

No. 774,668.

PATENTED NOV. 8, 1904.

H. T. JOHNSON.
BURGLAR ALARM.

APPLICATION FILED APR. 2, 1904.

NO MODEL.

Fig. I,

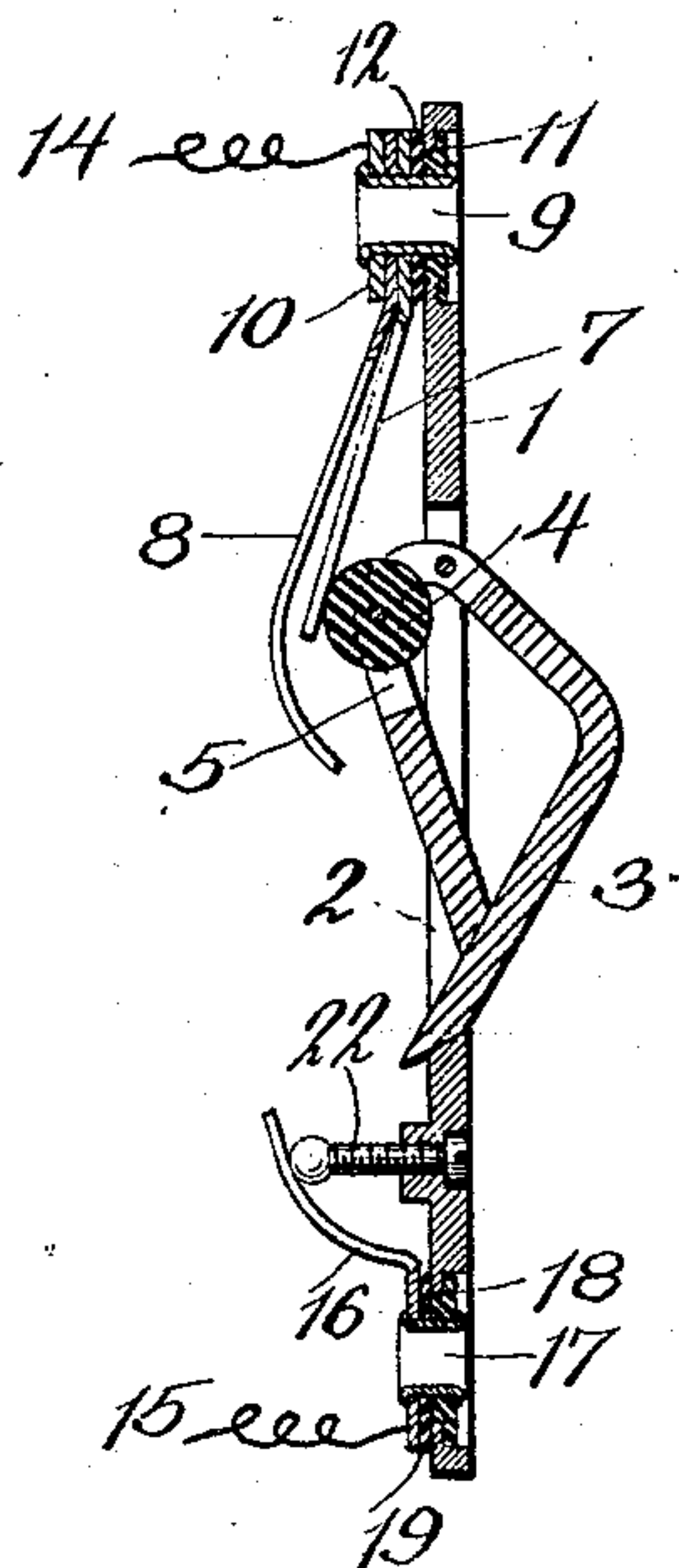


Fig. 2.

