

A. W. DECROW.

Till Alarm.

No. 21,555.

Patented Sept. 21, 1858.

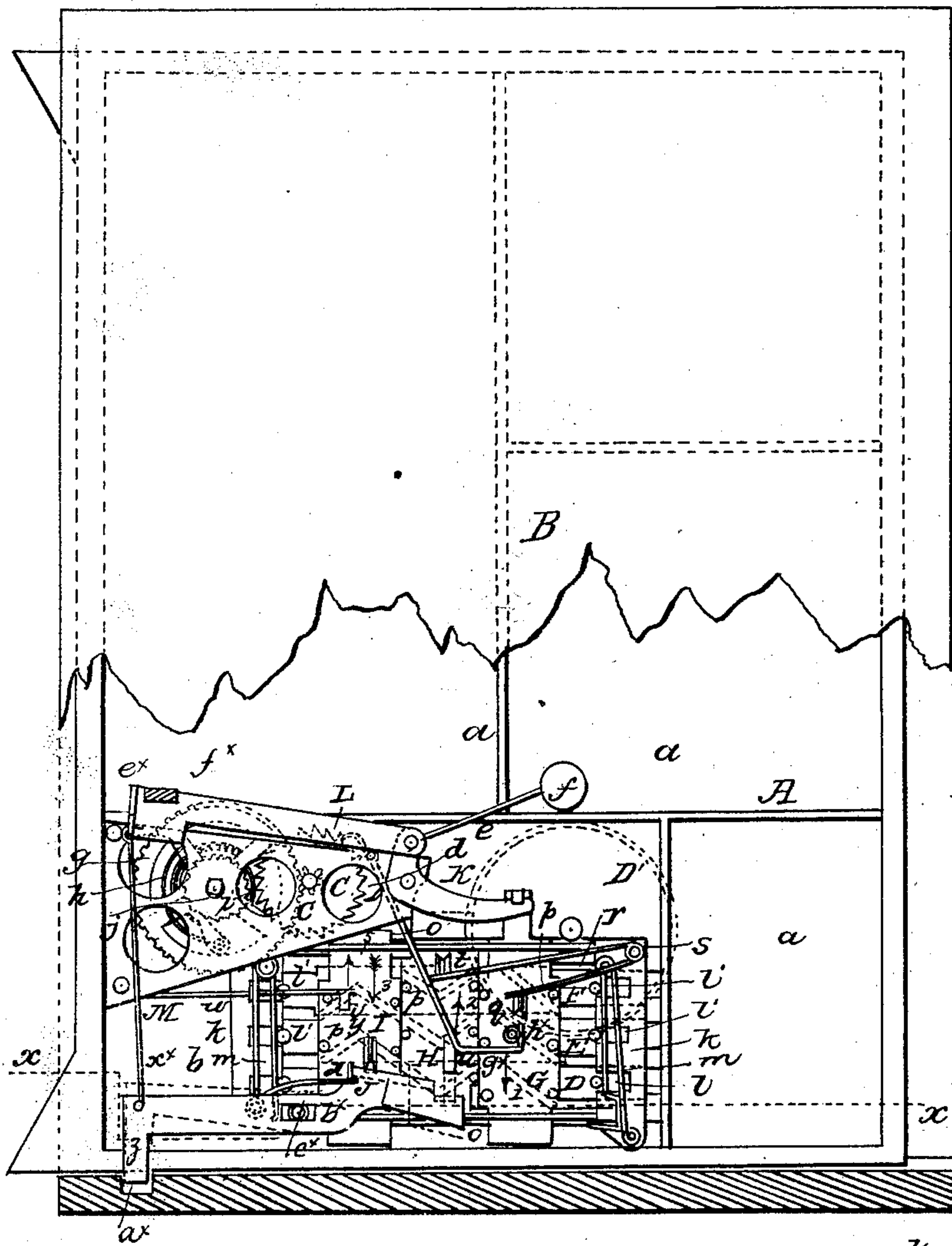


Fig. 1

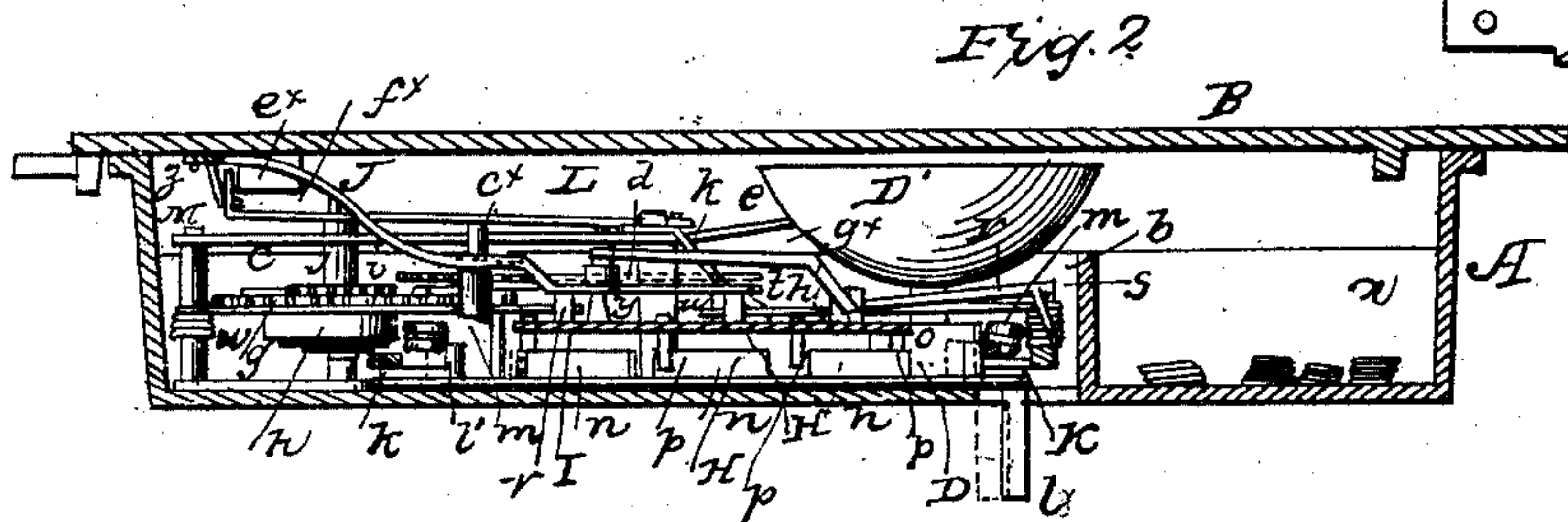


Fig. 2

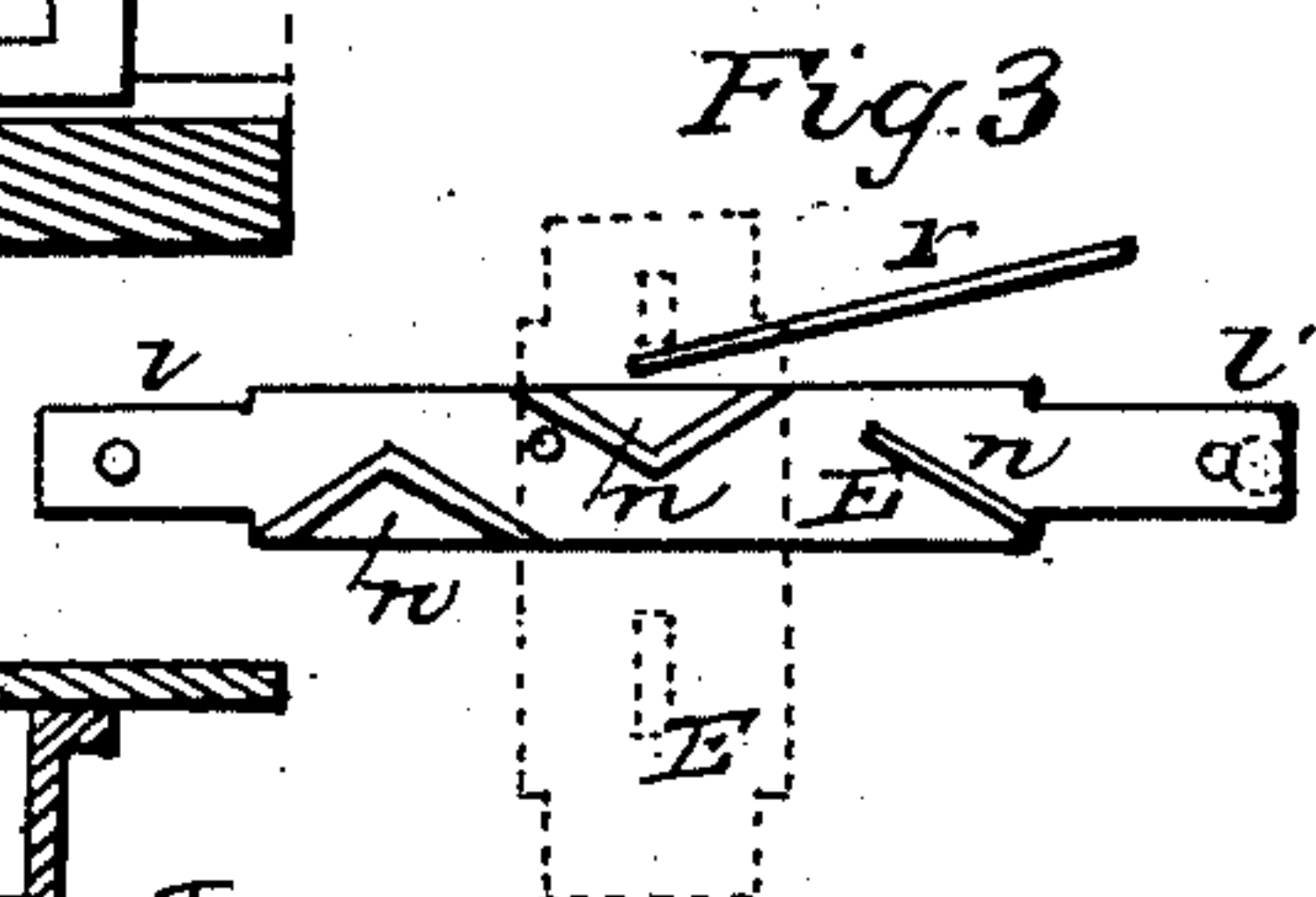


Fig. 3

UNITED STATES PATENT OFFICE.

A. W. DECROW, OF BANGOR, MAINE.

BURGLAR-ALARM.

Specification of Letters Patent No. 21,555, dated September 21, 1858.

To all whom it may concern:

Be it known that I, A. W. DECROW, of Bangor, in the county of Penobscot and State of Maine, have invented a new and
5 Improved Alarm Attachment to be Applied to Tills or Money-Drawers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making
10 a part of this specification, in which—

Figure 1, is a plan or top view of my invention applied to a till or drawer, the latter having a portion of its cover removed or broken away in order to show the invention.
15 Fig. 2, is a vertical section of ditto taken in the line x, x , Fig. 1. Fig. 3, is a detached plan view of one of the slides of ditto.

Similar letters of reference indicate corresponding parts in the several figures.

20 This invention consists in arranging a series of slides and tumblers with a bolt and an alarm movement, as herein fully shown and described, whereby an alarm will be sounded when an attempt is made to open
25 the till without having resource to the bolt which locks it, or by actuating in an improper way the slides which move the bolt.

