

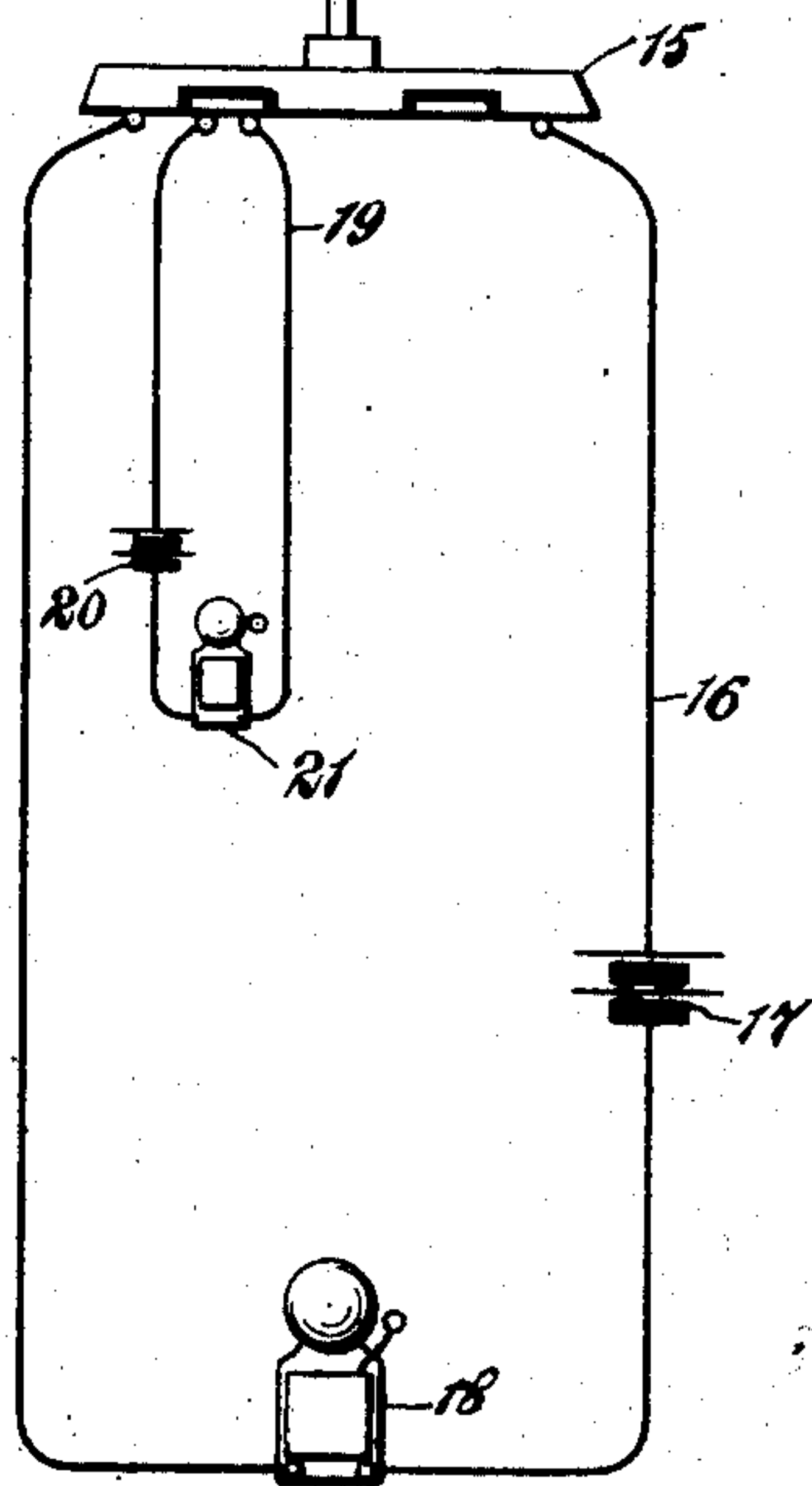
