

(No Model.)

A. ISKE.

CIRCUIT CLOSER FOR BURGLAR ALARMS.

No. 304,732.

Patented Sept. 9, 1884.

Fig. 3.



Fig. 5.

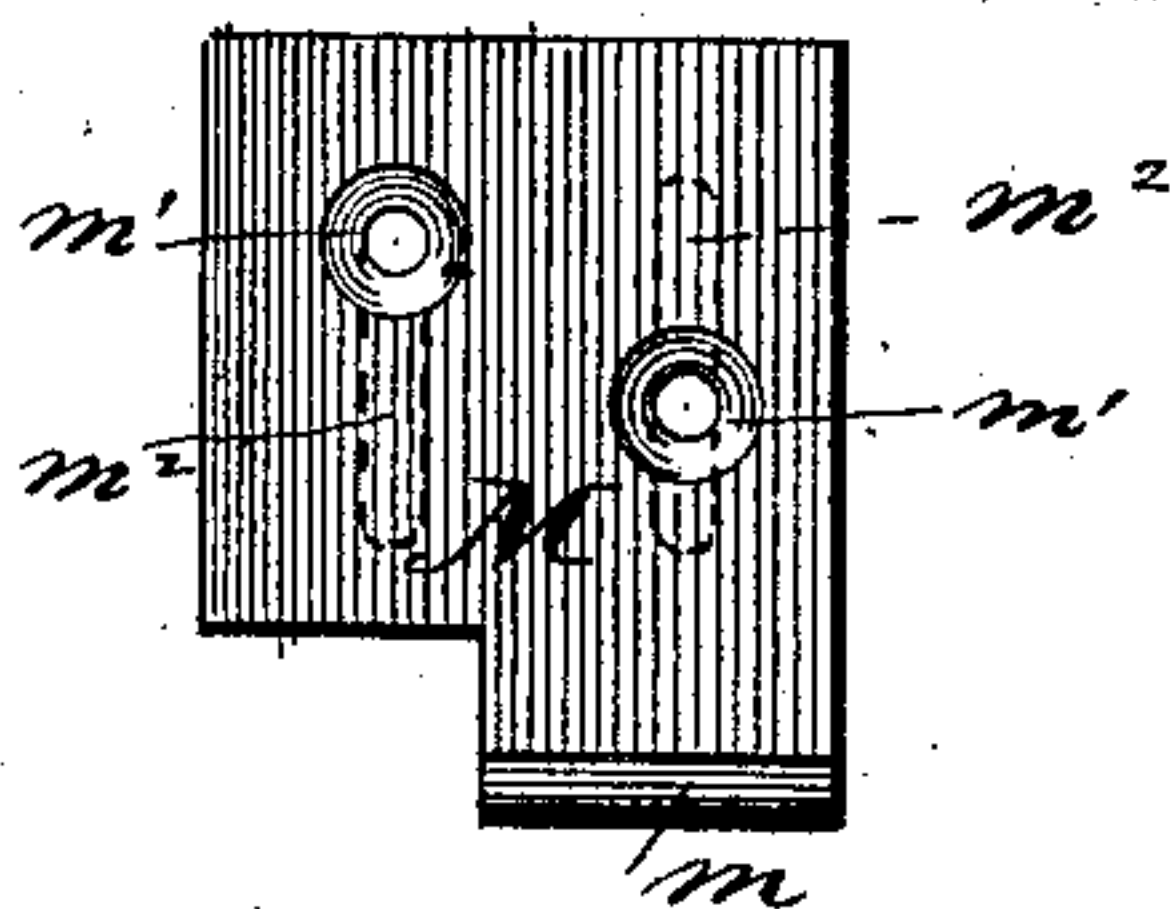


Fig. 4.

