P. W. HODGKINSON.

LOCKING RECEPTACLE.

APPLICATION FILED NOV. 10, 1909.

1,038,583.

Patented Sept. 17, 1912.

2 SHEETS—SHEET 1.

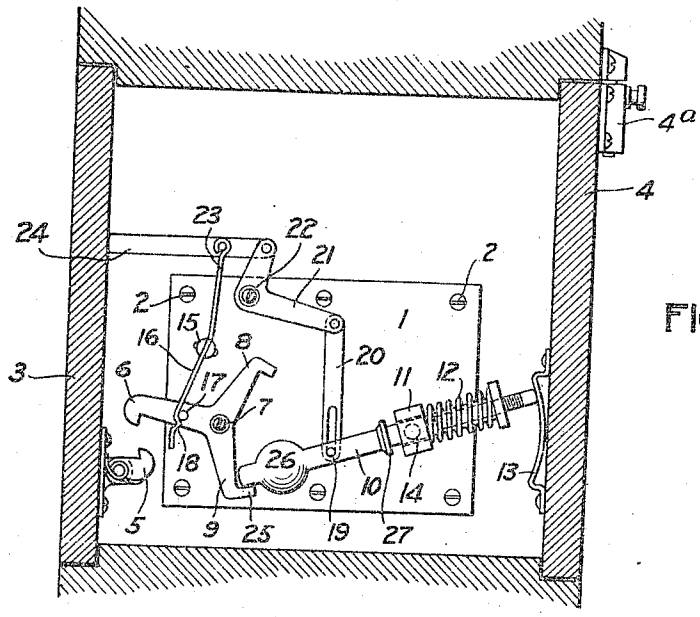


FIG. 1.

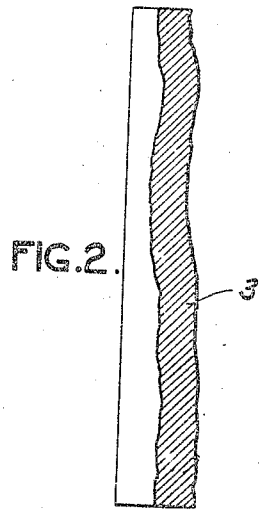
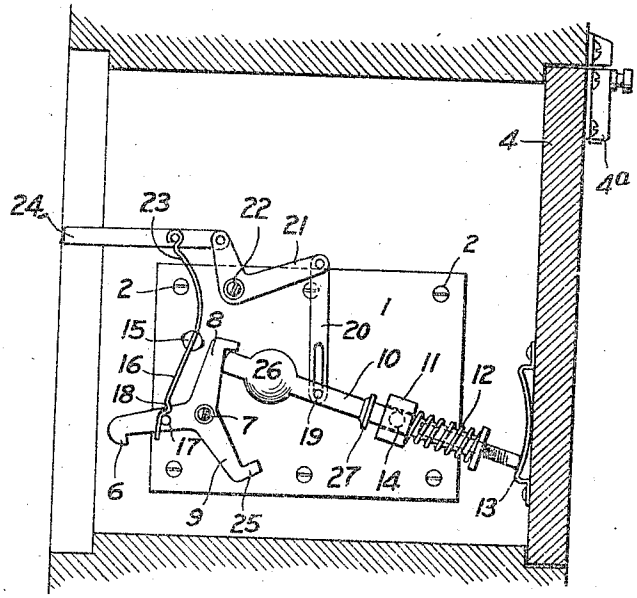


FIG. 2.



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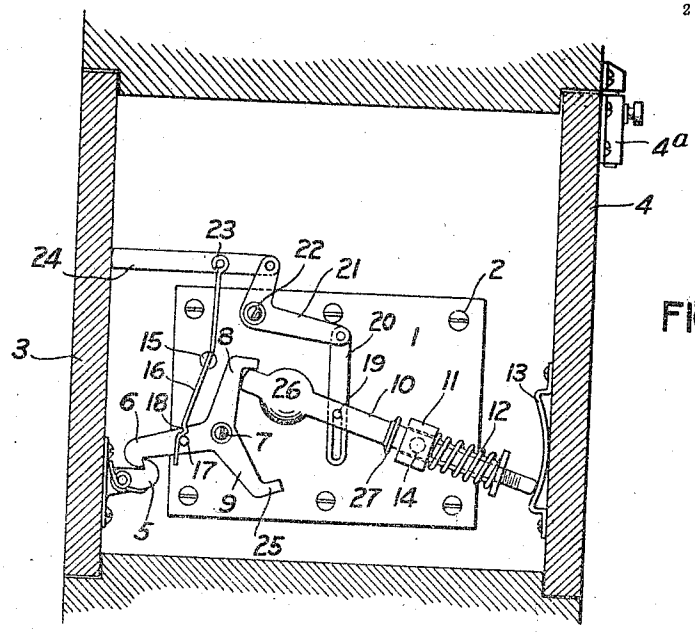

FIG. 3.

