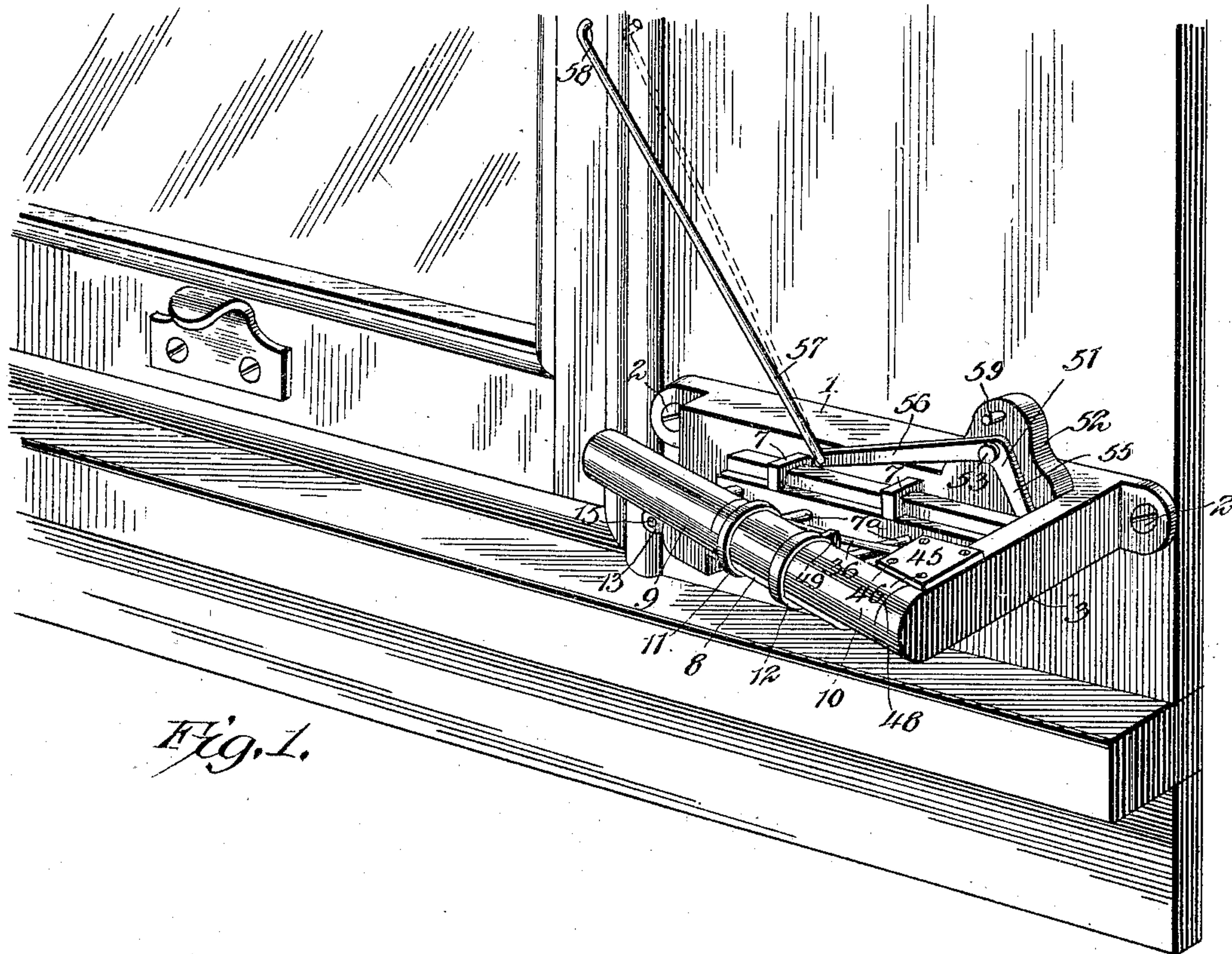


Fig. 1.

