

(No Model.)

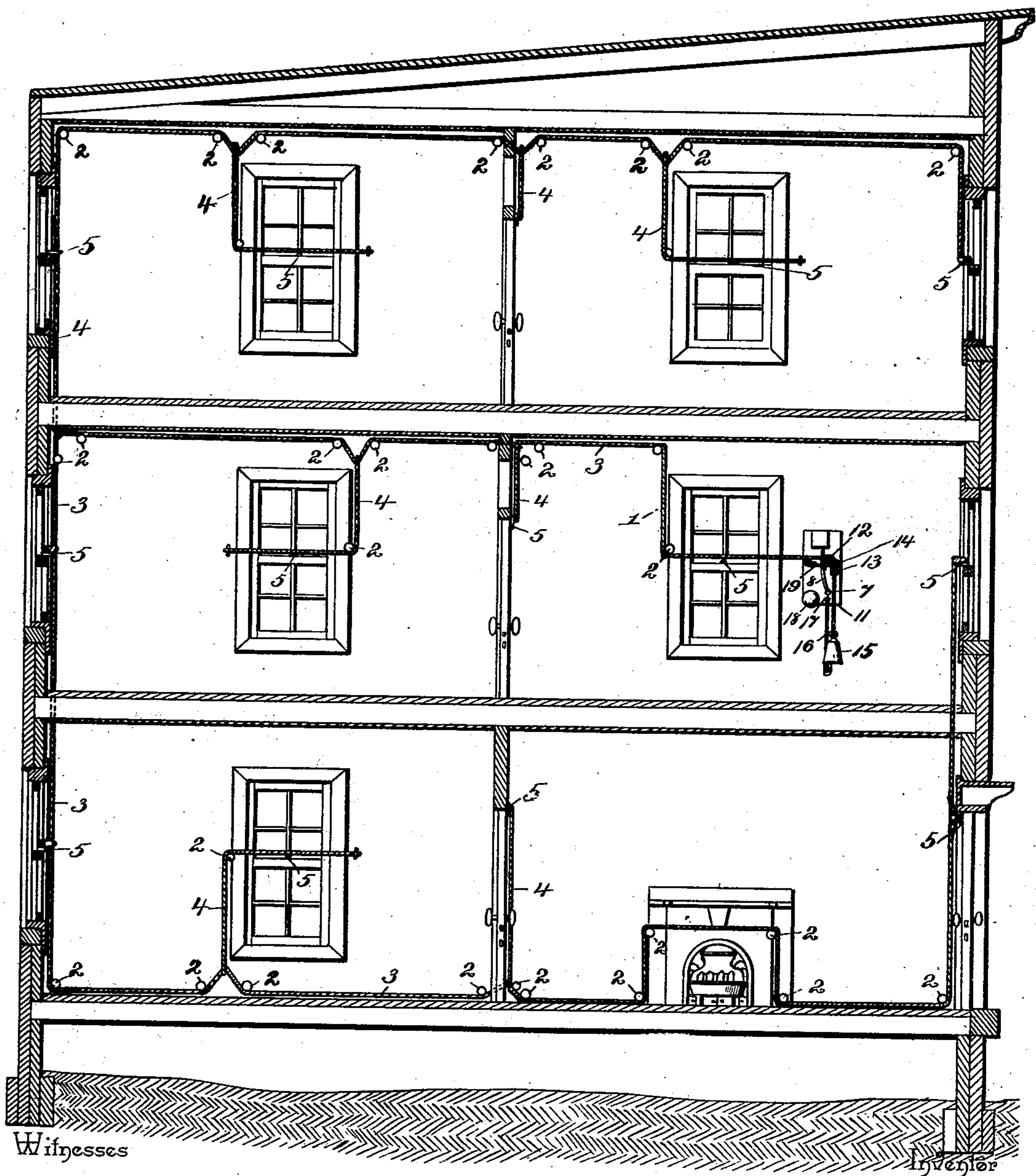
2 Sheets—Sheet 1.

