

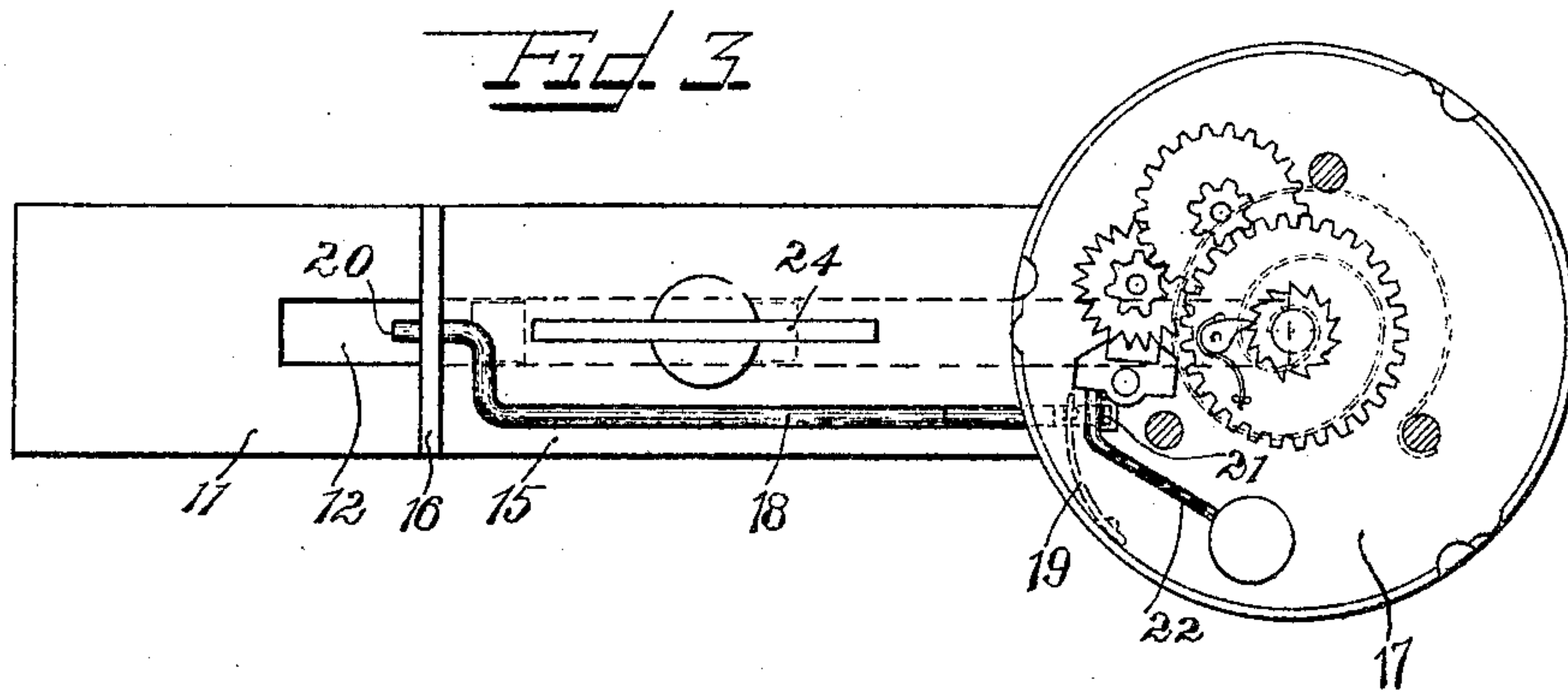
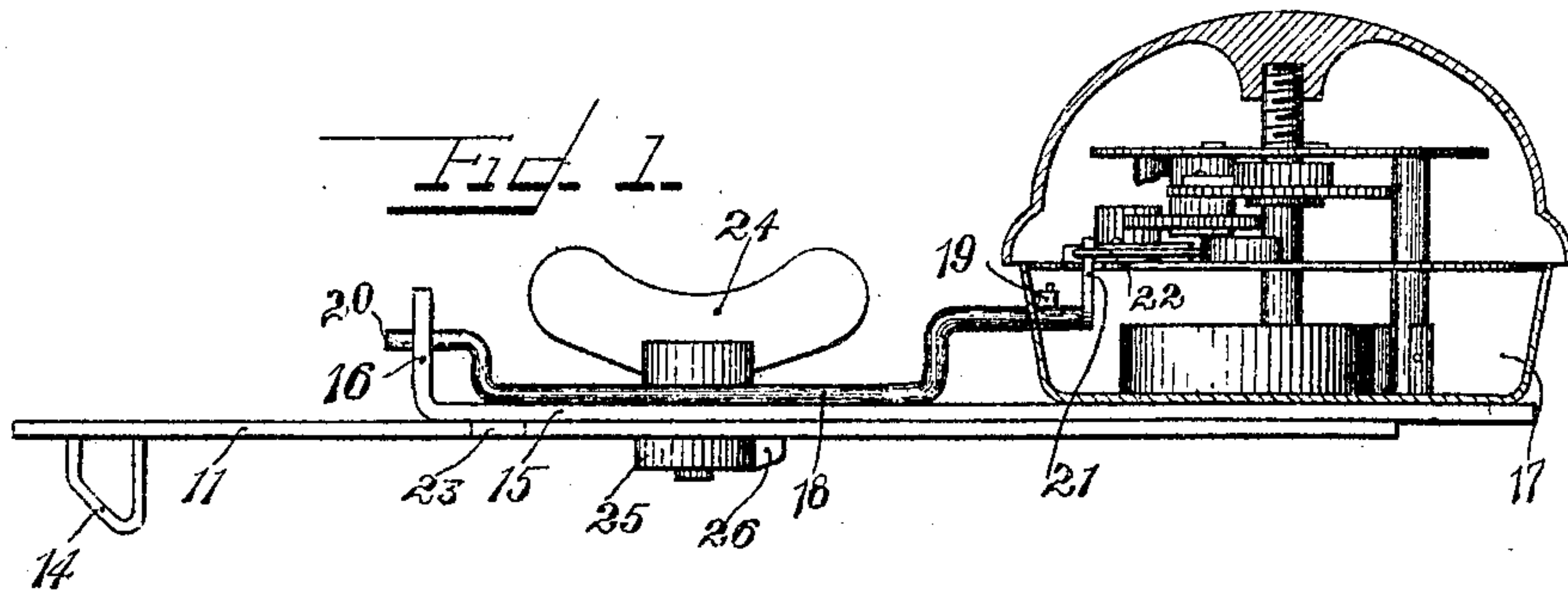