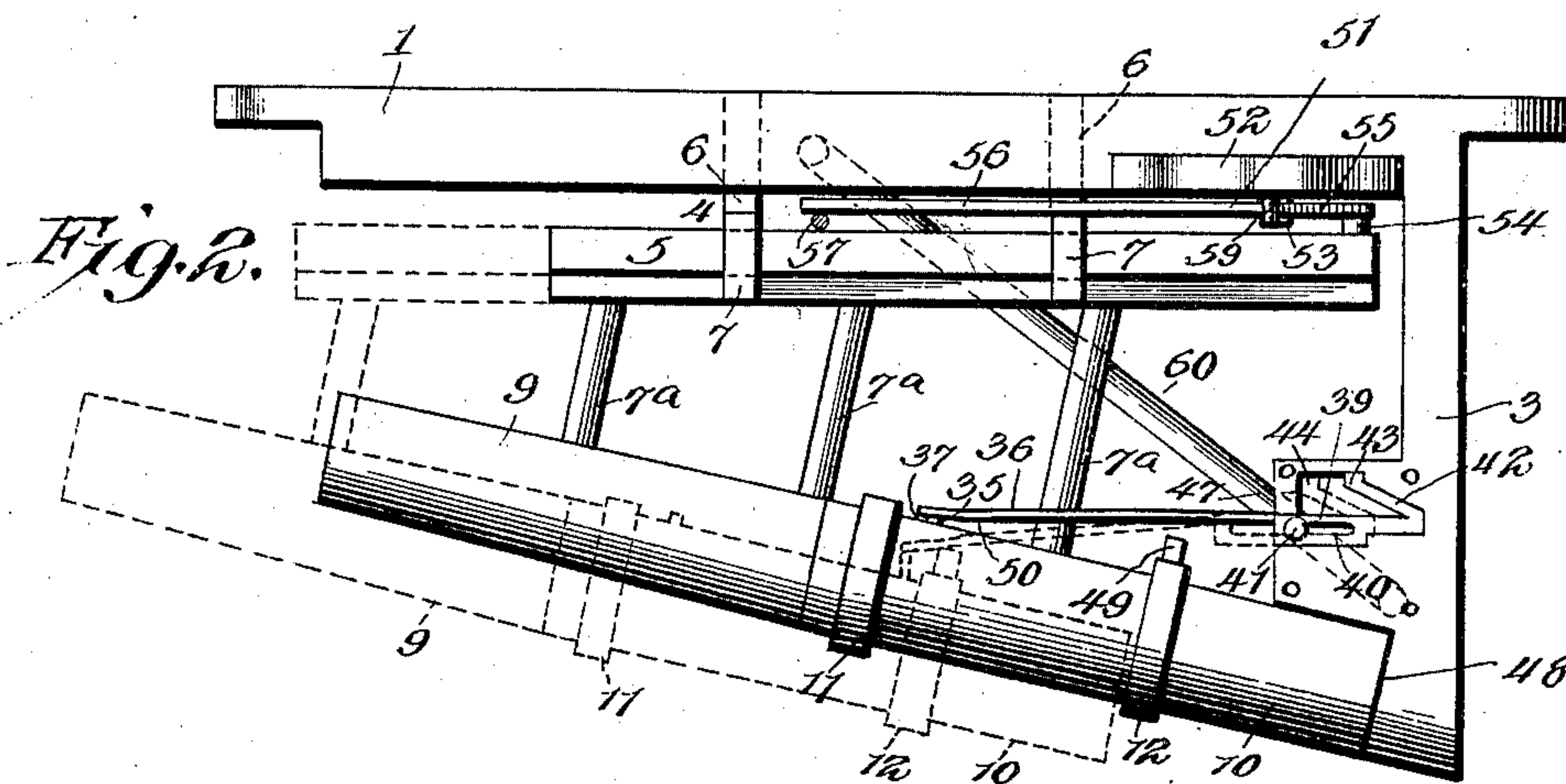


Fig. 2.

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2 Sheets—Sheet 2.

Fig. 3.

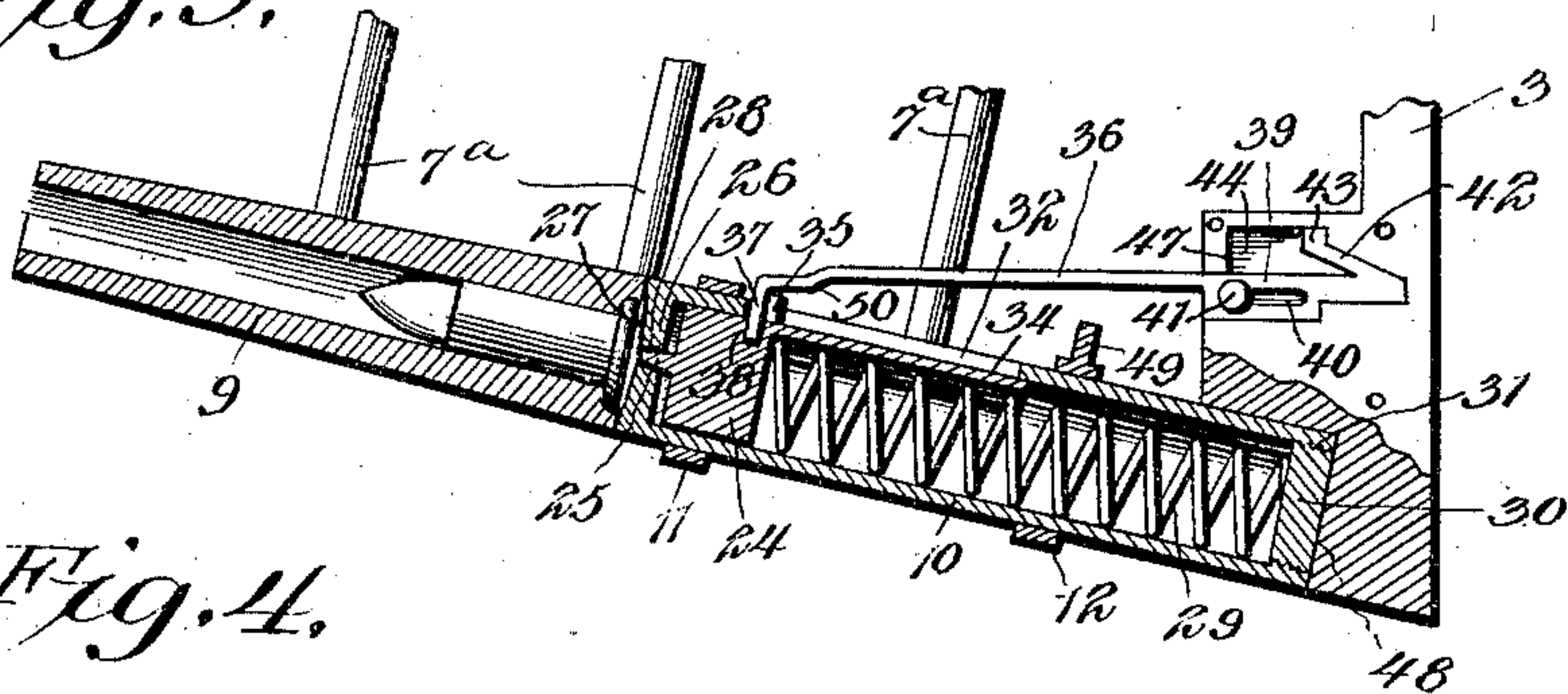


Fig. 4.