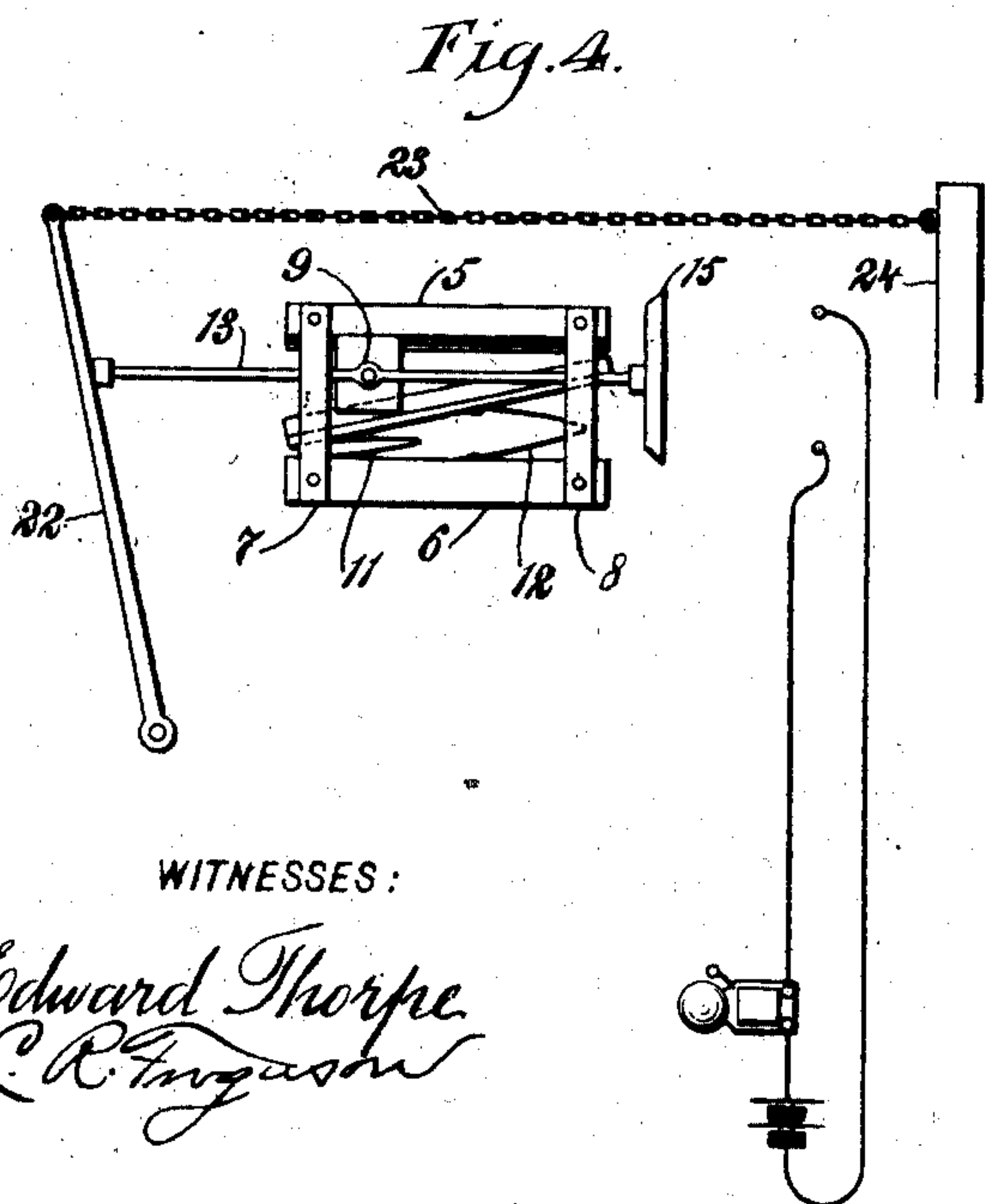
