

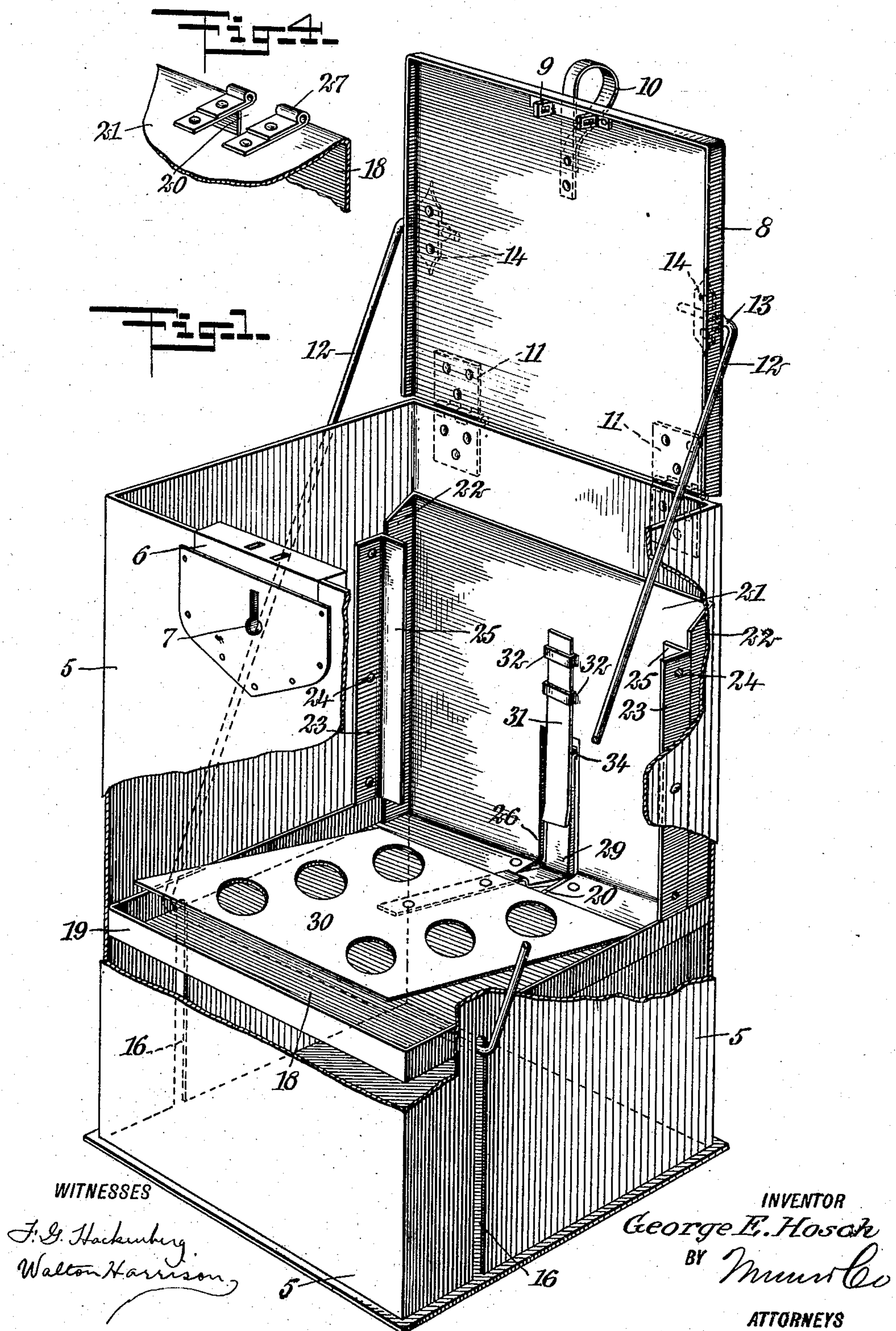
BOX.

APPLICATION FILED APR. 3, 1909.

924,354.

Patented June 8, 1909.