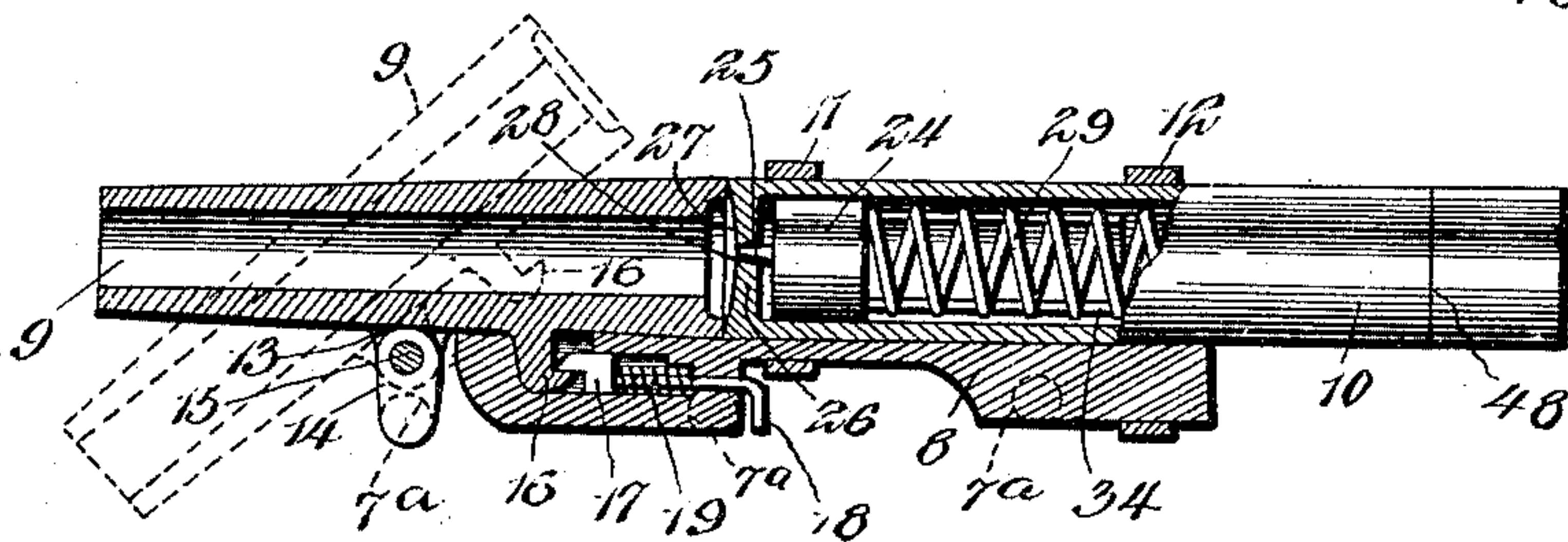


Fig. 6.

