

No. 636,396.

Patented Nov. 7, 1899.

C. H. COOLEY.  
BURGLAR ALARM.

(Application filed Aug. 5, 1899.)

(No Model.)

Fig. 1

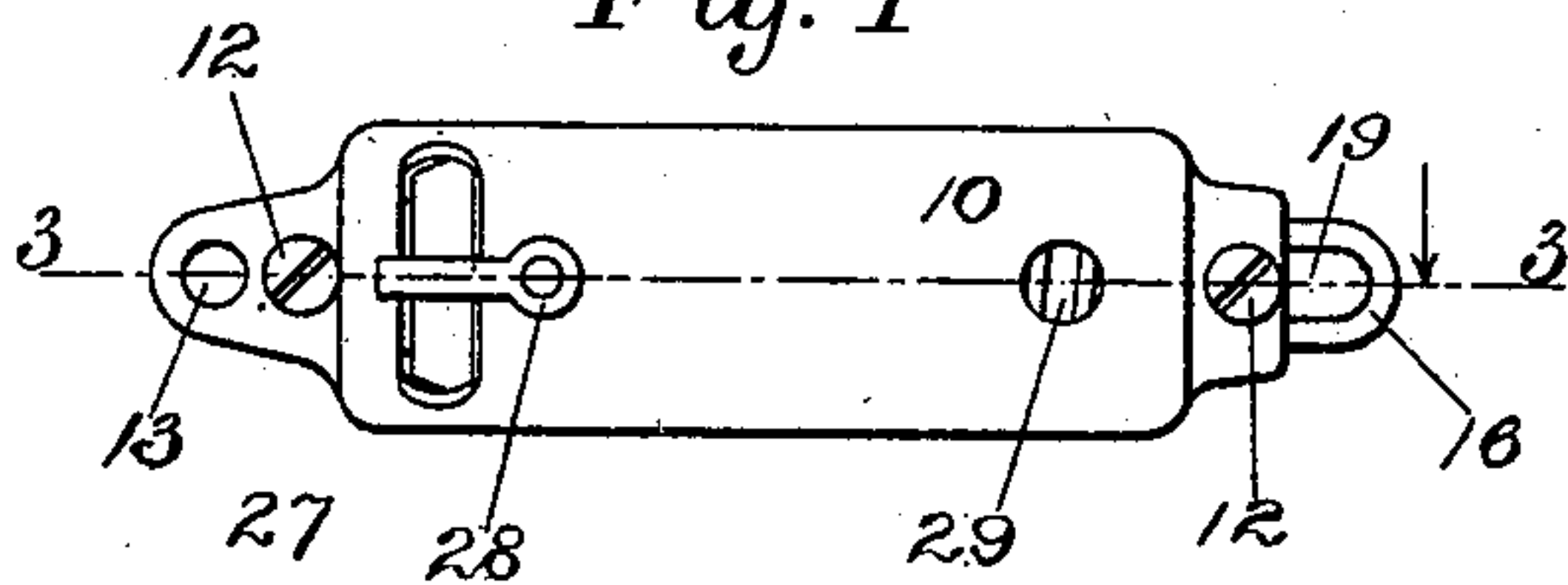


Fig. 2

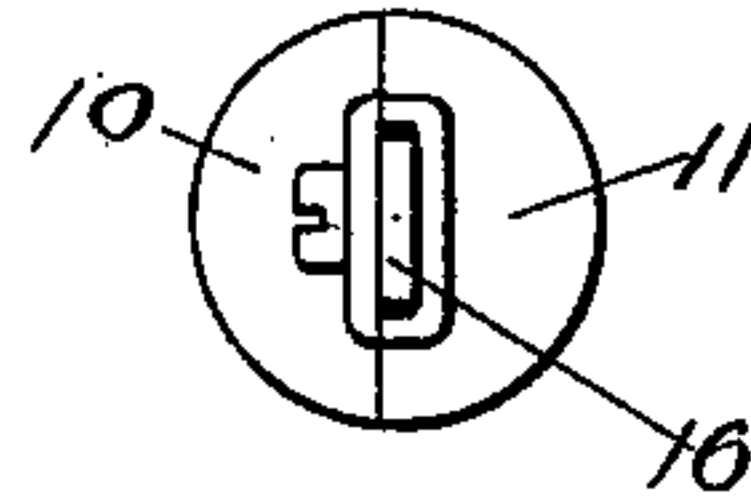


