March 29, 1949. B. CISENFELD 2,465,431

DEPOSITORY DRAWER AND ASSOCIATED STRUCTURE

Filed Dec. 19, 1947 2 Sheets-Sheet 1

Fig. 1.

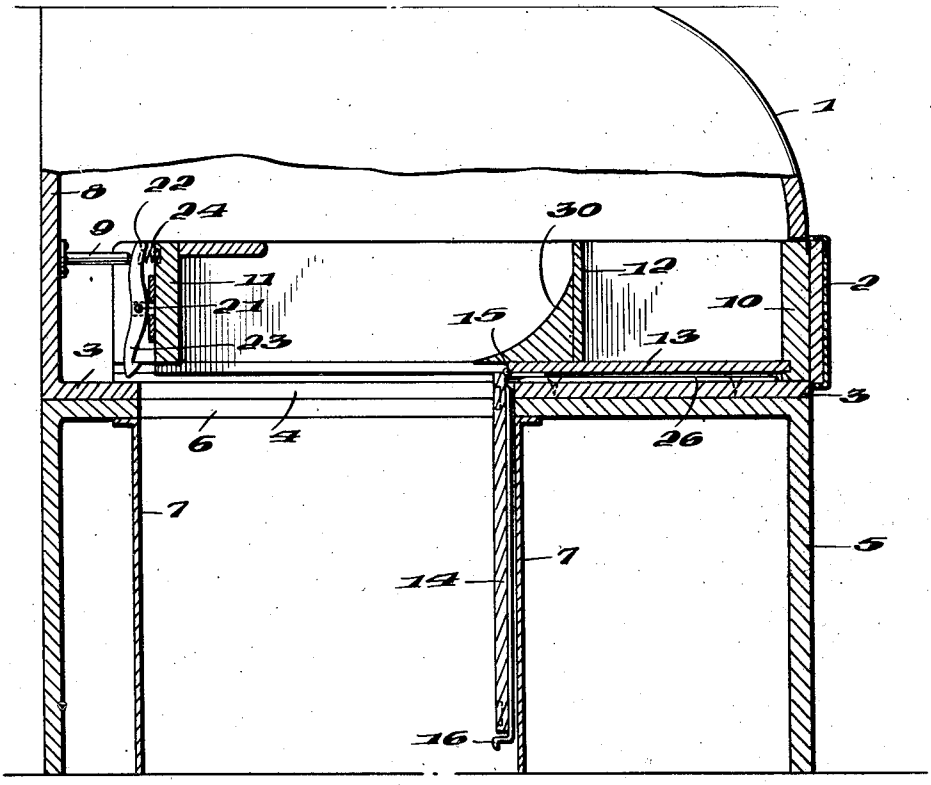
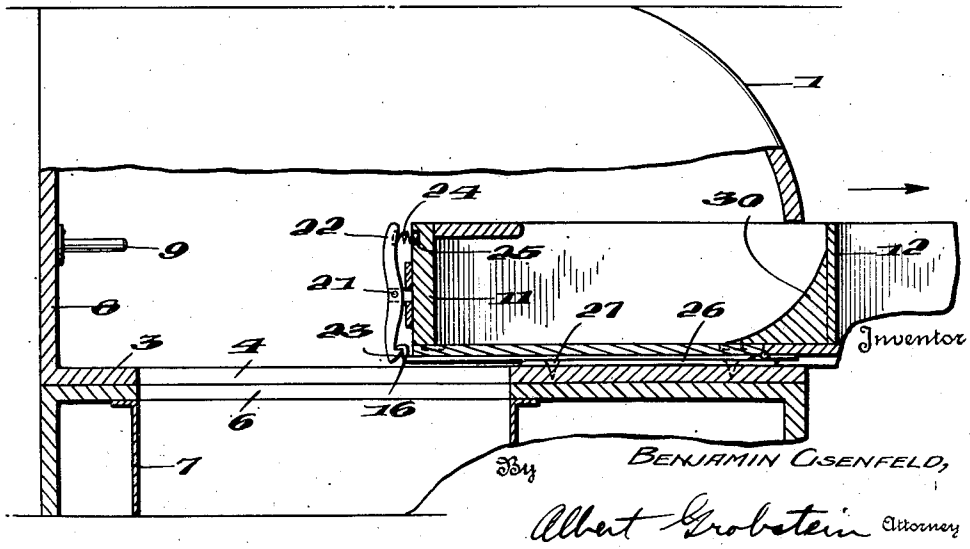


Fig. 2.