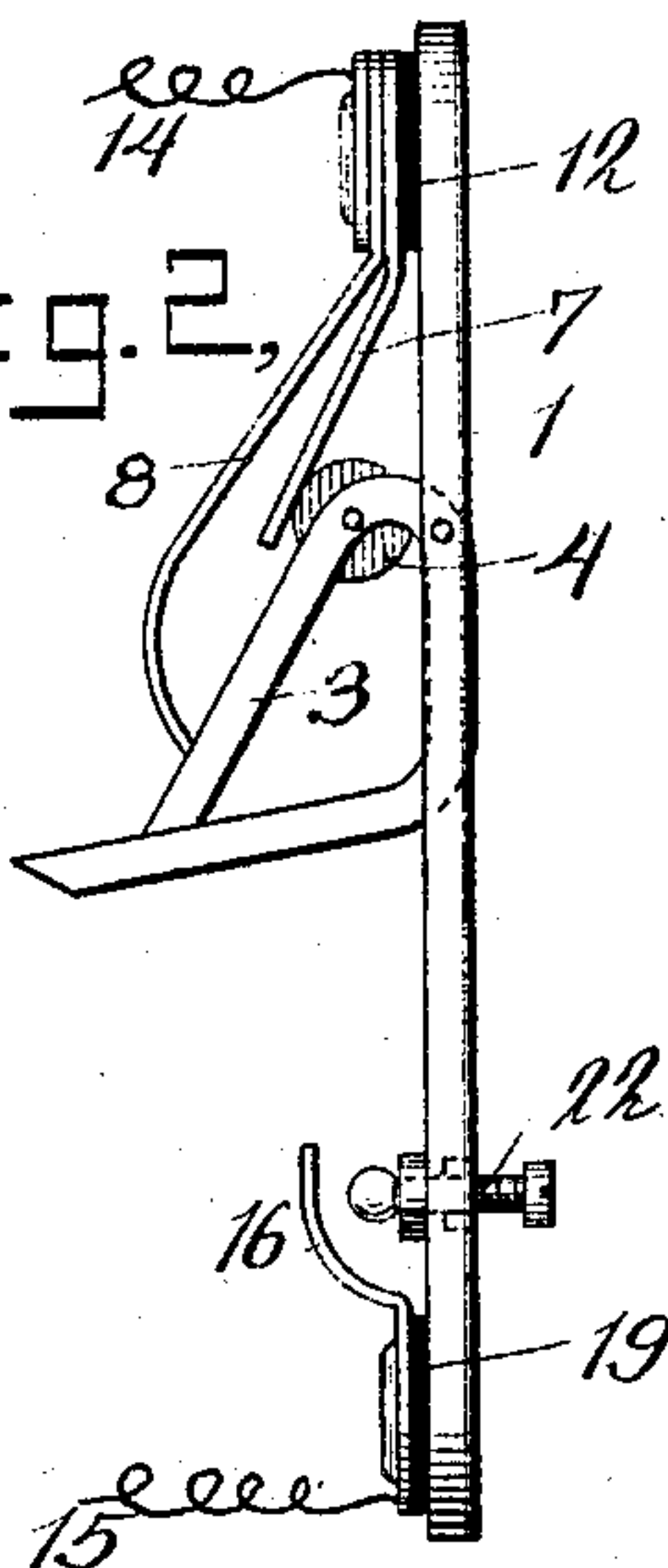
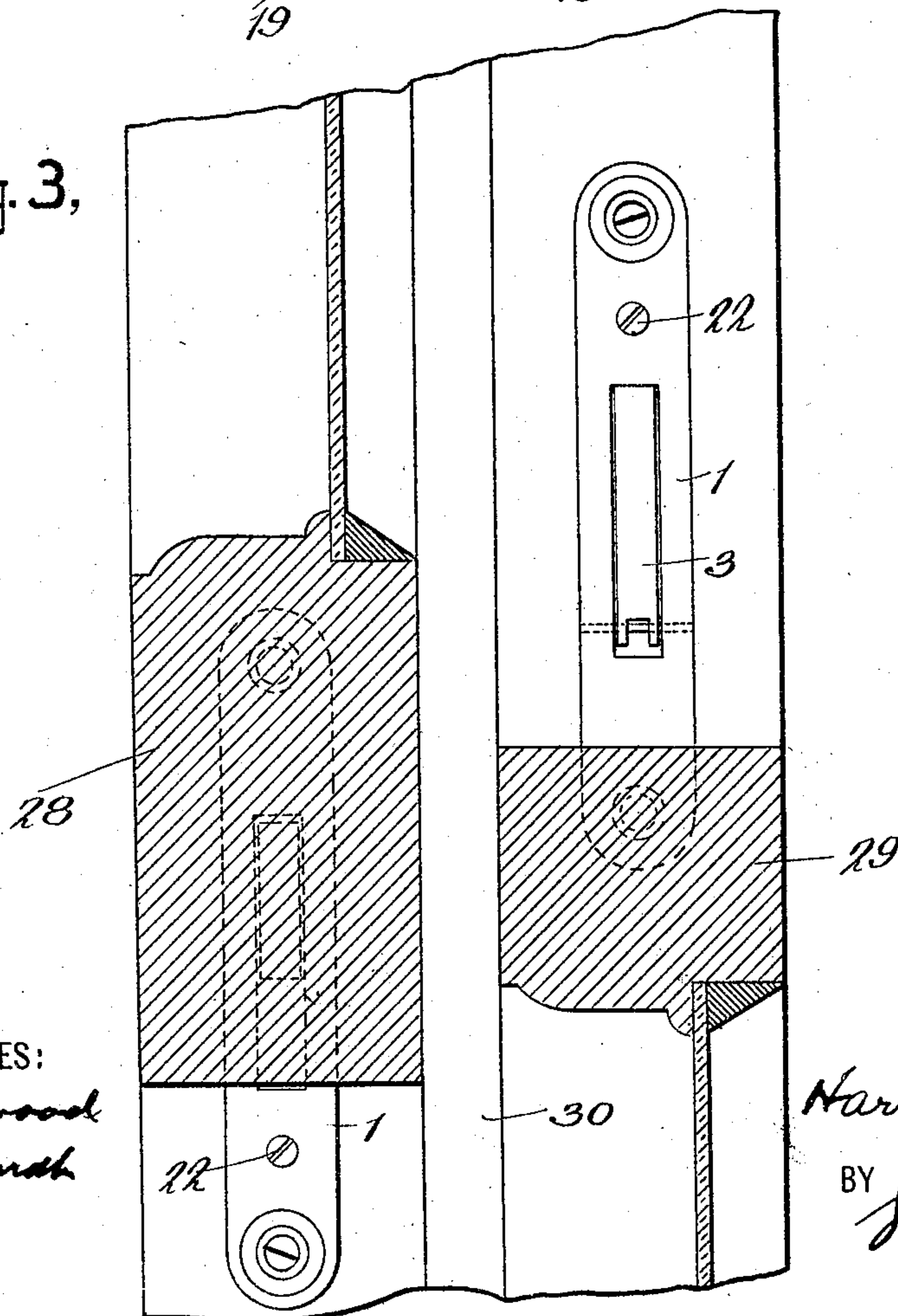