Fig. 3

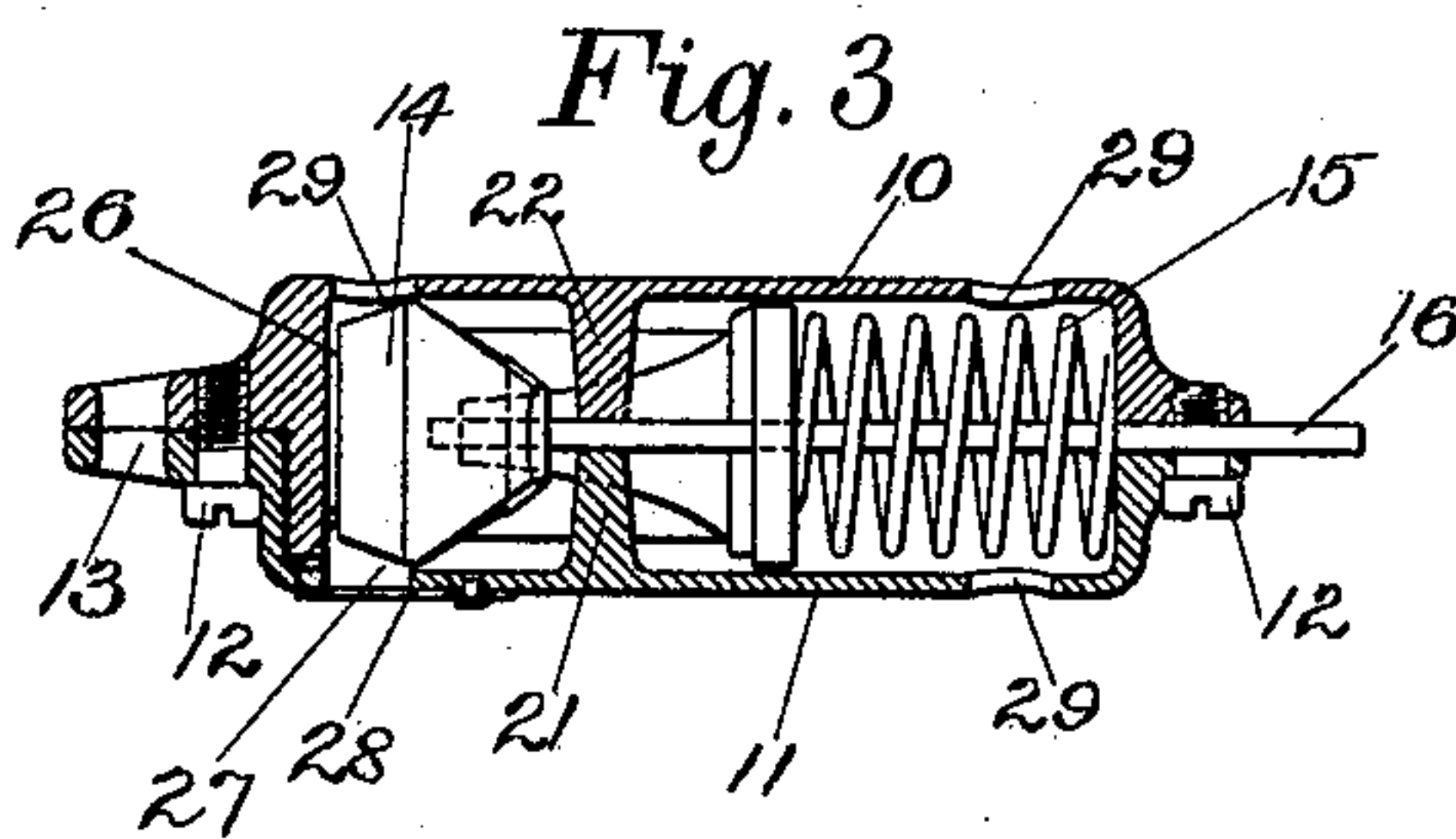


Fig. 4

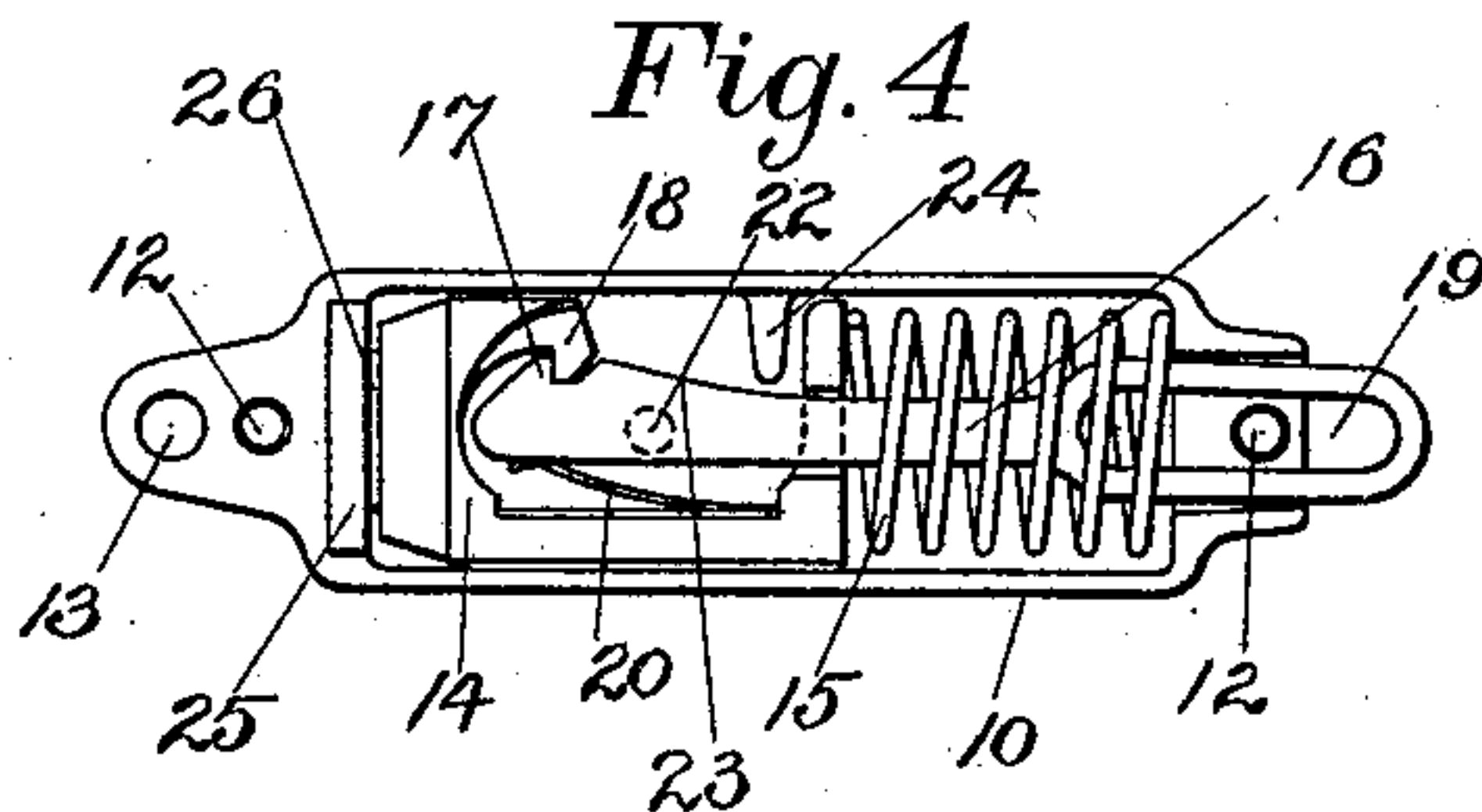