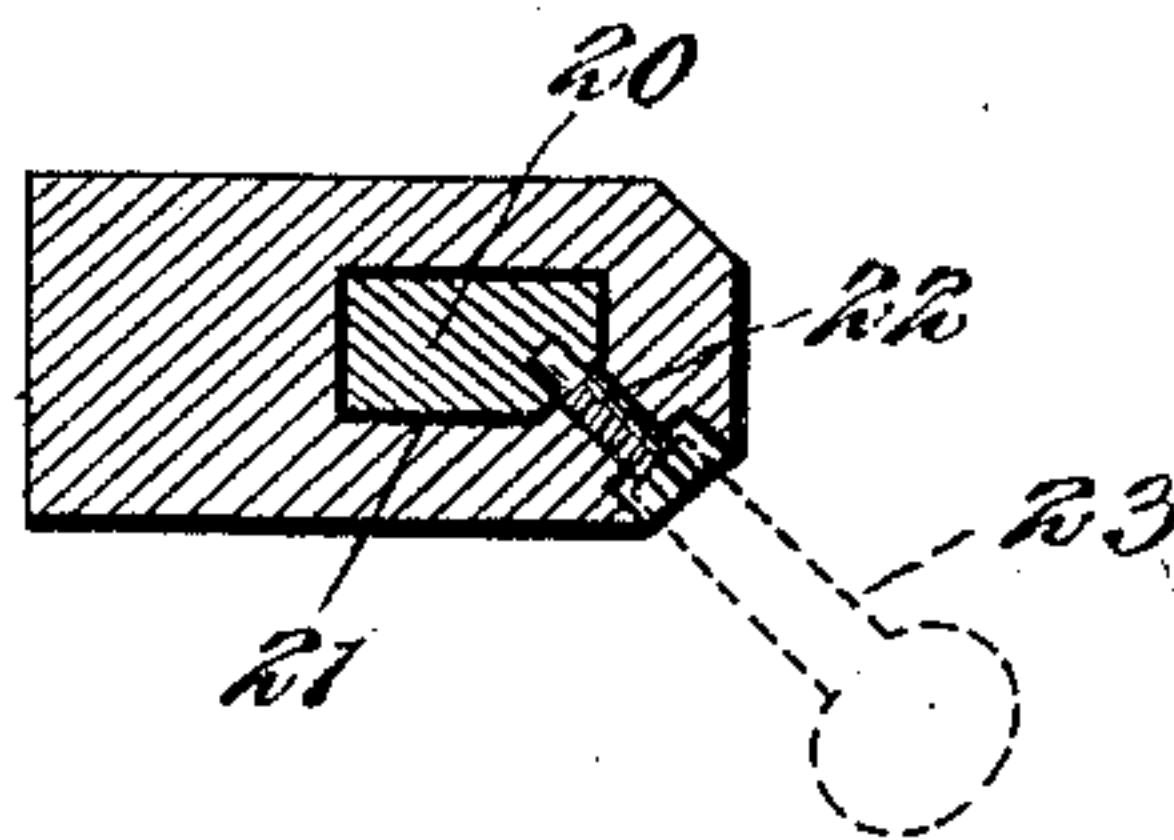


Fig. 5.

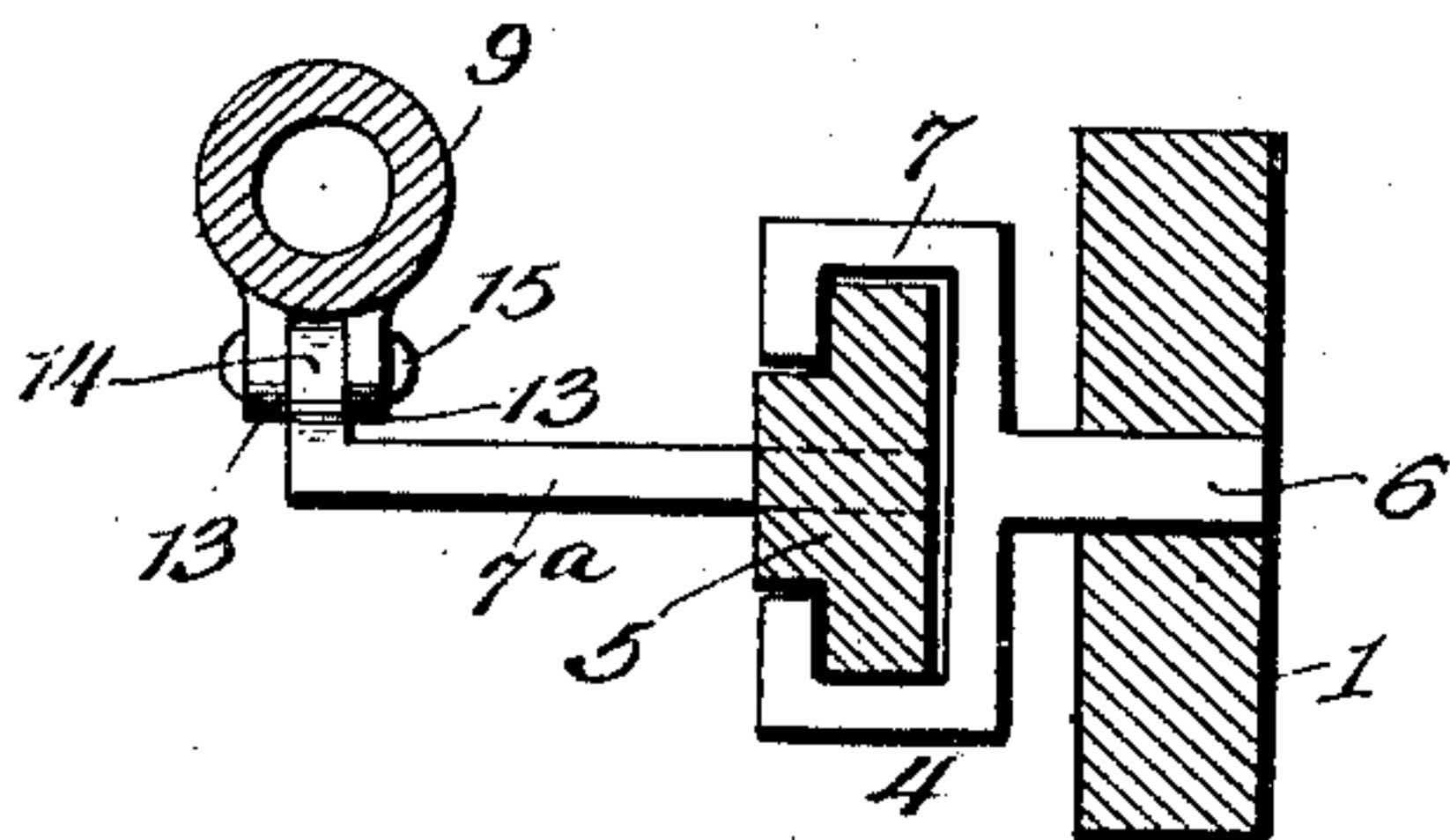


Fig. 7.

