No. 679,337. Patented July 30, 1901.

O. A. REYNOLDS.

LOCKING MEANS.

(Application filed June 11, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

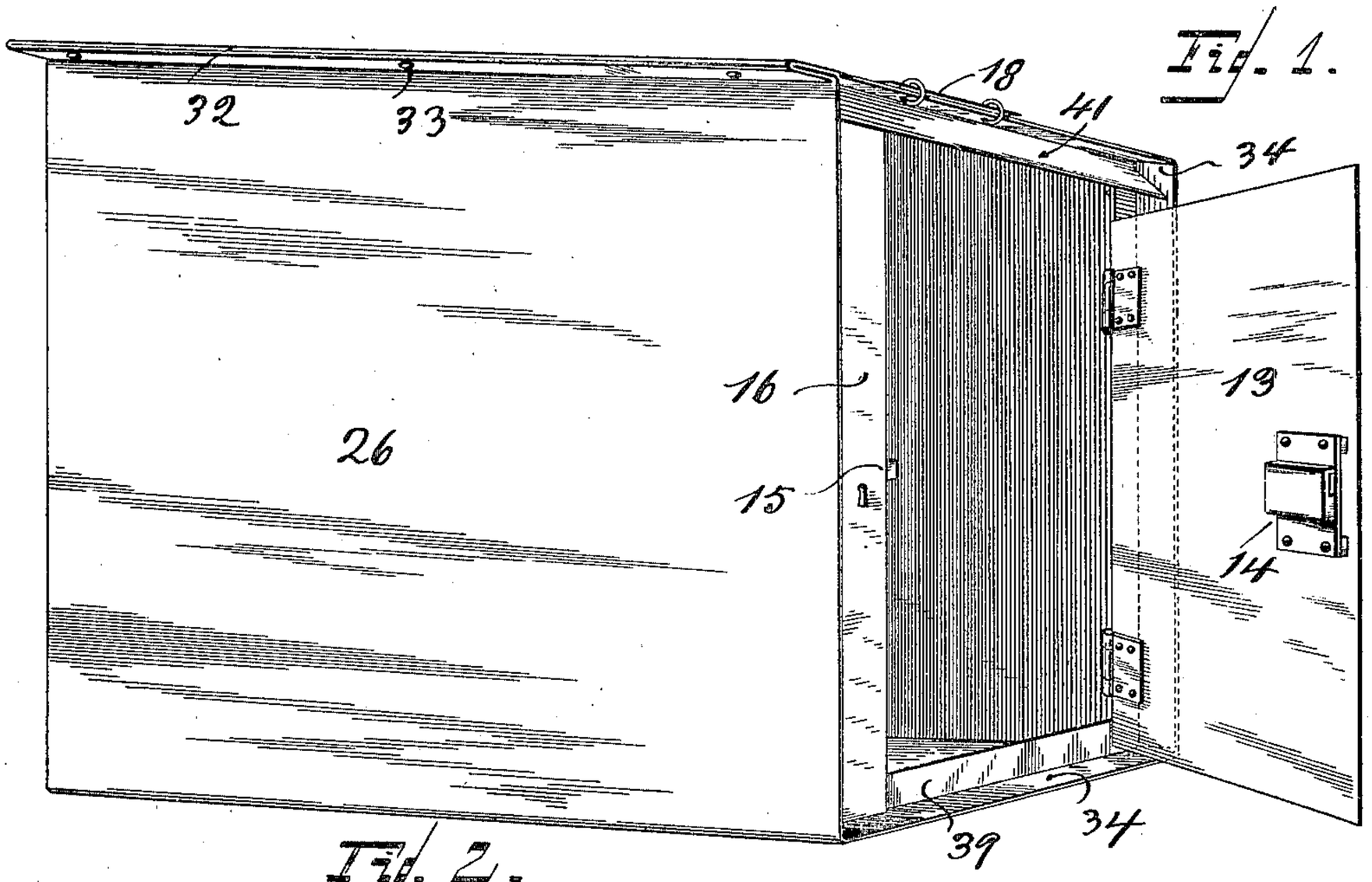

Fig. 2.

