

J. P. SNYDER.

Electro-Magnetic Burglar-Alarm.

No. 103,383.

Patented May 24, 1870.

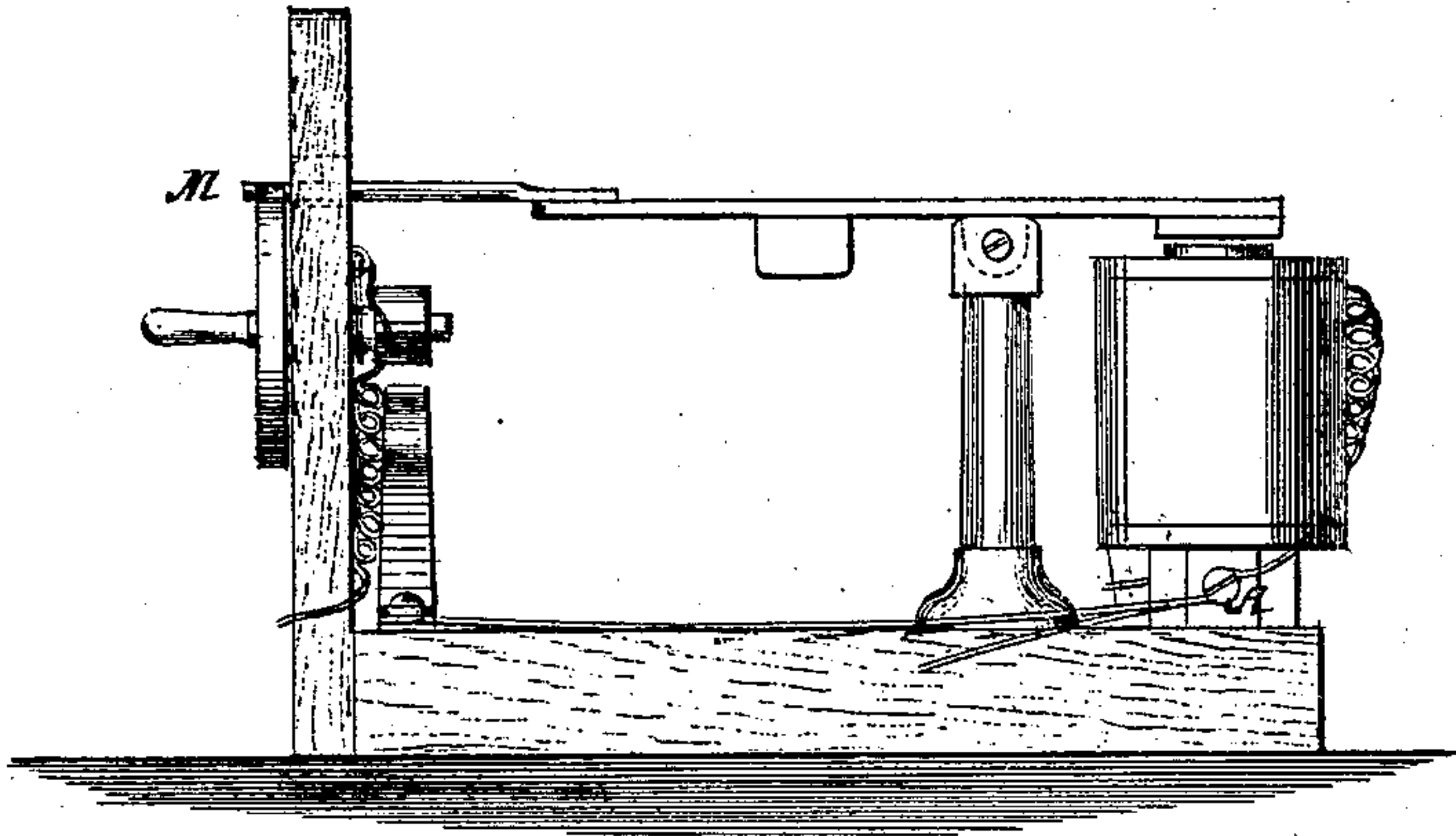


Fig. 3.

