P. SEILER.

LOCK AND ELECTRIC BURGLAR-ALARMS

No. 194,932. Patented Sept. 4, 1877

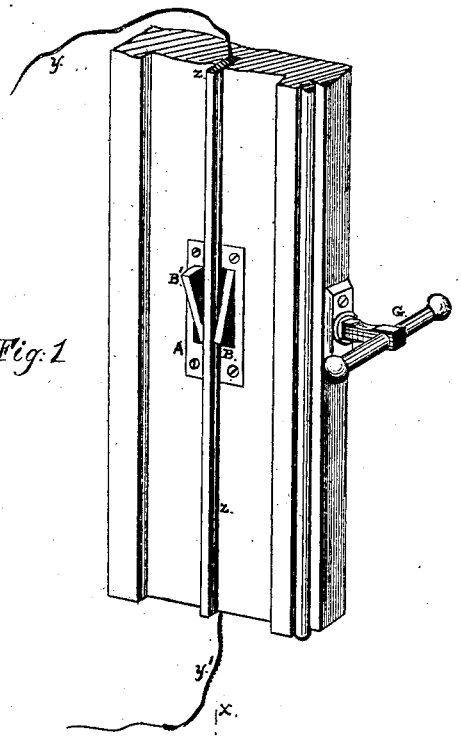

Fig. 1

Fig. 2.

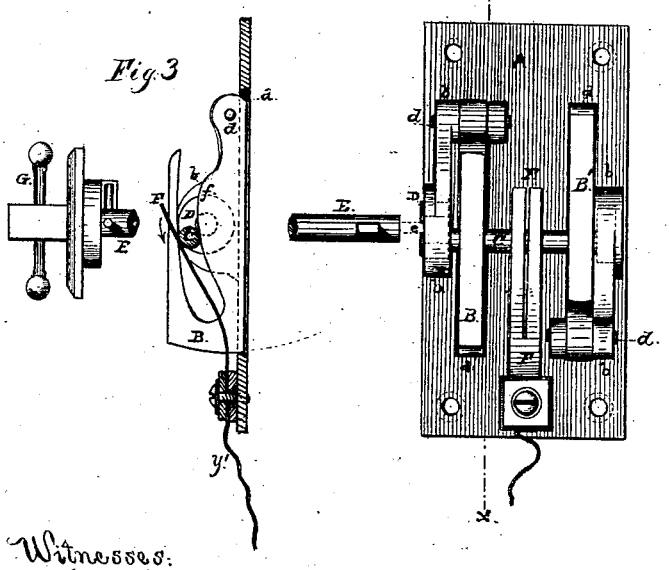

Fig. 3

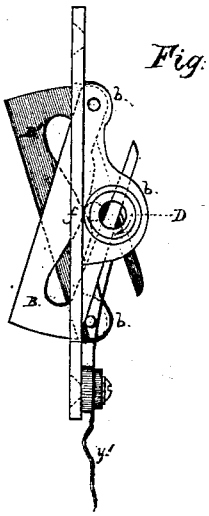

Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

PAUL SEILER, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH HERZ, OF SAME PLACE.

IMPROVEMENT IN LOCK AND ELECTRIC BURGLAR-ALARM.

Specification forming part of Letters Patent No. **194,932**, dated September 4, 1877; application filed February 19, 1877.

To all whom it may concern:

Be it known that I, PAUL SEILER, of the city and county of San Francisco, State of California, have invented an Improved Lock or Fastening and Burglar-Alarm for Doors and Windows, of which the following is a specification:

My invention relates to an improved lock or fastening, which acts as a burglar-alarm by being connected with the wires from an electric alarm and indicator, and arranged to throw them into and out of contact, and make and break the circuit as the bolts of the lock are moved.

It consists in a novel arrangement and construction of parts, having for their object to hold the window or door securely locked, and prevent its being opened from the outside without giving an alarm, and showing upon the indicator the location of the door or window being opened, as will be more fully described hereinafter.

The following description of my invention, and the manner of constructing and applying the same, is sufficient to enable any person skilled in the art to which it appertains to make and use or apply the same, reference being had to the accompanying drawing, and the figures and letters of reference thereon, making part of this specification.

In the accompanying drawing, Figure 1 is a perspective view of a part of the frame of a window having my lock applied thereto. Fig. 2 is a back view of the lock; Fig. 3, a longitudinal section through the line *x x*, Fig. 2; Fig. 4, a side view of the lock with the bolts thrown out.

A is the plate of the lock, with slots *a a*, through which the pawls work, and with lugs *b b* cast upon its back, in proper position to form bearings for the disks of the eccentric bar C and for the pins *d d*, that act as pivots for the pawls.

