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No. 879,094. PATENTED FEB. 11, 1908.

F. C. FEW.

AUTOMATICALLY LOCKING BOX.

APPLICATION FILED MAY 7, 1906.

Fig. 1.

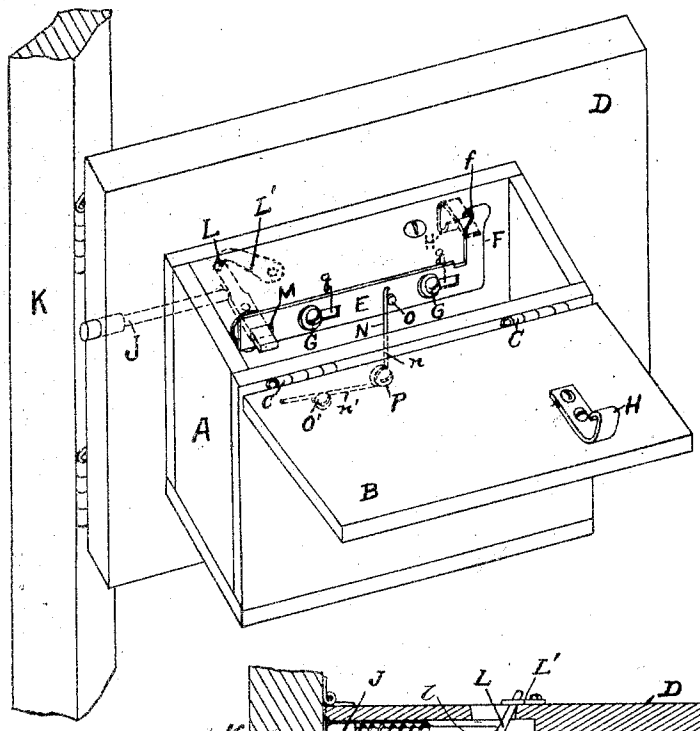


Fig. 2.

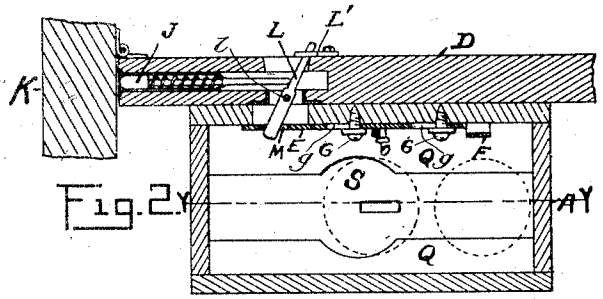
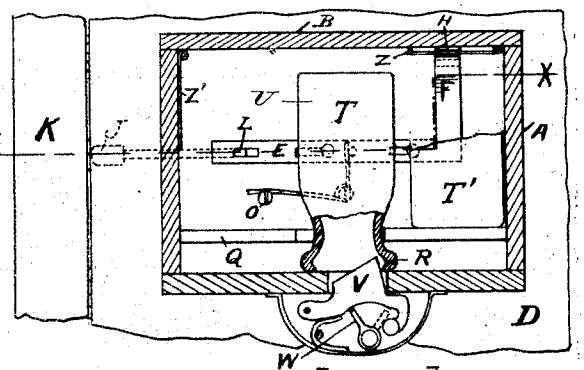


Fig. 3.



Witnesses
Dudley Swan
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Frederick C. Few.
by Ward & Cameron Attys.

UNITED STATES PATENT OFFICE.

FREDERICK C. FEW, OF ALBANY, NEW YORK, ASSIGNOR OF ONE-HALF TO PELATIAH J. MARCH, OF TROY, NEW YORK.

AUTOMATICALLY-LOCKING BOX.

No. 879,094. Specification of Letters Patent. Patented Feb. 11, 1908.

Application filed May 7, 1906. Serial No. 315,473.