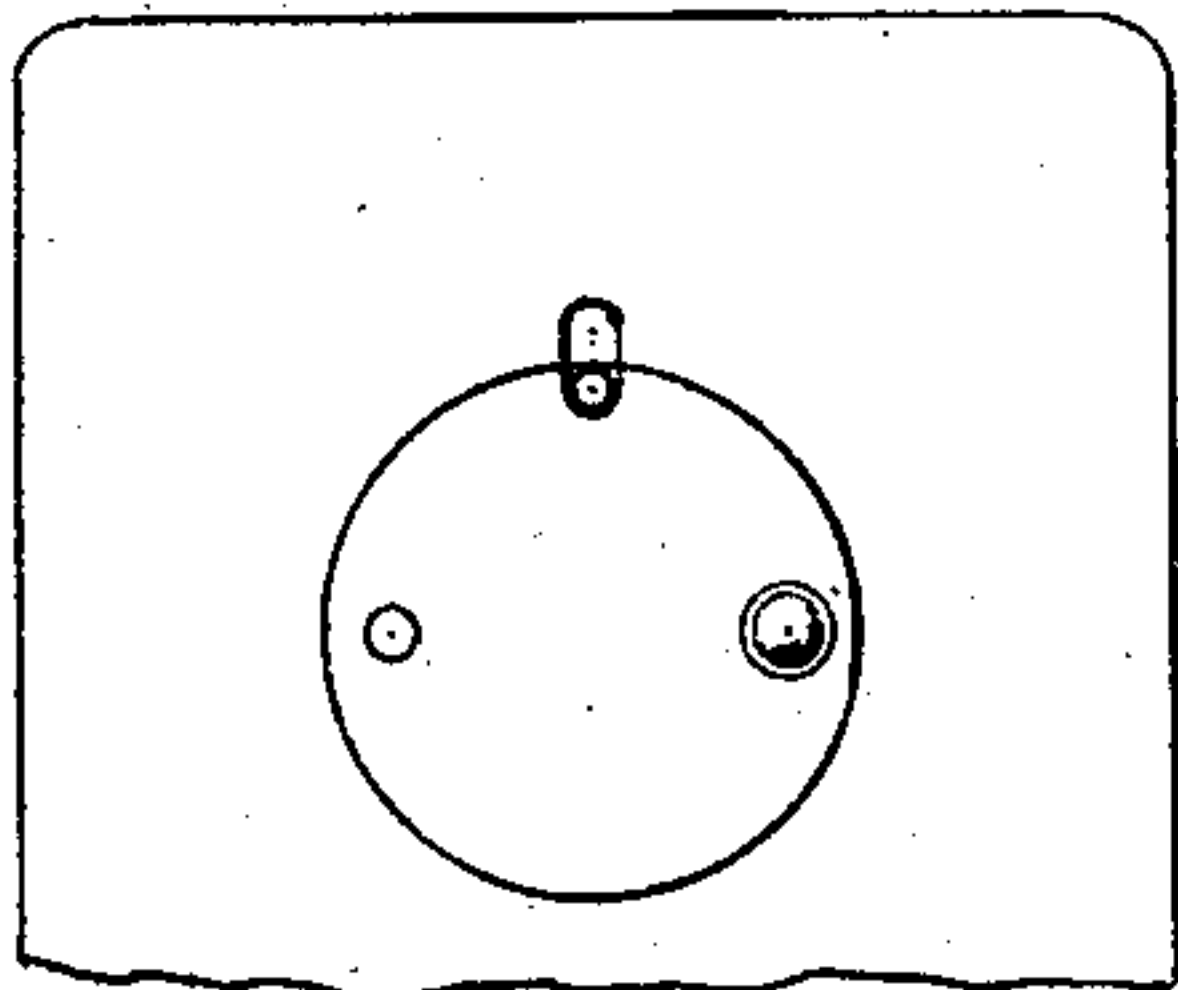
