

No. 615,477.

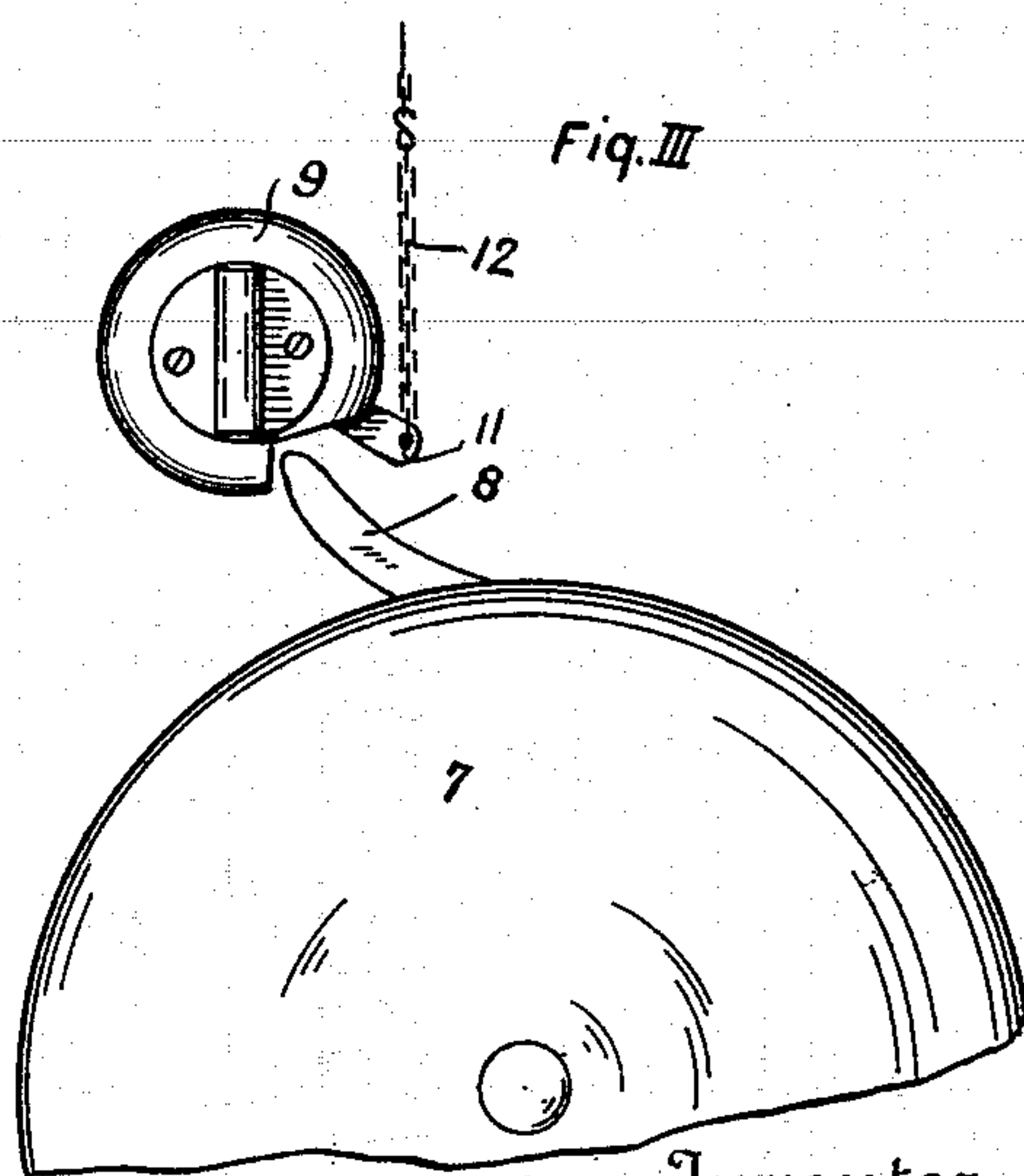
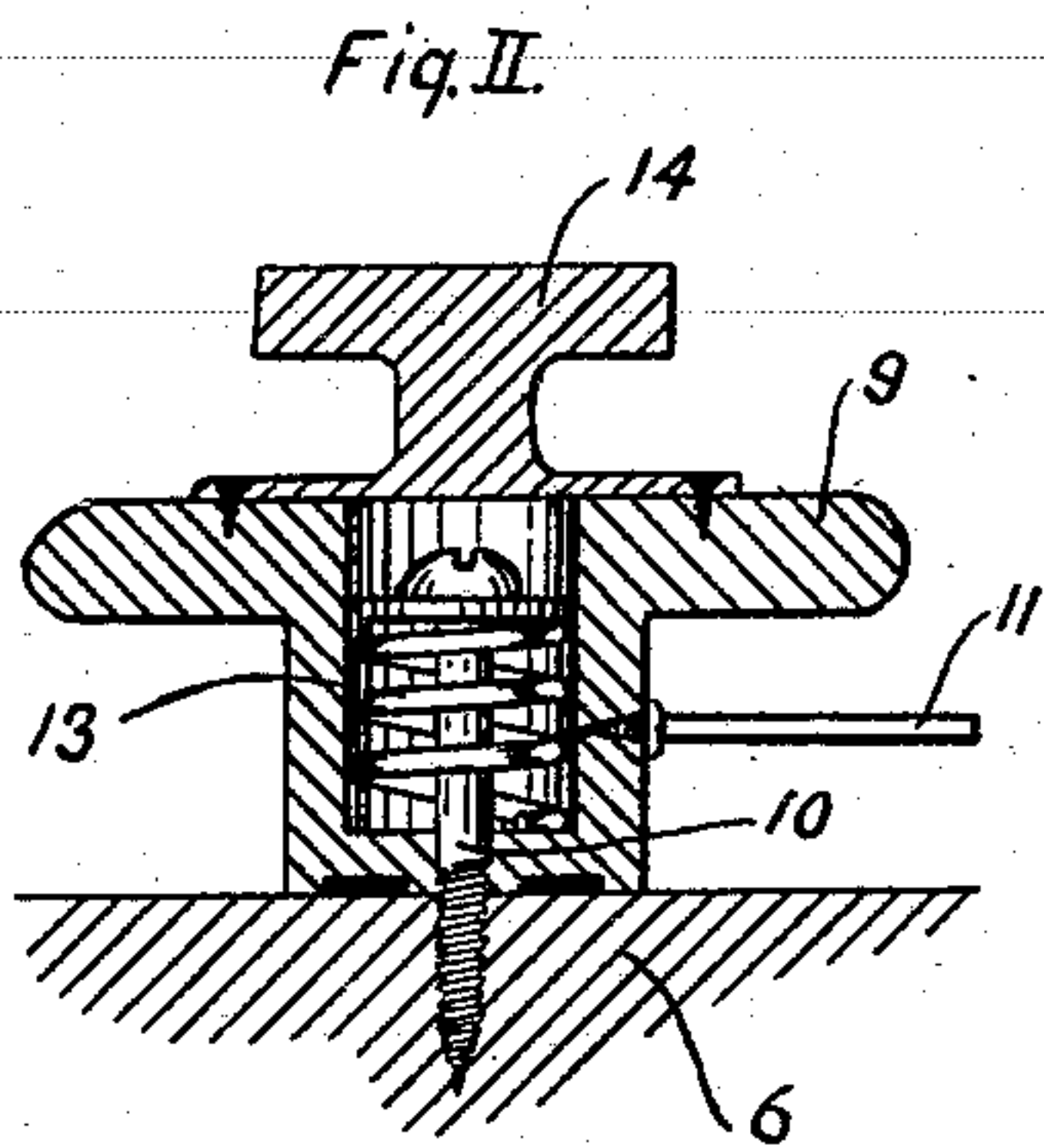
