

L. F. BRUCE.

Burglar Alarm.

No. 93,168.

Patented Aug. 3, 1869.

Fig. 7.

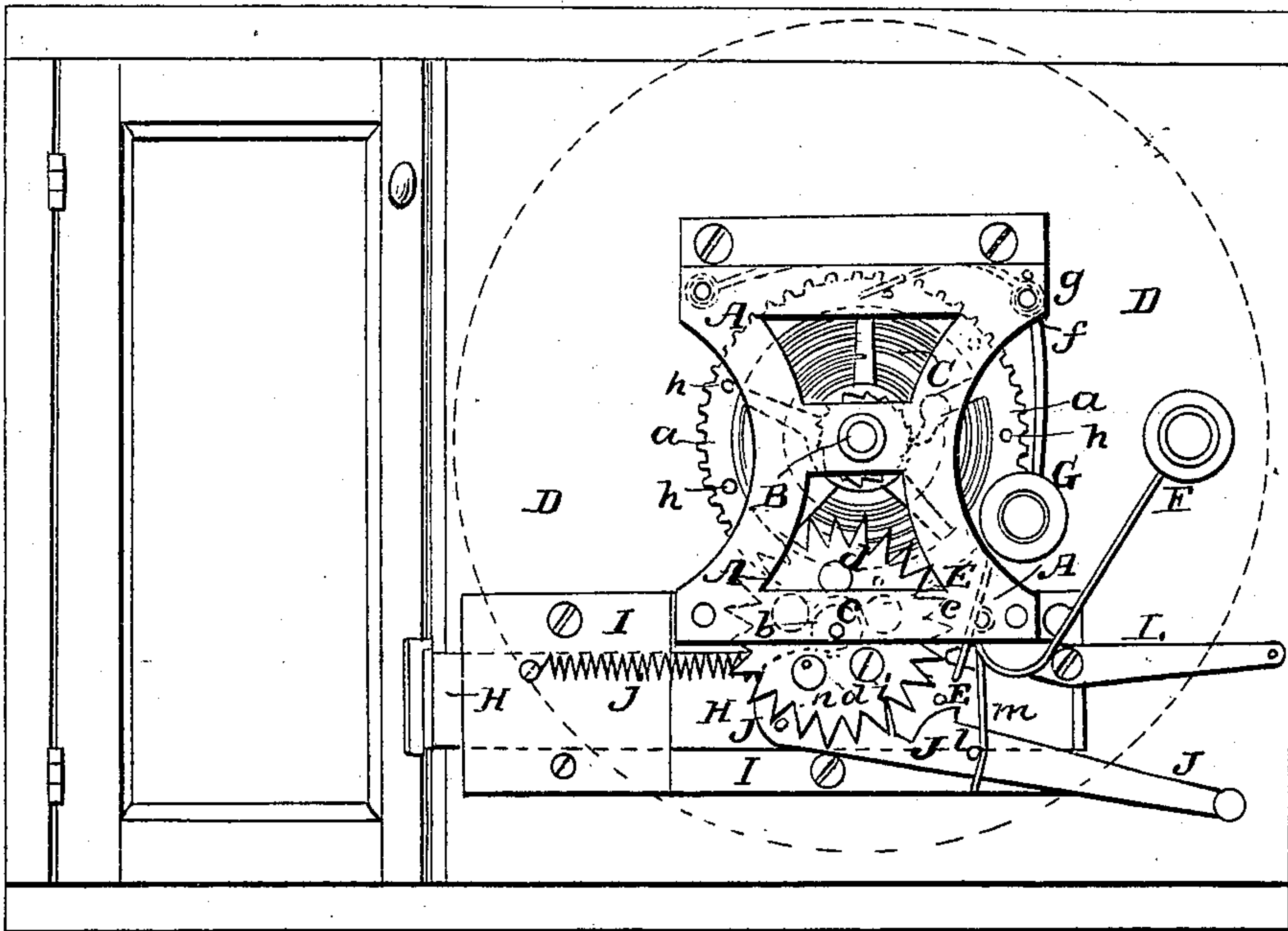


Fig. 2.

