A. ROSENFIELD.

TILL-LOCK ALARMS.

No. 193,779. Patented July 31, 1877.

Fig. 1.

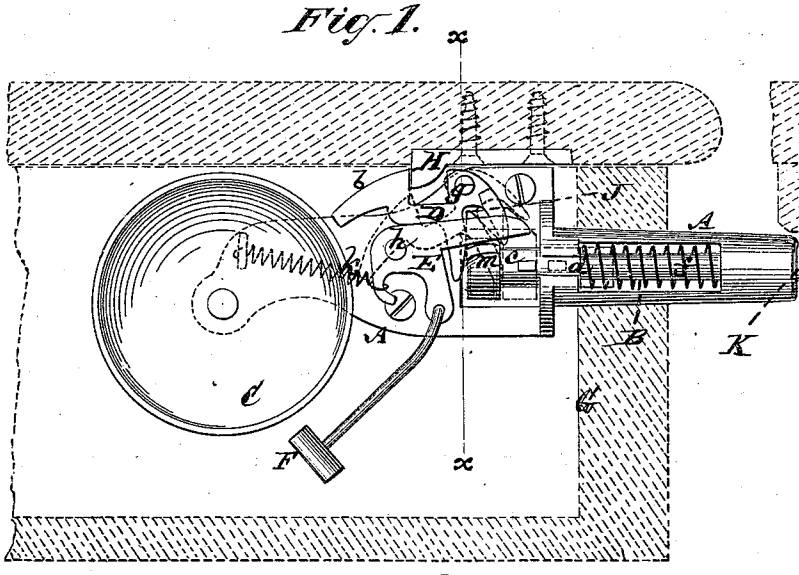


Fig. 2.

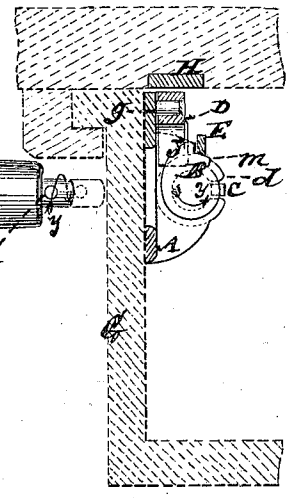


Fig. 3.

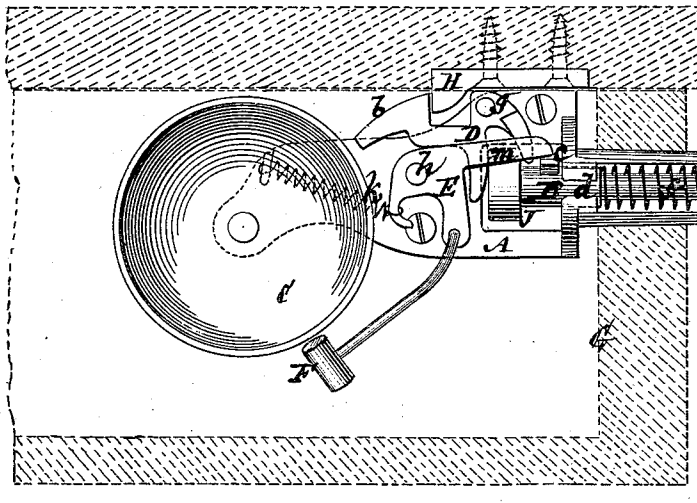


Fig. 4.

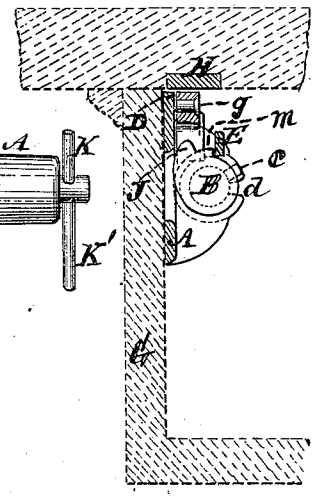
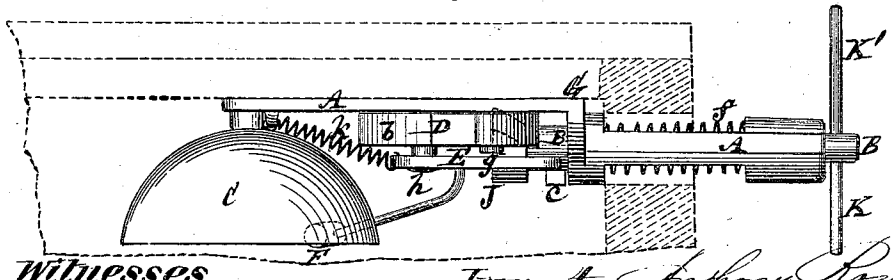


Fig. 5.



Witnesses

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IMPROVEMENT IN TILL-LOCK ALARMS.

Specification forming part of Letters Patent No. 193,779, dated July 31, 1877; application filed December 8, 1876.

To all whom it may concern:

Be it known that I, ANTHONY ROSENFIELD, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Alarm-Locks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

This invention is mainly designed to be applied to cash and other drawers; but it is also applicable to windows, and other purposes. It will here, however, more particularly be described as applied to a drawer.