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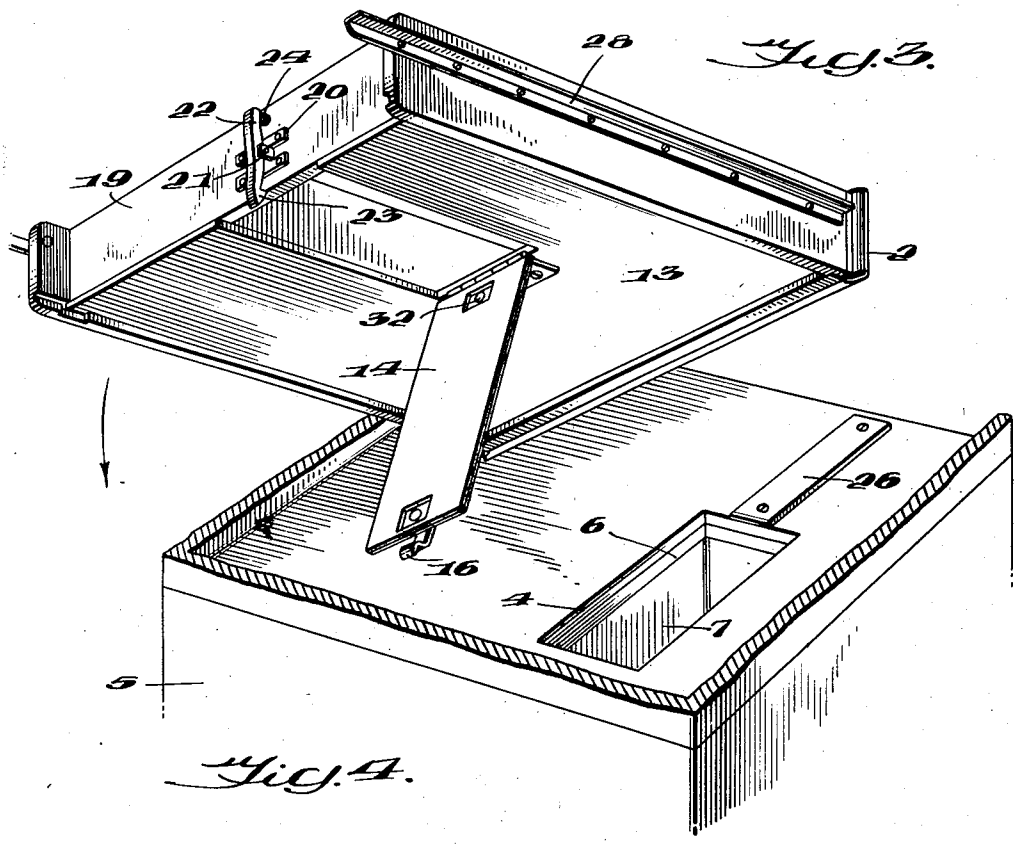


Fig. 3.

Fig. 4.