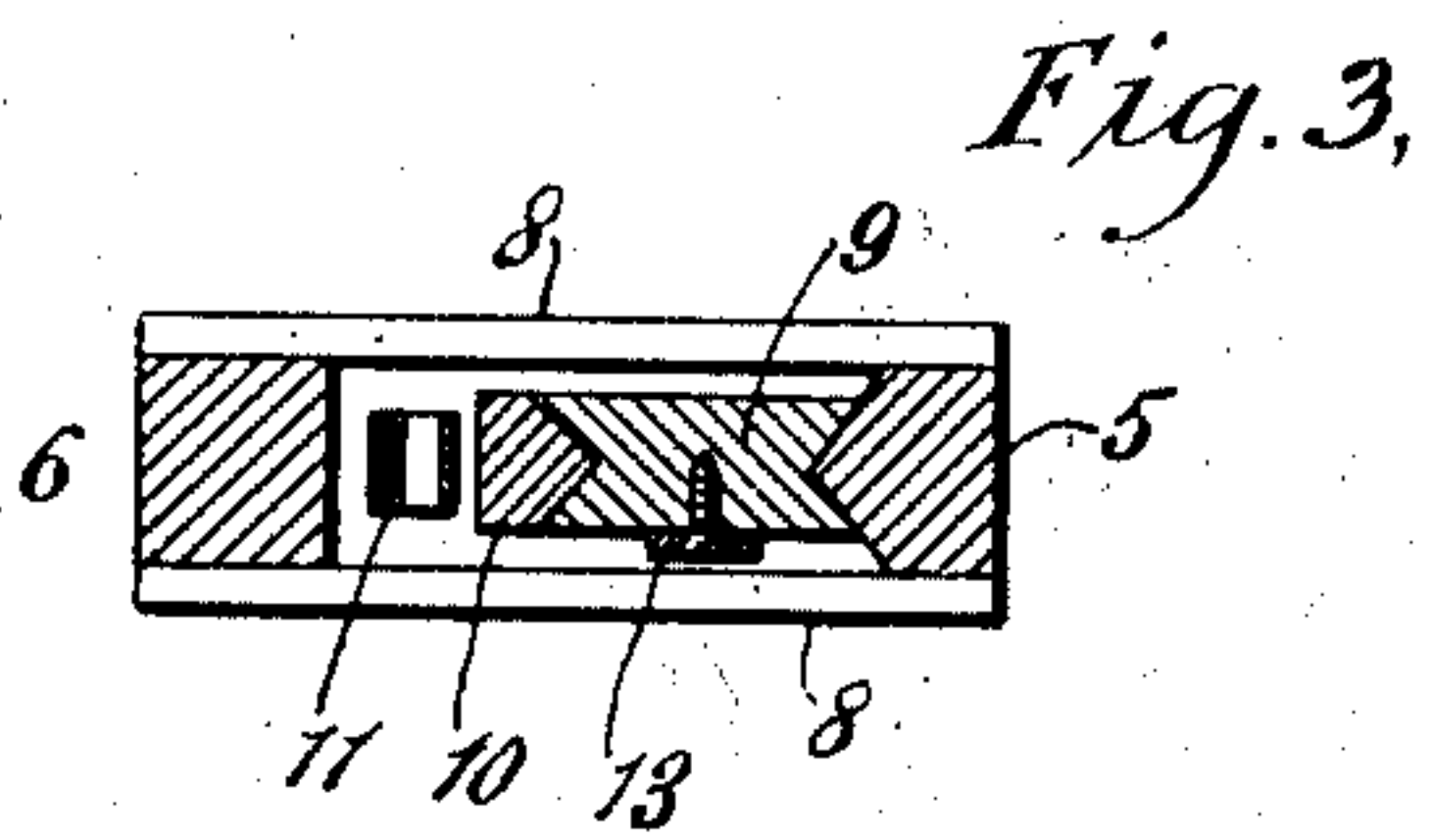