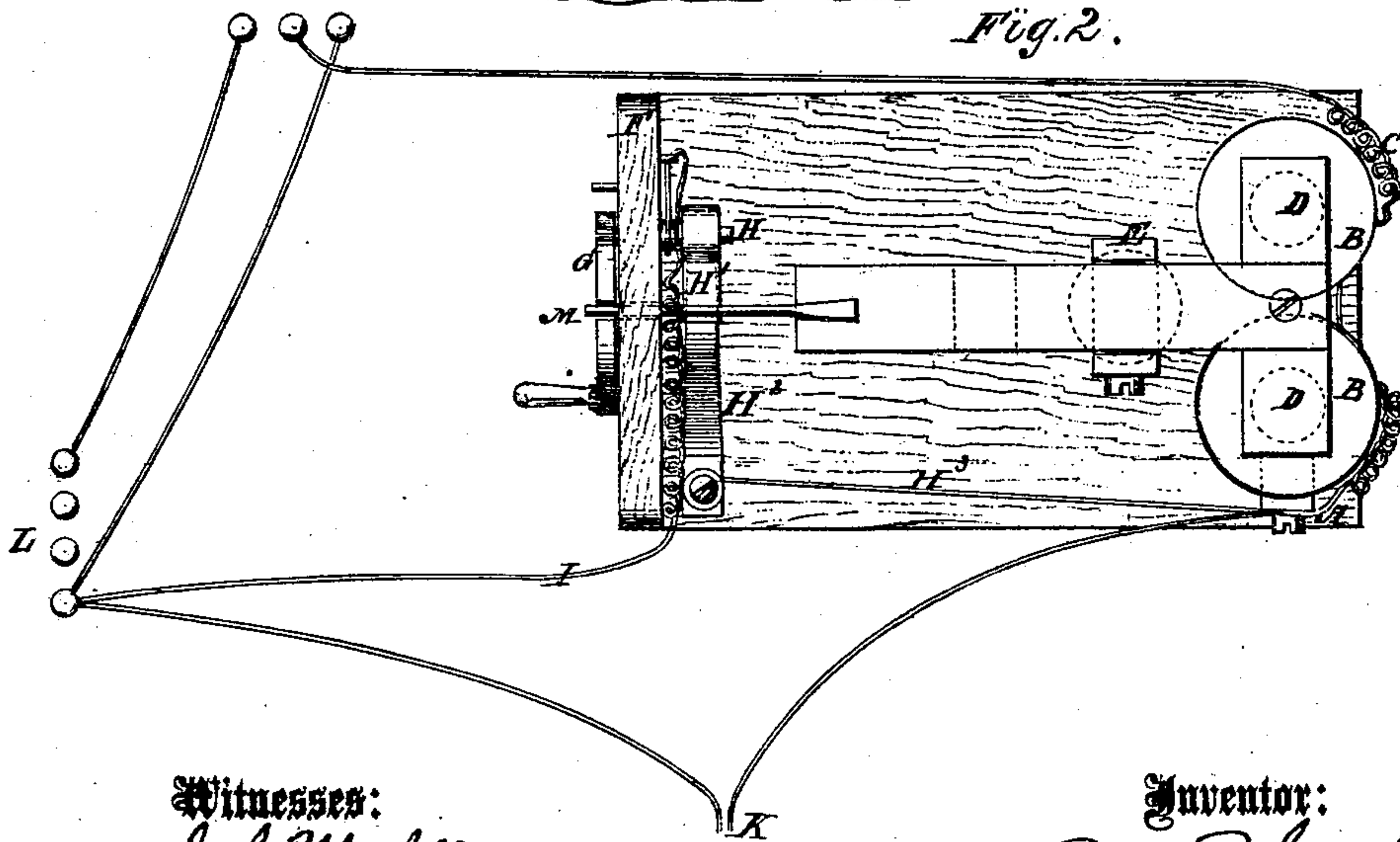