Fig. 5

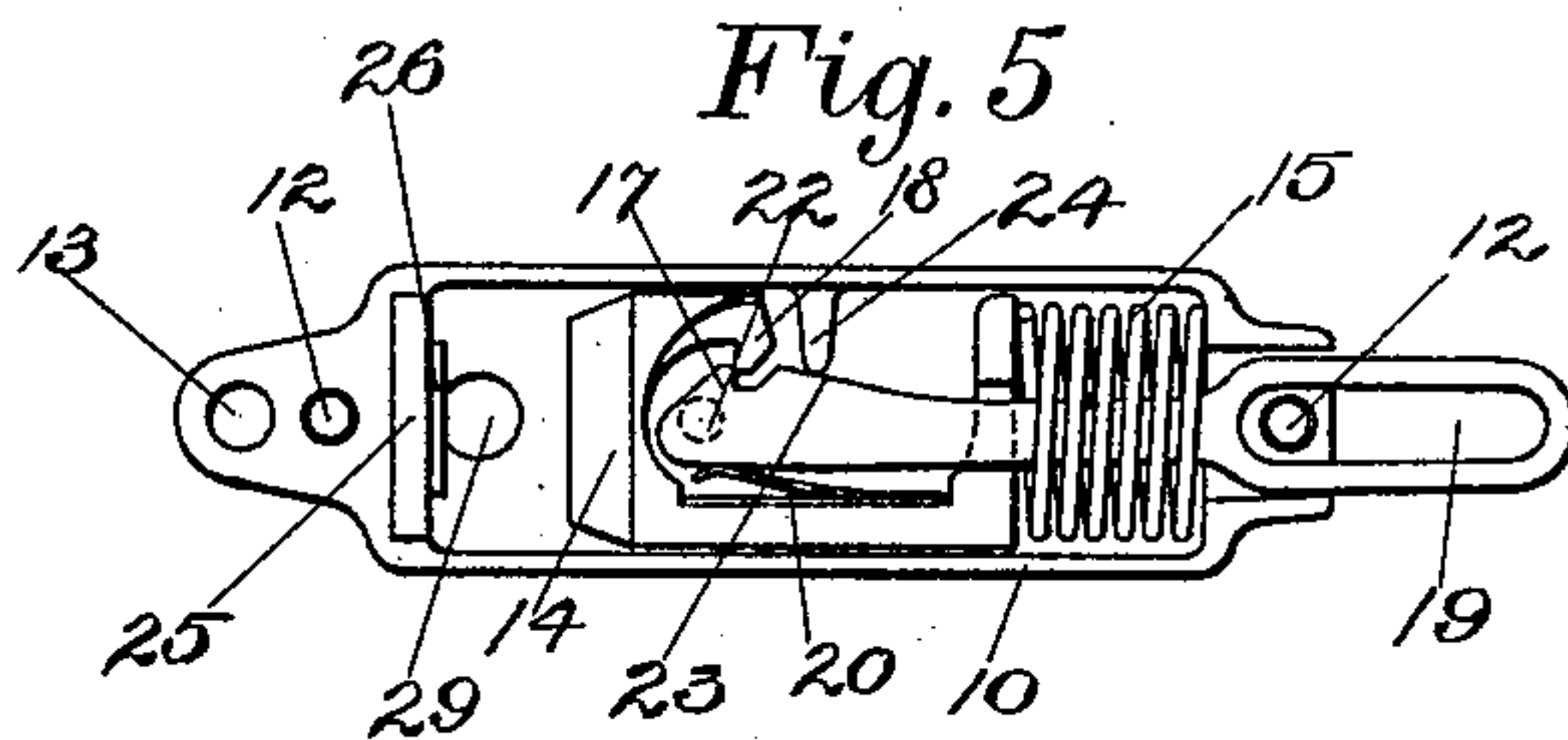
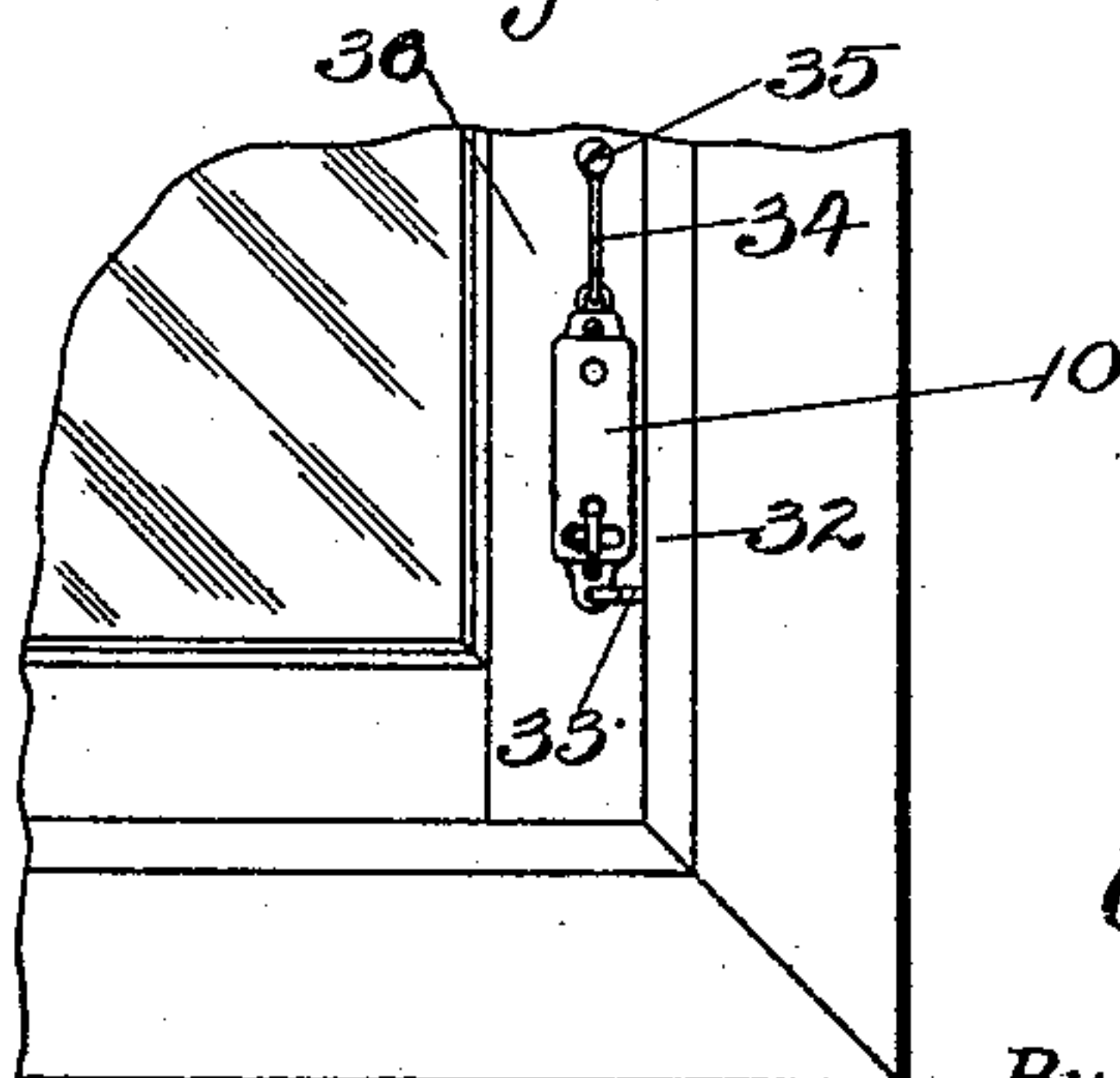