The invention consists in an alarm-lock of novel construction, and which embraces various combinations of parts, including a longitudinally movable and rotating setting-spindle with attached cam, arm, or tappet, and a locking and unlocking hook and bell-hammer butt, the two latter being arranged for operation in their respective order by the spindle with its attached cam, arm, or tappet, substantially as hereinafter described, and whereby, while great simplicity is attained, every security is afforded against opening the lock without sounding the alarm, and other advantages are obtained.

In the accompanying drawing, Figure 1 represents a side view of an alarm-lock constructed in accordance with the invention, and as applied to a drawer, with the parts of the lock in full lines in an unlocking position, and in dotted lines after the lock has been opened. Fig. 2 is a transverse section of the same on the line *x x*. Fig. 3 represents a side view after the alarm has been sounded and the lock is adjusted into a locked position of its parts; and Fig. 4, a transverse section on the line *x x*, with the parts in the position represented in Fig. 3. Fig. 5 is a plan, with the parts in the position represented in Fig. 1.

A is a frame, which may carry the setting and unsetting spindle B, the bell C, the locking and unlocking hook D, the hammer-butt E of the bell, and other working parts of the lock.

When the lock is applied to a drawer, G, said frame may either be arranged in the interior front portion of the drawer, or, by suitably lengthening the spindle B, be disposed in the rear of the drawer, the locking and unlocking hook D in either case engaging and disengaging with a fixed stop or keeper, H. Said hook D may be of any suitable form, but should have an inclined surface, *b*, beyond its tooth or point, to provide for its clearing the keeper when shutting the drawer. The frame A forms a bearing, not only for the rotation of the spindle B, but also for its longitudinal movement therein.

The catch or hook D is constructed to gear with the inner end of the spindle B, so that on drawing out the spindle from the exterior of the drawer the hook is disengaged from its keeper. Said spindle, however, cannot be drawn outward until a stud, *c*, on it comes in line with a slot or opening, *d*, in the frame A, and is forced or held inward by means of a spring, *f*.

The hook D is pivoted to the frame A at *g*, and the hammer-butt E with its attached hammer F is also pivoted to said frame at *h*, and is controlled by a spring, *k*, to give the hammer its striking action on the bell. Said hammer-butt is operated in a reverse direction against the tension of the spring *k*, to draw back the hammer preparatory to its being released to strike the bell, by means of a cam or tappet, J, on the inner end of the spindle as the latter is rotated in direction of the arrow *y*. A small step, *m*, on the spindle is arranged below the drop of the cam J, to prevent the turning back of the spindle B after the lock has been set, as hereinafter described.

The outer end of the spindle is represented as fitted with a cross-handle, K K′, of unequal length on opposite sides of the axis of the spindle, to provide for working the latter, and to facilitate the setting and unsetting of the locking devices, as hereinafter explained.

In the operation of the lock, supposing the spindle B to have been turned in direction of the arrow *y* till the rise or point of the cam J has, in passing under one arm of the hammer-butt E, operated the hammer, and caused the bell C to be struck, then, according to the position of the working parts as represented by full lines in Figs. 1, 2, and 5, the stud *c* of the spindle B is in line with the slot *d*, so that said spindle may be drawn outward by the

handle K K′, as indicated by the dotted lines in Fig. 1. This drawing outward of the spindle B operates upon the hook D to disengage it from the keeper H, and by a continued outward pull on said spindle B serves to open the drawer. After the drawer G has been closed again, during which the spindle B has been operated longitudinally, and the hook D, by its incline B, has passed back of or into lock with the keeper H, the spindle B is further turned slightly to the right again, so as to put its stud *c* out of line with the slot *d*, and to bring the small step *m* on the spindle back of the operating-arm of the hammer-butt E, as shown in Figs. 3 and 4. This last action not only locks the drawer, but prevents the spindle B from being turned to the left to bring its stud in line with the slot *d*, and so that, in order to put said stud in such opening position, the spindle B must be turned farther round to the right until the nose or point of the cam J has again passed under the hammer-butt E, and sounded the alarm or caused the hammer to strike the bell.

The object of making the arms of the cross-handle K K′ of unequal length is to better indicate to the operator the position of the working parts or locking devices as affected by the turning of the spindle.

By this invention the spindle B operates both the alarm and the locking-hook of the lock, and it cannot be turned in a reverse direction to unlock without sounding the alarm. Said spindle also serves as a draft-bar to open the drawer, supposing the improved alarm-lock to be applied to a drawer.

In the application of said alarm-lock to windows instead of the cross-handle K K′, which requires more working-space than might be convenient, a knob or other turning device might be applied to turn the spindle, and a separate lever be used for pulling the spindle outward to liberate the hook or catch of the lock.

I claim—

1. The combination of the rotating and longitudinally-adjustable spindle B, having the cam or tappet J, and stud *c* thereon, the socket or frame in which said spindle slides and turns provided with a slot, *d*, for reception of the stud *c*, the hammer-butt E, and the catch or hook D, substantially as specified.

2. The spindle B, provided with the step *m* and cam J, in combination with the hammer-butt E and hook D, essentially as described.

3. The frame A, constructed to form a bearing for the rotating and longitudinally-sliding spindle B, and extended back of said bearing to form a support for the other working parts of the lock, in combination with the bell C, the hammer-butt E, and the catch or hook D, all attached to said frame, substantially as shown and described.

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