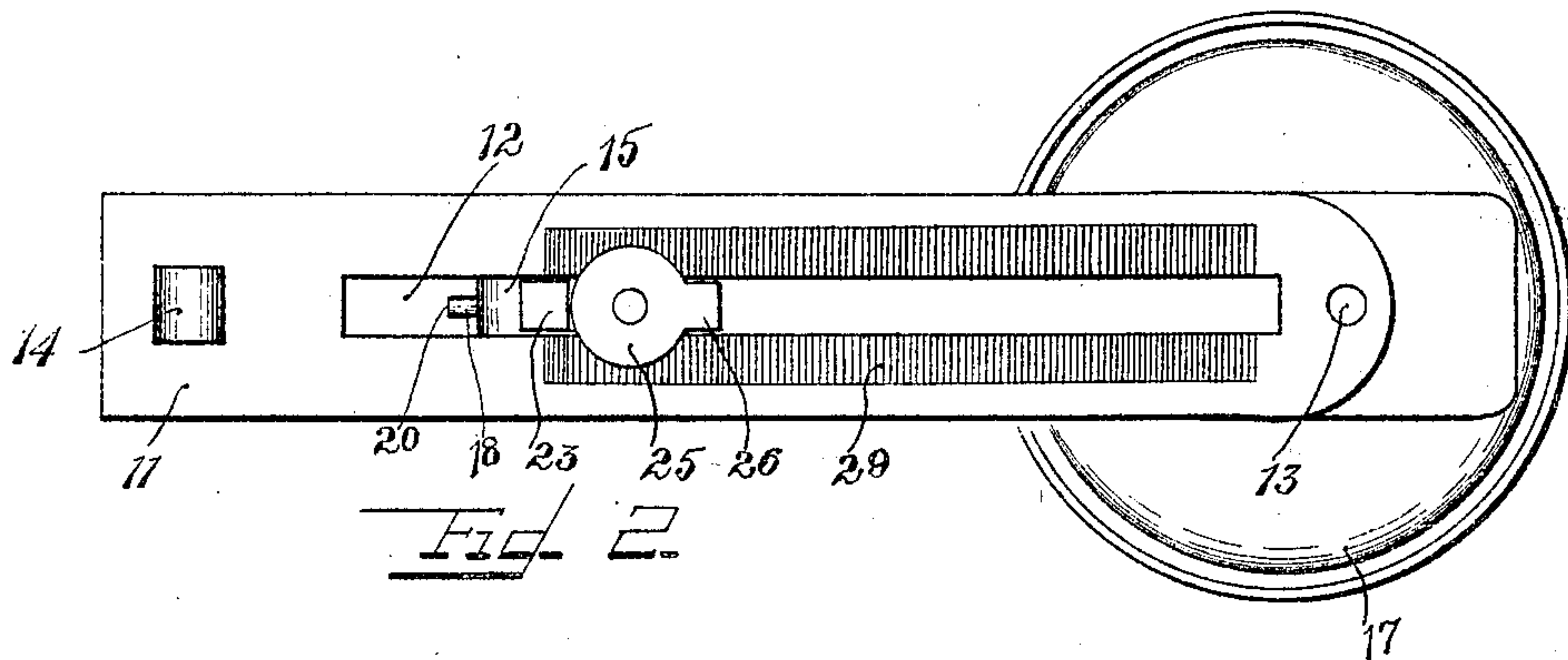
No. 804,241.