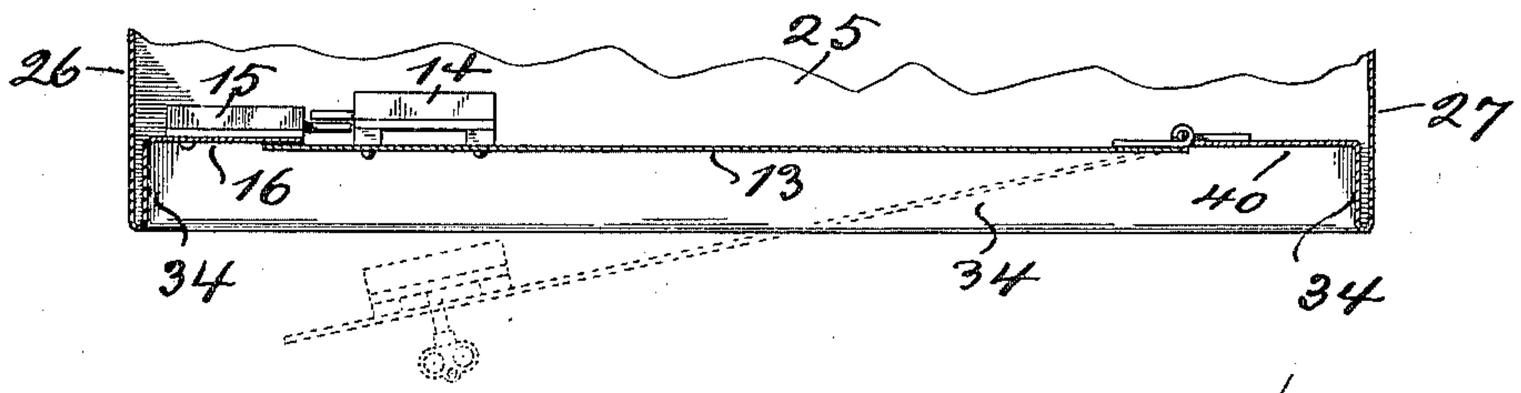

Fig. 4. Fig. 6.