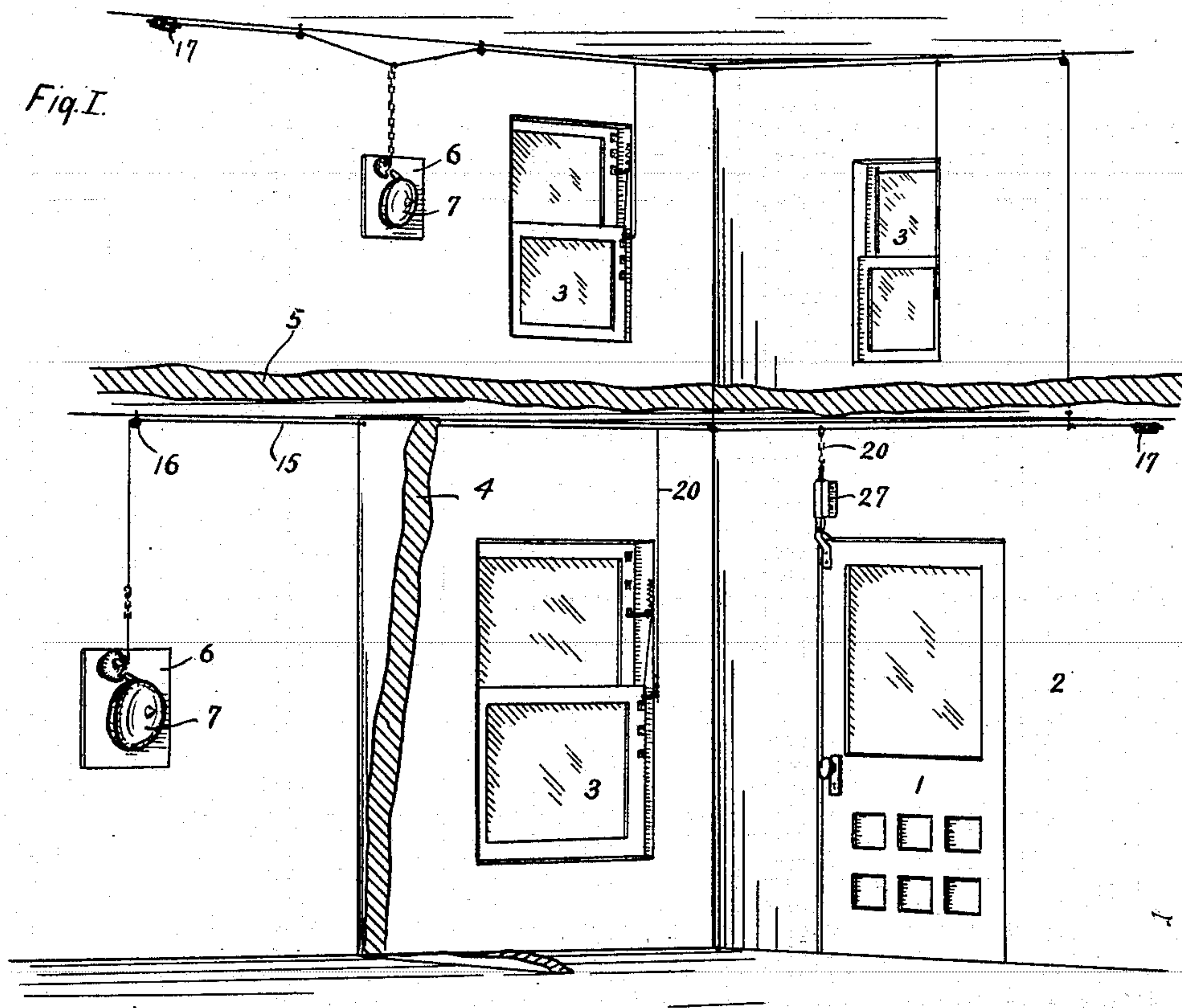
Patented Dec. 6, 1898.