R. L. LEVIN.
FIRE AND BURGLAR ALARM.

No. 508,954.

Patented Nov. 21, 1893.

Fig. 1.



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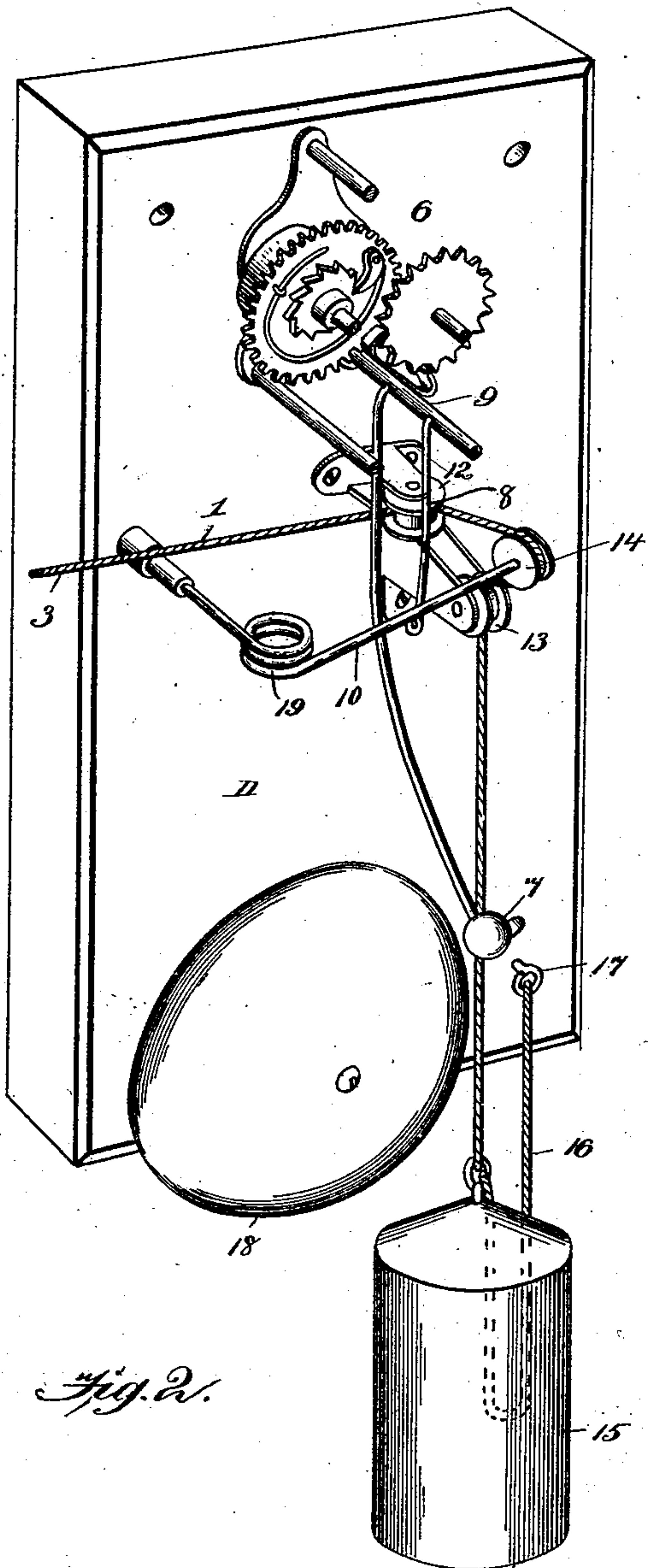


Fig. 2.