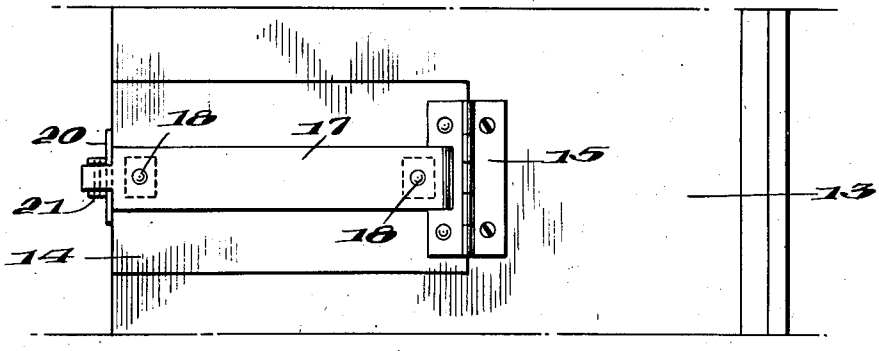
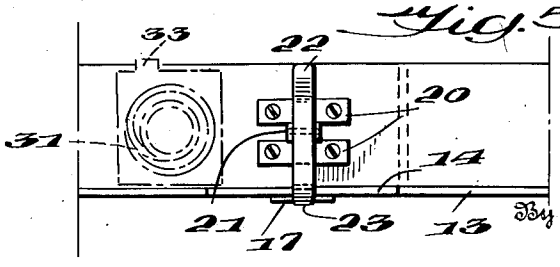


Fig. 5.



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UNITED STATES PATENT OFFICE

2,465,431

DEPOSITORY DRAWER AND ASSOCIATED STRUCTURE

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Application December 19, 1947, Serial No. 792,788

10 Claims. (Cl. 232—4)

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This invention relates to a cash or valuables drawer and associated construction for receiving cash or other valuables when in open position and for automatically depositing the same into a safety compartment or the like when the drawer is in closed position; the combination of such a drawer with a cash register or the like; and the combination of such a drawer in a cash register, desk, or article of furniture with a safe or like depository.

One of the objects of the invention is to provide in combination with a safe or receptacle, a cash register with a drawer having receiving means that automatically deposits contents of value into said depository or receptacle for safe keeping when the drawer is closed, and that automatically places the said receiving means into receiving position again when the drawer is opened.

Other objects of the invention are to provide a drawer in combination with a safety compartment whereby the contents of the drawer are automatically released into said compartment when the drawer is closed, the depositing mechanism being concealed from view of the person making the deposit; to provide a cash drawer in a cash register, or article of furniture, or the like, whereby the cash is automatically deposited by gravity when the drawer is closed, and when the drawer is open the appearance thereof will be similar to conventional cash drawers; and to conceal from ordinary view the existence of a special depository, so that cash or valuables may be automatically deposited when the drawer is closed without knowledge of unauthorized persons that such deposition has been made.

The invention has for its further object the provision of a drawer having a compartment therein with its bottom swingably mounted, means associated with said bottom to engage the same in latching connection with means at the rear end of said drawer, and means for automatically releasing the latch upon physical contact when the drawer is in closed position and for automatically engaging the latch when the drawer is in open position; all of which are hereinafter described and claimed.

Other objects of the invention will be ascertained from the description and claims hereinafter given.

In the prior art, there are various devices for depositing valuables into depositories, but they are cumbersome, complicated and prone to get out of order. The present invention is simple,

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economical and efficient, requiring a minimum of parts and automatic in action.

Referring to the drawings:

Figure 1 is a view in vertical section of the invention as applied to a cash register disposed above a safe. In this figure, the cash register drawer is in closed position while the swinging bottom of the valuables receiving compartment is in open position.

Figure 2 is a sectional view similar to Fig. 1, showing the cash register drawer in open position and the swinging bottom in closed position.

Figure 3 is a disassembled perspective view of the bottom of the drawer, the bottom of the register, and the depository upon which the latter is mounted.

Figure 4 is a bottom plan view of the drawer structure, showing the swinging bottom in latched position. For the sake of clearness, the conventional spring and catch means on the rear of a cash register drawer are not shown in Figures 1 to 4.

Figure 5 is an end view of the mechanism shown in Fig 4, with an additional showing of the usual conventional spring and catch means at the rear end of a cash register drawer.