Fig. 6



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# UNITED STATES PATENT OFFICE.

CHARLES H. COOLEY, OF HARTFORD, CONNECTICUT.

## BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 636,396, dated November 7, 1899.

Application filed August 5, 1899. Serial No. 726,299. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. COOLEY, a citizen of the United States of America, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification.

This invention is an improved device adapted to be readily applied to windows, doors, shutters, and similar closures, the device being also adapted to explode a cap, and thus give an alarm whenever any unlawful attempt is made to effect an entrance.

Figure 1 of the drawings is a plan view showing the interior appearance of this device. Fig. 2 is an end view projected from Fig. 1. Fig. 3 is a side view in longitudinal section, taken along the line 3 3 of Fig. 1. Fig. 4 is a side view similar to that of Fig. 1 with the first half of the tubular casing removed, showing the interior mechanism. Fig. 5 is a side view similar to that of Fig. 3, excepting that the firing-plug is here shown to be drawn back to its releasing position. Fig. 6 is a side view showing the alarm of the previous figures applied to the sash of a window.

The mechanism of this device is inclosed in a tubular casing, which for convenience of manufacture and assembling is made in halves, (indicated by the numerals 10 and 11,) the line of separation being substantially along the longitudinal center of the casing. These when assembled are fastened together by means of screws or rivets 12. One end of the casing is provided with an eye 13, by means of which it may be attached to a door or window or the casings thereof.