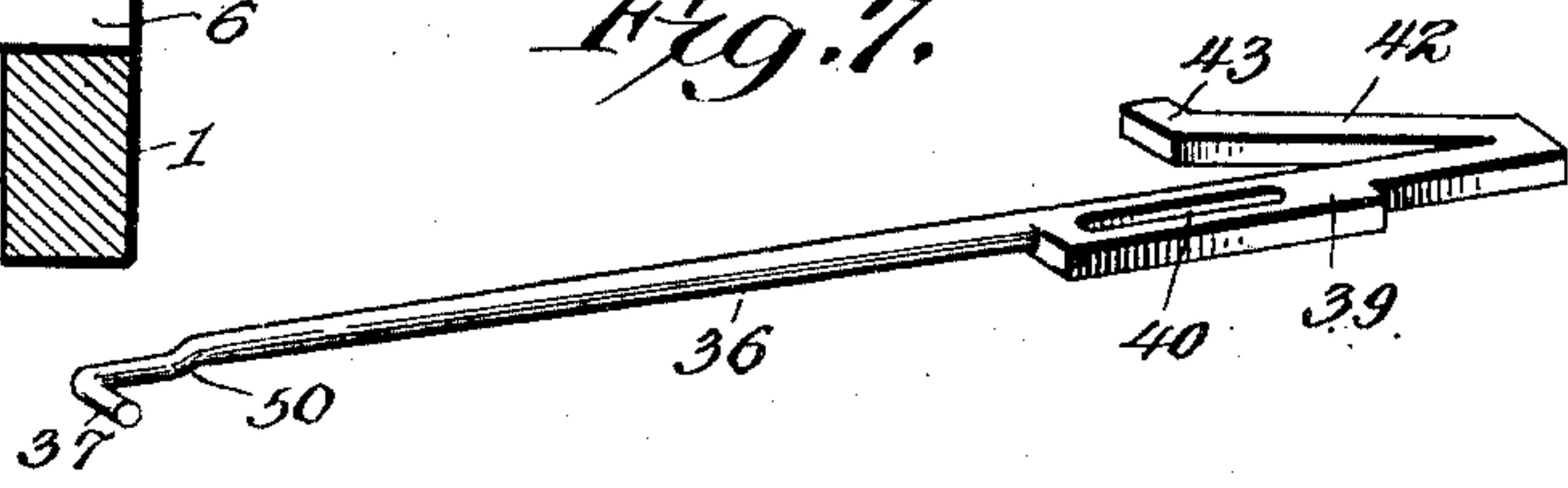
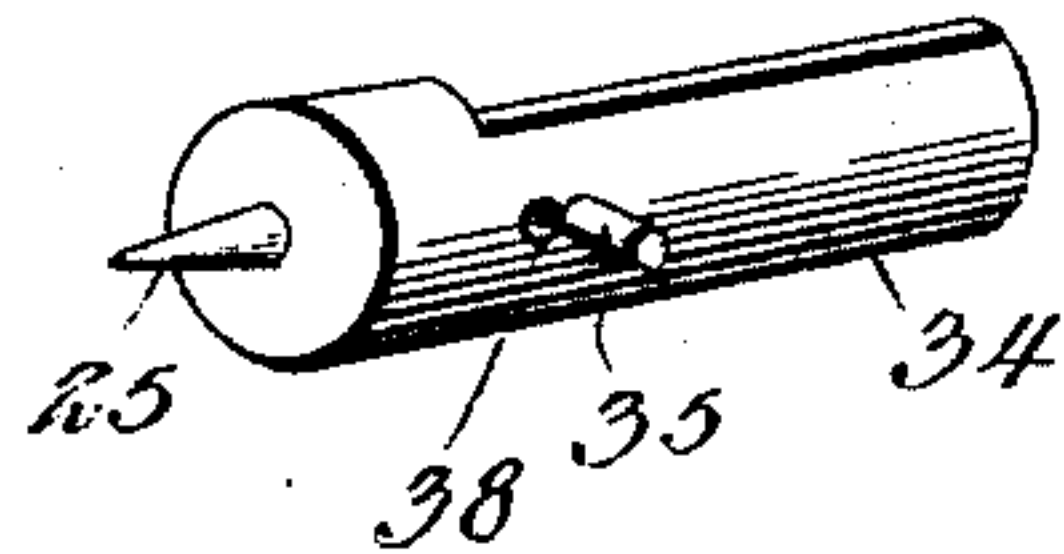


Fig. 8.



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UNITED STATES PATENT OFFICE.

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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 704,981, dated July 15 1902.

Application filed June 17, 1901. Serial No. 64,904. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BROWNELL THOMAS, a citizen of the United States, residing at Towns, in the county of Telfair and State of Georgia, have invented a new and useful Burglar-Alarm, of which the following is a specification.

This invention relates to burglar-alarms, and more particularly to one combining the triple functions of a window-lock, burglar-alarm, and firearm.

The object is to present a device of the character specified which will present in compact and reliably-operating form a window-lock pure and simple and by a slight change in the disposition of certain parts to present a firearm which shall be operated from the mechanism constituting, initially, the window-lock.

Other salient objects of the invention reside in rendering the device safe from accidental discharge, rendering it thoroughly effective when used as a firearm to do effective work, to dispose the device in such relation with regard to a window or other place to be protected as to be out of sight and reach from the outside, shielding it from being tampered with from the inside, which might result in accidental discharge, and generally the provision of means whereby the device shall be rendered thoroughly operative under any condition employed.

With these and other objects in view, as will appear in the further presentation of the case, the invention consists in the novel construction and combination of parts of a combined window-lock, burglar-alarm, and firearm, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, I have illustrated a form of embodiment of my invention exhibiting one manner in which the salient ideas thereof may be carried into effect, it being understood that the construction and arrangement of the parts shown may be changed or altered as to shape, size, and disposition with relation to each other without departing from the spirit of the invention, and in these drawings—

Figure 1 is a view in perspective, exhibit-

ing the device as positioned upon a window. Fig. 2 is a view in plan of the device detached from the window. Fig. 3 is a view in horizontal section. Fig. 4 is a view in elevation, partly in vertical section. Fig. 5 is a view in transverse section, taken on the line 5 5 of Fig. 2. Fig. 6 is a horizontal section of a slightly-modified arrangement of mechanism for holding the barrel assembled with the breech. Fig. 7 is a perspective detail view of the hammer-actuating arm. Fig. 8 is a detached detail view of the hammer.

