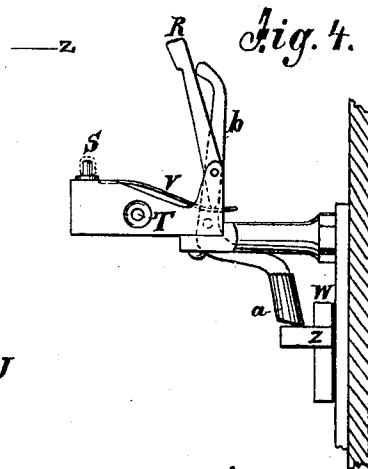
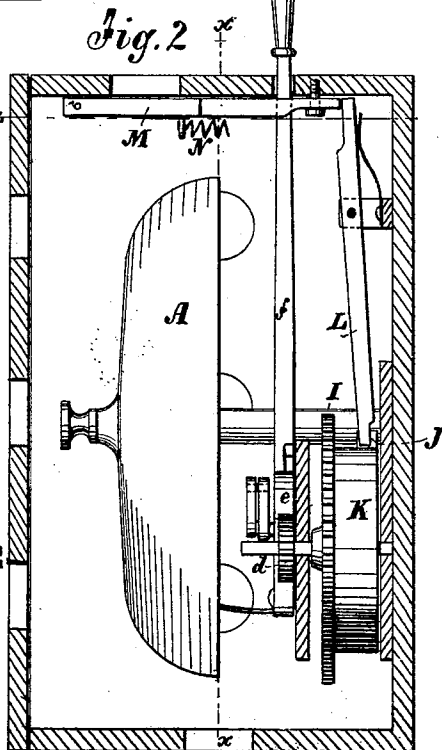
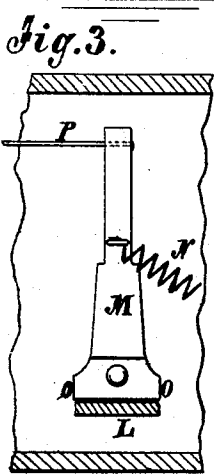
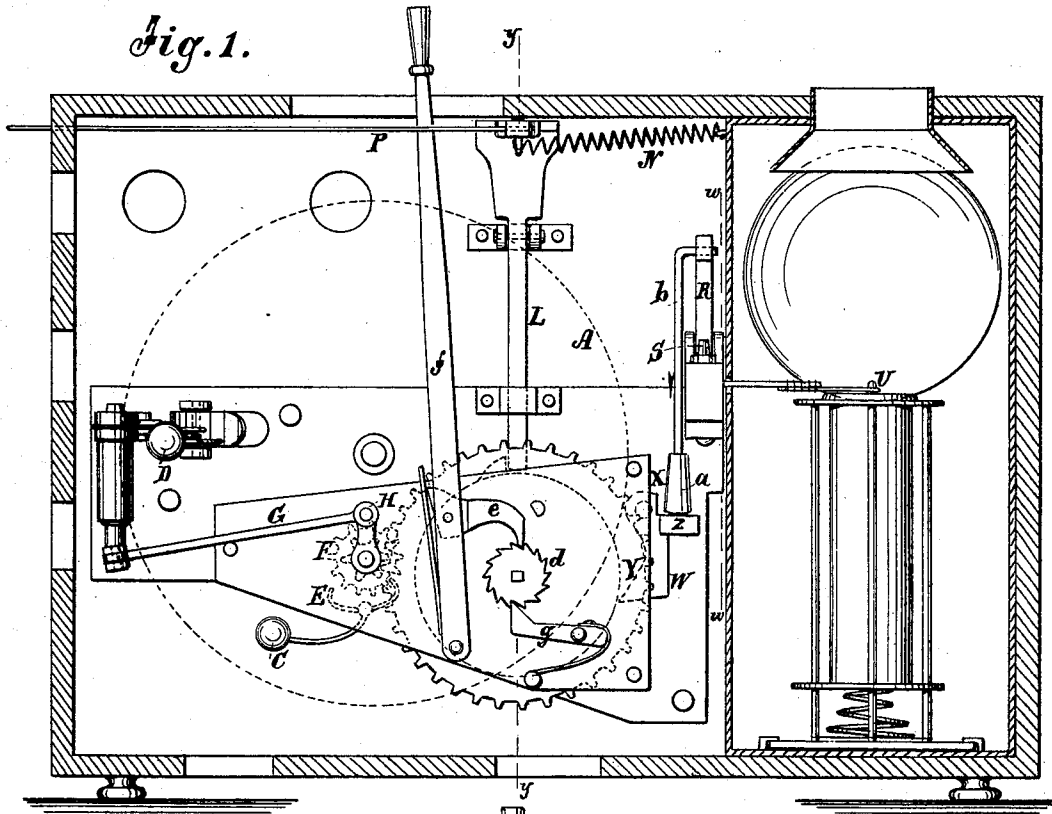