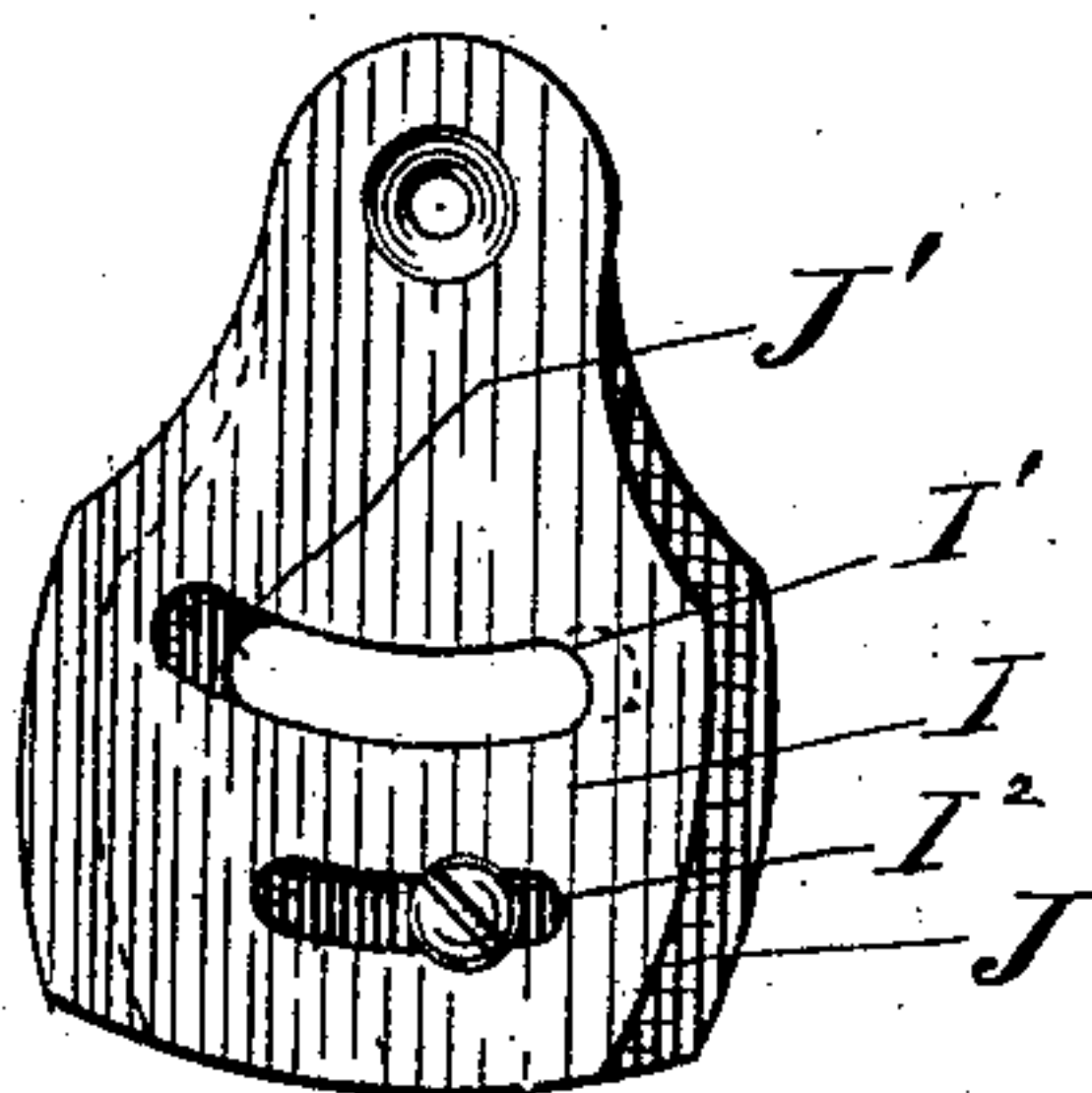


Fig. 2.