PATENTED NOV. 14, 1905.

W. R. LOVE.
ADJUSTABLE DOOR LOCK AND SIGNAL.

APPLICATION FILED DEC. 23, 1903.

2 SHEETS—SHEET 1.



Witnesses:

Arthur H. Bretcher.
Geo. B. Higdon.

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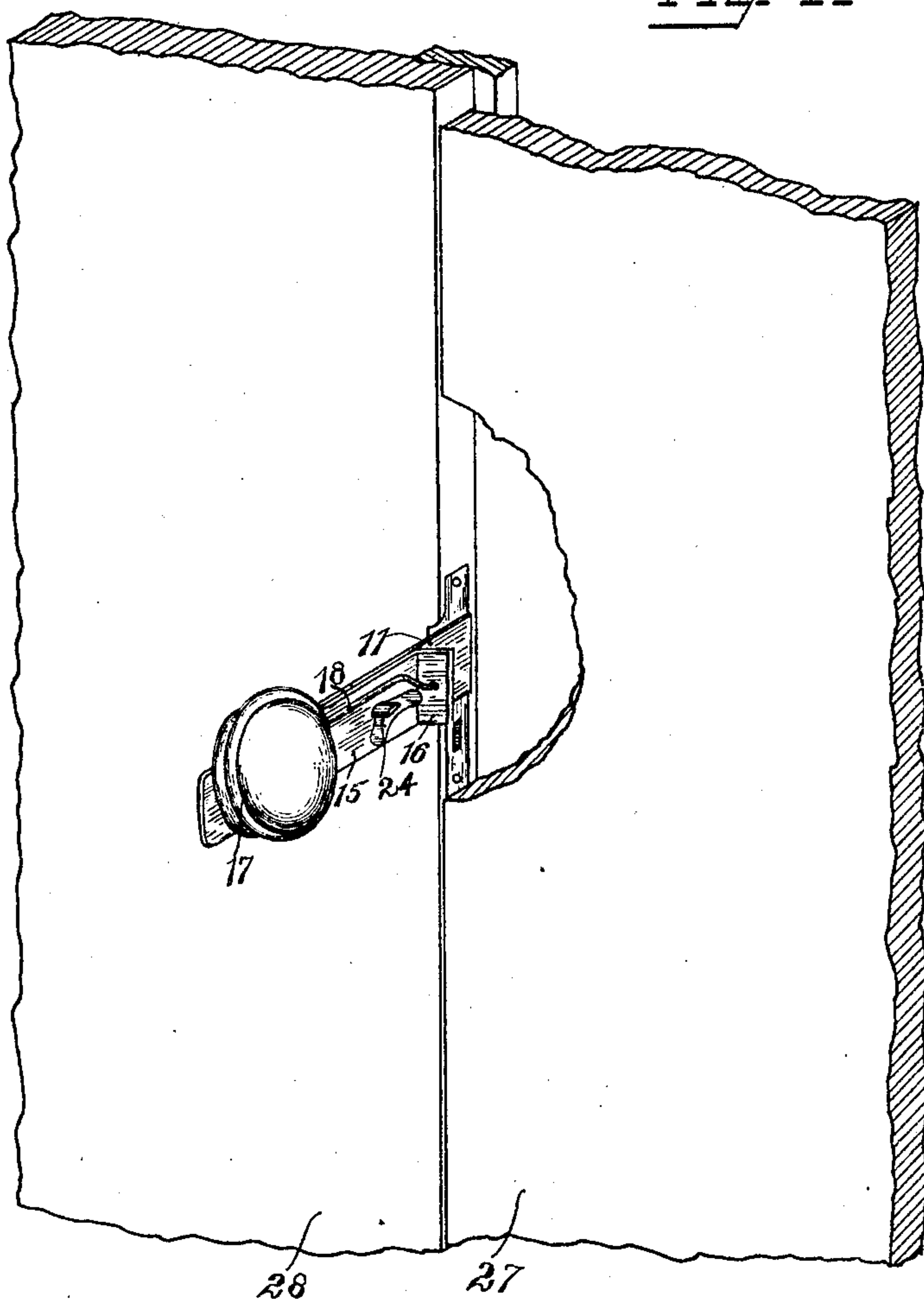
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2 SHEETS—SHEET 2.