C. F. CLINE.
BURGLAR ALARM.

(Application filed Mar. 17, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
R.D. Hawkins.
Kate Dunlap.

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Charles F. Cline
By V. H. Lockwood
His Attorney.

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Fig. IV.

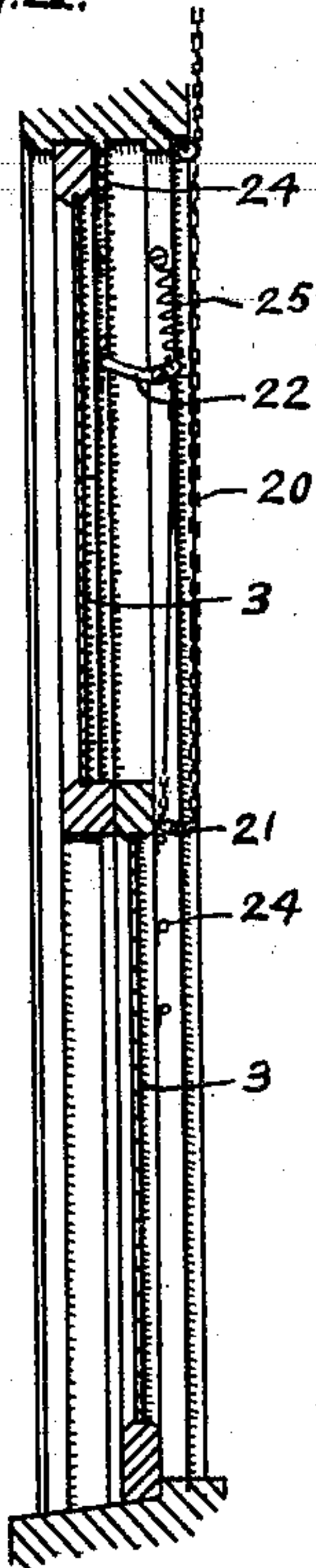


Fig. V.

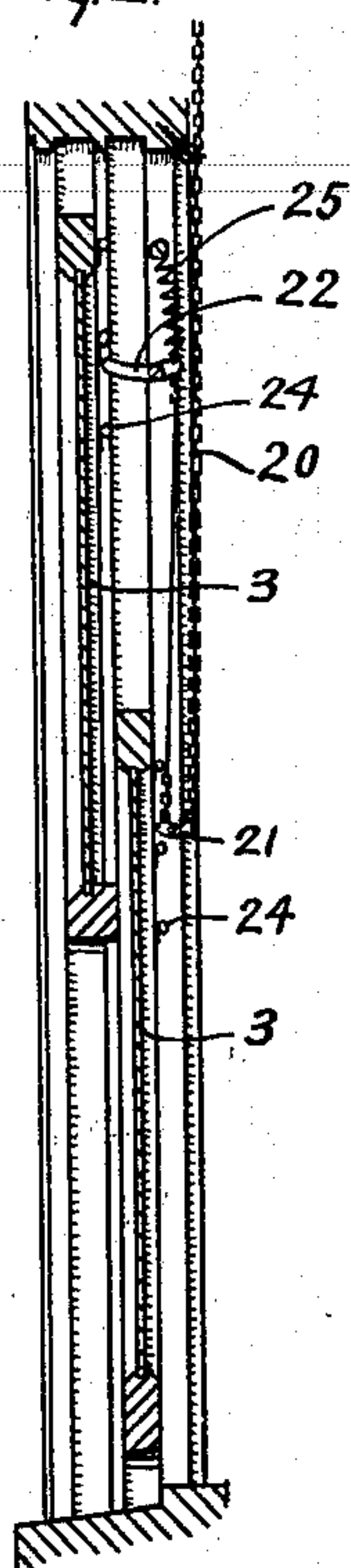


Fig. VI.