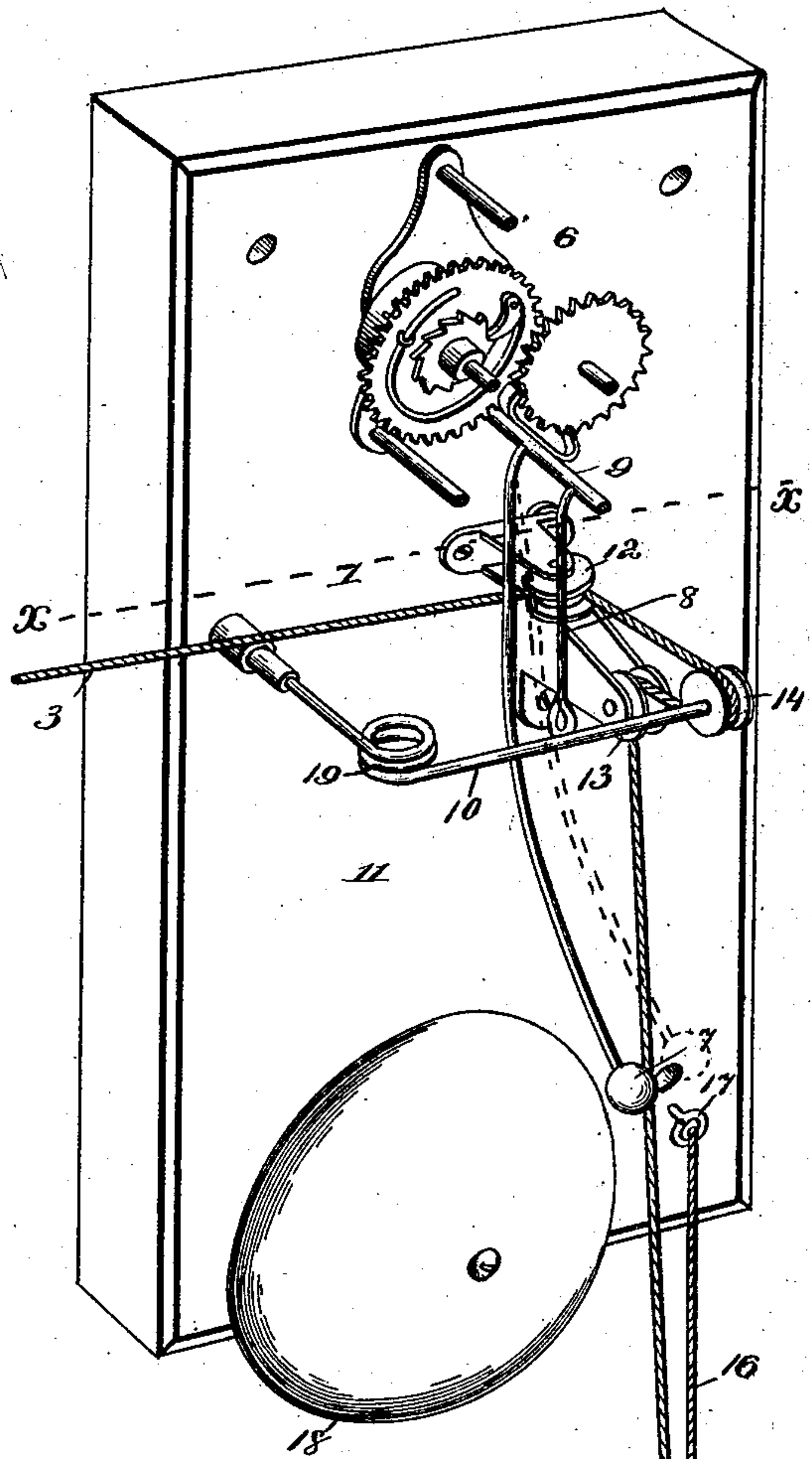


Fig. 3.