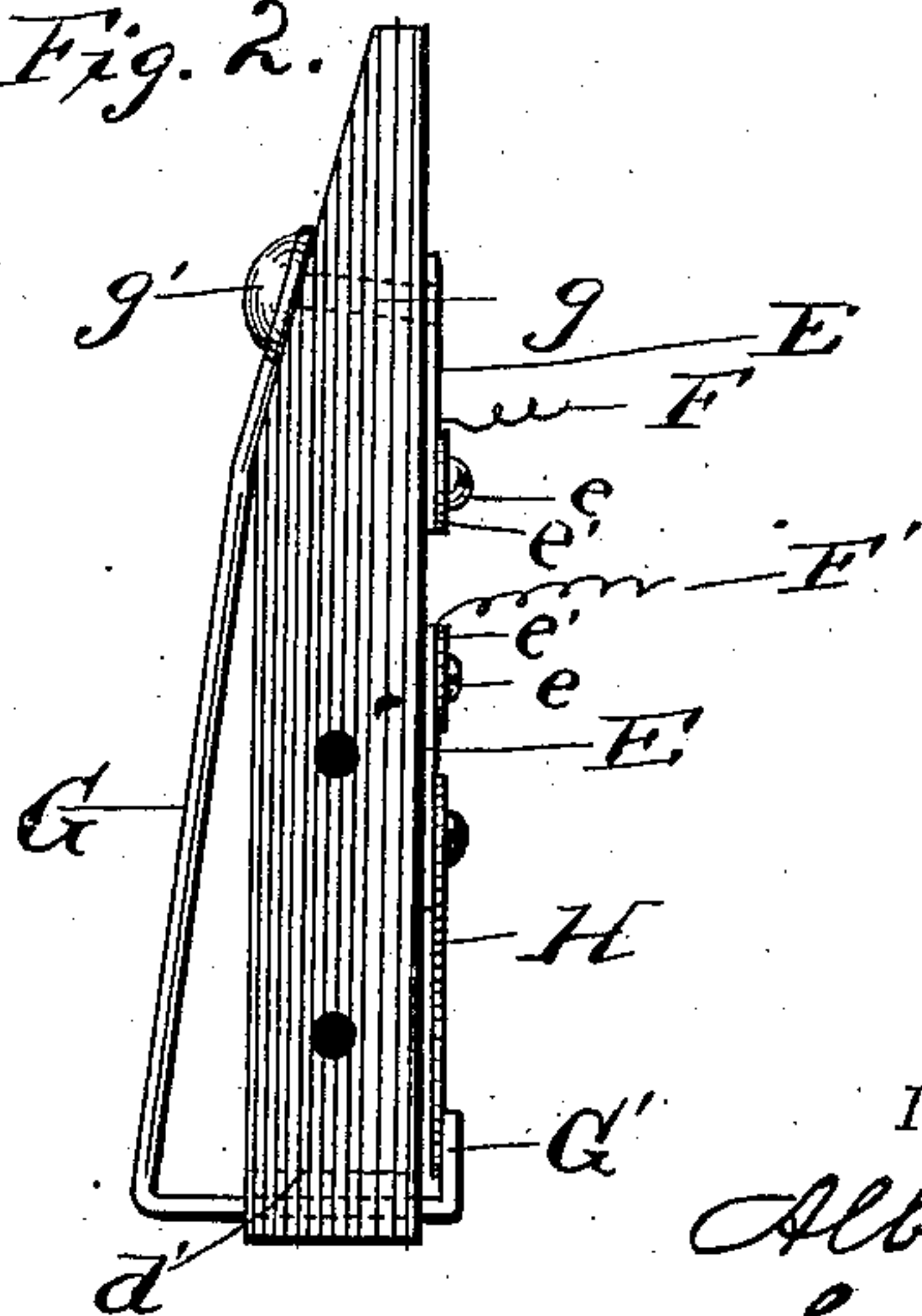
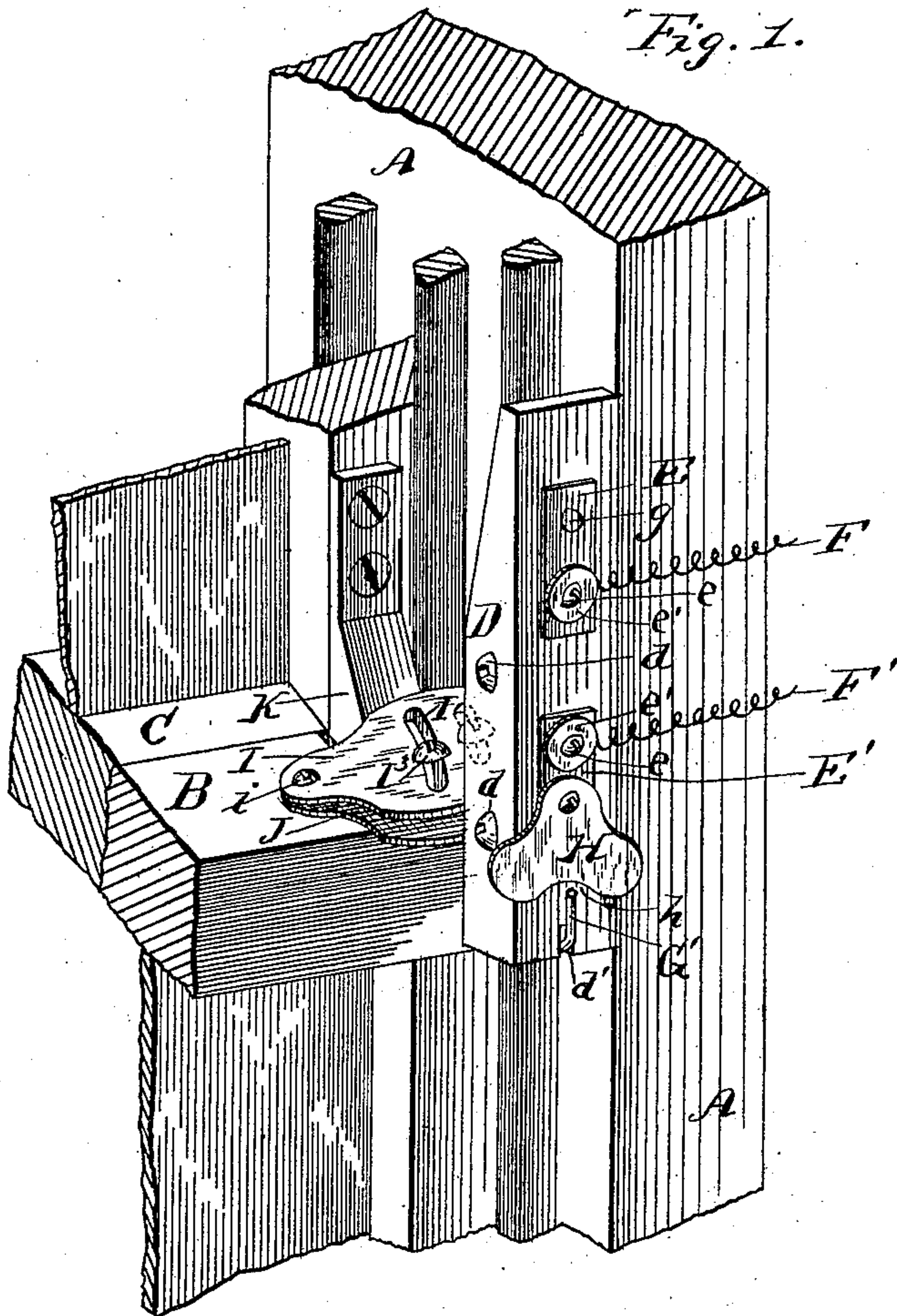