Referring to the drawings, 1 designates a base or support, the same to be secured in suitable position adjacent to the point to be guarded, in this instance shown as secured to the casing of a window by screws 2, the rear end of the base or support being provided with an arm or offset 3, the function of which will presently appear. The base or support, with its arm or offset 3, may be of any suitable material, preferably of metal and made of one piece, or, if preferred, the arm or offset 3 may be a separate element suitably associated with the base or support.

Carried by the base or support are a plurality of guides 4, in this instance two, in which is mounted and works a slide-plate 5, supporting the firearm. As here shown, each guide comprises a shank 6, secured to the base or support in any preferred manner and provided with a rectangular head 7 upon its outer face, and in the channel formed by the arms of the head works the slide-plate 5. The construction of the guides and of the slide-plate herein shown will be found effective in operation; but it is to be understood that the invention is not to be limited to the precise contour of these parts nor in the manner in which the guides are assembled with the base or support, as it will be obvious that instead of being secured thereto, as shown, they may form an integral part thereof. Projecting from the slide-plate 5 are a plurality of arms 7^a, suitably connected with a stock 8 and a barrel 9 of the firearm, the breech 10 of the firearm being connected with the stock in any suitable manner, as by bands 11 and 12. (Clearly shown in Figs. 1, 2, 3, and 4.) Instead of having the slide-plate provided with the arms 7 for supporting the firearm the plate may have a solid

projection to which the firearm may be secured; but for reasons of lightness and general appearance of the device the arms shown will generally be preferred.

5 The barrel 9 is provided intermediate of its ends and on the side that will be the lower one when the device is positioned for use with two ears 13, the same to straddle an up-
 10 turned projection 14, carried by one of the supporting-arms, a bolt 15, passing through the ears and the offset, serving to present a swiveled joint at this point, the barrel to
 15 swing upon the swivel, as indicated by dotted lines in Fig. 4, and by this arrangement the barrel is supported for swinging move-
 20 ment independently of the breech 8; but it will be apparent that instead of associating the ears of the barrel with one of the supporting-arms 7 in the manner described these
 25 ears may be associated with the forward end of the stock in a manner common to all breech-loading firearms, and as this arrangement will be readily understood detailed
 30 illustration is deemed unnecessary. The under side of the barrel also carries a catch 16 to be engaged by a spring-latch 17, housed in a
 35 chamber in the stock, the bolt projecting rearward from the stock and carrying a head or projection 18, by which it may be retracted
 40 against the stress of a spring 19, thereby to release the barrel, the operation of this locking-latch being clearly shown in Fig. 4. The
 45 form of latch here shown for holding the barrel in locked or operative position is one of many forms that may be employed, and it will be ob-
 50 vious that various other devices for performing the same function may be employed without departing from the spirit of the invention, one other form of device for this purpose be-
 55 ing illustrated in Fig. 6, wherein the barrel is shown as provided with a lug 20, fitting in a recess 21 in the stock, the lug having at one
 60 corner an orifice to be engaged by the inner end of a threaded pin 22, the pin to be engaged by a key 23, similar to a watch-key, to
 65 move the threaded pin into and out of engagement with the orifice in the lug, the squared shank of the pin engaged by the pin 23 being disposed within the plane of the
 stock, thereby to be out of reach. By this simple arrangement the barrel may be as-
 70 sembled with the stock in a practical and secure manner, and any accidental dropping of the barrel, as by the device being handled or
 75 tampered with, will be prevented unless the person is provided with a key to fit the shank of the threaded pin. As here shown and de-
 80 scribed, the pin is arranged at an angle to the length of a stock; but it will be obvious
 85 that it may be arranged in the same manner as the locking-latch 18—that is, from the rear of the stock—or may be inserted through the
 90 side of the stock and in either position be made to perform the function designed. The
 95 breech 10 is a tubular structure and houses a hammer 24, carrying a firing-pin 25 to pro-
 100 ject through the front end wall 26 of the