2 SHEETS—SHEET 1.



G. E. HOSCH.

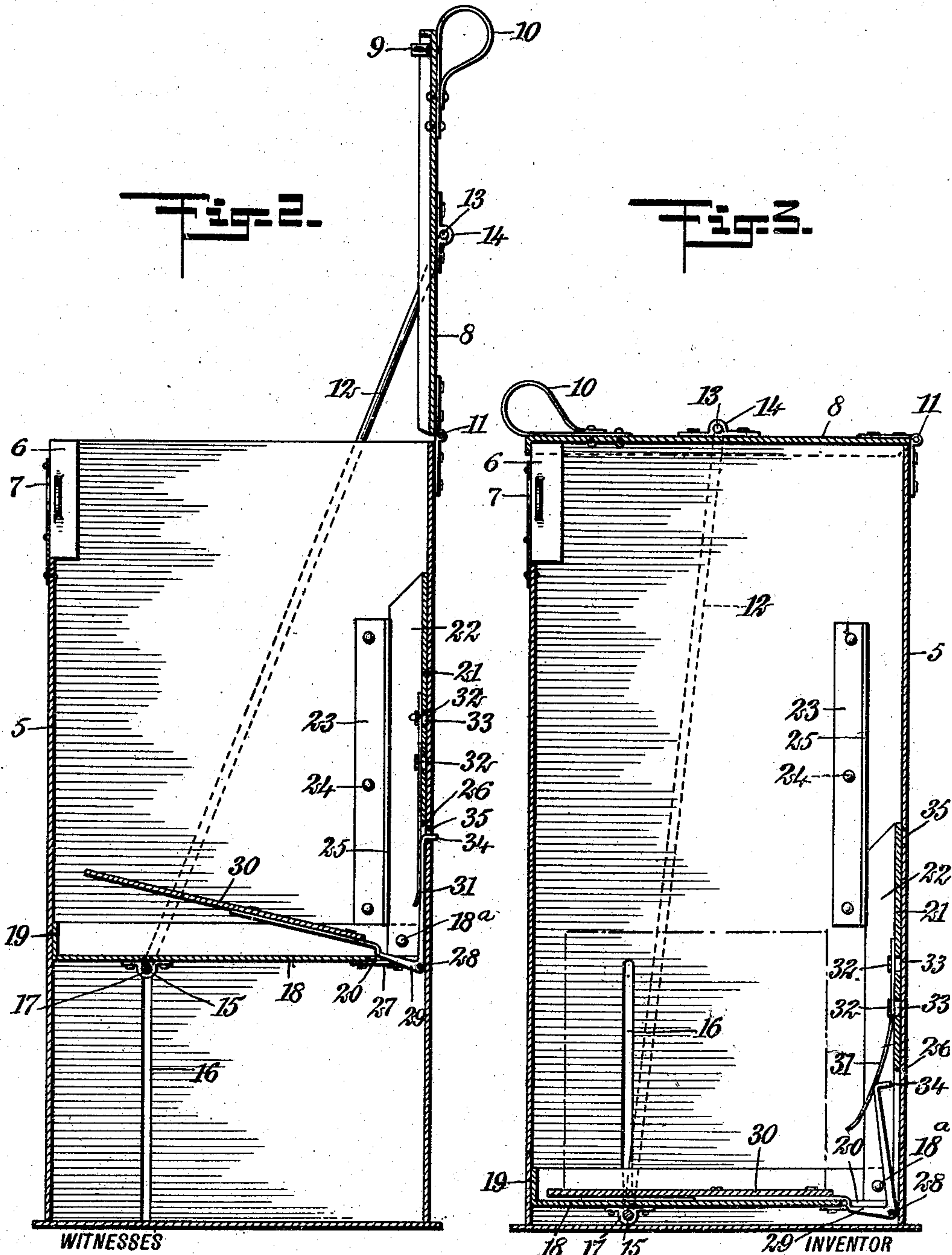
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BOX.

No. 924,354.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed April 3, 1909. Serial No. 487,635.

To all whom it may concern:

Be it known that I, GEORGE EDWARD HOSCH, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Box, of which the following is a full, clear, and exact description.

My invention relates to boxes, my more particular purpose being to produce a box which is automatically locked when a bottle or other article is placed in it, so as to maintain the article thus deposited inaccessible to persons not authorized to open the box, the box being automatically held open—that is, locked in its open position—when the lid is raised to a predetermined position and the box is empty.