Fig. 1.



WITNESSES

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CIRCUIT-CLOSER FOR BURGLAR-ALARMS.

SPECIFICATION forming part of Letters Patent No. 304,732, dated September 9, 1884.

Application filed December 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ISKE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Circuit-Closers for Burglar-Alarms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to devices for opening and closing the circuits of electric burglar-alarms when a window-sash is raised or lowered or a door turned on its hinges.

The said invention consists, partly, in the combination of a plate forming part of an electric circuit with a circuit-closing spring, which also forms part of the electric circuit, and tends to come in contact directly with said plate, and a device attached to a window-sash or other means of ingress, which device normally holds said spring away from said plate, the moving of said window or other means of ingress freeing said spring from said device and allowing the circuit to be closed by the action of said spring.

It also consists in a circuit-closing spring, in combination with a plate forming part of an electric circuit, a lug or projection on the frame of the upper sash of a window, and a movable plate or plates interposed between said lug and said spring, and operating with said lug to hold said spring out of contact with the plate first above mentioned while the window remains closed.

It also consists in a circuit-closing spring, in combination with a pivoted triangular or three-armed plate forming part of an electric circuit, and a plate or plates which prevent said spring from closing the circuit until the means of ingress are opened.

It also consists in an adjustable pair of plates attached to a window-sash, in combination with an incline-faced lug on the other sash, and a circuit-closing device held open by said lug and plates until one sash or the other is moved, as stated.

