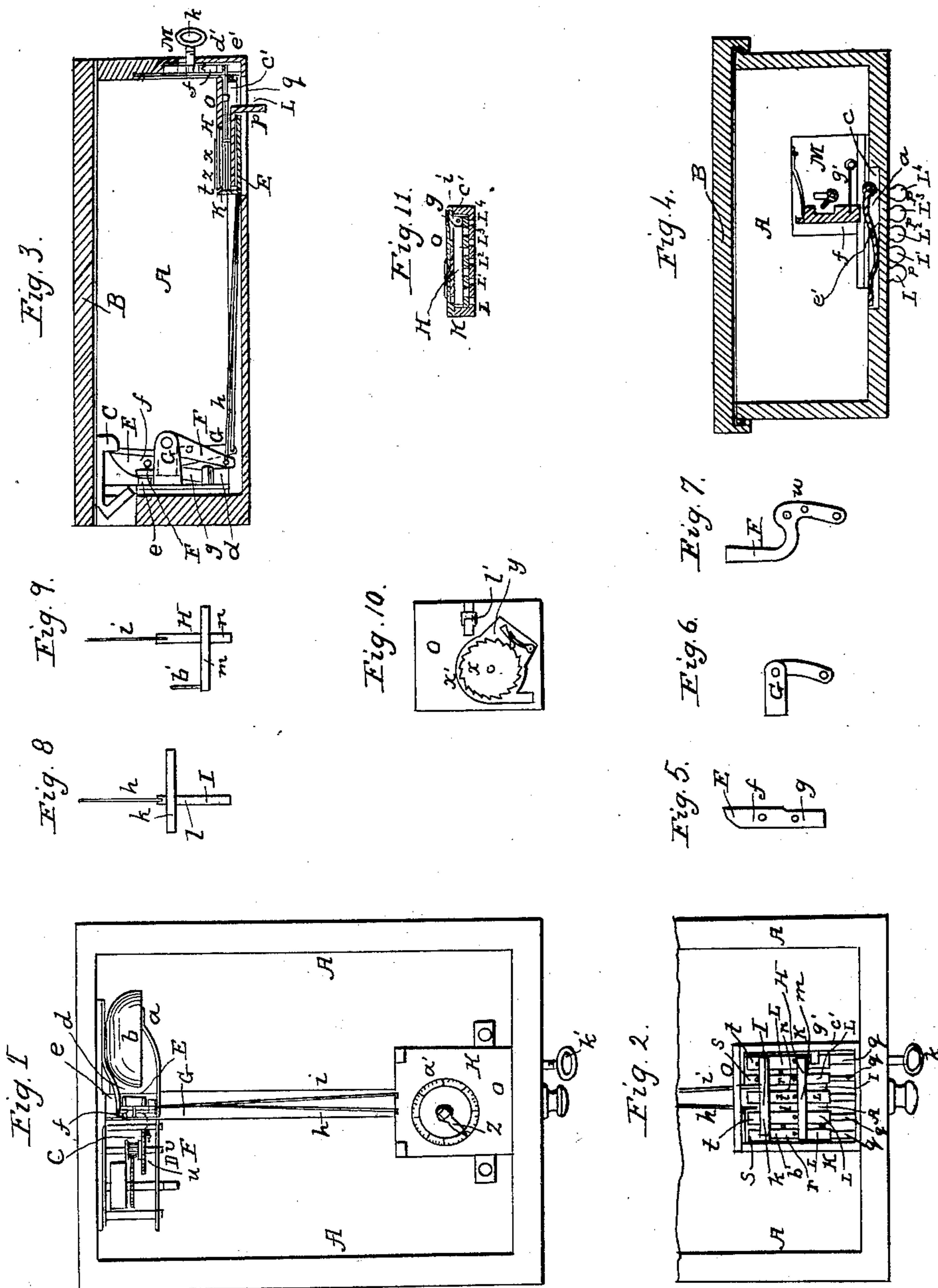


R. M. CAMPBELL.

Money Drawer Alarm.

Patented July 12, 1859.

No. 24,775.