Fig. 3,



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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 774,668, dated November 8, 1904.

Application filed April 2, 1904. Serial No. 201,301. (No model.)

To all whom it may concern:

Be it known that I, HARRY T. JOHNSON, a citizen of the United States, and a resident of Jersey City, Hudson county, New Jersey, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that class of devices which are employed to close the circuit in electric-burglar-alarm systems and give an alarm when some movable object, such as a window, is moved to obtain access to a room or building. It has been especially designed and is peculiarly adapted for use with a window-spring, and it may be employed with the well-known types of such springs as well as with the particular form of spring herein illustrated.

The invention as herein illustrated forms a component part of a window-spring; and the object thereof is to provide for such a circuit-closing device as I have referred to an auxiliary switch or cut-out by means of which the circuit-closing device may be thrown out of circuit without removing the window-sash or the spring, thus enabling any short circuit or improper contact to be readily located.

A further object thereof is the provision of means by which the circuit must be reestablished before the sash can be returned to its normal position.

In the drawings, Figure 1 is a sectional elevation of a window-spring embodying my invention with the parts in the position they assume when the sash is in its normal or closed position, the contacts being open, but connected with the circuit. Fig. 2 is a similar view in elevation with the parts in the position they assume with the sash opened, the contacts being closed, but disconnected from the circuit; and Fig. 3 is an elevation showing both the upper and lower sashes in section and open to their full extent.

Similar reference characters are employed to designate corresponding parts in all the views.

The particular form of device which I have selected for purposes of illustration and de-

scription is a window-spring adapted to be secured in a suitable recess in the window-frame and comprises a plate 1, provided with a slot 2, in which is pivoted a contact-lever 3. An insulating-bearing 4, consisting of a revoluble disk of fiber or other suitable material, is mounted in a slot 5 in the lever 3.