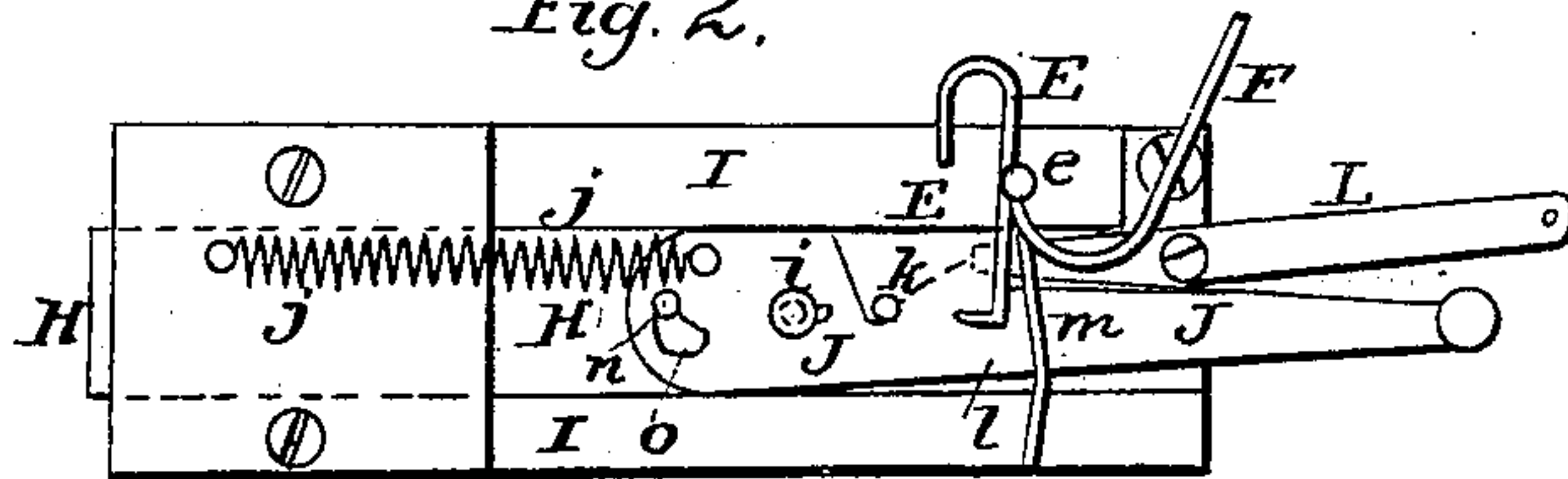
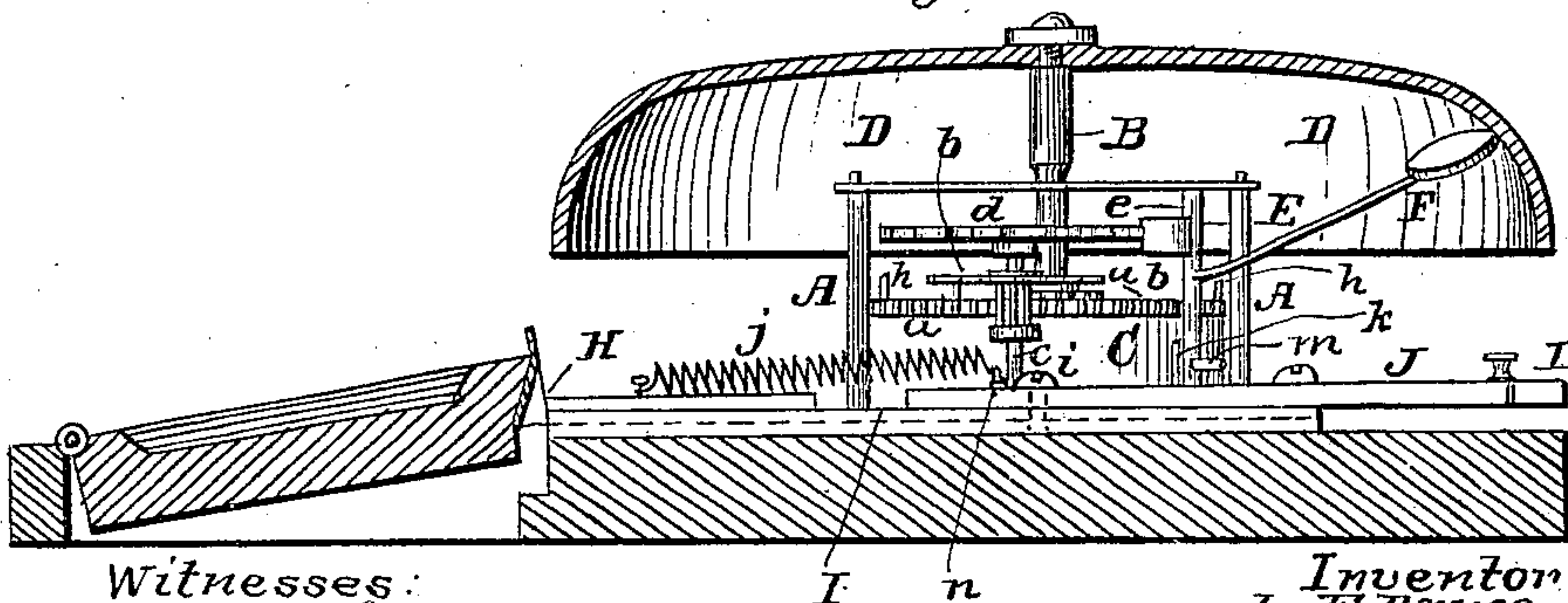