B B′ are the pawls, that constitute the bolts of the lock or fastening, the bolt B acting to hold down the lower sash, and the one, B′, operating in the same manner upon the upper sash. They are pivoted to the plate at *d d*, the former one at the upper and the latter one at the lower end, and they thus move out from and into the plate A at opposite ends of their slots *a*.

Each pawl or bolt B is made with an irregular-shaped slot, through and within which the eccentric bar C works, in such manner that when the disks D at the ends of the bar are turned within the bearings *b b*, the bolts will move on their pivots and be thrown into or out from the face-plate.

One of the disks D is provided with a rectangular slot or opening, *e*, within which the end of the rod E fits, so that as the rod is turned the disks and their eccentric bar C will be moved in a corresponding direction.

By referring to Figs. 3 and 4 of the drawing, it will be readily seen and understood that a movement of the disk D in the direction of the arrow will bring the eccentric bar C against the part *f* of the slot in the pawl, and cause the end of the pawl to be thrown out from the face-plate, and that a reverse motion will draw it in.

Connection between the lock or fastening and the alarm-indicator is made by means of the electric wires *y y′*, which, in the arrangement shown in Fig. 1 of the drawing, are led through the frame of the window in the bottom of the groove filled by the parting-strip *z*, and thus they are entirely covered and concealed from view when the strip is secured in place.

The wire *y* is connected with the metallic spring F at its lower end, as shown in the detail drawings; but it is otherwise entirely insulated from the other parts of the lock. The other wire, *y′*, is connected with the face-plate or other suitable part of the lock, with which the spring can be brought in contact or electric communication when the bolts are thrown in.

When the bolts B are within the plate A and out of action, the eccentric bar C is in position farthest from the back of the plate, and at this point it is in contact with the insulated spring F, so that the current is established between the two wires, and the indicator is operated; but when the lock is turned to throw out the bolts B and fasten the window, the communication between the wires is broken, for the eccentric bar C is

turned away from the spring F, and the interruption of the current shows upon the dial of the indicator the condition of the fastenings, whether locked or unlocked.

This lock or fastening can be constructed for particular application to doors and other openings, as well as windows; and one or more pawls or bolts, B, may be employed, as the strength may seem to require. The plate of the lock can be concealed from view on the outside by being let into the frame or woodwork, and covered to prevent it being tampered with.

The arrangement of the eccentric bar C and its disks with the irregular slot in the pawl B causes the lock mechanism to operate in a positive manner, and the bolt to be held without the use of springs and tumblers, making the parts both strong and simple in construction.

The rod E extends through the frame or casing, and it has a handle, G, by which the lock is operated from the inside of the apartment. The end of the rod is made square, or with a key or feather upon it, which engages with a slot or recess in the disk D, and as the handle is turned the disk and the eccentric bar C are operated. The length of this rod E is governed by the location of the lock within the frame or casing.

As thus constructed, my invention constitutes a strong and secure lock as well as a burglar-alarm, for the pawls B that form the bolts of the lock cannot be moved into and within the face-plate without bringing the eccentric bar C and the spring F into contact with each other, and the pawls themselves cannot be moved from the outside unless they are broken and driven into the lock by force, and in such case the eccentric bar C would be thrown against the spring, and give an alarm.

The form of the slot *f* in the pawls B is such that when the eccentric bar C is turned to throw and hold out the pawls the curved part of the slot in contact with and bearing against the bar C brings an increased amount of metal in line with the resistance offered by the bar, and thus adds to the strength of the pawl, and prevents its being improperly forced or broken from the outside without breaking the eccentric bar and bringing it or some portion of the lock in contact with the spring F.

My improved lock or fastening, when thus applied to windows, has the advantage of being properly and easily operated without raising the curtains or interfering with the window-hangings.

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

1. The pawls B B′, having the peculiar-shaped slot *f* in them, when combined with the face-plate of the lock, and with suitable operating mechanism, substantially as described, whereby, when the pawl is held out from the lock-plate, an increased or greater amount of metal of the pawl is in line with and bearing against the eccentric bar C, or equivalent moving mechanism, constructed and arranged substantially in the manner and for the purpose described.

2. An electric burglar-alarm and lock or fastening for doors or windows, composed of the face-plate A, with its pawls or bolts B pivoted thereto, the eccentric bar C, with its disks or bearings D D′, and the operating-rod E, with a handle at one end and a square shoulder or key at the other end, which engages with a slot in the disk D, when the whole is arranged and has combined with it the insulated circuit-closing spring F and the electric wires leading from the alarm-box or indicator, substantially as herein described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of February, 1877.

PAUL SEILER.

Witnesses:

JOSEPH HERZ,

WILLIAM HARNEY.