The invention is designed to effectually prevent the tills of store counters being suddenly opened and rifled of their contents by
30 adroit thieves, when the back of the proprietor or clerk is turned, a species of sharp practice of daily occurrence especially in large cities.

35 To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a cast iron drawer which is fitted underneath a cast iron plate B, the
40 drawer being fitted in or between cleats at the under side of the plate B, so that it may be shoved in and drawn out from underneath the plate B. The plate B, is secured to the underside of the counter. The drawer
45 A, is divided off into the usual compartments a , to receive change, bills, etc., and one compartment b , is reserved for the invention.

C, represents a portion of a clock movement, c , being the 'scape wheel, d , the pallet, the crutch e , of which forms a rod for the hammer f , of a bell D, which is secured within the compartment b , of the drawer. The 'scape wheel d , is connected by the
50 usual pinion with a wheel g , which has the spring h , attached, and also a ratchet i , attached to an arbor j . The above parts

are well known and therefore do not require a more minute description.

D, E, F, represent three slides which are
60 fitted in proper guides k , attached to the bottom of the drawer within the compartment b . Each slide has a pendent l , attached to it, said pendants projecting down through slots in the bottom of the drawer,
65 see Fig. 1, and the slides are provided at each end with vertical pins or projections l' , which work in the guides k , and against which pins or projections, springs m , bear, said springs keeping the slides in proper
70 place.

On the upper surface of each slide, a series of oblique ledges or plates n , are formed, as shown clearly in Fig. 3, said ledges or plates being placed alternately in reverse
75 positions in a zig-zag, manner as shown clearly in Fig. 3. The ledges or plates n , of all the slides may, although not necessarily, correspond in position.

Directly over the slides D, E, F, three
80 tumblers G, H, I, are fitted and work in recesses in parallel bars o, o , to which the guide plates k , form end pieces. Through each tumbler one or more pins p , pass vertically, said pins being acted upon and the
85 tumblers consequently moved by the ledges or plates n , as the slides D, E, F, are actuated. This will be more particularly referred to.

On the upper surface of the tumbler G,
90 there is a ledge q , against which, one end of a spring r , bears, said spring being formed of a rod or wire wound around a stump s , and having its opposite end bearing against a ledge t , on the upper surface of
95 the adjoining tumbler H, as clearly shown in Fig. 1. It will be seen by referring to Fig. 1, that the spring r , has a tendency to press the tumbler G, in the direction indicated by arrow 1, and to press the tumbler
100 H, in the direction indicated by arrow 2. A ledge u , is also formed on the upper surface of the tumbler H, the use of which ledge will be presently shown. On the upper surface of the tumbler I, a ledge v , is
105 formed and a spring w , bears against said ledge, the spring having a tendency to press said tumbler in the direction indicated by arrow 3. On the upper surface of tumbler I, a ledge y , is also formed, the use of which
110 will be presently explained.

J, is a bolt or catch which, when in a certain position, retains or holds the drawer in a closed state. This bolt or catch is formed

of a bar the outer end of which is bent at right angles to its other portion as shown at z , and forms strictly the catch or bolt which, when in a locked state, fits into a recess a^x , in one of the cleats of the lid as shown plainly in Fig. 1. The central portion of the bar or bolt J, has an oblong slot b^x , made in it, through which slot the upper end of a stump c^x , passes, said stump forming a fulcrum for the bar or bolt J. The inner end of the bar or bolt J, is curved or bent downward so that it will be near the upper surfaces of the tumblers H, I, and a spring d^x , bears against the bar or bolt J, said spring having a tendency to press the inner end of the bar or bolt J, in the direction indicated by arrow 4, Fig. 1.

