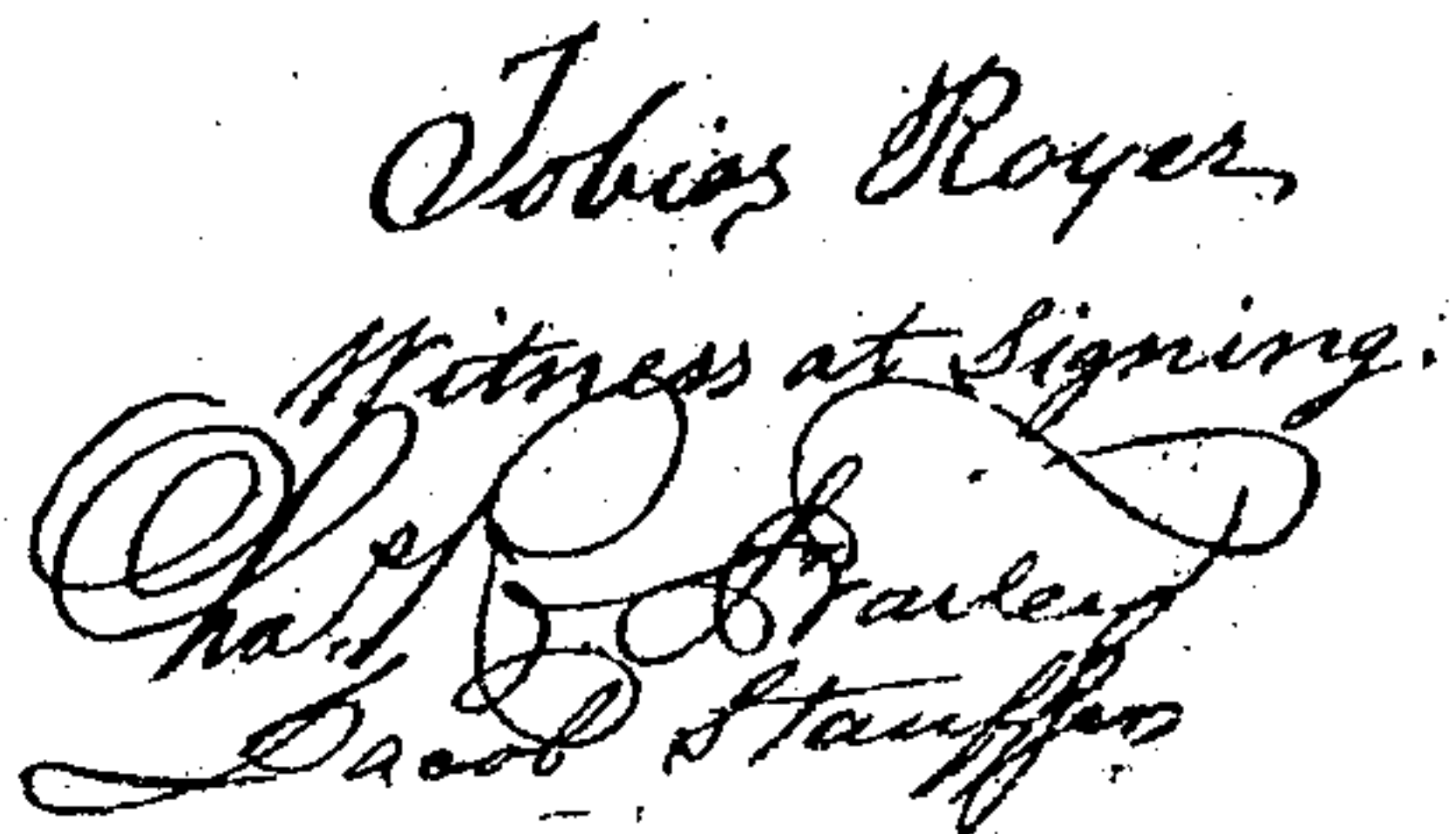


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TOBIAS ROYER, OF LANCASTER, PENNSYLVANIA.

Letters Patent No. 71,537, dated November 26, 1867.

IMPROVED BURGLAR-ALARM.

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, TOBIAS ROYER, of Lancaster, in the State of Pennsylvania, have invented a new and useful Improvement on a Combined Burglar's Alarm and Indicator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machinery of the alarm, and one side of the arrangement of the indicators.

Figure 2, the reverse side of the indicators.

Figure 3, a side view.

Figure 4, a front view or elevation.

Figure 5, detached portions of the same.

Figure 6, inner view of bell, and stop-wheel I, and lever J.