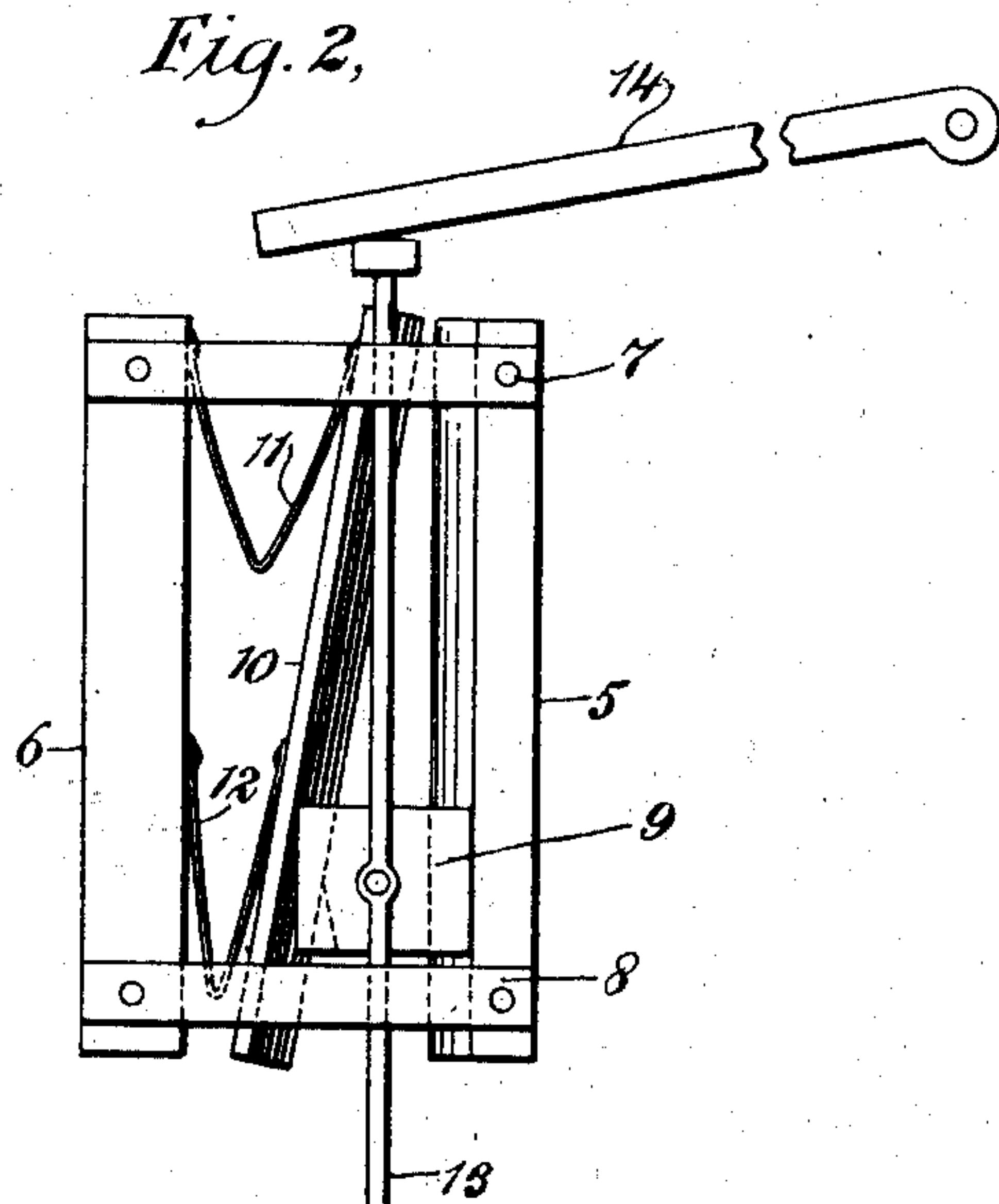