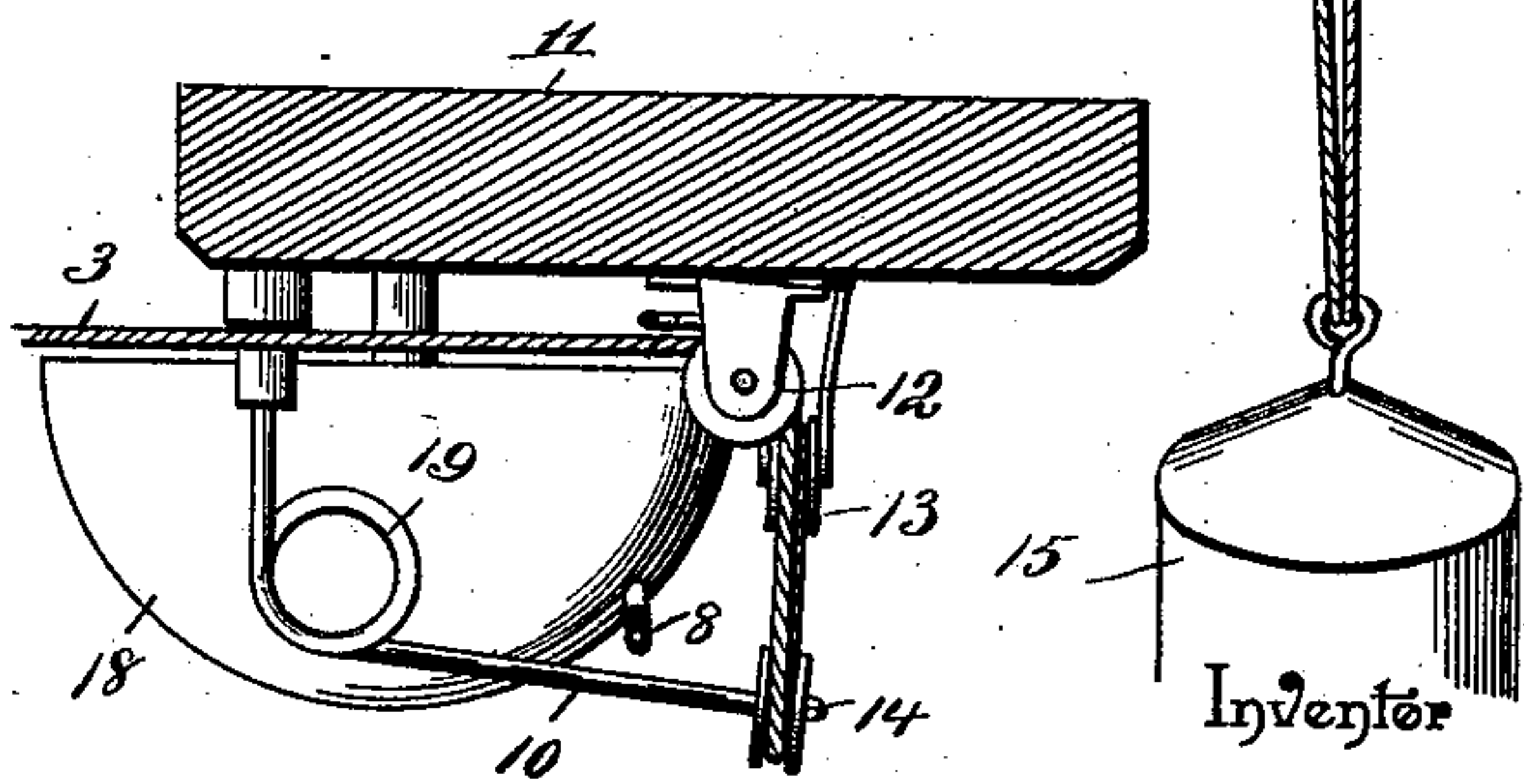


Fig. 4.

Witnesses

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C. E. Coffey.

By his Attorneys,

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UNITED STATES PATENT OFFICE.

RUDOLPH L. LEVIN, OF MENOMINEE, MICHIGAN.

FIRE AND BURGLAR ALARM.

SPECIFICATION forming part of Letters Patent No. 508,954, dated November 21, 1893.