More particularly stated, my invention comprehends a box provided with a depressible platform disposed within it, and further provided with mechanism controllable by said depressible platform, in such manner that when the platform is depressed by the weight of an article, its movement downward automatically locks the box, and yet when the box lid is raised and the article stored within the box is removed therefrom, the lid of the box is automatically locked in its upright or so-called “open” position and remains thus until another article is deposited within the box.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a fragmentary perspective showing the box as open, and showing the movable platform and parts associated with the same as occupying their respective normal positions when the box is open and consequently empty; Fig. 2 is a substantially central vertical section through the box complete, showing it as open and empty, and also showing the movable platform as occupying its highest position; Fig. 3 is a substantially central vertical section through the box showing the various parts as occupying the positions which they respectively occupy when the box contains an article to be stored and is therefore locked; and Fig. 4 is a fragmentary inverted perspective, showing a detail of a bearing carried by the movable platform.

The body portion of the box is shown at 5 and is provided with an automatic lock 6 having a key-hole 7. At 8 is a lid which carries hasps 9 which co-act with the lock 6 in holding the lid down. At 10 is a handle for raising the lid, this lid being connected with the body portion 5 by hinges 11. A bail 12 is provided with inwardly turned ends 13 which engage bearings 14 carried by the lid. The bail is provided with a horizontal portion 15 extending directly through the box, for which purpose slots 16 are provided. At 17 are bearings for the horizontal portion 15 of the bail. A platform 18 is slidably mounted within the body portion 5, and is provided with upturned edges 19, the platform, together with its upturned edges, having generally the form of a tray. The platform is provided with a slot 20. Connected with the platform 18 is a guide plate 21, opposite edges 22 of which are bent parallel with each other and fitted slidably within the body portion 5, as will be understood from Fig. 1, and connected with the platform 18 by rivets 18^a, as shown in Figs. 2 and 3. At 23 are angle strips of metal secured by rivets 24 within the body portion and provided with flanges 25 projecting toward each other. These flanges are slidably engaged by the edges 22 of the guide plate 21.

The guide plate 21 is provided with a slot 26 which merges into the slot 20 in the platform 18 and is in fact a continuation of said last-mentioned slot. The guide plate 21 is provided with hinge members 27 (see Fig. 4) and a pin 28 extends through these hinge members. A bell crank lever 29 is mounted upon the pin 28 and connected with the bell crank lever is a trap door 30. At 31 is a leaf spring which is secured upon the back plate 21 by striking up therefrom two strips and slipping a portion of the leaf spring thereunder and clenching it in position, as will be understood from Fig. 2. The strips 32 are thus in registry with holes 33 left in the back plate by the displacement of the middle of the strips.

The upper end of the bell crank lever 29 is provided with a hook 34. The body portion 5 of the box is provided with a hole 35 in such position that the hook 34 may enter this hole whenever the platform 18 is raised to a proper height for this purpose. The upward travel of the platform 18 and the

angular movement of the door 8 are both controllable by the length of the slots 16. The leaf spring 31 presses the upper portion of the bell crank lever 29 constantly upward, and when free has a tendency to raise the trap door 30.

The operation of my device is as follows: Suppose that the box is to be used for storing an article, such, for instance, as a bottle of milk to be delivered from a milk wagon. The box is left open as indicated in Figs. 1 and 2; that is to say, the lid 8 is straightened up completely so that the bail 12 raises the platform 18 to its greatest height. The hook 34 of the bell crank lever 29 thereupon enters the hole 35, this action being caused by the leaf spring 31. This movement of the bell crank lever lifts the trap door 30 a little distance above the platform 18 as will be understood from Fig. 2. The box remains in this position for any length of time. Under these conditions, as a result of the position of the trap door 30, as shown in Fig. 2, there would be, except for my invention, a tendency for the lid 8 to fall as a result of the weight of the attachments connected to it, pressing downwardly upon the bail 12 and carrying the platform 18 with it, thus closing the box before an article is placed therein. In order to prevent this, is the object of the strips 23, which control the vertical movements of the guide plate 21 by the edges 22 and thus keep in place the hook 34 in the hole 35. Suppose, now, that a milkman merely places a bottle of milk in the box. In doing this he rests the weight of the bottle upon the trap door 30. This tilts the bell crank lever 29 which consequently withdraws the hook 34 from the hole 35, and in doing this bends the leaf spring 31 inward. The hook 34 being withdrawn from the hole 35, the weight of the bottle and its contents now carries the platform downwardly into the position indicated in Fig. 3. This causes the bail to descend, and consequently pulls down the lid 8. Since the lock 6 is automatic in its action, as above mentioned, the lid is effectively locked and can not be readily raised by any person not authorized to open the box. The person having the box in charge, by inserting a key within the key-hole 7 and actuating the lock is enabled to raise the lid 8 and to remove the bottle, leaving the various parts in their respective normal positions as indicated in Figs. 1 and 2.