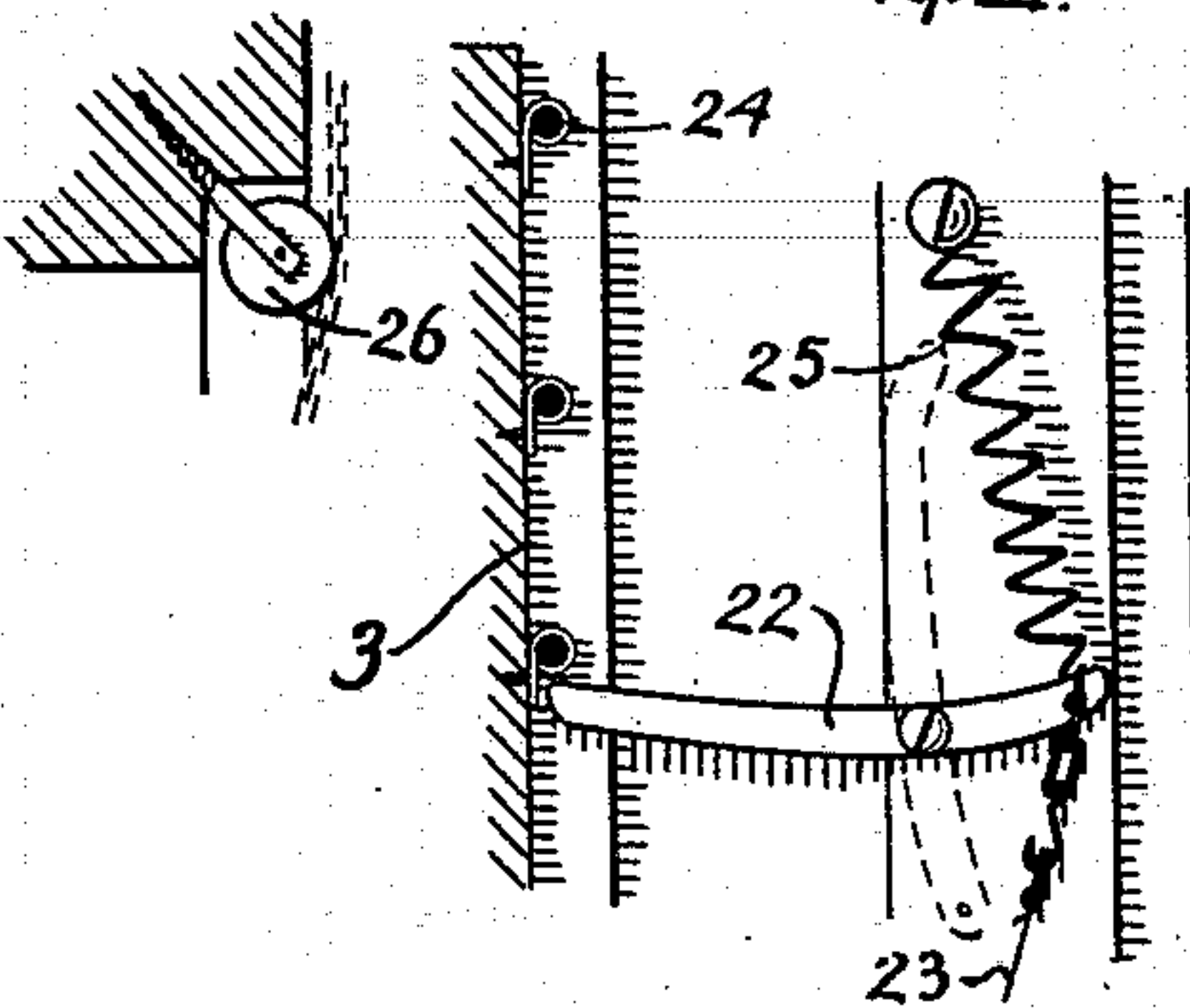


Fig. VII.