To all whom it may concern:

Be it known that I, FREDERICK C. FEW, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Automatically-Locking Boxes, of which the following is a specification.

My invention relates to devices for automatically locking receptacles, especially adapted for retaining milk bottles, and the object of my invention is to provide a box which may be secured to a swinging door and locked or unlocked automatically by the closing and opening of the door, and which may be so constructed that the articles placed within the box may be locked therein, even when the box proper is unlocked, together with such other elements and combinations as are hereinafter more particularly set forth and claimed.

I attain these objects by means of the mechanism illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view. Fig. 2 is a horizontal section along the lines X—X on Fig. 3. Fig. 3 is a vertical section along the lines Y—Y on Fig. 2.

Similar letters refer to similar parts throughout the several views.

In order to assure the delivery of the milk in the morning it is advisable to arrange for a receptacle within which the bottles containing the same may be fastened against those who would purloin that very necessary article of food, and for this purpose I have arranged a box, A, provided with a cover, B, hinged, preferably, at the top of one side of the box at C, C, as shown in Fig. 1. The box may be mounted on the side of a swinging door, D, and is provided with a sliding bar, E, carrying a latch, F, the bar, E, being attached to one side of the box, A, preferably by means of the screws, G, G, engaging the slotted openings, *g*, *g*, in the side of the bar, E, thus permitting of a reciprocating movement in a horizontal plane of the bar, E, on the screws G. The latch, F, is preferably of spring metal and arranged at right angles, or thereabout, to the main portion of the bar, E, as shown in Fig. 1, and is provided at its end with a hooked or overlapping portion, *f*, adapted to engage a like overlapping hooked catch, H, on the under side of the cover, B, as shown by dotted lines in Fig. 1.

For the purpose of moving the bar, E, I preferably arrange the bolt, J, within the door, D, and adapted to engage the door-jamb, K, when the door is closed. The bolt, J, engages the lever, L, on one side of its fulcrum, *l*, said lever being mounted in the door, D. The other end of said lever passes through an opening, M, near one end of the bar, E, and is so adjusted that the fulcrum, *l*, of the lever, L, lies between the opening, M, in the bar E, and the point of engagement of the bolt, J, with the lever, L, and as thus arranged a movement of the lever caused by the engagement of the end of the bolt with the jamb of the door will move the bar, E, so as to bring the latch, F, in engagement with the catch, H. For the purpose of throwing the latch, F, out of engagement with the catch, H, when the bolt, J, is out of engagement with the door-jamb, K, the door being opened, I arrange a spring, N, which may be of the form shown in Fig. 1 or in any other suitable form, in which the one arm, *n*, of the spring, N, engages the lug, O, on the bar, E, the other arm, *n'*, engaging the lug, O', on the side of the box, A, the spring being wound at or near its center about the screw, P.

It is understood that I do not wish to limit myself to the means for throwing back the latch bar, E, by thus particularly describing the spring, as any suitable device for that purpose may be employed without departing from the spirit of my invention. As thus arranged when the cover, B, of the box, A, is closed and the door is shut the latch, F, will, by its hooked overturned edge, *f*, engage the catch, H, and the box will be securely fastened. However, I want to have the box so that it may be opened by the milkman without the use of a key and without opening the door, therefore I would place the bottles to be returned in the box and leave the box cover opened, and when the filled bottles have replaced the empty ones the milkman will close the cover of the box, the spring, of the latch, F, allowing for this proceeding, as the hooked portion, *f*, engages the catch, H, and the box could not then be entered without first opening the door. It may be necessary, however, to arrange for fastening the bottles in the box before they are filled, which may be done by arranging in the box, near the bottom, shelves, Q, Q, between which the necks of the bottles would fit, but the