The nature of my invention consists in connecting with an alarm-bell a means of indicating by a number uncovered, (and lighting a taper at the same time,) which will indicate the room, door, or window of that part of the dwelling at which an entrance is attempted to be made.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The base or bracket-shelf A supports the clockwork-like machinery; the upright or back B supports the numbers, springs, levers, and cord-attachments of the indicators. The bell, hammer, ratchet-gearing, in their general construction, are not new, but differ in arrangement and combination in several particulars. The drawings clearly indicate this combination. On suitable standards, Z and Z', and bearings, Y, are two horizontal shafts, U V. The front shaft, U, supports a drum or flanged pulley, M, for a cord, *m*, and weight, *m'*. This cord passes through an oblong slot, *m''*, in the base or shelf A, and is wound up by a handle, H. On the outer end of the shaft, next the handle, there is a ratchet bell-wheel, F, a click and smaller toothed wheel, G, connected to its outer face; there is also a spring attached to the bell-wheel F, resting on the click or pawl, to keep it in contact with the toothed wheel G. The hammer, D, has a double-toothed pawl, E, held in a pivot, (at the point of union of the double pawl,) on an arm, *p*, projected forward and upward from the standard Z and bearing Y. The bell C is supported on an upright, *t*, on said bearing Y, (over the shaft V,) in a line with the hammer D, which rests upon it, and is actuated by the motions of the pawls and toothed wheel F to sound the alarm. On the inside of the extended arm, next the drum-pulley M, is a stop-wheel, I, on the shaft U, with a notch, (or four such notches may be made, to facilitate in setting the rubber-segment L.) The lever J extends through the back B, and is held in a pivot on the bracket-arm *g*, in the standard Z', and terminates with a hook, which rests upon the notched stop-wheel I aforesaid, and, when in contact with the notch, stops its revolution. The shaft V supports a strap-pulley, K, connected with a segment or larger half pulley, L, of considerable thickness, with the circumference of the segment sanded. Opposite the segmental pulley L is a match-holder, N, with jaws, *n*, acted upon by a spring, Q. There is also a bent wire, P, that turns down upon the match *o*, held in the jaws of the holder, to prevent it from flying upwards by the action of the rubber on the segment L.

To set the machine, the segment is turned down, which winds the weighted strap *k k'* on the fixed side pulley K. This side pulley has an arm, W, attached, which locks against a pin, *l*, fixed on the outside of the drum or cord-pulley M, and holds it. The strap *k* passes through the base A, beneath which is the suspended weight *k'*. The hook on the lever J being set in its notch, a match, properly adjusted in length, fixed in the jaws, with a small wax-taper under the match, all is in order. The covering-plates I, II, III, IV, &c., cover the numbers 1, 2, 3, 4, &c. These plates are held by a spring, *b*, to each, under which they move, the circular plates being connected with a short lever-arm, fig. 2, also marked 1', 2', 3', 4', &c. On the end of each of these is an eye for a cord or wire attachment. There is also a cross-lever, R, held centrally by a pivot. This lever R rests with one end on the projecting stop or trigger-lever J, and moves in a guide-plate, S. Both ends of this cross-lever R are also provided with eyes, *r r'*, for a ring or cord attachment; the cords or wires 1' *r* 2' *r* united by a ring, each pair, on one side of the oscillating lever R, and 3' *r* 4' *r* to the opposite end, connecting the short levers of the covering-plates with the ends of the cross-lever, so that if either connection, 1' *r* 2' *r*, is acted

upon from the direction set, (upwards or downward,) it operates the cross-lever R, which acts upon the stop-lever J, and will draw the hook out of the notch in the stop-wheel at the same time it turns the covering-plate from the number connected to the lever acted upon. (In fig. 1, No. 1 is uncovered, and indicates the location of the acting force applied.) The disengaging of the hook will cause the ratchet-wheel to revolve, actuating the hammer on the bell to sound the alarm, and releases the arm on the strap-pulley K, turning the segment-rubber up suddenly, which ignites the match and lights the taper simultaneously. Thus, if any attempt is made to open a door or window connected with the machine, it is certain to sound the alarm, light the taper, and indicate the locality of such attempt, when properly set and adjusted, which is easily done.

I am aware that Patent No. 38,136 has a similar combination of ratchet-wheels and double-pawl bell-action, claimed in combination with a spring, as well as other burglar-alarms of various combinations, which I disclaim. I am also aware of fire-indicators, and that in some particulars there is a great similarity; but, viewed collectively, there is a substantial difference in the arrangement and combination.

I would remark, as there is no spring on my hook-lever J, but falls by its own weight, yet, when once unshipped by the action of the cross-lever R, it will not drop of its own accord, while the lever R rests upon it, so as to stop the motion of the notched wheel, allowing the cord and weight to run down, keeping up the alarm according to the length of the cord. A coiled spring would answer the same purpose; but these, as well as weights, are in common use.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement and combination of the hook-lever J, cross-lever R, and notched stop-wheel I, in the manner and for the purpose specified.

2. In combination with the levers J R, I also claim the short levers or arms 1', 2', 3', 4', &c., connected with the covering-plates I, II, III, IV, &c., together with the combined cords or wires 1' r 2' r 3' r 4' r, &c., arranged in the manner and for the purpose set forth.

3. I also claim the combined segment-rubber L, with its attached pulley, K, provided with an arm, W, and weighted strap k k', in combination with the spring-jaw match-holder N n Q, and bent wire P, arranged in the manner and for the purpose described.

4. I also claim the combined arrangement of the hook-lever J, notched wheel I, double-ratchet wheels G F, with its spring-pawl, hammer, and bell-connection, all arranged and operated substantially in the manner and for the purpose specified.

TOBIAS ROYER.

Witnesses:

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JACOB STAUFFER.