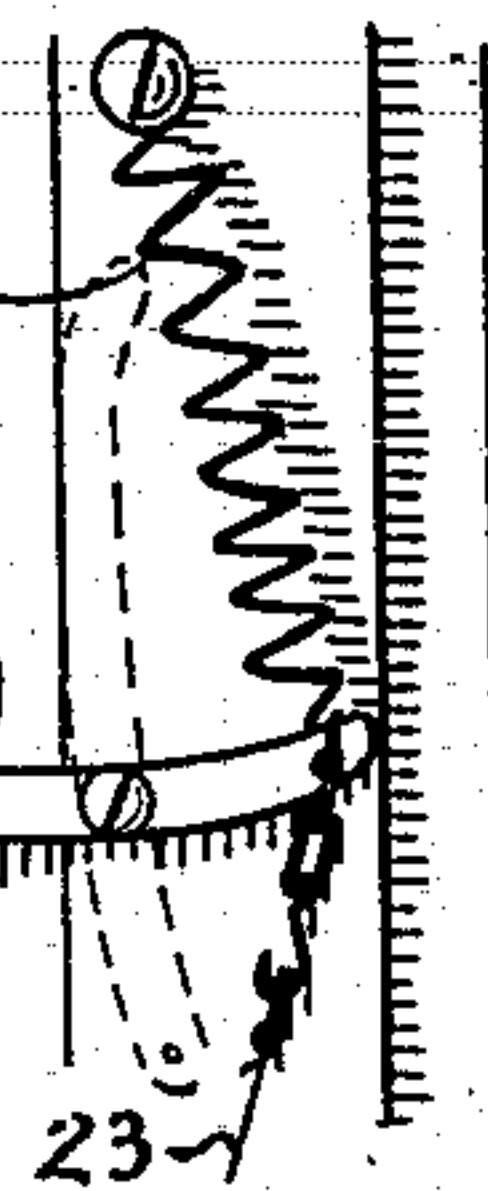


Fig. VIII.

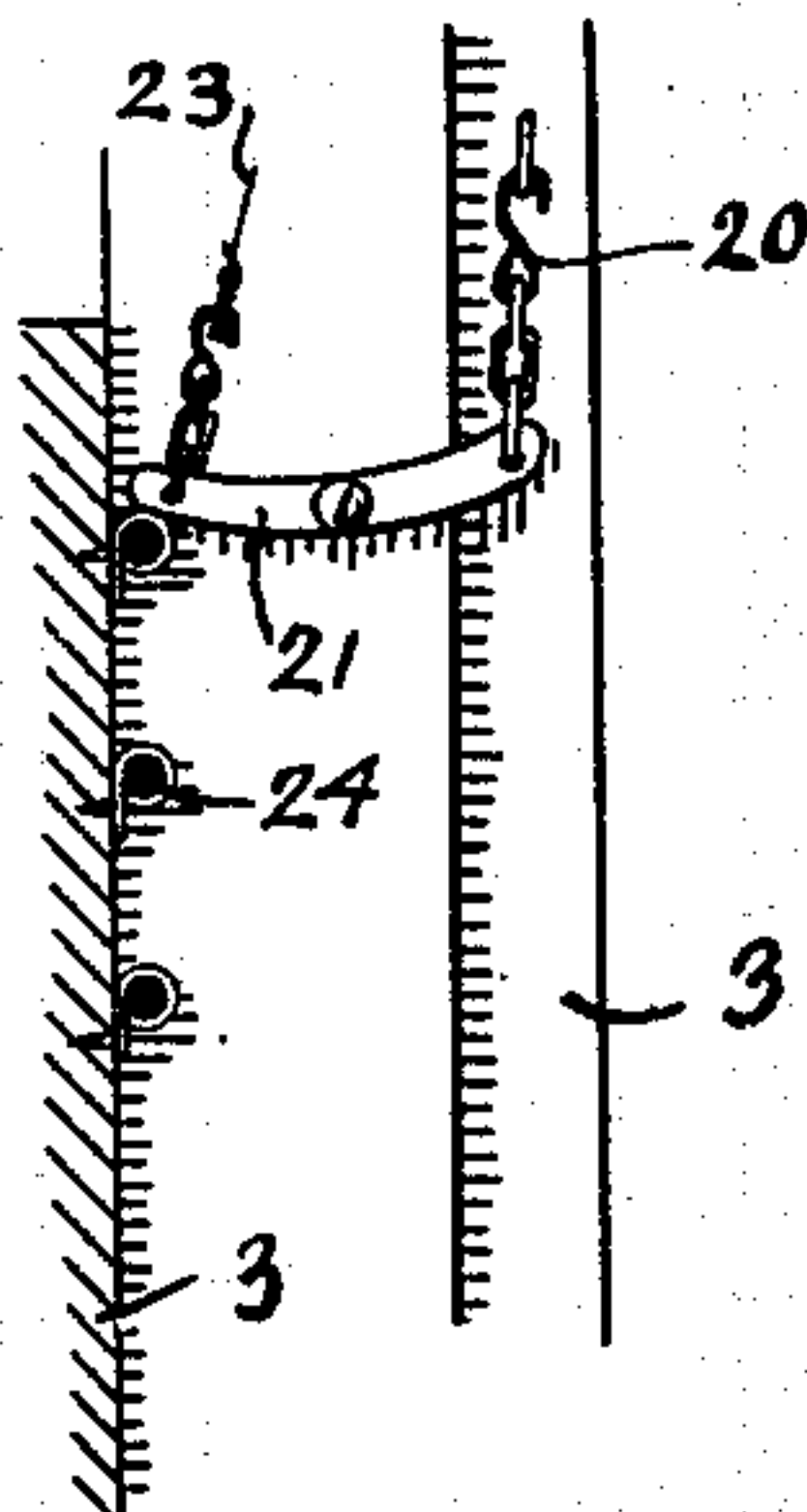


Fig. IX.