In the drawings, numeral 1 represents a cash register or the like having a drawer 2 disposed therein for receiving cash and valuables in the ordinary manner. The bottom 3 of the cash register has a specially cut-out opening 4 which is adapted to communicate with a safe 5 therebelow and upon which the cash register rests. The safe has a passage defined by the opening 6 and the side walls 7 communicating with the opening 4 in the bottom of the cash register 1. The specific construction of the means for removing the valuables deposited in the safe is not shown, as such is conventional. Obviously, the valuables deposited through the opening 6 are removed through another opening in the outside wall of the safe to which access may be had through the regular safe door. The rear wall 8 of the cash register has mounted thereon a pin 9 which extends in a plane horizontal with the bottom 3 of the cash register. The drawer 2 has the usual inner front wall 10 and the rear wall 11 with partition 12 defining compartments therein for receiving money, checks or other valuables. Other partitions transverse to partition 12 divide the drawer into other compartments, as indicated in Figure 5. The bottom 13 of the drawer, rearwardly of the partition 12 and correspondingly to the cut-out opening 4, is provided with a swingable section 14 hinged at 15 at one end and provided

at the other end with a catch element or tongue 16. The latter preferably forms an extension of the bar 17 fastened to 14 with fastening means 18. On the outer face 19 of the rear end of the drawer is mounted a bracket 20 horizontally supporting a pivot pin or fulcrum 21 upon which is pivotally mounted a trigger element 22. One end of the trigger element is provided with a dog or engaging lug 23 adapted to engage in latching relation with the element 16. The trigger element 22 is urged into locking or engaging position by the spring 24 which is received in a recess 25 in the rear wall 11 of the drawer. The bottom member 3 of the cash register is provided at its forward part with a flat bar 26 secured to the top of the same with screws 27. As shown in Fig. 3, the cash register drawer 2 rides on the conventional runners 28 attached thereto for slidable movement into open or closed position. As shown in Figure 5 only, the drawer has a coil spring and catch mechanism which are conventional, shown by the numerals 31 and 33 respectively. The curved block or filler shoe 30 is mounted in the compartment with the swingable bottom adjacent to the partition 12 and is intended to prevent paper currency or other valuables from sticking in the hinge means, and to cause the currency or other valuables to slide to the other end of the compartment, as well as to conceal the hinge mechanism 15 from view when the drawer is in open position. The shoe 30 extends a little distance beyond the opening and over the end of the pivoted section and conceals the fastening means 32 from view when the section 14 is closed.

In the preferred form of the invention, the drawer is divided into compartments adapted to hold coins or currencies of various denominations, with a single compartment operable to deposit the contents by gravity. The various compartments separated by usual partitions in a cash register drawer are not specifically shown herein, but are indicated generally by the longitudinal partition shown in Figure 5 in dotted lines transverse to partition 12.

In operation, the cash register is shown normally closed as in Fig. 1 with the depending bottom section 14 in open position. When valuables or money are to be placed in the drawer, the cash register is operated in the conventional way and the drawer 2 opens by means of coventional mechanism defined by spring 31 and release of catch 33. When the drawer moves to open position, as shown in Fig. 2, the hinged bottom section 14 rides up into horizontal position on the flat bar 26, and the end 16 thereof engages the catch or dog 23 of the trigger element 22. The bar 26 acts as a filler in that portion of the drawer between the bottom 13 and register base 3, and urges the swinging bottom into positive latching engagement as the bottom rides forwardly thereon. The trigger element 22 is urged into positive latching engagement by means of the spring element 24. After the money is deposited, the depositor closes the drawer. This causes the trigger element 22 to contact the pin or backstop 9 causing the spring 24 to be compressed and the trigger to pivotally move in a clock-wise direction to disengage the catch 23 from the latch element 16, whereupon the bottom 14 falls by gravity and deposits the valuables into the compartment or passage below.

When a new deposit is to be made, the cash register is operated as before, the drawer opens, the bottom section is again positively closed in latched relation as described above, and the operation is repeated.

It will be understood that the invention may be used in conjunction with other articles than, or in addition to, safes and cash registers. The safe 5 may be provided with a cabinet in front below the cash register, so that the safe may be hidden from view. Again, desk drawers may be provided with the invention whereby a depository in a desk may cooperate with the drawer to employ the present invention.

It will be noted that the mechanism is concealed from view, and to the casual observer the drawer appears much the same as an ordinary cash drawer. The swingable bottom of the compartment is flush and in positive engagement with the side walls thereof when the drawer is in open position. The shoe conceals the line of demarcation of the movable portion of the bottom from the rigid portion as well as any hinge connection that may show. The appearance is one of tightness, solidity and rigidity when the drawer is in open position.