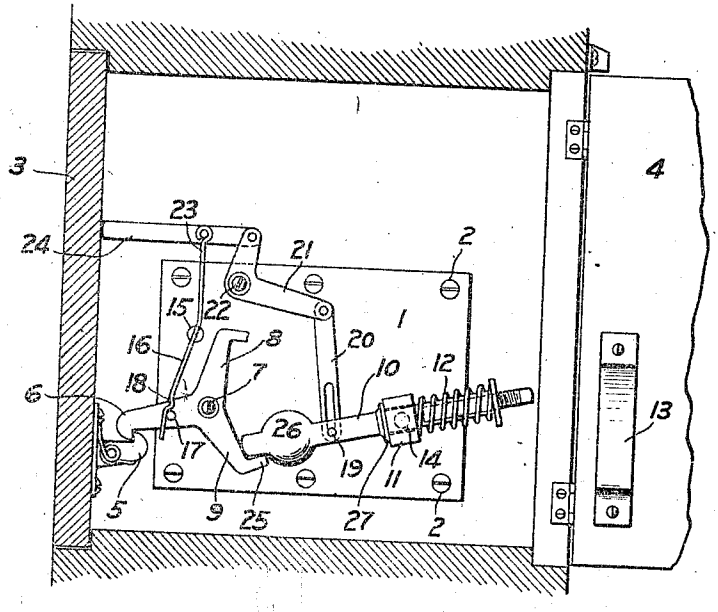

FIG. 4.

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UNITED STATES PATENT OFFICE.

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LOCKING RECEPTACLE.

1,038,583. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed November 10, 1909. Serial No. 527,348.

To all whom it may concern:

Be it known that I, PERCY W. HODGKINSON, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Locking Receptacles, of which the following is a specification.

This invention relates to receptacles or cupboards to which access is gained by oppositely placed doors that open in opposite directions, and the object of the invention is to lock one door automatically and so retain it in its closed position till the other door has been both opened and closed again.

In the drawings: Figure 1 is a vertical section of a cupboard fitted with a lock embodying the invention, with the lock in inoperative position; Fig. 2 is a similar section showing the position of the lock after the outer door has been opened; Fig. 3 is a similar section showing the outer door closed and locked; and Fig. 4 is a similar section with the outer door locked and the inner door open.

The several parts of the lock are represented in the drawings as assembled by attaching them to a plate 1 that in turn is fastened on the inner side of a cupboard or cabinet by screws 2. The cupboard has two oppositely-arranged doors 3 and 4. It is contemplated that this lock will be used in connection with the cupboards that are attached to, or incorporated into, buildings, in different positions, as convenience may dictate, for the reception of packages, like milk bottles, groceries, etc., when delivered at the building, the purpose of the lock being to safeguard the package and save time to the person delivering the package, and to obviate the necessity of immediately removing the package on the part of persons within the building. In such an arrangement the door 4 is arranged to open into the building, and the door 3 to open out-doors.

On the outer door 3 is a spring-pressed latch 5, adapted to be engaged by a keeper that is pivoted on the plate 1 at 7. The keeper has a hooked arm 6 which coöperates with the latch, and two arms 8, 9, that extend upward and downward from the pivot 7, respectively. When the arm 6 is tilted as shown in Fig. 1, the outer door 3 is free to be opened, but when said arm is placed as in Fig. 2, the latch 5 will snap under it as the door closes, and the latter will accordingly be locked shut.

The inner door 4 may be unlocked at all times, but preferably it is provided with some form of snap latch 4^a, so that the door when closed cuts off access to the interior of the building through the cupboard.

The means for operating the keeper consists of a rod 10, that is slidably mounted in a collar 11, and is pressed by a spring 12 up against a plate 13 on the inner side of the inner door 4, when the latter is closed. The collar 11 is pivoted to the plate 1 at 14, so that the rod may swing vertically.

Above the pivot 7 is a stud 15 that constitutes a support for a flat spring 16. The spring bears against a pin 17 on the side of the arm 6, and also has a hump 18 that is adapted to snap either under or over said pin, as the case may be, thereby holding the arm 6 up or down until considerable force has been exerted to turn it about the pivot 7.