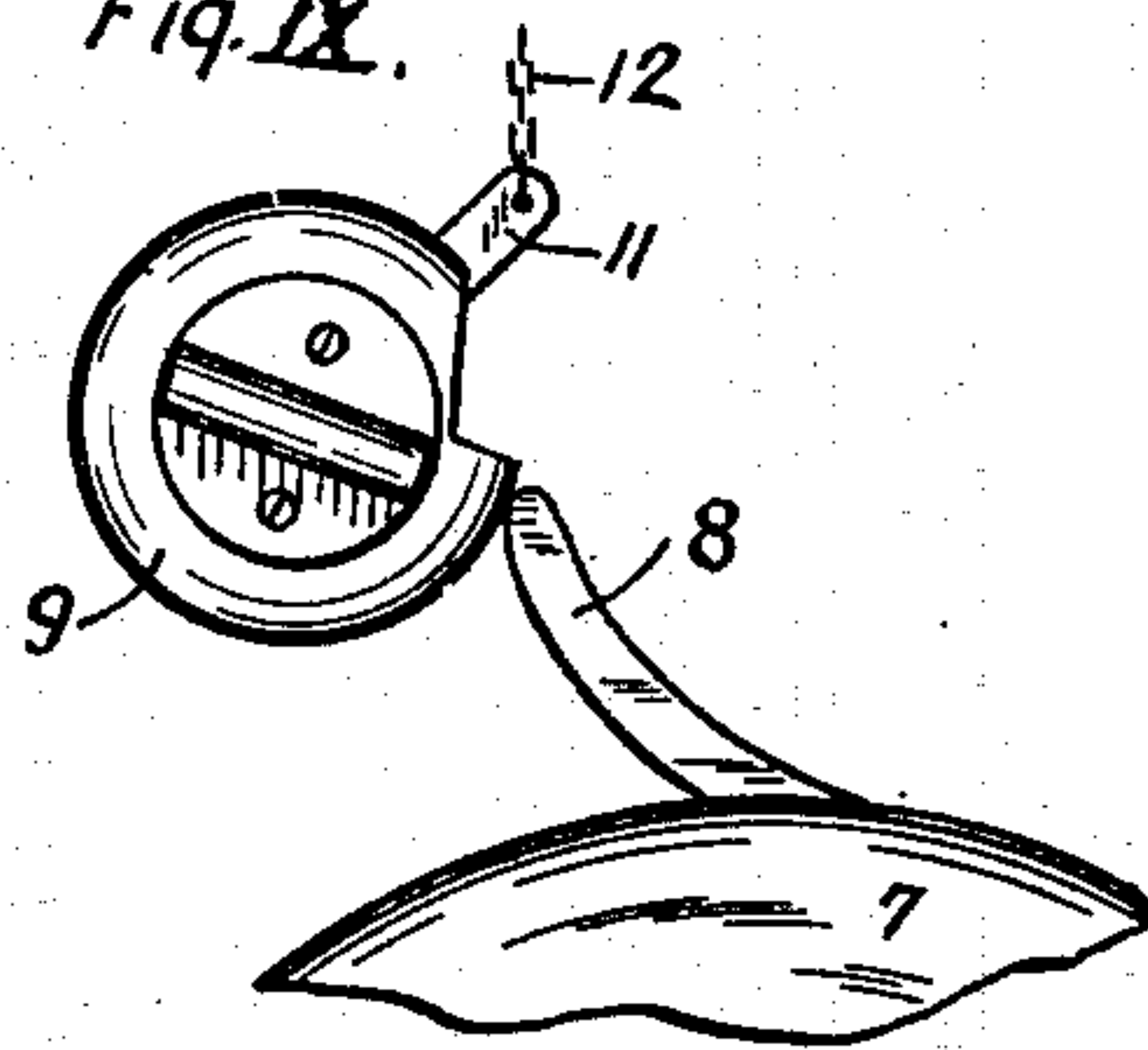


Fig. X.