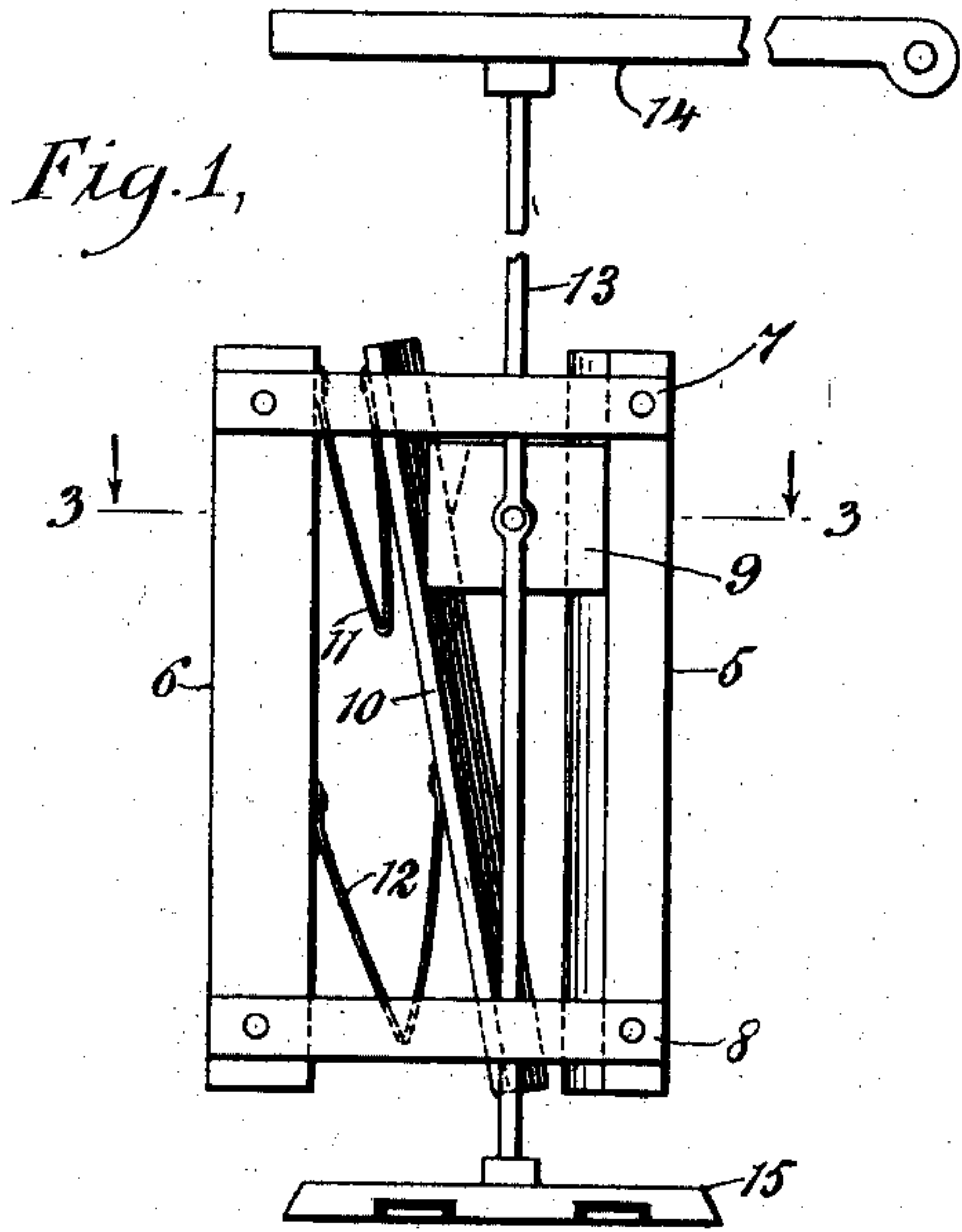
No. 706,435.