On the rod 10 is a pin 19 that projects through a slot in a link 20. This link is hung from one arm of a bell-crank lever 21 that is pivoted on the plate 1 at 22. The other arm of the bell-crank lever is connected to a rod 24 that is pressed against the inner side of the outer door 3, near the edge opposite its hinge, by a spring 23. The latter is shown as integral with the spring 16.

When the parts are positioned as in Fig. 1, the outer door 3 is free to be opened. As said door is swung open the rod 24 is pushed outward by the spring 23, and so tilts the bell-crank lever 21 about its pivot 22. The link 20 is thereby moved upward, and the rod 10, being connected to said link by the pin 19, is swung, together with its guiding collar 11, about the pivot 14 to the position shown in Fig. 2. In moving upward the outer end of the rod 10 engages the inner edge of the arm 8. Inasmuch as the rod 10 cannot move backward, since its inner end bears against the plate 13 on the closed door 4, it follows that the arm 8 is forced outward, and the arm 6 is accordingly depressed sufficiently to engage the latch 5 when the door is closed again. In the downward movement of the arm 6 the hump 18 on the spring 16 snaps over the pin 17, so that it retains said arm in the depressed position. The pressure of the spring 23 is sufficient to cause this movement. When the outer door 3 is again closed, as shown in

Fig. 3, it strikes the end of the rod 24, pushing the latter toward the door 4. Both the bell-crank lever 21 and the link 20 are thus returned to their former positions. The rod 10 keeps its upward position, however, because it is jammed between the inner edge of the arm 8 and the plate 13, which prevents the spring 12 from acting to draw the outer end of the rod away from said arm, but which does not prevent the link 20 from moving downward, because there is a pin-and-slot connection between said parts, as described above. In this position (Fig. 3) the arm 6 is positively retained in engagement with the latch 5, and accordingly the door 3 cannot be opened from without. When the door 4 is opened (see Fig. 4), the plate 13 is moved away from the inner end of the rod 10, and this permits the spring 12 to carry the rod 10 away from the arm 8, till its outer end drops down and stops against a lip 25 on the lower end of the arm 9 (Fig. 4). A weight 26 on the rod 10 near its end aids the movement thereof. A stop 27 is provided to limit the movement imparted to the rod 10 by the spring 12 by coming into contact with the collar 14. When the parts are in the positions last described (see Fig. 4), the plate 13 will strike the inner end of the rod 10, when the door 4 is closed, and will move it outward through the collar 11, and cause its outer end to strike the arm 9. This movement raises the arm 6, and the outer door 3 is thus released and may be opened from outside.

What I claim is:—

1. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms and pivoted within the box and having on one arm a hook adapted to engage the latch, and an unlocking device movably supported within the cupboard and adapted, in one position, to be moved by the inner door, in closing, to engage a second arm of the lever and thereby swing the lever to disengage the hook from the latch; substantially as shown and described.

2. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms, pivoted within the receptacle and carrying on one arm a hook adapted to engage the latch, an unlocking device adapted to engage one arm of said lever to disengage said lever from the latch and to engage another arm to set said lever in position to engage the latch, the unlocking device receiving its impulse from the movement of one door for one of said operations and controlled by the other door with respect to the other said operation; substantially as shown and described.

3. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms, pivoted within the receptacle and carrying on one arm a hook adapted to engage the latch, an unlocking device pivotally supported within the receptacle movable to and from said lever and adapted, in one angular position, to be moved longitudinally against said lever by the movement of the inner door and thereby to operate said lever in one direction, and also adapted to engage said lever when swung about its pivotal support to operate said lever in the opposite direction; and means controlled by the outer door for causing said unlocking device to operate the lever as last described; substantially as shown and described.

4. The combination, with a cupboard having an outer door and an inner door, the outer door carrying a latch, of a lever having a plurality of arms, pivoted within the cupboard and carrying on one arm a hook adapted to engage the latch, a spring-controlled unlocking device pivotally supported within the receptacle and adapted, in one angular position, to be moved longitudinally, against the resistance of its spring, by the inner door, to operate said lever in one direction, and also adapted to engage said lever, when swung about its pivotal support, to operate said lever in the opposite direction; and means controlled by the outer door for causing said unlocking device to swing and so to operate the lever as last described; substantially as shown and described.

PERCY W. HODGKINSON.

Witnesses:
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L. THON.