Fig. 2.



Witnesses:

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JAMES P. SNYDER, OF BROOKLYN, NEW YORK.

Letters Patent No. 103,383, dated May 24, 1870.

IMPROVEMENT IN ELECTRO-MAGNETIC INDICATORS FOR BURGLAR-ALARMS AND FOR OTHER PURPOSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES P. SNYDER, of Brooklyn, in the county of Kings and State of New York, have invented a new and improved Automatic Magnetic Indicator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to improvements in the magnetic burglar-alarm apparatus used in houses, hotels, and the like, to sound alarms when efforts are made to enter by raising windows or opening doors; and

It consists in an arrangement for setting in action automatically a secondary circuit, which will continue the alarm, although the circuit first set in action may be suddenly stopped again by the shutting of the door or window by the burglar on hearing the alarm.

The invention also consists in an arrangement for causing the armature to effect the uncovering of the name or number of the room from which the alarm proceeds.

Figure 1 is a side elevation of my improved indicator.

Figure 2 is a plan of the same, also a diagram of the wires, showing the connection of the indicator with the battery, the alarm, and the room or part of the house to be guarded.

Figure 3 is an end view.

Similar letters of reference indicate corresponding parts.

A is one end of the coil of wire of the electro-magnet B.

C is the other end.

D is the armature of the electro-magnet B, attached to one end of a metallic rod or bar, working on pivots E near the magnet. The farther end of this bar or rod passes through a plate, F, (a non-conductor of electricity,) and rests in a slot in a disk or other device, G.

This disk is hung to the plate by a pin, H, which passes through it and the plate on either side or near its bottom, in such a manner that when the rod or bar is withdrawn from the slot the disk or other device may fall, and in its fall uncover a portion of the plate, (upon which is indicated the name or number of the room which the wire A is to guard,) that is covered when the bar or rod is in the slot.

This pin is firmly attached to the disk or device, so that, upon its fall, the pin may be turned.

Attached to the back of the pin is a metallic spring H^1 , which the disk, in falling, brings into contact with another metallic spring, H^2 .

A wire, I, connects one pole of the battery with the spring H^1 ; the spring H^2 is connected with the wire A by the wire H^3 .

The operation of the indicator is as follows:

A wire connected with one of the poles of a galvanic battery, L, leads to the wire A, but is broken at K, which may be supposed to be the window of the parlor, and arranged so that the raising of the window will close the circuit.

C leads to the opposite pole of the battery, passing through the vibrating armature, electro-magnetic, and the alarm X.

The wires being brought into contact at the point K, an electrical circuit is established through the alarm and magnet B, causing the armature to be attracted, thus raising the point of the rod or bar M from the slot in the disk G, or other device. The fall of the device brings the springs H^1 and H^2 into connection, whereby a second and independent circuit is established through the wire I and springs H^1 and H^2 , which can only be broken by raising the disk or other device separating the springs H^1 and H^2 .

In the usual methods of indicating, when the two poles of the battery are connected the alarm is sounded, and the indicators (by breaking that pole of the battery which has been connected with the ordinary devices) show where it comes from; but if the connection is broken before the person who has charge of the indicator reaches it, the alarm ceases, and then it does not show what point or points it came from; but with this indicator, the instant that a connection is made, and the current of electricity passes to and through its magnets, the alarm continues to sound, (and the indicator shows upon its face the point or points which caused it) until the person having it in charge chooses to stop it by breaking the connection at H^1 and H^2 , as described and shown in the drawing.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

An alarm-indicator arranged for automatically causing a secondary and independent circuit at the indicators by the action of the armature lever with a disk or other device, and the springs or other closing devices, and a secondary line of wire, I, H^3 connecting the battery and the magnet, all substantially as specified.

The above specification of my invention signed by me this 3d day of March, 1870.

JAMES P. SNYDER.

Witnesses:

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