G. PALMER.

THIEF-DETECTERS FOR MONEY-DRAWERS, &c.

No. 194,308. Patented Aug. 21, 1877.

Fig. 1.

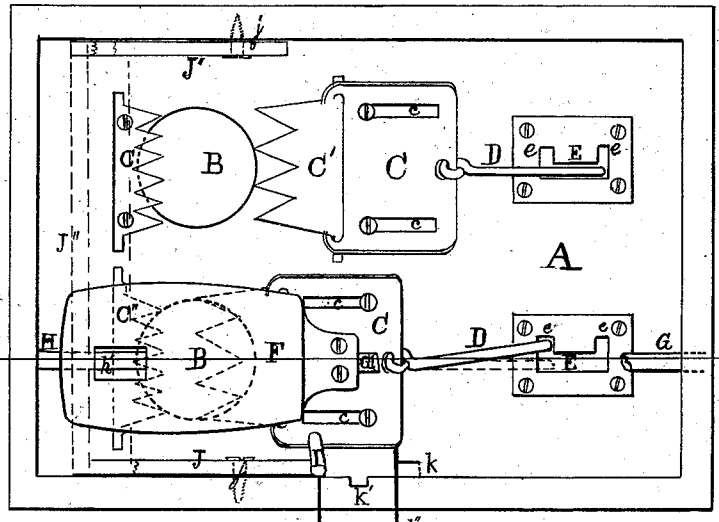
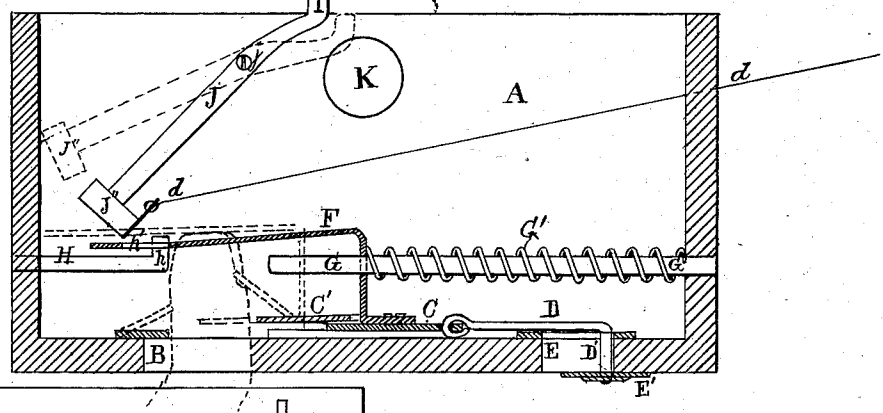


Fig. 2.



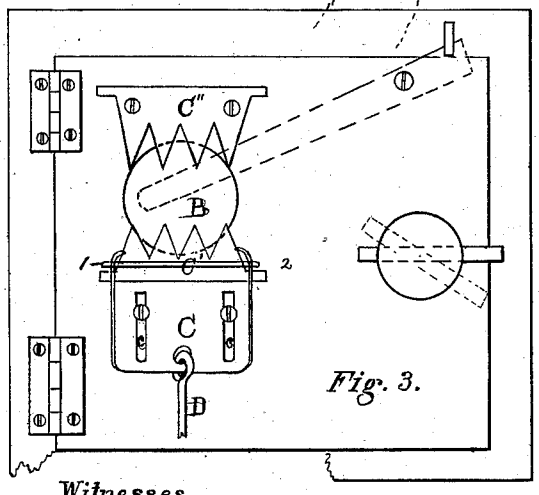
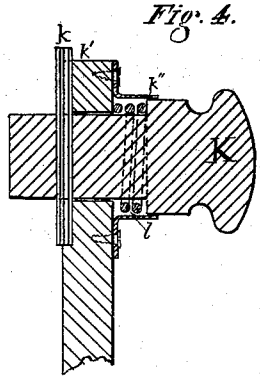


Fig. 3.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE PALMER, OF LITTLESTOWN, PENNSYLVANIA.

IMPROVEMENT IN THIEF-DETECTERS FOR MONEY-DRAWERS, &c.

Specification forming part of Letters Patent No. **194,308**, dated August 21, 1877; application filed February 3, 1877.

To all whom it may concern:

Be it known that I, GEORGE PALMER, of Littlestown, in the county of Adams and State of Pennsylvania, have invented certain new and useful Improvements in Thief-Detecters and Alarms; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 of reference marked thereon, which form a part of this specification.

Figure 1 is an inside view of the bottom of a cash-drawer with the invention attached. Fig. 2 is a sectional elevation on line *x x* of Fig. 1. Fig. 3 represents the invention applied to a door. Fig. 4 is a section of the knob.

This invention relates to several devices to be attached to a money-drawer or a swinging door, whereby any person attempting to open the same surreptitiously may be held, and thus be detected in the act of thieving, all of which will be hereinafter more fully explained in the description and set forth in the claims.