breech, the outer face of the wall being con-
 105 caved, as at 27, whereby to prevent any possibility of the cap contacting therewith, the hammer being normally projected with its
 110 firing-pin in the opening 28 in the front wall 26 of the breech by a spring 29, preferably a coiled spring, one end of which bears against
 115 the rear end of the hammer and its other end against the rear wall 30 of the breech, this wall by preference being associated with the
 120 breech by screw-threads 31. This manner of associating the wall 30 with the breech is one of many ways that it may be accomplished—
 125 as, for instance, by the employment of pins or screws passing through the side of the breech and into the wall—and for this reason
 130 it is to be understood that the invention is not to be limited to the precise manner here shown of assembling the wall and the breech. The
 135 breech is provided on its inner side with a longitudinal slot 32, (clearly shown in Fig. 3,) this slot being normally covered by a projec-
 140 tion 34, carried by the hammer, the projection being curved to conform to the inner wall of the breech and in operation serving
 145 to preclude entrance of dust or any other foreign substance into the breech. Carried by the hammer and preferably by the projection 34 is
 150 a pin or lug 35, which extends outward through the slot 32 and presents a means by which the hammer may be retracted against the stress of
 155 the spring, thereby to effect explosion of the cartridge. Various means may be employed for retracting the hammer, the arrangement
 160 shown in Fig. 3 being one that may be employed and will be found effective in use. The hammer-actuating means comprises an arm 36,
 165 preferably resilient in character and having at its outer end a sear 37, the inner extremity of the sear fitting in a recess 38 in the ham-
 170 mer and its other portion engaging with the projection 35, as clearly shown in Fig. 3. The arm 36 has a sliding connection with the off-
 175 set 3 of the base or support, by which arrangement, as will presently appear, the firearm may be projected some distance forward be-
 180 fore the arm begins to retract the spring and with it the hammer. To effect this result, that portion of the arm engaging the offset 3
 185 is provided with a head 39, having a slot 40, which is engaged by a pin 41 to hold the arm assembled with the offset, the arm being pro-
 190 vided with an angular extension 42, terminating in a stop 43. The head 39, with its attached members, is housed in a recess 44,
 195 formed in the upper face of the offset, and is normally covered by a cap 45, (clearly shown in Fig. 1,) the cap being held assembled with the
 200 offset by screws or rivets 46. When the sear of the arm 36 is in engagement with the recess 38 in the hammer, as shown in Fig. 3, the head
 205 of the arm will be in the position shown in that figure, and upon forward movement being imparted to the firearm, through mechanism
 210 presently to be described, the barrel will be moved the length of the slot 40 before any pull is imparted to the spring 29, retraction

of the spring beginning when the stop 43 contacts with the front wall 47 of the recess 44. The rear end of the breech rests in an incut 48, formed in the outer end of the offset 3, as clearly shown in Figs. 1, 2, and 3, thereby both to brace the breech at this point and also to limit its rearward movement.

The means for moving the sear 37 out of engagement with the recess 38 and projection 35 consists of a stationary trigger 49, carried in this instance by the band 12, although it may be secured to the breech. This trigger as the barrel is moved forward gradually forces the sear out of engagement with the parts mentioned. As it is desirable that the firearm should project nearly to the limit of its forward movement before the sear is thrown out of engagement with the hammer, thereby to permit the spring 29 to be compressed sufficiently to propel the hammer with sufficient force to explode the cap in the cartridge, the trigger 49 is so positioned on the breech that the spring is nearly completely compressed before the trigger contacts with the arm 36, and in order to facilitate disengagement of the sear from the hammer the arm is provided with a cam-surface 50, against which the trigger will abut, and thereby throw the sear from the hammer, as will be readily understood by reference to Fig. 3.

The means for projecting and retracting the firearm comprises an L-lever 51, pivoted at its bend upon an offset 52 on the base, the connection between the lever and the offset being effected by a screw or bolt 53, as clearly shown in Figs. 1 and 2. One arm of the lever projects under the slide-plate 5 and is connected therewith by a bolt or screw 54, (shown in Fig. 2,) the length of the arm 55 thus connected with the slide-plate determining the throw or projection of the firearm. The other member 56 of the lever has connected with it a rod or bar 57, the free end of which is provided with a toe or projection 58, to be brought into engagement with an orifice located in either one of the window-sash rails or with the window-sash casing. When the toe is in engagement with the orifice in one of the window-sash rails and the sear is in engagement with the orifice 38 of the hammer, the device is then in condition to act as an alarm or as a firearm, as may be desired, and when in engagement with the orifice in the window-casing the device is locked against operation, so that danger of the accidental explosion of a cartridge is obviated. When the device is to be used as a window-lock pure and simple, the sear is moved out of engagement with the orifice in the hammer and the rod 58 is moved upward until the arm 56 of the lever 51 engages with a stop 59 on the offset 52, and the toe is then inserted in another orifice in the window-sash rails. It will be seen that when the lever is in the position described any attempt to raise the window will be frustrated by reason of the fact that the lever 51 will be in engagement with the

stop 59, and unless sufficient violence be resorted to in raising the window to break the lever 51 or the rod 57 the window will be securely locked in place.

It will be observed by reference to Figs. 1 and 2 that the firearm is disposed at an angle to the base or support 1, the pitch of the angle to be such that when the firearm is discharged the bullet or shot contained in the cartridge will sweep clear across the width of the window-opening and escape through the window without in the least damaging or marring the window sash or casing. In order to brace the offset 3 and render it of sufficient rigidity to perform the function for which it is designed, a brace 60 is employed, one end of which is secured to the offset 3 and the other end to the base or support 1, as clearly shown in Fig. 2.

In the employment of the device the base or support is secured contiguous to a window and with the barrel of the firearm removed such a distance from the edge of the window-casing as to be out of sight when the barrel is in its normal or retracted position, so that should an attempt be made by a burglar to ascertain on which side of the window-casing the device is located he will be unable to do so by the disposition of the device. The distance that the base or support is secured above the window-sill will be determined by the width of the lower sash-rail and the thickness of the front rail of the window-sill; but as a general thing it will be located from one-half to two inches above the sill. When so positioned, it may be inclosed in a metallic casing, by which tampering with the device will be prevented, the casing being provided with two openings, one through which the barrel will project and the other in which the rod 57 will work. When the device is to be used as a firearm, a cartridge is inserted in the barrel, and this cartridge may be blank or contain a bullet or a number of large shot, it being understood that the barrel may be of any desired caliber, and from the reason of the fact that the barrel is short when the cartridge contains shot these will be scattered over a large area. The barrel is locked in place by either of the locking-latches described, and the sear is brought into engagement with the recess 38, and thus bears against the projection 37, and the toe 58 is then inserted in the opening in one of the window-sash rails. Now should an attempt be made from the outside to raise the window the first motion of the window would through the motion of the rod 57 and lever 51 project the slide-plate 4 without imparting any backward movement to the hammer, due to the fact that the arm will slide in the recess 44 of the offset 3. When the stop 43 engages with the wall 47 of the recess 44, further upward movement of the window will result in projecting the barrel beyond the edge of the window-sash rail and at the same time move the trigger 49 into engagement with the arm