Witnesses:  
Lawrence Lyons  
Arthur Hill

Inventor:  
R. M. Campbell



# UNITED STATES PATENT OFFICE.

ROBERT M. CAMPBELL, OF EAST CAMBRIDGE, MASSACHUSETTS, ASSIGNOR TO HIMSELF,  
AND BENJAMIN S. WRIGHT, OF BOSTON, MASSACHUSETTS

## MONEY-DRAWER ALARM.

Specification of Letters Patent No. 24,775, dated July 12, 1859.

*To all whom it may concern:*

Be it known that I, ROBERT M. CAMPBELL, of East Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful or Improved Money-Drawer Alarm; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, is a top view of a drawer and the alarm, or alarm apparatus thereof, the cover plate of the alarm bell and striking apparatus being removed. Fig. 2, is a top view of the series of key slides and T bars, the cover of their case being exhibited as raised into a vertical position. Fig. 3, is a longitudinal section taken through the drawer and the spring latch and made to exhibit the two levers on one side of the latch. Fig. 4, is a transverse section of the front end of the drawer, it being taken through the lock and the arm of the shaft of the cover latching apparatus.

In such drawings, A, denotes the drawer, and B, the bench board box, or counter to or under which such drawer is applied in the usual manner, the said part B, being provided with a catch C, formed and arranged as shown in Fig. 3.

At the rear part of the drawer is a common clock alarm D, the striker of which is shown at *a*, and the bell at *b*, while the wheel work or train for actuating the striker is exhibited at *c*. Between such wheel work and the bell I arrange a spring bolt or latch E, and two levers F, G, such parts having the form as shown in Fig. 3, and in side views in Figs. 5, 6, and 7. The foot of the latch E, rests on a spring *d*, which serves to elevate the latch. In rear of the upper part of the latch there is another spring *e*, for throwing it forward. From the left side of the latch E, two pins *f*, *g*, project and between them, the upper arm of the lever G, passes and rests on the lowermost pin. The upper arm of the other lever is extended upward and immediately in rear of the upper pin. The lower ends of the lower arms of the said two levers are respectively jointed to two wires, *h*, *i*, extending from two T bars, H, I, each of which consists of two straight bars *h* *l*, or *m*, *n*, one of which is affixed upon and at right angles to the other as shown in Fig. 2, and also in Figs. 8, and 9, which exhibit top views of the T bars as separated from their

case K. Such case is a shallow box, furnished with a cover or lid *o*, and arranged within the front portion of the bottom of the drawer.

The two T bars, H, I, operate in connection with a series of five or any other suitable number of key slides L, L', L<sup>2</sup>, L<sup>3</sup>, L<sup>4</sup> arranged within the box or case K, and with respect to the T bars as shown in Fig. 2. Each of the key slides has a projection or finger key, *p*, projecting downward from its front end and through one of a series of slots, *q*, *q*, *q*, *q*, *q*, made through the bottom of the box K as shown in Figs. 2, and 3. Furthermore, each key slide is furnished with two holes, *r*, *s*, arranged in it as shown in Fig. 2, into either of which one of a set of pins, *t*, *t*, *t*, &c. is to be inserted. Each of the T bars and key slides should be so applied to their case, K, as to be capable of being moved longitudinally therein.

From one side of the escapement wheel *u*, of the alarm apparatus *a*, stud *v*, projects and operates with a stop, *w*, extending from the lower arm of the lever F.

Fig. 10 is an underside view of the cover of the case, K, it being recessed (as shown at *x'*) to receive a ratchet, *x*, and a retaining pawl, *y*, arranged as shown in such figure. The arbor of the ratchet extends through the cover and carries an index pointer, *z*, which operates with a circle of divisions or a divided limb *a'*, made on the upper or outer face of the cover. An impelling pawl, *b'*, extending from that T bar which is connected with the latch E, works against the teeth of the ratchet and during each forward movement of the T bar moves the ratchet around a distance corresponding with one division of the scale or circle *a'*. Furthermore, there is a shaft or arbor *c'*, within the case K, and through its front end. Where such shaft projects beyond the case, it carries an arm *d'*, which rests on a spring *e'*, (see Fig. 4). Directly over the said arm is the bolt *f'*, of a common drawer lock M, such bolt being made to play toward and away from the arm. When shut downward by a key, the bolt depresses the arm and turns the shaft, but, on the bolt being drawn backward, the spring will elevate the arm so as to turn the shaft in an opposite direction.