The elongated bar longitudinally disposed and attached to the swingable section of the compartment bottom adds to this rigidity and is exceedingly useful on drawers of the heavier type. It also prevents abrasion and wear of the underside of the swingable section.

Various modifications will suggest themselves without departing from the spirit of the invention. For example, the pin 9 may be replaced by a spring or other backstop to contact the trigger element, but the backstop or latch disengaging means must be so adjusted in length that it will not interfere with the normal opening and closing conventional mechanism of the cash register drawer.

I claim:

1. In combination with a safe compartment having a passage therein for the depositing of valuables, a receiving drawer mounted over said safe compartment and adapted to contain valuables, a bottom for said drawer, a part of said bottom being pivotally mounted on the drawer and disposed above said passage to swing downwardly and empty valuables in said passage, and means on said drawer cooperating to automatically latch the pivotally mounted part when the drawer is in open position, said means comprising a trigger element secured to and fulcrumed on the rear unexposed face of the drawer and resiliently urged into latching position, and means mounted independently of and behind the drawer to press the trigger element into unlatching position when the drawer is in closed position.

2. In combination with a safe compartment having a passage opening therein for the depositing of valuables, a receiving drawer mounted over said safe compartment and adapted to contain valuables, a bottom for said drawer, a part of said bottom being pivotally mounted on the drawer and disposed above said passage to swing downwardly and empty valuables in said passage, and means on said drawer cooperating to automatically latch the pivotally mounted part when the drawer is in open position and to unlatch it when it is in closed position, said means comprising a bracket secured to the rear outside face of the drawer, a pin horizontally journalled in said bracket, a trigger element mounted on said pin for pivotal movement, and a spring urging one end of said trigger away from said drawer and the other end into latching position, and means mounted independently of and behind the drawer

to press the trigger element into unlatching position when the drawer is in closed position.

3. In combination with a safe having a compartment therein for storing valuables, a passage leading from said compartment to the outside of said safe, a cash register having a bottom drawer adapted to communicate with said passage and to empty valuables therein by gravity action, said drawer being divided into different compartments, at least one of said compartments having a swingable bottom pivotally mounted to discharge valuables into said passage, and means secured to the back end of said drawer to hold said swingable bottom in horizontal position when the drawer is opened and to release said bottom into a non-horizontal position when the drawer is closed, the said means comprising a latching element secured to the back end of the drawer and adapted to be placed in unlatching position when the drawer is moved to closed position, and to be urged into latched position by resilient means on the drawer when the drawer is moved to open position and means mounted on the cash register in the rear of the drawer for contacting the latching element to move it to unlatching position.

4. In combination with a safe having a compartment therein for storing valuables, a passage leading from said compartment to the outside of said safe, a cash register having a bottom drawer adapted to communicate with said passage and to empty valuables therein by gravity action, said drawer being divided into different compartments, at least one of said compartments having a swingable bottom pivotally mounted to discharge valuables into said passage, and means secured to the back end of said drawer to hold said swingable bottom in horizontal position when the drawer is opened and to release said bottom into a non-horizontal position when the drawer is closed, the said means comprising a latching element secured to the back end of the drawer and adapted to be placed in unlatching position when the drawer is moved to closed position, and to be urged into latched position by resilient means on the drawer when the drawer is moved to open position, means mounted on the cash register in the rear of the drawer for contacting the latching element to move it to unlatching position, and means mounted on the floor of the cash register below the drawer for cooperation with the swingable bottom to urge the same to positive latching position when the drawer is open.

5. A drawer for receiving cash and valuables comprising front, rear, and side faces and a bottom, said drawer having a compartment therein with at least a part of said bottom mounted to swing downwardly to empty said compartment, means mounted on the rear face to keep said compartment bottom from swinging open, said means comprising a pivotally mounted trigger element secured to and mounted on said rear face, resilient means urging one end of said trigger element away from said rear face and the other end of said trigger element toward said rear face, and means on said compartment bottom to cooperate with said trigger element, the arrangement being such that the trigger element automatically releases the compartment bottom upon application of pressure to the trigger element opposed to the pressure of the resilient means.