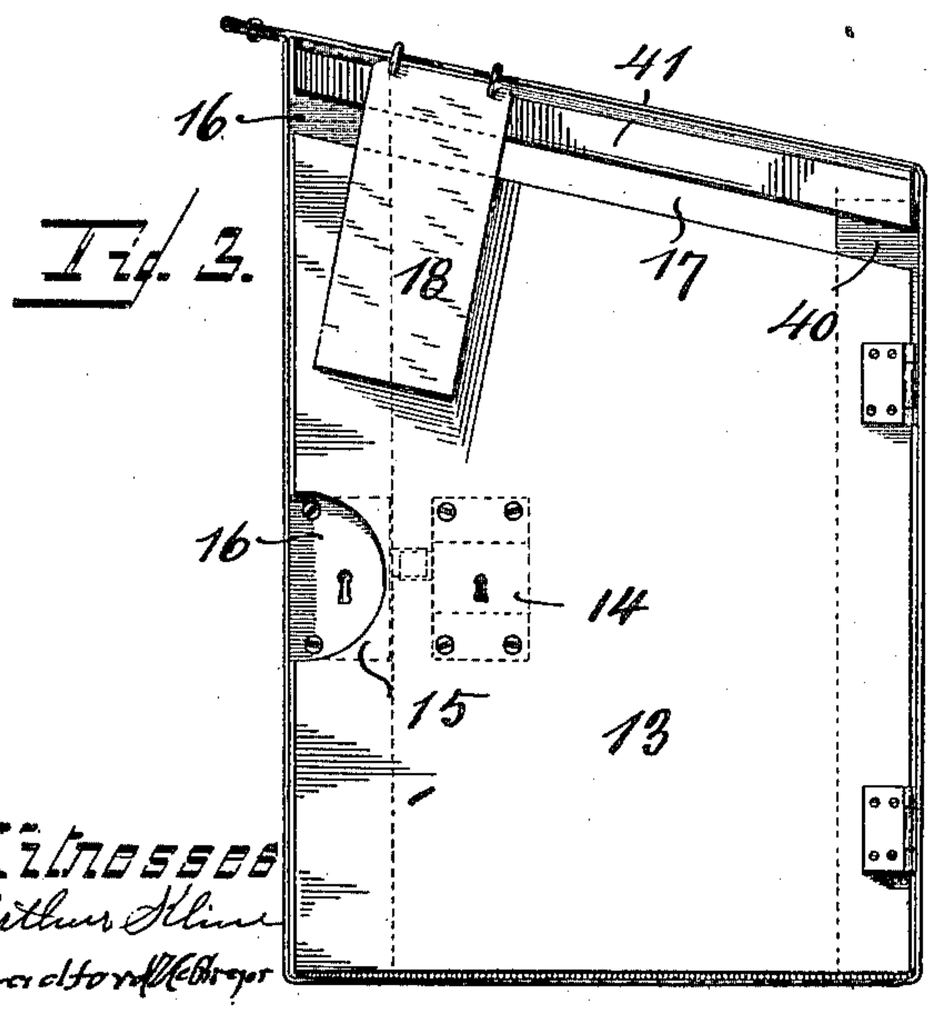

Fig. 3.

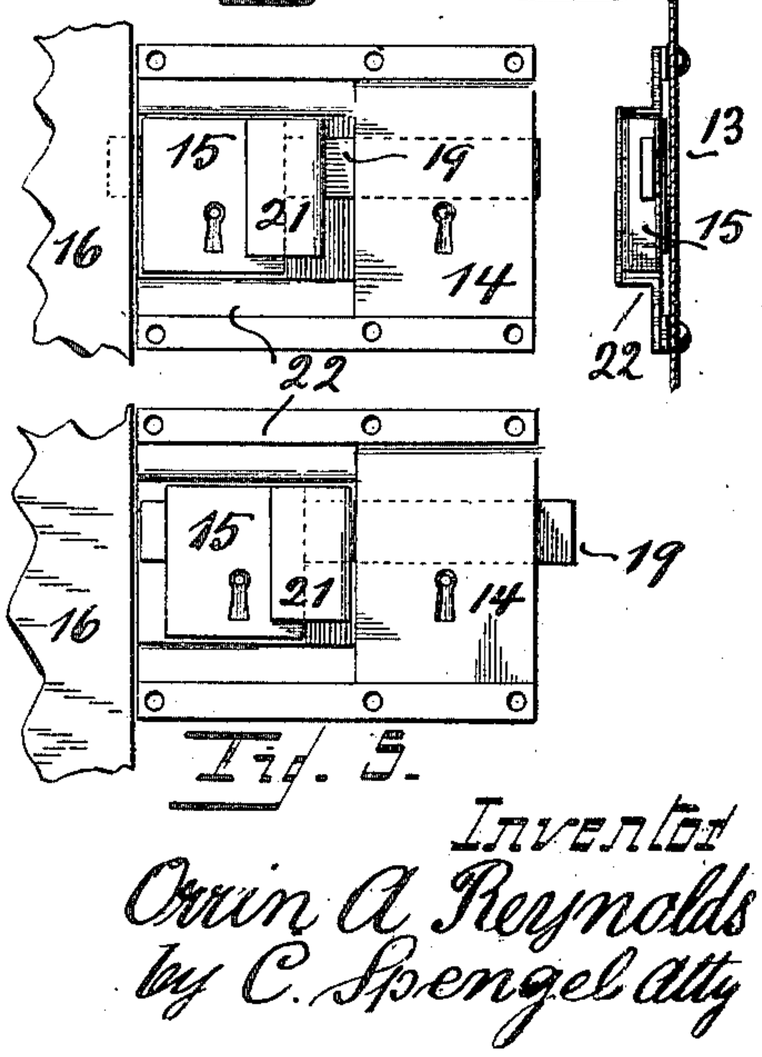

Fig. 5.

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(No Model.) 2 Sheets—Sheet 2.

Fig. 7.