The platform 18 is guided by aid of the oppositely disposed parallel edges 22 which slidably engage the stationary flanges 25, the portion 15 of the bail 12, by its vertical movement in the slot 16, also serving to guide the platform.

While for convenience I show a type of box suitable for the deposit of transient articles, I do not limit myself to any particular purpose for which the box may be em-

ployed. Neither do I limit myself to the exact construction shown and described, for the reason that variations may be made therein without departing from the spirit of my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a box, the combination of a body portion provided with slots, a lid journaled upon said body portion and adapted to be closed, an automatic lock controllable by movements of said lid relatively to said body portion for the purpose of holding said lid in a predetermined relation to said body portion, a bail journaled upon said lid and provided with a portion extending through said slots, and a platform movably mounted within said body portion and resting upon said bail.

2. In a box, the combination of a body portion, a platform movably mounted therein, a trap door connected with said platform and movable relatively thereto, and mechanism controllable by movements of said trap door relatively to said platform for releasing said platform relatively to said body portion.

3. In a box, the combination of a body portion provided with slots, a lid journaled upon said body portion and adapted to be opened and closed relatively thereto, an automatic lock for holding said lid in a predetermined position relatively to said body portion, a bail connected with said lid and extending through said slots, a platform slidably mounted within said body portion and resting upon said bail, a bell crank lever journaled upon said platform, and a trap door connected with said bell crank lever for the purpose of actuating the same, said trap door being flat for the purpose of supporting an article to be stored, said bell crank lever being provided with a portion for locking said platform in a predetermined position relatively to said body portion.

4. In a box, the combination of a body portion, a trap door pivotally connected therewith and adapted to swing, a lid movable relatively to said body portion, and mechanism controllable by the position of said trap door relatively to said body portion for locking said lid in its open position.

5. In a box, the combination of a body portion, a lid movable relatively thereto and adapted to open and close, and mechanism controllable by the presence of a transient article within said body portion for locking said lid in its open position.

6. In a box, the combination of a body portion, a lid pivotally connected therewith and adapted to swing, a platform disposed within said box, a trap door connected with said platform, and mechanism connected with said trap door and controllable by the

weight of a transient article resting thereupon for locking said lid in a predetermined position relatively to said body portion.

7. In a box, the combination of a body
5 portion, a lid movable relatively thereto and adapted to be closed, a platform movably mounted within said box, a connection from said platform to said lid for the purpose of enabling the weight of an article resting
10 upon said platform to close said lid, means for holding said platform rigidly in relation to said box when said box is empty, and mechanism controllable by the presence of
15 said article upon said platform for releasing said platform in order to allow the same to descend relatively to said body portion.

8. In a box, the combination of a body portion, a lid mounted thereupon and

adapted to be opened and closed, a platform disposed within said box and movable
20 relatively thereto, said platform being adapted to carry a weight, means for temporarily supporting said platform at a point above the bottom of said box, and mechanism controllable by the weight of an article
25 resting upon said platform for disconnecting said platform from said body sufficiently to allow said platform to descend within said body portion.

In testimony whereof I have signed my
30 name to this specification in the presence of two subscribing witnesses.

GEORGE EDWARD HOSCH.

Witnesses:

FRANCIS J. TORPEY,
HERMAN RICHMILLER.