Fig. 3.



Witnesses:

Hinchman
John Brooks

Inventor:
L. F. Bruce

Munn
Attorneys:

United States Patent Office.

LUCIEN F. BRUCE, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 93,168, dated August 3, 1869.

IMPROVED ALARM-BELL.

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, LUCIEN F. BRUCE, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a new and improved Alarm-Bell; 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, in which—

Figure 1 represents a face view of my improved alarm-bell.

Figure 2 is a detail face view of the setting-attachment to the same.

Figure 3 is an edge view, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new attachment to doors and windows, by means of which, should an attempt be made to open such doors and windows, a loud and continuous alarm will be given.

The invention is intended as a protective means against burglars in private houses and magazines, and is so constructed that it will keep in motion, when once started, even when the door or window is reclosed.

The invention consists in the novel arrangement of the setting-lever, which is pivoted to a sliding plate, so that when this lever is swung off its locking-pin, the plate will, by a spring, be drawn against the edge of the door, to have the alarm set in motion as soon as the door is opened, and, if the door is reclosed, the alarm will thereby not be stopped, but will continue to operate until the spring is worked off, or until the lever is relocked.

The invention also consists in the application of a secondary lever, by means of which the apparatus may be connected to either side with a window.

The invention finally consists in the application, to an alarm-bell, of two striking-hammers, one attached to and oscillating with the escapement-lever, while the other is acted upon by a wheel carrying a number of pins, which release it at intervals, and allow it to be thrown with considerable force against the bell by means of a spring.

A, in the drawing, represents the frame of my improved alarm-apparatus. It is made of metal, and can be attached to the frame of a door or window, or in any other part of a building. In it is arranged an axle, B, to which the inner end of a coiled main-spring, C, is secured.

The outer end of this spring is attached to a portion of the frame A.

The spring C has the tendency to revolve the axle B, by unwinding, and to thereby set the apparatus in motion.