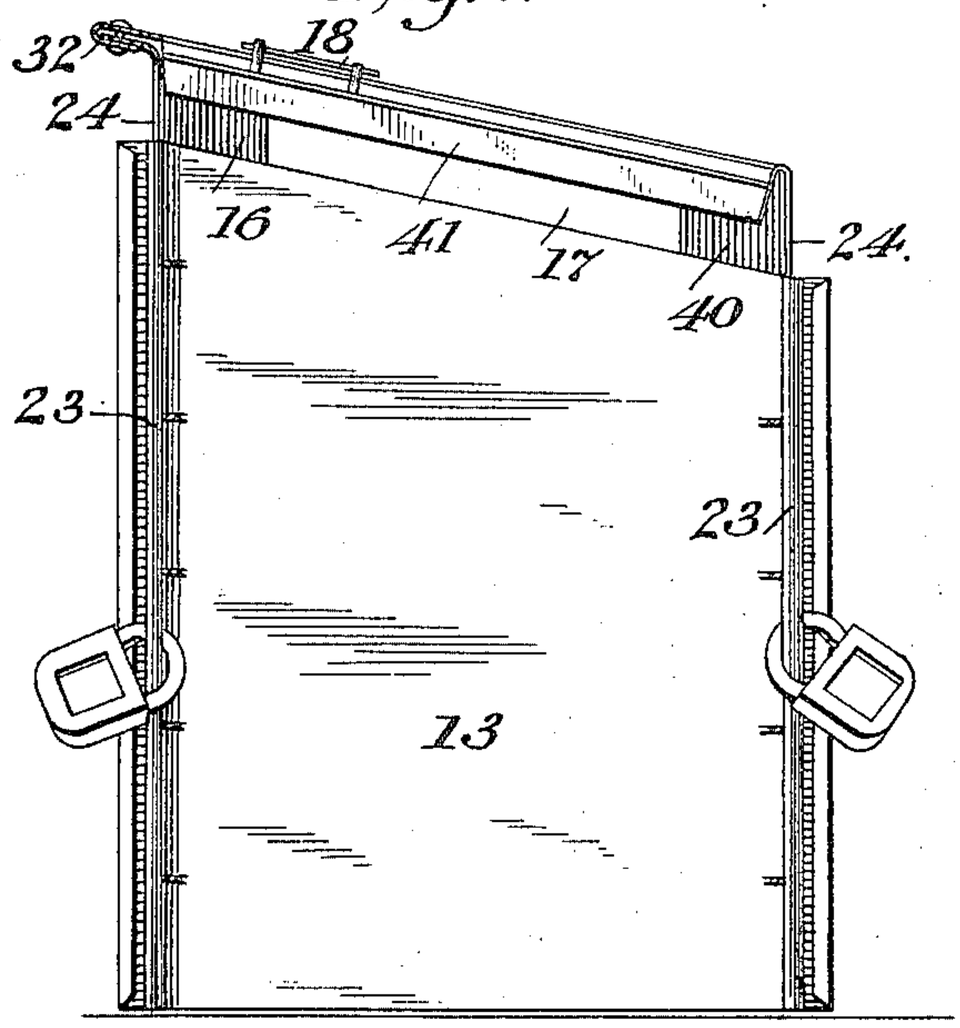


Fig. 8.

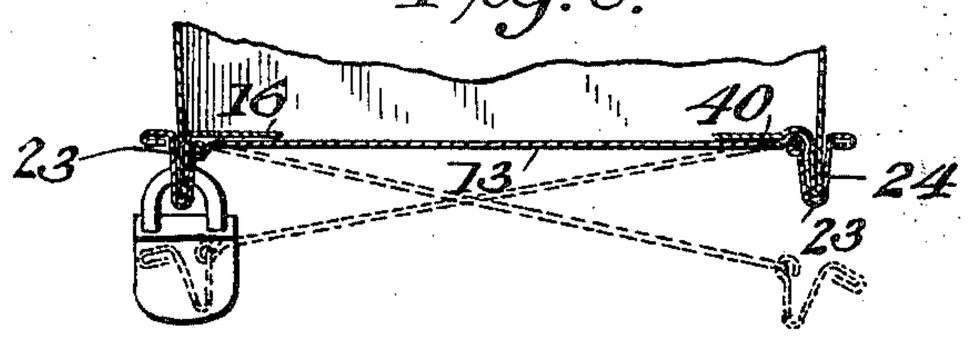
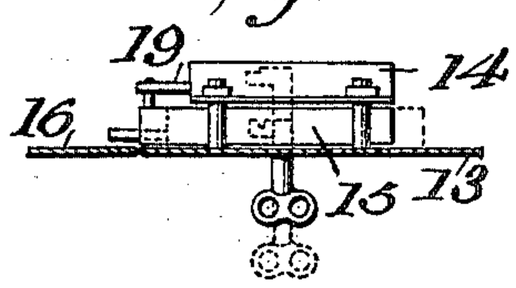


Fig. 9.