Fig 4



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UNITED STATES PATENT OFFICE.

WILLIAM R. LOVE, OF CHICAGO, ILLINOIS.

ADJUSTABLE DOOR LOCK AND SIGNAL.

No. 804,241.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed December 23, 1903. Serial No. 186,285.

To all whom it may concern:

Be it known that I, WILLIAM R. LOVE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Adjustable Door Locks and Signals, (Case No. 2,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to combined locking or fastening and signaling devices, and is particularly adapted for use on doors or windows of a house or room affording a signal, as well as a lock or fastener, which signal will be actuated upon an attempt to open the door or window.

My invention is of a detachable nature and may be readily carried from place to place and applied to any door or window whenever desired. Thus it affords protection to travelers who do not wish to trust themselves or their valuables to the usual locking devices employed.

The device may be employed in conjunction with the lock of a door or window, or it may be employed with equal advantage when the door or window is provided with no locking means whatever. It is, however, one of the important features of my invention that my improved locking and signaling device may be employed without affecting the use at the same time of any locking means which may have been provided upon the door. That is to say, in addition to whatever security may be given by means of the ordinary door-lock my invention provides a readily-applied locking and signaling device which makes it absolutely impossible to attempt to open the door from the outside without actuating the alarm.

It is one of the important features of this invention that the alarm is actuated immediately upon an attempt being made to open the door.

Another important feature is that it is impossible to open the door from the outside after the alarm has been given on account of the locking feature of the device.

My improved locking and signaling device may be applied without the use of nails, screws, or the like, and consequently the door or jamb to which it is applied will not be marred or injured upon its application.

My invention comprises a tension-plate or bar of such cross-section that it may be fitted

between a door and a jamb or between two windows where they overlap each other. A portion of the tension-bar extends toward the inside of the room from the space between the door and its jamb. There is provided upon the end of the tension-bar a projecting lug or hook adapted to securely and firmly engage the door-jamb. The projecting end of the tension-bar is provided with a suitable form of abutment, which may be securely clamped to the tension-bar. Upon this abutment is mounted the means for alarm, which is actuated by the movements of the door through the use of an actuating-bar, one end of which projects through and is held in place by the abutment, the other end of which is so connected with the alarm as to allow its actuation when an inward pressure is exerted upon the actuating-bar. An attempt to open the door causes an inward pressure upon the bar, and a hammer is released to actuate a bell, for instance, while movement of the device as a whole is resisted by the lug or hook engaging the door-jamb. This lug or hook is desirably made of such shape and size as to fit within the opening of the jamb-plate commonly provided with door-locks. Upon releasing the sliding foot from the tension-bar the foot may be moved out of the way to permit the door to be opened.