The interior mechanism consists of the firing pin or plug 14, which is fitted to slide longitudinally in the interior of the casing to the extent represented by a comparison of Figs. 4 and 5. It is, however, pressed toward the position of Fig. 4 by means of the spring 15, located between the end of the firing-plug and the opposite end of the casing. The retracting-sear 16 consists, preferably, of a flat piece of metal, having a hook 17 for engaging with the catch 18 of the firing-plug. The opposite end of the sear is provided with the opening or eye 19 to receive a wire or chain, by means of which that end of the sear may

be connected with the window or door upon which it is to be employed. The eye 19 is preferably elongated, as shown, so as to receive the screw 12 at that end of the casing and to allow of the movement of the sear with relation to that screw. The inner or left-hand end of the sear is pressed laterally into engagement with the catch 18 of the firing-plug by means of the spring 20, provision being made for a suitable lateral movement of that end of the sear and its spring in its own plane, as shown by a comparison of Figs. 4 and 5. That end of the sear is retained in a plane substantially in the longitudinal center of the casing and of the firing-plug, as viewed in Fig. 3, by means of the guides 21 and 22, which extend out from their respective walls of the casings 10 and 11 and may, as herein shown, be integral therewith.

As represented in Figs. 4 and 5, the upper edge of the inner end of the sear, adjacent to its hook 17, is provided with an inclined surface and engages with a spur 24, extending from the upper side of the casing 11 in the plane of the sear, the function of this spur being to depress the sear laterally away from the catch 18, and thus release the firing-plug when the latter reaches the position shown in Fig. 5.

The anvil 25, upon which the caps 26 are placed, is located at the left-hand end of the casing and is preferably made integral with one of the halves thereof, as herein shown. The casing is further provided with an aperture 27, through which the caps are inserted, a latch or cover 28 being preferably swung across the aperture to prevent the accidental falling out of the cap. The casing is also preferably provided with the additional aperture 29 for the escape of the gas and smoke generated by the explosion of the caps.

This device may, as above stated, be attached to a door, window, shutter, or similar closure. One end of the casing is attached to the door-jamb or window-casing, as by means of the eye 13, the retracting-sear 16 being attached to the door or window, as the case may be, by means of its eye 19, extended, if necessary, by means of a chain or wire. The opening of the door or window when the device is thus attached serves to draw the retracting-sear and its attached firing-plug to



the position shown in Fig. 5, at which point the hook 17 of the sear is withdrawn from the catch 18 by the action of the inclined edge 23 against the spur 24, thereby releasing the firing-plug and allowing it to be forced sharply back against the anvil by means of its spring 15, thus exploding the cap.

Fig. 6 illustrates a convenient method of attaching this device to a window-sash and its casing. The lower end of the device is attached to the window-casing 32 by means of the eye 13 and the staple or screw-eye 33, while the eye 19 of the sear is connected, by means of the wire 34, with the screw or hook 35, attached to the sash 36 of the window.

This mechanism is exceedingly simple and is therefore not liable to become deranged by use or neglect. The parts, excepting the springs, are, furthermore, of a form well adapted to be made entirely by simple and inexpensive processes of casting requiring no machining operation.

An important feature of this device is that the springs remain in their extended position (shown in Fig. 4) excepting during the moment when they are brought into operation, thereby preserving their resiliency. This is regarded as an important improvement over those devices in which the springs are compressed when the alarm is set and therefore remain under tension many hours at a time or until released by the attempted opening of the door or window, by which time the springs may have become permanently set or at least have their resilience greatly impaired.

I claim as my invention—

1. A burglar-alarm, comprising a casing, a firing-plug, a retracting-sear for the plug provided with an inclined surface, with means for engaging with the inclined surface to automatically detach the sear and plug at the desired firing position.

2. A burglar-alarm comprising an anvil, a longitudinally-moving firing-plug, a retracting-sear for the plug, and a releasing-spur for the sear, with means for attaching the anvil and the sear to the window or door and its casing respectively.

3. The combination of a casing separable substantially along its longitudinal center, a longitudinally-sliding plug and its spring located within the casing, a retracting-sear for engaging with and drawing back the plug, and a spur for automatically detaching the sear from the plug upon reaching the desired position.

4. In a burglar-alarm, the combination of a tubular casing separable substantially along its longitudinal center, a longitudinally-sliding plug and its spring located within the casing, and a retracting-sear for the plug, the casing being provided with guides extending therefrom for retaining the sear in its plane of operative relation to the plug, and with a spur for detaching the sear and plug at the firing position.

Signed by me, at Hartford, Connecticut, this 4th day of August, 1899.

CHARLES H. COOLEY.

Witnesses:

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