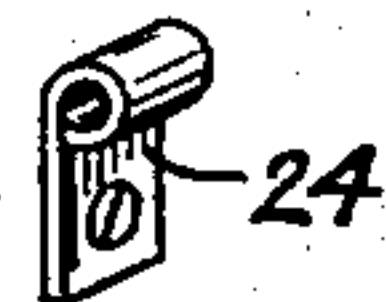
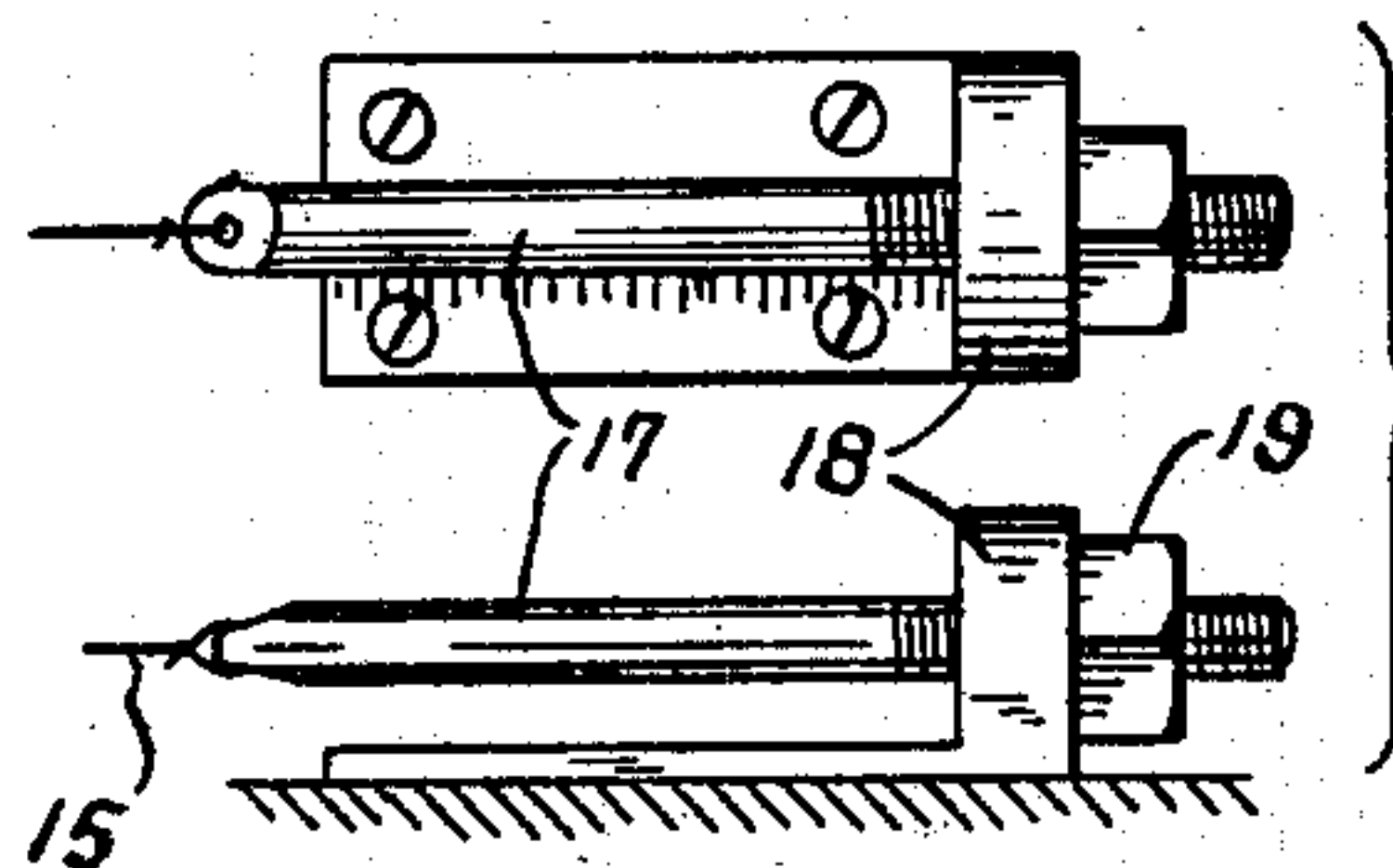


Fig. XI.



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UNITED STATES PATENT OFFICE.

CHARLES F. CLINE, OF CLAYTON, INDIANA.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 615,477, dated December 6, 1898.

Application filed March 17, 1898. Serial No. 674,274. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. CLINE, of Clayton, county of Hendricks, and State of Indiana, have invented a certain new and useful Burglar-Alarm; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention has for its object the construction of a thoroughly effective and successful burglar-alarm for residences which at the same time will be so simple and economical that it can be placed in the residences of people of very moderate means.

One feature of the invention consists in a trip of such construction that it will after operation continue to keep the bell or alarm in an operating condition. With it I use a class of bells which may be wound up and when wound will ring as long as actuated until the bell runs down.

Another feature of the invention consists in employing a spring-controlled trip, so that it can be set and will be held in such position that the slightest movement of it will start the bell to ringing.

Another feature of my invention consists in the peculiar construction and arrangement of trips to be actuated by the movement of the windows and doors.

In the drawings, Figure I represents in section a portion of the interior of a house. Fig. II is a central section of the spring-controlled trip for the bell. Fig. III is an elevation of a portion of the bell and the trip that actuates it. Fig. IV is a vertical cross-section of a window with both sashes closed. Fig. V is the same with both sashes open somewhat. Fig. VI is the detail of the pulley at the upper end of the windows. Fig. VII is the detail of the trip for the upper sash. Fig. VIII is the detail of the trip for the lower sash. Fig. IX shows the bell-trip in an operative position. Fig. X is a detail view of the means on the sashes for actuating the trips. Fig. XI shows an elevation and a plan view of the means for adjusting the tension of the main wires.

In the drawings, 1 is a door in the front wall of a house.

3 are windows.

4 is a wall or partition in the house, and 5 is the floor between the lower and upper stories, partly broken away.