The shaft carries a catch *g'*, formed in side view as shown in Fig. 11, which is a transverse section of the case, K, such sec-



tion being taken through the catch, the cover of the case being supposed to be down or closed. The said catch serves three purposes, viz., to lock the cover down, to prevent the  
 5 T bar that is connected with the drawer latch E, from being drawn backward far enough to depress the said latch, and also to hold back the T, in order to maintain the latch E, depressed, so that the drawer may  
 10 be moved back and forth without being locked. For locking the cover, the catch, *g'*, acts in concert with a recess, *z'*, formed in the cover as shown in Fig. 11. A key, *k'*, serves to retract the bolt, *f'*.

15 In preparing the apparatus for action, it is customary, not only to place one pin, *t*, in some one of the key slides and in its hole, *r*, but the remaining pins, *t*, in the other slides respectively and in the front holes  
 20 *s, s, s, s* thereof. Under these circumstances the pins will be disposed as shown in Fig. 2, and whenever an attempt is made to draw backward the key slide whose pin is in its hole, *r*, the T-bar I, will be retracted and the  
 25 latch, E, will be depressed so as to allow the drawer to be opened. On closing the drawer, the latch will be moved against the catch, C, and will lock the drawer. Furthermore, if either of the other key slides be  
 30 drawn backward, the other T, bar, H, will be retracted and will move the lever, F, so as to remove its stop, *w*, from underneath the stud, *v*, so as to permit the clock work of the alarm apparatus to be put in action by its  
 35 mainspring so as to cause the striker to hit the bell and sound an alarm. Should an attempt be made to open the drawer by pulling it forward an alarm will be sounded as the catch, C, will move the latch and cause it to  
 40 move the lever, F, so as to set the alarm works in action.

From the above it will be seen that either of the key slides may receive the retraction pin for moving the T bar, I, and consequently, we have the means of making either  
 45 key slide the operative of the latch E, as circumstances may require. The apparatus, also affords the means of defining the number of times the drawer may have been  
 50 opened and thus the indicator of the cover becomes a tell-tale in case a person may have obtained the secret of opening the drawer,

and have opened it without the knowledge of the cashier or person in charge of it. In this case the cover of the case, K, will be  
 55 locked and unless the person who may have opened the drawer has a key to operate the drawer lock, M, he cannot unlock the said cover so as to get at the indicator ratchet and move it and the index pointer backward  
 60 as far as they had moved it forward by the opening of the drawer. The ratchet, its index, divided limb and operative mechanism applied both to the cover of the case, K, and to the T-bar H, I term the detector or indicator.  
 65

I am aware of the burglar alarm apparatus patented by A. W. Decrow, in September, 1858, I do not claim such as my invention differs essentially therefrom, and besides is far simpler in construction and operation. Although I employ a series of key slides, I do not make use of any tumblers such as he uses to operate the latch. My alarm is very efficient and takes up a very  
 75 little room in a drawer.

I claim—

1. The combination and arrangement of the two levers, F, G, and the spring latch, E, with the clock alarm apparatus, D, the  
 80 striker, *a*, and bell, *b*; and the combination of the same and a series of perforated key slides and a set of, T, bars applied together and to such levers so as to actuate the same substantially as specified.  
 85

2. I also claim the combination and arrangement of the, T, bars, and the perforated key slides to operate in manner as described.

3. I also claim in combination with the  
 90 key lock, M, and the, T, bar I, a latching apparatus placed in the case K, and constructed so as to lock both the cover and the T, bar, or either, substantially as specified.

4. I also claim the combination of the detector or indicator with the case cover and the, T, bar, H, and operated in manner as specified.  
 95

In testimony whereof, I have hereunto set my signature.

R. M. CAMPBELL.

Witnesses:

R. H. EDDY,  
 F. P. HALE, Jr.