The details of my invention may be more clearly understood by reference to the accompanying drawings, in which—

Figure 1 illustrates an elevation view of my invention, the top half of the bell and outer casing being partly cut away. Fig. 2 is a bottom view. Fig. 3 is a plan view, the bell being removed. Fig. 4 is a perspective view showing the method of application of my improved locking and signaling device to a door and its jamb.

I have shown a flat steel tension-bar 11, having a longitudinal slot 12 running the larger part of the length of the tension-bar. There may be a hole 13 through the end of the tension-bar, as shown, by which the device may be hung upon a nail or hook when not in use. At the outer end the tension-bar is provided with a lug or hook 14, in the present instance being formed so as to fit within one of the two openings usually provided in the jamb-plate of a door-lock. There is provided on the front of the tension-bar a sliding foot 15, having an outturned toe 16, upon which foot is mounted the alarm apparatus

17, which may be either a mechanical bell or the push-button in an electric-bell circuit or some other suitable means of alarm.

There is provided a bar of suitable material 5 18, which is held by a spring 19 in a position so that normally the end 20 of the bar 18 will project through and beyond the toe 16, by which it is guided. The other end of the bar in the case of a mechanical bell is connected 10 with a detent 21. This detent engages the hammer 22 of the alarm apparatus, normally preventing its actuation. A movement of the bar 18 in the direction in which the door opens carries the detent away from the ham- 15 mer, thus releasing it and allowing its vibration to sound the bell. In the case of an electric bell an inward movement of the bar actuates the push-button, thus closing a circuit through the bell and a battery and causing 20 the ringing of the bell.

The sliding foot 15 is provided with a projection 23, adapted to slide within the slot 12 of the tension-bar, this projection serving to guide the longitudinal movement of the foot. 25 Clamping means are provided whereby the foot may be secured in position upon the tension-bar. The clamping means which I have herein shown comprises a thumb-screw 24, the threaded portion of which engages a 30 clamping-nut 25, having a projection 26, adapted to fit in slot 12, which prevents the nut from turning with the thumb-screw. The tension-bar is provided upon its surface with substantially equally-spaced teeth 29, the 35 surface of the nut 25 which engages the under surface of the tension-bar being provided with similar teeth. Upon tightening the thumb-screw the clamping-nut is drawn into tight engagement with the back of the ten- 40 sion-bar, whereby the teeth of the nut engage the teeth of the tension-bar to clamp the sliding foot securely in adjustment.

The mode of applying my improved device is as follows: The lug or hook portion is 45 inserted within a suitable opening in the jamb of a door, as shown in Fig. 4. In this figure the lug is shown as inserted within the opening in the jamb-plate provided for the reception of the door-latch. The sliding 50 foot 15 is loosened and moved toward the extreme outer end of the tension-bar 16. The door is then closed, the inner end of the tension-bar being given a slight rotary motion toward the left, if necessary, in order to 55 permit the door to clear the thumb-screw 24 and toe 16. After the door has cleared the wings of the thumb-screw and the toe 16 of the sliding foot 15 the inner end of the tension-bar 11 is clamped between the edge of 60 the door 27 and the door-jamb 28. This tends to hold the tension-bar 11 firmly in position and perpendicular to the plane of the door. The sliding foot 15 is then moved up until the tip 20 of the bar 18 just touches or 65 is close to the door 27, when the foot is

clamped in position by tightening the thumb-screw. It will be seen that when secured in this position an attempt to open the door will cause the door to exert pressure upon the bar 18, connected with the alarm appa- 70 ratus, thereby causing actuation of the alarm, as hereinbefore stated.

It is one of the important features of my invention that when an attempt is made to open the door or window the alarm is actu- 75 ated before the locking mechanism is encountered. Thus it becomes necessary that the resistance of the locking mechanism must be overcome after the signal has been actu- 80 ated before the entrance to the room can be accomplished. It will readily be seen that because of this feature the occupant of the room about to be entered will have sufficient time after hearing the alarm to reach the door and personally prevent intrusion, pro- 85 vided the intruder has not already abandoned his attempt to enter, having heard the alarm.