A spring 7 and a spring contact-arm 8 are secured to the plate 1 by the eyelet 9, conducting-washer 10, insulating-bushing 11, and insulating-washer 12. One of the line-wires, 14, connects with the conducting-washer 10. The other line-wire, 15, connects with the spring-tongue 16, which is secured to the opposite end of the plate 1 by the eyelet 17, bushing 18, and insulating-washer 19. A movable contact member 22 is carried by the plate 1, and when in normal position, as shown in Fig. 1, it presses against the tongue 16, in which position, as the various parts of the spring except the insulating devices referred to are of conducting metal, the lever 3 will be in connection with the line-wire 15 through the tongue 16, contact 22, and plate 1. The movable contact 22 in the form herein illustrated consists of a screw-threaded stud passing through the plate 1 and provided at its outer end with a slotted head, which furnishes a means by which the stud may be screwed in and out to make the contact, as shown in Fig. 1, or to break it, as shown in Fig. 2. The inner end of the stud is enlarged or suitably upset to prevent the stud from being screwed out of the plate. The spring is secured in place by screws which pass through the eyelets 9 and 17.

Each window-sash is provided with a recess which is so located that when the sash is closed the recess will be opposite the lever 3, which will be held so as to project therein by the pressure of the spring 7 on the insulated bearing 4. In this position the circuit is open. When the sash is raised, the side of the sash will bear against the lever 3 and force it into contact with the arm 8, as shown in Fig. 2, thus closing the circuit, the lever 3 and the arm 8 forming the main or sash-controlled contacts of the window-spring.

In Figs. 1 and 2 the window-spring is shown in the position it occupies when ap-

plied to the lower sash 28. In applying it to the upper sash the position of the spring is reversed, as shown in Fig. 3, in which the lower sash 28 and the upper sash 29, which are separated by the usual parting-strip 30, are shown open to their fullest extent, exposing the slotted ends of the contacts 22.

Heretofore in case of derangement of one or more of the springs, so that the circuit is improperly closed or improperly held closed, it has been necessary in locating the defective or inoperative spring to remove each window-sash, including the parting-strips, and sometimes each spring, one after the other until the discovery of the defective spring. As a large number of springs are usually employed on the same system, the location of a defective spring has been difficult and expensive, owing to the time consumed. My invention enables such a defective or inoperative spring to be located accurately and quickly. By opening one of the window-sashes, so as to expose the end of the auxiliary contact member 22, and turning the contact 22 so as to carry it out of engagement with the tongue 16, Fig. 2, the circuit will be broken at that point. If the line be then tested in the usual manner by closing the testing-switch and if with all the other sashes closed the alarm fails to operate, it will be apparent that the other springs are in good order and that the trouble must be in the spring being tested. If, however, the alarm sounds, then it is apparent that the circuit is closed at some other spring, and the springs are tested in a similar manner one after the other until the trouble is located, when, if necessary, the spring is removed in the usual way and put in order.

By arranging the movable contact 22 so that when the circuit through the spring is broken the contact will project into the path of the window-sash it becomes impossible to close the window until the contact 22 shall have been restored to its normal position. If, therefore, through carelessness the spring

should not be reconnected with the circuit, its condition would be discovered when attempting to close the window.

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

1. A window-spring provided with sash-controlled contacts, and auxiliary contacts free from the control of the sash and comprising a member movable into the path of the sash when the circuit is broken.

2. In a window-spring, the combination of a plate, a sash-controlled contact carried thereby and an auxiliary movable contact accessible from the front of the plate for controlling the circuit through the sash-controlled contact.

3. In a window-spring, the combination of a plate, a sash-controlled contact carried thereby, and an auxiliary contact movable through the plate into the path of the sash.

4. In a window-spring, the combination of a plate, a sash-controlled contact carried thereby, an auxiliary contact and means for moving the auxiliary contact to break the circuit to the main contacts and to form a stop to prevent the closing of the sash until the circuit is closed.

5. In a window-spring, the combination of a plate, a sash-controlled contact carried thereby, a screw-stud carried by the plate and movable into and out of the path of the sash to break and make the circuit through the spring.

6. In a window-spring, the combination with the plate and the sash-controlled contact carried thereby, of a contact insulated from the plate and a contact carried by the plate and in contact therewith, movable into and out of engagement with the insulated contact to make and break the circuit independently of the sash-controlled contacts.

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Witnesses:

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