J. J. KANE.
Burglar-Alarms.

No. 146,006.

Patented Dec. 30, 1873.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES J. KANE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **146,006**, dated December 30, 1873; application filed August 23, 1873.

To all whom it may concern:

Be it known that I, JAMES J. KANE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Burglar-Alarm, of which the following is a specification:

My invention is an improvement in burglar-alarms of the class wherein a clock mechanism is tripped or set in motion by the cutting or pulling of the rod which extends therefrom to the door or window. The improvement relates to the combination of parts, as hereinafter described and explicitly indicated in the claim.

Figure 1 is a sectional elevation of my improved alarm, taken on the line *xx* of Fig. 2. Fig. 2 is a sectional elevation taken on the line *yy* of Fig. 1. Fig. 3 is a horizontal section of Fig. 2 on the line *zz*, and Fig. 4 is a vertical section on the line *ww* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the bell, to be sounded by two hammers, C and D, the former being operated by the escapement E and scape-wheel F, and the latter by the connecting-rod G and crank H, the crank and the scape-wheel being turned by a wheel, I, on a drum, K, containing a clock-spring, which revolves said drum, when it is tripped and let free to turn by disengaging the lug J on it from the stop-lever L. Now, in order to cause this stop-lever to trip the drum and allow the alarm to sound, either by the pulling of the wire connecting the apparatus with the door or window or by the cutting of the connection, which has been effected in some cases before opening the window or door, I have provided a cam-lever, M, in connection with the said stop-lever L, so arranged that by moving either way from the position in which it is represented in the drawing, it will cause the stop-lever to trip the drum by one or the other of its corners O, forcing the said lever back against the spring and away from the lug J, and I connect said cam-lever M with the window or door by a wire, P, to be moved one way by the pulling of the wire by the raising of the window or opening of the door, and I also connect the cam-lever with a spring, N,

pulling in the opposite direction to trip the drum by pulling the cam-lever in that direction in case the wire is cut or detached from the door or window, and thus I have an alarm which cannot be evaded by cutting or detaching the wires, which has been done to other alarms of this character before opening the window or door by means of instruments inserted in the cracks or by cutting away the casing. In this arrangement it is necessary to adjust the connecting-wire P carefully as to its length, so that it will hold the cam-lever in its right position when the connection of the lever with the door is made. R is the hammer for firing a cap on the nipple S for igniting a fuse connecting the nipple, through the hole T, with a candle, U, to ignite it, and thus strike a light at the same time the alarm is sounded. This hammer is held in the position represented in Fig. 4 for being thrown to strike the cap, and it is also thrown by the spring V. In order to trip this hammer by means of the catch-stud J on the drum K, I arrange the swing-pawl W on a pivot, X, with its inclined face Y in the path of the lappets, so that as the stud passes the pawl it will swing said pawl and cause it to throw the projection Z upward, and on this projection I have the weighted end *a* of a crooked lever, *b*, rest, while the upper end of said lever bears against the hammer, so that when the lever end is thrown up by the swing-pawl the upper end will swing the hammer forward sufficiently for the spring to throw it down. *d* is a ratchet; *e*, a pawl, and *f* a pawl-lever for winding up the spring in the drum K. *g* is a holding-pawl.

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

The combination of the spring-drum K, catch-stud J, lever L, the swinging pawl W, lever *b*, hammer R, and spring V, as shown and described, to operate as specified.

JAS. J. KANE.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.