36, and by the time the barrel has been projected to the limit of its forward movement the hammer will have been moved back into the breech a sufficient distance to put the
 5 spring under sufficient tension to cause the hammer to explode the cap of the cartridge. When the barrel has reached the limit of its forward movement, the trigger forces the sear out of engagement with the recess in the hammer, and the latter is projected forward by the
 10 spring, and the firing-pin explodes the cap of the cartridge. The manner in which the device operates as a window-lock and the manner in which the device is rendered inoperative
 15 have before been described; but in connection with the latter it may be stated that when the sear is in engagement with the recess in the hammer the firing-pin is positively held retracted beyond the outer face of the wall
 20 28, and from the fact that this wall is concaved as described it will be utterly impossible to explode the cartridge even though an instrument were driven down the barrel and against the bullet in the cartridge. In other
 25 words, so long as the sear is in engagement with the recess of the hammer it will be utterly impossible for the cartridge to be exploded, so that the device is perfectly safe.

While the invention herein described, as
 30 illustrated, is capable of performing the various functions described, it is to be understood that I do not limit myself to the exact construction shown, as the invention may be otherwise carried into effect and still
 35 be within the scope of my invention.

It is to be understood that the invention is equally adaptable for employment in connection with a door or gate, and as its application to use will be readily apparent illustration is deemed unnecessary.
 40

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of
 50 the invention.

What I claim is—

1. In a burglar-alarm, the combination of an endwise-movable firearm, means operable by the opening of a closure for imparting end-
 55 wise movement to the firearm to project the same into range with respect to the closure, and fixed means located in the path of the endwise movement of the firearm to effect explosion of the contained charge.

60 2. In a burglar-alarm, the combination of an endwise-movable firearm having firing mechanism, means operable by the opening of a closure to project the firearm forwardly and into range with respect to the closure,
 65 hammer-cocking means located in the path of a portion of the hammer of the firing mechanism to cock the hammer, and means car-

ried by the firearm to trip the hammer-cocking means and thereby effect explosion of the contained charge. 70

3. In a burglar-alarm, the combination with a window-sash, of a burglar-alarm comprising a base secured adjacent to the sash, an endwise-movable firearm supported by the base, fixed hammer-actuating mechanism, means
 75 carried by the base to project the firearm, and a trip connection between the latter means and the window-sash.

4. A burglar-alarm comprising a base, a slide operatively connected therewith, a firearm supported by the slide, and a hammer carried by the firearm, hammer-actuating mechanism carried by the base and in operative relation to the hammer, and slide-actuating mechanism carried by the base. 80 85

5. A burglar-alarm comprising a fixed base, a slide operatively connected therewith and supporting a firearm, hammer-actuating mechanism carried by the base, an actuating-lever also carried by the base and having one
 90 arm in engagement with the slide, and means connecting with the other arm to effect operation of the device.

6. In a burglar-alarm, a base, a firearm supported thereby and comprising a breech and
 95 a barrel, a spring-pressed hammer housed in the breech, a relatively fixed arm carried by the base and having a sear engaging the hammer, a trigger carried by the breech, and means for projecting the firearm whereby to
 100 effect explosion of the contained charge.

7. A burglar-alarm comprising a base, a firearm supported thereby, a hammer carried by the firearm, an arm carried by the base and having a sear to engage the hammer, and
 105 means for projecting the firearm, said arm being adapted for limited movement before exerting any action on the hammer.

8. In a burglar-alarm, a firearm comprising a breech and a barrel suitably connected, the
 110 breech having a slot in one side thereof, a hammer mounted in the breech and having a firing-pin and a projection extending through the slot, a sliding arm having a sear to engage a depression in the hammer and to
 115 bear against the said projection, a trigger carried by the breech, and means for projecting the firearm to move the trigger into engagement in the sliding arm thus to release the hammer. 120

9. In a burglar-alarm, a base having a slide associated therewith and supporting a firearm and means carried by the base to operate the firing mechanism thereof, a trip-lever pivoted on the base to project the slide, and
 125 a stop on the base to limit the movement of the lever.

10. In a burglar-alarm, a firearm comprising a breech and a barrel, the breech being provided on one side with a slot, a hammer
 130 having a curved projection to cover the slot and provided with a pin to extend there-through and with a recess adjacent to the pin, an arm having a sear to engage the re-

cess in the hammer and to bear against the pin, and means for projecting the barrel.

11. In a burglar-alarm, a base having a slide associated therewith and supporting a firearm, a lever pivoted on the base and having one member connected with the slide, a stop on the base to limit the movement of the lever, and an arm connected with the other member of the lever and having its free end provided with means to engage a fixed

object, the device, when so employed, constituting a window-lock.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM BROWNELL THOMAS.

Witnesses:

EDWARD D. TOWNS,
JOSEPH W. CAMERON.