Application filed April 7, 1893. Serial No. 469,401. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH L. LEVIN, a citizen of the United States, residing at Menominee, in the county of Menominee and State of Michigan, have invented a new and useful Fire and Burglar Alarm, of which the following is a specification.

My invention relates to improvements in fire and burglar alarms, and it has for its object to provide a simple and effective device, capable of general application, which sounds the alarm upon the severance of the cord or wire which is arranged at points accessible to fire and burglars.

Further objects and advantages of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

In the drawings: Figure 1 is a view of the improved alarm mechanism arranged in the operative position in a building. Fig. 2 is a perspective view of the alarm device. Fig. 3 is a similar view of the device as seen after the alarm has been sprung. Fig. 4 is a transverse section upon line $x-x$ of Fig. 3.

Similar numerals designate corresponding parts in all the figures.

1 designates a cord or a fine wire, readily melted and severed upon the application of heat, which is arranged throughout the building, as shown in Fig. 1, adjacent to the windows and doors, and at such places as are most likely to be reached by fire, the angles being formed by carrying said cord or wire around pulleys 2. This cord or wire consists of a main-line 3 and any desired number of branch-lines 4.

The doors and windows are provided with any desired means for severing the cord or wire upon the opening thereof, as small knives or other sharp instruments, 5.

6 represents a clock-alarm mechanism, having a knocker 7 connected to the rock-shaft 9 and a trip arm 8 carried by the same shaft, and 10 represents a spring retaining arm, which extends over said trip-arm and is adapted, when depressed, to engage or bear upon the trip arm to hold it from vibration.

The base 11 is provided with guide-pulleys 12 and 13 arranged beneath the free end of the retaining-arm, and the latter carries a similar pulley 14, and the line wire or cord

passes over or around said pulleys and is connected at its terminal to the weight 15. This weight is sufficient, when suspended freely, to hold the retaining-arm in contact with the trip-arm and lock the latter against vibration. The weight 15 is also connected, by a short cord 16 to a post 17 upon the base, to check the descent of the weight when the line-wire or cord is severed.

18 represents the alarm bell.

This being the construction of the improved alarm mechanism, the operation thereof is as follows: The parts being arranged as described, and as shown in Fig. 1 and in Fig. 2, with the weight suspended by the line wire or cord which passes over said guide-pulleys 12, 13 and 14, whereby the retaining-arm is held in contact with the trip-arm 8, the line-wire or cord is cut or severed by the opening of a door or window or by fire in any part of the building. At once the line-wire or cord is caused to slacken at the alarm, thereby dropping the weight, allowing the retaining-arm to spring outward, releasing the trip-arm, and enabling the spring 19 to actuate the knocker and sound the alarm.

From the above it will be seen that the construction and operation of the device are simple and direct and therefore certain.

Changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a device of the class described, the combination with a line wire or cord, of a spring-actuated alarm mechanism provided with a trip lever, a retaining arm, and means for retracting the same to disengage the trip lever when the arm is released, connections between the line wire or cord and said retaining arm, and a weight attached to the terminal of the line wire or cord to hold the latter under tension and the retaining arm in operative relation with the trip arm, substantially as specified.

2. In a device of the class described, the combination with a line-wire, and an alarm-mechanism provided with a trip-arm, of a retaining-arm provided with a spring to nor-

mally hold it out of engagement with the trip-arm, guide pulleys 12, 13 and 14, one of which is mounted upon said retaining-arm, and a weight connected to said line-wire or cord, substantially as specified.

3. In a device of the class described, the combination with a line-wire or cord, and an alarm-mechanism provided with a trip-arm, of a spring-actuated retaining-arm 10, carrying a pulley 14, stationary pulleys 12 and 13 around which and said pulley 14 the line-wire

or cord passes, a weight connected to the line-wire or cord, and a check cord connected to the weight to limit its descent, substantially as specified.

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

RUDOLPH L. LEVIN.

Witnesses:

FRANK BRACELIN,
J. C. JOHNSON.