Patented Aug. 5, 1902.

D. F. MULKEY.
CIRCUIT CLOSER.

(Application filed Dec. 31, 1901.)

(No Model.)



WITNESSES:

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DAVID F. MULKEY, OF SODDY, TENNESSEE.

CIRCUIT-CLOSER.

SPECIFICATION forming part of Letters Patent No. 706,435, dated August 5, 1902.

Application filed December 31, 1901. Serial No. 87,868. (No model.)

To all whom it may concern:

Be it known that I, DAVID F. MULKEY, a citizen of the United States, and a resident of Soddy, in the county of Hamilton and State of Tennessee, have invented a new and Improved Circuit-Closer, of which the following is a full, clear, and exact description.

This invention relates to improvements in circuit-closers particularly adapted for burglar-alarm systems in banks, hotels, residences, and in all buildings where such alarms are needed; and the object is to provide a simple circuit-closer that may be closed by a person stepping upon it or operated by the opening of a door or window.

I will describe a circuit-closer embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of a circuit-closer embodying my invention. Fig. 2 is a similar view, but showing the device in circuit-closing position. Fig. 3 is a section on the line 3 3 of Fig. 1, and Fig. 4 shows the device as connected to a door.

The circuit-closer comprises a frame consisting of side strips 5 6, connected near one end by cross-strips 7 and near the other end by cross-strips 8. One of the side strips, here shown as the strip 5, forms a guide for a block 9, and this block 9 also engages with a guide 10, movable relatively to the guide 5. The guide 10 is held yieldingly toward the guide 5 by means of a spring 11 at one end and a spring 12 near the other end, these springs being connected to the side strip 6 and to said movable guide. The guide-strips are here shown as made V-shaped at their inner edges, and the block 9 is correspondingly channeled, the channel, however, at the side in which the guide 10 engages being arranged at opposite inclines, as clearly indicated in dotted lines in Fig. 1. The guide 10 is movable in different angular relations to the guide 5—that is, when the block 9 is in its uppermost or outermost position that portion of the guide 10 with which the block engages will be farther from the guide 5 than at the

opposite end, and this order will be reversed as the block moves toward the opposite end of the frame. The object of this is to hold the block from accidental movement either to cause the closing or opening of the circuit.

Attached to the block 9 is a rod 13, with one end of which a lever 14 is designed to engage. In Figs. 1 and 2 the device is arranged to be located underneath the floor, with the lever 14 above the same and designed to be pressed downward by a person's foot. On the opposite end of the rod 13 is a contact consisting of a strip of metal 15. This strip may carry a series of closing-contacts insulated one from another, so that several circuits leading to different parts of the building or to any desired points may be simultaneously closed. In Fig. 2 I have shown the device as closing two circuits, in each of which is an alarm. These circuits are represented at 16, in which are a battery 17 and an alarm-bell 18, and at 19, in which are a battery 20 and an alarm-bell 21. In Fig. 4 are shown devices similar in all respects to those above described, excepting that the lever 22 is connected by a chain 23 or like flexible device with a door 24.

In operation the contact will of course be held normally out of engagement with the circuit, as indicated in Fig. 1. Should the lever be pressed, however, the contact will be moved to position to close the circuit or circuits, as indicated in Fig. 2.

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

1. A circuit-closer comprising a fixed guide, a movable guide, springs engaging near opposite ends thereof whereby it may move in angular relation to the fixed guide, a block movable along the guides, and a contact carried by the block, substantially as specified.

2. A circuit-closer, comprising a frame, a side member of which forms a guide, a spring-pressed guide in the frame, a block movable along said guides, a rod carried by said block, a contact connected to the rod, and means for moving the rod in one direction, substantially as specified.

3. A circuit-closer, comprising a frame, one member of which forms a guide, a mov-

able guide in the frame, spring connections
near opposite ends of said movable guide and
the frame, a block movable along said guides,
a rod carried by the block, a plurality of con-
5 tacts carried by the rod, and a lever for mov-
ing said rod to circuit-closing position, sub-
stantially as specified.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

DAVID F. MULKEY.

Witnesses:

J. A. CURRIE,

J. M. JOHNSON.