6. In combination with a base structure having a drawer to contain money and valuables, said base structure having a receiving compartment therein at a lower level than the drawer, said

drawer having front and rear faces, sides, and bottom, hinge means on at least a portion of said bottom to permit it to swing downwardly to deposit its contents into said receiving compartment of the base structure, trigger means mounted on the rear face of the drawer, one end of said trigger having means to engage said bottom in latching engagement, the other end of said trigger coacting with a spring to urge the opposite end into said latching engagement, means on said bottom to be engaged by said trigger, and means on said base structure adapted to contact the spring-pressed end of the trigger to disengage the trigger from said bottom.

7. In combination with a base structure having a drawer to contain money and valuables, said base structure having a receiving compartment therein at a lower level than the drawer, said drawer having front and rear faces, sides, and bottom, hinge means on at least a portion of said bottom to permit it to swing downwardly to deposit its contents into said receiving compartment of the base structure, trigger means mounted on the rear face of the drawer, one end of said trigger having means to engage said bottom in latching engagement, the other end of said trigger coacting with a spring to urge the opposite end into said latching engagement, means on said bottom to be engaged by said trigger, and means on said base structure adapted to contact the spring-pressed end of the trigger to disengage the trigger from said bottom, said last named means comprising a pin mounted on said base structure in a plane normal to the plane of the trigger element.

8. In combination with a base structure having a drawer to contain money and valuables, said base structure having a receiving compartment therein at a lower level than the drawer, said drawer having front and rear faces, sides, and bottom, hinge means on at least a portion of said bottom to permit it to swing downwardly to deposit its contents into said receiving compartment of the base structure, trigger means mounted on the rear face of the drawer, one end of said trigger having means to engage said bottom in latching engagement, the other end of said trigger coacting with a spring to urge the opposite end into said latching engagement, means on said bottom to be engaged by said trigger, and means on said base structure adapted to contact the spring-pressed end of the trigger to disengage the trigger from said bottom, and means mounted on said base structure below said hinge means for the bottom to ride upwardly thereon and urge the same to positive latching engagement.

9. A drawer for receiving cash and valuables comprising front, rear, and side faces and a bottom, said drawing having a compartment therein with a part of said bottom mounted to swing downwardly to empty said compartment, means mounted on the rear face to keep said compartment bottom from swinging open, said means comprising a pivotally mounted trigger element secured to and mounted on said rear face, a spring urging said trigger element, and means on said compartment bottom to cooperate with said trigger element, said last named means comprising an elongated bar secured to and forming a support for the compartment bottom and having a latch engaging element at one end thereof, the arrangement being such that the trigger element automatically releases the compartment bottom upon application of pressure to the trigger element opposed to the pressure of the spring.

10. In combination, a cash register having a bottom with an opening therein, a drawer for said register slidably movable above said bottom and over said opening, said drawer having front and rear faces, sides and bottom, a section of said drawer bottom being pivotally mounted to permit it to swing downwardly through the opening in the cash register bottom, tongue means on the pivotally mounted section of the drawer bottom to engage in latching relation with means on the rear face of the drawer, latching means on the rear face of the drawer to engage said tongue means and automatically latch the pivotally mounted section when the drawer is in open position and to release it when it is in closed position, a rear wall on said cash register, means mounted on said rear wall to disengage the latching means from the tongue means when the drawer is moved to closed position, and means mounted on the bottom of the cash register and below the drawer bottom to urge the pivotally mounted section into positive latching engagement when the drawer is moved to open position.

BENJAMIN CISENFELD.

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The following references are of record in the file of this patent:

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Certificate of Correction

Patent No. 2,465,431. March 29, 1949.

BENJAMIN CISENFELD

It is hereby certified that errors appear in the printed specification of the above numbered patent requiring correction as follows:

Column 3, line 50, for "coventional" read *conventional*; column 6, line 59, claim 9, for the word "drawing" read *drawer*;

and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 23rd day of August, A. D. 1949.

[SEAL]

THOMAS F. MURPHY,
Assistant Commissioner of Patents.