At a suitable place in the house I secure to the wall a board 6, upon which the bell 7 is mounted. This bell is preferably the self-actuating kind which may be wound up and when the bell-lever 8 is actuated will continue to ring during the actuation of the lever. Such form of bell is well known. Adjacent to the bell I secure a trip 9 to engage and actuate the said bell-lever 8. The trip which I preferably use is that shown—viz., a disk with a recess cut out at one point, as seen in Fig. III. Said lever 8 extends into such recess when the bell is not being operated. The disk rotates on a screw or pin 10 and is rotated by the arm 11, to which the chain or cord 12 is attached. As seen in Fig. III, when said cord 12 is drawn upward somewhat the trip will engage and actuate the lever 8, and such actuation will not be momentary if the chain or cord 12 should happen to be drawn upward quite far, as would be the case if the trip were a mere bell-crank or similar construction. Said trip 9 is controlled in its operation by the spiral spring 13, that presses it against the board 6 with sufficient force so that the trip will remain in any position in which it may be placed. By this arrangement the trip can be set, as shown in Fig. III, with its actuating-point very close to the lever 8 and will remain there without the danger of ringing the bell unless the chain 12 is positively drawn. When the chain or cord 12 is drawn upward and the actuating-point of the trip has passed the end of the lever 8, as shown in Fig. IX, the spring will hold the trip in the actuating position, so that the bell will continue to ring until it runs down or until the trip has been reset. The tension of the spring 13 can be adjusted by means of the screw 10 sensitively for the proper accomplishment of its function. A finger-piece 14 is secured to the trip 9 for resetting. The continuous ringing of the bell is advantageous, because it will be sure to awaken the occupants and frighten the burglar away. The chain or cord 12 is connected with what I call the "main-line wire" 15, that passes over suitable pulleys 16 through the various

rooms of the house close to the ceiling. The tension of said main-line wire is accurately adjusted by means of the bolts 17, carried in the brackets 18, and the nuts 19. The purpose of this is to make said main line taut, so that a slight pulling of it will actuate the bell-ringing trip heretofore described. From said main-line wire 15 at all suitable points wires or chains 20 are connected, that extend down to the windows and doors.

To the window-casing I pivot two trips, one a lower-sash trip 21 and the other an upper-sash trip 22. The cord or chain extending from the main-line wire is connected with the inner end of the lower-sash trip 21. From the outer end of said trip a connecting-wire 23 extends to the inner end of the trip 22 and is so taut that the lower trip will be actuated by a proper movement of the upper trip. Both trips extend into engagement with the sashes. On the sashes I place any suitable means for engaging the outer ends of said trips. A plate 24 with one end rolled outward to form a lug and with a screw-hole in the outer end where by it may be secured to the sash will suffice. I place a series of these actuating-lugs at the upper end of each sash a few inches apart. The purpose of this arrangement is to render the alarm apparatus effective when the lower sash is partially raised or the upper sash partially lowered for ventilation.

From this description it is seen that when the lower sash is being elevated, if the alarm mechanism is set, the lugs 24 will elevate the outer end of the trip 21, which will lower the inner end thereof, and thus draw down the cord or chain 20 and through the main-line wire actuate the bell-ringing trip, and thus give the alarm, or if the upper sash be lowered the upper trip 22 will be reversely moved and it in turn will move the lower trip and give the alarm through the means that are described above. The lower sash can be elevated to the top of the window and when so elevated will push the upper trip 22 out of the way. Said trip is curved upward somewhat and pivoted near the guideway for the lower sash. It is then in the position shown in dotted lines in Fig. VII and will therefore permit the ready movement of the lower sash up or down. The spring 25 will bring the upper trip 22 against the upper sash and hold it in place. The cord 20 passes over the pulley 26 at the top of the window.

If desired, a bell or gong may be placed in the attic or upper story, as shown. If the occupants are all away, by leaving a window

open near this bell the alarm would reach the neighbors and also frighten the burglar.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A burglar-alarm including a self-actuating bell with a lever for starting and stopping the same, a rotatably-mounted trip for actuating such lever, and means for adjusting the friction of such trip on its mounting.

2. A burglar-alarm including a self-actuating bell with a lever for starting and stopping the same, and a circular trip having a recess to receive said lever while not being actuated, substantially as set forth.

3. A burglar-alarm including a self-actuating bell with a lever for starting and stopping the same, a trip in the form of a disk so placed as to engage such lever and having a notch in it to receive the end of the lever when not being operated and provided with a central recess, a spiral spring fitting in such recess, a headed bolt for securing the trip to any suitable support that is adapted also to adjust said spring, a finger-piece secured to the trip, and means for rotating the trip.

4. A burglar-alarm including a self-actuating bell with a lever for starting and stopping the same, a spring-controlled trip for actuating such lever, a main-line wire connected with said trip, means for adjusting the tension of such wire, and connections between the main-line wire and the windows and doors of a house for pulling the said main-line wire when a window or door is opened.

5. A burglar-alarm including a trip-lever curved as shown pivoted to the window-casing near the guideway of the lower sash and with one end adapted to engage the upper sash, means on the upper sash to actuate the trip, a spring to hold it in engagement with such sash, and connection between said trip and a suitable alarm apparatus.

6. A burglar-alarm including a trip-lever pivoted between its ends to the window-casing of a house with one end in engagement with the lower sash, a similar trip-lever mounted in engagement with the upper sash, connection between the inner end of the upper trip-lever and the outer end of the lower one, and a connection between the inner end of the lower one and a suitable alarm apparatus.

In witness whereof I have hereunto set my hand this 18th day of February, 1898.

CHARLES F. CLINE.

Witnesses:

V. H. LOCKWOOD,
WILLIAM CLINE, Sr.