It is one of the important features of my invention that my locking and signaling de- 90 vice may be used in connection with the customary door-lock, the use of one in no way interfering with the use of the other at the same time. Whether or not the alarm oper- 95 ates, the abutment 16 still tends to prevent the door from being opened from the outside, thus insuring protection.

It is of course apparent that the locking device cannot be reached to be tampered with from the outside of the door, as can be 100 a lock of the usual form. Hence my improved locking and signaling device may be used in conjunction with the usual locking devices provided or can be used alone.

On account of the adjustable nature of 105 the sliding foot and its associated clamping means and the attachment of the alarm thereto my invention may be applied to a door of any thickness or to any window.

It will of course be apparent to those 110 skilled in the art that many modifications of the device here particularly shown and described may be used without departing from the spirit of my invention. I do not, there- 115 fore, wish to limit myself to the precise construction herein set forth; but,

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

1. In a device of the class described, a combination with a flat tension-bar 11 stamped 120 from sheet material and having a longitudinal slot 12 therein, of a lug 14 at one end of the bar adapted for engagement with the inner face of a door-jamb, a sliding foot 15 stamped entirely from sheet material, said 125 foot having an outturned toe 16 for engaging the door, and having a projection 23 integral therewith to guide the foot in the slot 12, a thumb-screw 24 passing through a hole in said foot and through said slot, a clamping- 130

nut 25 acting in conjunction with said thumb-screw to clamp said foot in position on said tension-bar, said nut having a projection 26 for engaging in said slot, an alarm-bell secured to the rear of said foot, an actuating-bar 18 extending forward from said alarm-bell and projecting through and beyond said toe, means at the rear end of said actuating-bar for normally preventing vibration of said bell, means upon pressure on said bar for allowing vibration of said bell, and means for normally retaining said actuating-bar in its former position.

2. In a device of the class described, a combination with a flat tension-bar 11 stamped from sheet material and having a longitudinal slot 12 therein, of a lug 14 at one end of the bar adapted for engagement with the inner face of a door-jamb, a sliding foot 15 stamped entirely from sheet material, said foot having an outturned toe 16 for engaging the door, and having a projection 23 integral therewith to guide the foot in the slot 12, a thumb-screw 24 passing through a hole in said foot and through said slot, a clamping-nut 25 acting in conjunction with said thumb-screw to clamp said foot in position on said tension-bar, said nut having a projection 26 for engaging in said slot, an alarm-bell secured to the rear of said foot, an actuating-bar 18 extending forward from said alarm-bell and projecting through and beyond said toe, a detent 21 at the rear end of the actuating-bar for normally preventing vibration of the hammer of said bell, a spring 19 engaging the rear end of said actuating-bar to normally hold said actuating-bar in its former position, and means upon pressure on said actuating-bar for allowing vibration of said bell, said toe, thumb-screw and bell being all disposed at the top of the device and said lug 14 being disposed below said device whereby

the device may be applied without separation of the parts thereof.

3. In a device of the class described, a combination with a flat tension-bar 11 stamped from sheet material and having a longitudinal slot 12 therein, of a lug 14 depending from the forward end thereof and adapted for engagement with the inner face of a door-jamb, a sliding foot 15 stamped entirely from sheet metal, said foot having an outturned toe 16 for engaging the door and having a projection 23 integral therewith to guide the foot in the slot 12, an alarm-bell secured at the rear end of said foot, a thumb-screw 24 passing through a hole in said foot and through said slot, a nut 25 for engaging said thumb-screw whereby said foot may be securely clamped to said bar in any position thereon, a projection 26 on said nut adapted to fit within the slot to guard the longitudinal movement of said foot, registering teeth at the under side of said tension-bar and on the engaging surface of said nut for more securely holding said foot in position on said bar, an actuating-bar 18 extending forwardly from said bell and through and beyond said toe, the rear end of said bar normally engaging the hammer of the bell to prevent vibration thereof, and a spring 19 engaging the rear end of said bar to normally hold it in its former position to extend beyond the toe, pressure on the extending end 20 of said bar causing release of the hammer of the bell to permit vibration thereof.

In witness whereof I hereunto subscribe my name this 19th day of December, A. D. 1903.

WILLIAM R. LOVE.

Witnesses:

CHARLES J. SCHMIDT,
HARVEY L. HANSON.