space being too small to admit the swelled portion R, at the mouth of the bottle, except at about midway between the ends of the shelves, Q, where the opening between them is enlarged as at S, Fig. 2. In this way a bottle, T, may be placed, bottom up, through the opening, S, between the shelves and then moved toward one end of the box, A, when it would be prevented from being removed vertically because of the shelves Q, on each side fitting within the narrow portion of the neck, between the mouth, R, and the belly, U, of the bottle, T, as shown in Fig. 3. For the purpose of locking the bottles, when they are placed, thus empty, in the box I may arrange a lock, shown in Fig. 3, in which the bolt, V, may be thrown, by the tumblers, W, acted upon by a key, not shown, into the mouth of the empty bottle, T, and hold said bottle in such a position that the swelled portion, R, of the neck will be within the narrow portion, between the shelves, Q, Q, as shown in Fig. 3. When I have more than one empty bottle, I may place one of the bottles upright upon the shelves, Q, and I arrange, preferably, a sheet metal cover, Z, hinged at one end which rests upon the top of the bottles, which would prevent one taking out the contents therefrom, provided tickets or money or other articles were placed therein, the empty bottle, T′ being held in position because of the empty bottle, T, being locked between the shelves. When the sheet metal cover, Z, is not in use it will fall down, as shown at the left of Fig. 3.

As shown, it is not necessary to reverse the position of more than one bottle, and it is not necessary to cause the neck of the bottle to pass between the shoulders, Q, Q, except at the one side of the place or entrance, as shown in Fig. 3. The other bottles may stand in the ordinary normal way upon the shelves. When filled bottles are placed in the box, they are stood upon the shelves, Q, Q, without regard for the locking device at the bottom of the box, the swinging covers, Z, Z′, occupying a vertical position in the box when out of use, the cover, B, of the box is closed and the catch, H, engages the latch, F, the box being thus secure against rifling.

I have spoken of bottles, when it is apparent that I may use the box for holding a pitcher, pail or other receptacle, and indeed I may use the box for other purposes, such as for mail, if desired, and I do not, therefore, limit myself in any way to the use to which my invention may be put.

When desired I may extend the lever, L, through the door, D, as shown in Fig. 2, and by dotted lines in Fig. 1, and by means of a hook, L′, I may engage the end of the lever, L, so as to hold it against the resiliency of the spring, N, preventing the cover, B, from being released when the door, D, is opened. This may be particularly useful when the box is a mail box and the door being opened and shut would leave the contents of the box subject to constant scrutiny.

What I claim as my invention and desire to secure by Letters Patent is:

1. In an automatically locking box, adapted to be secured to a swinging door, the combination of a reciprocating locking latch; a catch on the cover of said box; a bolt adapted, when the cover is closed, to move said reciprocating latch in contact with said catch by the closing of the door.

2. In a box, a reciprocating latch; a catch on the cover of the box; a spring arranged to move said latch in one direction; a bolt adapted when the cover is closed to move said latch in the opposite direction, substantially as described.

3. In an automatically locking box, adapted to be secured to a swinging door, the combination of a reciprocating locking latch; a catch on the cover of said box; a bolt adapted, when the cover is closed, to move said reciprocating latch in contact with said catch by the closing of the door and a means on the inside of the door for preventing the unlocking of the box when the door is opened.

4. In a box adapted to be secured to a door; a means for automatically locking said box by the action of the closing of the door; a means for retaining within the box one or more bottles; a swinging cover adapted to be placed over the mouth of one of said bottles; with a means for locking said bottles within the box, substantially as described.

5. In a box; a means for supporting bottles; covers within said box adapted to be placed over the mouths of said bottles; a lock by the operation of which said bottles may be retained in position and displacement of said covers prevented.

6. In a box; a cover for said box; another cover adapted to be placed over the mouth of a bottle; a means for preventing the displacement of said last mentioned cover and the removal of said bottle.

In testimony whereof I have affixed my signature in presence of two witnesses.

FREDERICK C. FEW.

Witnesses:
DUDLEY B. WADE,
LOTTIE PRIOR.