It also consists in an adjustable plate secured

to the top of a window-sash, in combination with a circuit-closing spring and contact-plate forming part of an electrical circuit, said adjustable plate holding said spring out of contact with said contact-plate until the lower sash is raised.

It also consists in the combination of the circuit-closing spring of a burglar-alarm with a three-arm contact-plate pivoted at one arm and adapted to turn, so that either one of the other arms may be in position for contact with said spring, the space between said lower arms being recessed, so that when said plate is turned to an intermediate position the alarm will not operate.

It further consists in the combination, with a wedge-faced lug attached to the upper sash of a window, of a circuit-closing spring attached to the window-frame, and two interposed plates pivoted together on the top of the lower sash, said plates being provided with slots and a stop for limiting their motion on their pivot, and with connection by slot and screw for regulating their combined width.

In the accompanying drawings, Figure 1 represents a perspective view of a window and window-frame, and the devices attached thereto, embodying the said invention. Fig. 2 represents a detail view of the circuit-closing spring. Fig. 3 represents a similar view of wedge-faced lug attached to the upper sash. Fig. 4 represents a similar view of the two plates pivoted on the top of the lower sash, and Fig. 5 represents a single plate which may be substituted for the two pivoted plates above mentioned.

A designates the frame of a window, B the lower sash-frame, and C the upper sash-frame. To the aforesaid window-frame A, opposite the meeting-rails of said sash-frames, and extending considerably above them, is secured a bar or rail, D, by means of screws *d* or other readily-detachable fastenings. This bar or rail serves as a support for the circuit-closing devices. On the front of this bar or rail are two plates, E E'. Through each of these plates is passed a screw, *e*, which is provided with a washer, *e'*. One of these screws and its washer clamp the end of a wire, F, to the upper plate, E, while the other screw *e* and washer *e'* clamp the end of another wire, F', in like manner to lower plate, E'. These wires F F' are the cir-

5 cuit-wires of a burglar-alarm, suitable devices
 for generating electricity and for creating an
 alarm being of course included in the circuit.
 These are not shown, as they do not form part
 of my present invention, the latter not being
 confined to any particular kind of generator
 or signaling mechanism. The upper plate, E,
 has a pin or rivet, *g*, attached to it, which ex-
 tends through bar D, and is connected on the
 10 other side thereof to a button, *g'*, or other
 suitable device, to which one end of a long
 spring, G, is attached. This spring extends
 down to the lower end of said bar, inclining
 gradually inward as it descends, and then
 15 bends forward through a guide-slot, *d'*, in the
 lower end of said bar, and upward in front of
 the same, forming a terminal hook, G'. The
 lower plate, E', has a triangular or three-
 armed plate, H, pivoted to it by one of the
 20 three arms of said plate. Either one of the
 other arms will serve as a handle, and the po-
 sition of the third arm should be almost ver-
 tically under the pivotal point of said plate.
 When thus placed, the said third arm, as
 25 shown in Fig. 1, is behind the tip of hook G',
 and the operation of spring G is to bring this
 hook into contact with this lower or third arm
 of the pivoted plate H, thereby closing the
 circuit. Under ordinary circumstances, how-
 30 ever, this circuit-closing action of said spring
 is prevented by the following devices: On
 the top of the lower sash two plates, I J,
 are pivoted at *i*, the one on top of the other.
 These have corresponding curvilinear slots I'
 35 J', one in each, and the upper plate, I, has in
 addition a slot, I², of similar curvature, through
 which an adjusting-screw is passed down into
 the lower plate, J. This allows said plates to
 be spread apart to a greater or less extent by
 40 moving either one of them or both of them on
 pivot *i*, loosening said screw, of course, to al-
 low such adjustment, and clamping the plates
 by said screw again when said adjustment is
 effected. One edge of one of said plates bears
 45 against the lower part of spring G aforesaid,
 and the other edge of the other one of said
 plates is in contact with the face of a wedge-
 form lug, K, which thickens as it extends
 downward. Thus when the window is closed
 50 at top and bottom, as shown in Fig. 1, the in-
 clined lug block or projection K forces the
 plates I J (they having been duly adjusted with
 regard to width) against spring G, so as to over-
 come its resistance and move its end G' away
 55 from plate H, thus breaking the circuit, and
 holding it broken until the lower sash is raised
 or the upper one lowered. As soon as the press-
 ure on the spring has been relieved thereby, the
 said spring automatically closes the circuit and
 60 sounds an alarm. The adjustability of plates
 I J as to their combined width enables me to
 compensate for any weakening of spring G, to
 adapt the devices to sash-frames of different
 thickness, and, when desired, to hold the spring
 65 G out of contact with the plate H until the
 lower sash has been raised some little distance,
 thus making it possible to throw in letters,