To the inner end of the frame which contains the clock movement C, a bent lever K, is attached. One end of this lever is connected with the tumbler G, and the opposite end is pivoted to a bar L, the outer end of which is curved upward as shown at e^x , and when the drawer is closed catches behind a projection f^x , at the under side of the plate B, as plainly shown in Fig. 2. The outer end of the bolt or bar J, and the bar L, are connected by a rod M.

To the arbor of the pallet d , a rod g^x is attached, said rod being curved or bent and retained, when the tumbler G, is not actuated, by a projection h^x , on the tumbler G, said projection h^x , serving as a stop to the alarm as hereinafter described.

The operation is as follows: When the drawer A, is closed the end z , of the bolt J, will be in the recess a^x , and the curved end e^x , of bar L, will be behind the projection f^x , and the drawer will be locked. If a person attempts to pull out the drawer A, the bar L, will be actuated in consequence of its curved end catching against the projection f^x , and the tumbler G, will thereby be moved through the medium of the bent lever K, and the rod g^x , will be freed from the ledge h^x . The pallet d , will therefore be rapidly vibrated by the escape wheel c , and the hammer f , will strike the bell D, producing the necessary alarm. Thus it will be seen that notice is given of an attempt of this kind. If a person attempts to operate the bolt or bar J, so as to unlock the drawer two of the slides D, E, F, must be so actuated that the tumbler be not moved. All the tumblers are moved in consequence of the pins p , being acted upon by the ledges or plates n , on the slides, and it will be seen that the tumbler G cannot be moved without liberating the rod g^x , and sounding the alarm. It is necessary that both the tumblers H, I, be moved, in order to actuate the bar or bolt and for this reason the inner end of the bar or bolt J, must be moved toward the nearest side of the drawer A, in order to throw the bent outer end z , of the

bolt or bar J, out from the recess a^x . This is effected in consequence of the ledge u , of tumbler H, striking against the inner end of the bolt or bar J. The inner end of the bolt or bar J, however must be sufficiently low or near tumbler H, in order to be acted upon by ledge u , and the ledge y , of the tumbler I, keeps the inner end of the bolt or bar J, above the ledge u , of tumbler H. The first thing to be done therefore in order to unlock or throw back the bolt is to move the tumbler I, in the direction of arrow 5, so that the ledge y , will recede from the inner end of the bar J, and allow it to descend to a plane or level below the upper part of the ledge u , of tumbler H, and then move the tumbler H, so that its ledge u , will act upon the inner end of bolt J, the tumblers being moved by actuating two of the slides D, E, F. The bolt J, is connected to the bar L, by a rod w^x , so that when the end z , of the bolt is drawn from recess a^x , the end e^x will be moved free or clear from the ledge f^x . The precise way of actuating the slides in order to move the tumblers H, I, without moving the tumbler G, is of course known to the proprietor and clerks, and changes may be made at any time by varying the position of the pins p , the tumblers being perforated for that purpose.

I do not claim broadly an alarm bell attached to or connected by mechanism with a till or drawer so that an alarm will be sounded when the drawer is opened for such devices have been previously used; but,

I do claim as new and desire to secure by Letters Patent,

1. The slides D, E, F, tumblers G, H, I, bar or bolt J, and an alarm formed of the clock movement C, and bell D', combined and arranged to operate substantially as and for the purpose set forth.

2. I further claim the particular manner as herein shown of operating the tumblers G, H, I, from the slides D, E, F, to wit, by means of the oblique ledges u , formed on the slides and the adjustable pins p , which pass through the tumblers, whereby the tumblers are not only actuated, but changes also allowed to be made so as to require a varying movement of the slides in order to throw back the bolt J.

3. I also claim connecting the tumbler G, and bolt J, with a bar L, substantially as shown to serve as a check or supplemental device to give an alarm in case an attempt is made to open the drawer by force or otherwise without tampering with the slides D, E, F.

A. W. DECROW.

Witnesses:

R. S. PRESCOTT,
A. W. LEAVITT.