The bell D is secured to the axle B, and revolves with the same.

By taking hold of the bell and turning it, the spring will be wound up.

A toothed wheel, *a*, on the axle B, meshes into a pinion, *b*, on an arbor, *c*, that is arranged in the frame A.

On the arbor *c* is mounted an escapement-wheel, *d*.

The escapement-anchor E is mounted on a pin, *e*, and engages, with its pallets, in the teeth of the wheel *d*.

To the pin *e* is also secured a hammer, F.

When the device is in motion, the pin *e* is oscillated, and its hammer F is thrown rapidly against the bell D.

Another hammer, G, is or may be pivoted to the frame A, by means of a pin, *f*, to be thrown by a coiled spring, *g*, against the bell.

The shank of this hammer is retained by pins *h h*, that project from the face of the wheel *a*. As the wheel *a* revolves, it will cause the hammer G to be alternately drawn down and thrown against the bell.

H is a plate, fitted between two plates I I, or into a groove that is formed on the bed I of the frame A.

To the plate H is pivoted, by means of a pin, *i*, a lever, J, which is, by means of a spring, *j*, drawn toward the inner or lower end of the apparatus.

This lever, when locked over a fixed pin, *k*, of the frame A, as in fig. 2, will draw the plate H also toward such pin.

In this position, a pin, *l*, projecting from the lever J, will fit under an arm, *m*, that projects from the pin *e*, and will thereby prevent said pin from oscillating, and the alarm from operating.

When, however, the lever J is turned on its pivot, so as to become released from the pin *k*, it will carry the pin *l* away from the arm *m*, and the spring C will be set in motion. At the same time the spring *j* draws the lever J, and, with it, the plate H down or inward.

To be used on a door, the apparatus is so set that the end of the plate H will almost or quite reach to the edge of the door, when the lever J is locked to the pin *k*.

Toward night, when the apparatus is to be set, the lever J is turned, to be released from the pin *k*, so as to allow the spring *j* to draw the plate H against the edge of the door. This motion is so small that the pin *l* will still remain in the way of the arm *m*.

As soon as the door is opened, the spring *j* will draw the plate H further in, and will withdraw *l* from *m*, so that the spring C will have full liberty to work the alarm.

The closing of the door will not stop the working of the alarm, as it will not bring the pin *l* in the way of the arm *m*.

The lever J is slotted where its pivot *i* fits through

it, and has, at its lower end, an elbow-slot, *n*, through which a pin, *o*, projecting from the plate *H*, fits.

When the lever is locked or pinned, the pin *o* remains in the lower part of the slot *n*, as in fig. 2.

When the alarm is in operation, the pin *o* is in the outer part of the slot, as in fig. 1.

The closing of the door will not be able to throw the pin *o* into the inner part of the slot, and the alarm will therefore continue to operate until the lever is set over the pin *k*.

L is a secondary lever, pivoted to the frame *A*, near the lever *J*.

This lever *L*, when swung on its pivot, will serve to disengage the lever *J* from the pin *k*.

The outer ends of the levers *J* and *L* can be connected, by means of wires, with windows on opposite sides, and when either of the wires is drawn by opening a window, the alarm will be started.

Having thus described my invention,

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

1. An alarm, pivoted with two hammers, that strike in different time against a single bell, substantially as herein shown and described.

2. The lever *J*, sliding plate *H*, spring *j*, and pins *k*, all arranged as described, to operate an alarm-bell, in the manner specified.

3. The secondary lever *L*, when arranged in combination with the setting-lever *J*, substantially as herein shown and described, for the purpose set forth.

4. The lever *J*, when provided with the elbow-slot *o*, to receive the pin *n*, so that it will not be relocked by the closing of a door, as specified.

LUCIEN F. BRUCE.

Witnesses:

DAVID B. LOCKWOOD,
THOMAS BOUDREN.