newspapers, or parcels without sounding the
 burglar-alarm. A screw, I³, extends down
 through slots I' J' into the top of sash C, and
 acts as a stop to limit the motion of plates I
 J. The triangular or (more exactly) three-
 armed shape of plate H adapts it to be used
 on the window-frame at either side of a win-
 dow. It is recessed between the arms, and
 75 when turned so that the lower recess, *h*, is di-
 rectly under the pivot, the hook G' of spring
 G will set into this recess *h* without touching
 plate H, and the circuit will remain broken
 even after said spring is left free to operate. 80
 This affords a very convenient means of mak-
 ing the alarm temporarily inoperative when
 desired.

All the foregoing devices may be easily at-
 tached to any window and window-frame and
 detached therefrom. I do not confine myself
 to the precise shape, construction, and ar-
 rangement shown, as these may obviously be
 modified in divers ways, though I prefer them
 as hereinbefore set forth. 90

When the upper sash is immovable, I have
 no need for two plates, I J, on the lower sash,
 but may use instead the single plate M, (shown
 in Fig. 5,) the same having on one (the outer)
 edge a flange or bead, *m*, which bears against
 95 the spring. This plate may be fastened to
 said sash by screws passing through holes *m'*;
 but a slot, *m''*, (shown in dotted lines,) is a de-
 sirable substitute for said holes, inasmuch as
 it allows the adjustment of said plate. 100

These devices may, of course, be applied to
 a door, skylight, or any other means of ingress,
 instead of applying them to a window, as de-
 scribed.

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

1. The combination of a plate forming part
 of an electric circuit with a circuit-closing
 spring which also forms part of the electric
 circuit, and tends to come in contact directly
 with said plate, and a device attached to a
 window-sash or other means of ingress, which
 device normally holds said spring away from
 said plate, the moving of said window or other
 115 means of ingress freeing said spring from said
 device, and allowing the circuit to be closed
 by the action of said spring, substantially as
 set forth.

2. A circuit-closing spring, in combination
 with a plate forming part of an electric cir-
 cuit, a lug or projection on the frame of the
 upper sash of a window, and a movable plate
 or plates interposed between said lug and said
 spring, and operating with said lug to hold
 125 said spring out of contact with the plate first
 above mentioned, while the window remains
 closed.

3. A circuit-closing spring, in combination
 with a pivoted triangular or three-armed plate
 forming part of an electric circuit, and a plate
 or plates which prevent said spring from clos-
 ing the circuit until the means of ingress is
 opened. 130

4. An adjustable pair of plates attached to a window-sash, in combination with an incline-faced lug on the other sash, and a circuit-closing device held open by said lug and
5 plates until one sash or the other is moved, as stated.

5. An adjustable plate secured to the top of a window-sash, in combination with a circuit-closing spring, and contact-plate forming part
10 of an electrical circuit, said adjustable plate holding said spring out of contact with said contact-plate until the lower sash is raised.

6. In combination with the circuit-closing spring of a burglar-alarm, a three-arm contact-
15 plate pivoted at one arm, and adapted to turn so that either one of the other arms may be in position for contact with said spring, the space between said lower arms being recessed, so

that when said plate is turned to an intermediate position the alarm will not operate. 20

7. In combination with a wedge-faced lug attached to the upper sash of a window, a circuit-closing spring attached to the window-frame, and two interposed plates pivoted together on the top of the lower sash, said plates 25 being provided with slots, and a stop for limiting their motion on their pivot, and with connection by slot and screw for regulating their combined width, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses. 30

ALBERT ISKE.

Witnesses:

P. DONNELLY,
ZURIEL SWOPE.