A represents the ordinary drawer used for keeping money. In the bottom of the drawer may be one or more round holes, B, large enough to admit a finger of the hand, as seen in Fig. 2 at B. C is a plate of metal, with flanges turned up, which plate is secured to the bottom board by small screws through slots *c c*, so that the plate can slide freely back and forth. Attached to the rear end of plate C is a rod, D, which has the other end bent, as at D′, so that it passes through the bottom in a slot, E, and is fastened by a button, E′, on the under side of the drawer-bottom. This slot E has a return-notch, *e*, at each end, so that the end D′ of the rod D can be held therein, as will be explained. On the other end of plate C is pivoted, between the flanges, a serrated plate, C′, the teeth of which hang over the hole B. On the opposite side of hole B is a plate, C″, similarly serrated, and also pivoted, or so fastened as to allow of a slight motion up and down. Plate C′ has a motion limited to such a distance by stops on the flanges that it cannot pass beyond a fixed line, so that it will always be at an angle much less than ninety degrees to the plane of the plate C, to make it certain to perform its appropriate function, as will be explained in the operation of the device.

Attached to plate C is a spring-plate, F, through the bent part of which is a guide-rod, G, on which rod is a spiral spring, G′, which presses against plate F, as will be explained. A hooked rod, H, is fastened at the opposite end of the drawer A. The hooked part *h* enters a slot, *h′*, in spring-plate F, and holds F against the recoil of the spring G′ until F shall be lifted clear of *h*, when the spring forces F toward H, and carries with it the plate C and serrated plate C′ close to the other serrated plate, C″, and clasps the finger, should that be the means of lifting F. If, however, a thief should cautiously shove a stick or anything else in the hole to lift the plate F, the discharge of it over the hooked end *h* would deceive him, and, supposing the detecter had discharged its power upon the stick, he should incautiously thrust in his finger to lift the lever, (which will now be described,) the finger would lift up the teeth of plates C′ C″, as seen in Fig. 2, and thus be held.

I is the bolt which holds the drawer locked. It has a shank, J, and a bar, J″, and another shank, J′, opposite to it. These shanks are pivoted to the sides of the drawer at *j*. The bar and shanks are made heavy, to act as a counterpoise to keep bolt I in its upright position until moved to open the drawer. A bell-wire, *d*, can be attached to the bar J″, or shanks, to be carried to a bell at any convenient distance, so that an alarm can be given when there is an attempt to open the drawer. The knob K passes through the front board of the drawer, and has a pin, *k*, through the inner end, not only to retain it, but, by being extended above the edge of the front board, serves as a fastening also. The knob has a shoulder at *k″*, within a flanged ring or collar of which is coiled a spring, *l*, which acts against the shoulder *k″*, and keeps the knob K extended, so that the end of pin *k* is retained in the notch *k′* formed in the front board.

To operate this device, move the connecting-rod D so that the hooked end D′ will be in the slot E. The plate C, with serrated plate C′, will be in a free and movable position. The plate F will be held in its proper

place by the hook *h*, and spring G′ will be strained back. The bar J″ will rest upon plate F, and, as it were, the trap is set. Should the finger be inserted against the plate F, it will be easily lifted up over hook *h*, when the action of spring G′ will force F over to H, and carry the serrated plate C′ toward C″, and clasp the finger and prevent its withdrawal, as shown in Fig. 2. Should any trick be suspected, and, instead of the finger, a stick or rod be put in to lift F, the springing of F and the noise made will induce the person to suppose the danger over, when, by inserting the finger at B, the serrated plates will readily yield to the upward motion; but an attempt to withdraw the finger will close the teeth upon it, and utterly prevent withdrawal thereof.

The notches *e e* in slot E are for the purpose of retaining the end of rod D in them, either to fasten the slide C one way or the other, as may be required.

The serrated plates C′ and C″ may be applied to a swinging upright door, as shown in Fig. 3, and the hole B may be large enough to admit the whole hand, when the plates C′ C″ must be made in due proportion. The upper plate C″ will hang vertically by its own weight. The lower one, C′, will be kept in place by any arrangement of a spring, 1 2. In both cases the flange of the inner plate C will prevent them from being shoved in beyond the acute angle described in the former case, so that the hand or finger will be caught by the teeth.

The fastening to the door can be so attached to a lever or other device that it may be unfastened by the hand or finger being thrust through the opening B by the owner of the door or drawer, who is alone familiar with the means of checking the detective device, as each person employing it will adopt his own method of checking, one way of which is shown in the button E′ and hook D′ of the rod D in the outer notch *e* of the slot E.

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

1. The combination of the pivoted serrated plate C′ with the sliding flanged plate C, when both are applied to a drawer or door, substantially as and for the purpose described.

2. Serrated plate C′, sliding plate C, and connecting-rod D, working in slot E, combined as shown and described, and arranged to operate in connection with serrated plate C″, as and for the purpose set forth.

3. The plate F, in combination with the hooked rod H, spring G′, and plate C, whereby the serrated C′ is moved over the hole B to operate with the plate C″, substantially as and for the purpose described.

4. The combination of the plate F, constructed and arranged as described, with the bolt-frame J J′ J″, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE PALMER.

Witnesses:
C. M. CONNELL,
WM. R. SINGLETON.