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UNITED STATES PATENT OFFICE.

ORRIN A. REYNOLDS, OF COVINGTON, KENTUCKY.

LOCKING MEANS.

SPECIFICATION forming part of Letters Patent No. 679,337, dated July 30, 1901.

Application filed June 11, 1900. Serial No. 19,825. (No model.)

To all whom it may concern:

Be it known that I, ORRIN A. REYNOLDS, a citizen of the United States, and a resident of Covington, Kenton county, State of Kentucky, have invented certain new and useful Locking Means; and I do declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying two sheets of drawings, with the reference-numerals marked thereon, which form also a part of this specification.

This invention relates to locking means for holding a door in its closed position, the arrangement and construction of these means being such that of two persons each holding a key either may have access by being able to unlock the door, which ability as to one person is, however, limited to one particular door only, while the other person may open any or all of a certain number of doors.

One of the uses to which my invention may be put is in connection with mail-boxes for free delivery, particularly in rural districts, where there are a number of individual boxes to be used for receiving mail intended to be sent, which mail so deposited is collected by the mail-carrier, who in turn leaves in each box the mail intended for the particular person. Since a carrier is to have access to all the boxes on a particular circuit for the purpose of collecting mail, it is subserving the ends of simplicity and cheapness to have the arrangement so that one key carried by him gives access to all the boxes on his route. As to the individual box-holder, however, such universal access is not desirable and such access must therefore be restricted so that each of these persons has only access to his own box, but is excluded from all the others.

The object of my invention is, therefore, to provide locking means which operate in the manner indicated; and it consists for such purpose of devices arranged, used, and operating all as described in the annexed specification and pointed out in the claims following it. The construction of these devices is also illustrated in the accompanying drawings, in which—

Figure 1 shows a mail-box of customary shape provided with one of the forms of my invention. Fig. 2 is an enlarged horizontal section of one end thereof, the line of section passing through the door above the locks thereon. Fig. 3 is an end view of Fig. 1, showing the box closed and the door locked, the construction being slightly changed in some minor points. Figs. 4 and 5 are elevations of another form of locking means, but operating in the same manner and for the same purpose, said means being shown as they would appear when looking at them from the outside of the door to which they are connected, said door being removed, however. Fig. 6 is an end view of Fig. 4. Fig. 7 in an end elevation of a box shows a third form of the locking means provided by my invention and also operating for the same purpose. Fig. 8 is a horizontal section of the preceding figure. Fig. 9 in a top view shows a modification of the locking means as shown in Figs. 4, 5, and 6 and also operating in the same manner and for the same purpose.

13 is the door of the mail-box, hingedly secured to the latter. I use two locks, of which in the form of my invention shown in Figs. 1, 2, and 3 one, 14, is carried by the door and the other, 15, is carried by a flange 16, formed around the door-opening of the box or by such parts at the end thereat acting as a jamb and against which the door abuts when closed. These locks are so located that the bolt of one is capable of acting as a stop or keeper for the other one when in its locking (that is, projecting) position, from which it follows that if either one of these bolts is retracted by means of a key the door may be opened. One only of the bolts can be moved by the particular key, and since only one is moved at the time it also follows that the other bolt remains in its proper position, in which it operates again in conjunction with the other bolt for the purpose of locking the door after the same is closed. It is immaterial which one of the locks is operated by the carrier; but whatever one is selected it should be the same in all boxes, as promoting convenience and saving of time. It is here suggested as preferable that the first keyhole from the left be the one used by the carrier.

The construction shown in Fig. 3 is modified as against the construction shown in the preceding figures merely as to the width of

the door and the position of the hinges. Where letters are to be merely dropped in either by the carrier for the owner of the box or by the latter for the carrier to be collected, it is of course unnecessary to open the door at all and such letters are passed in through an opening 17, provided in one side or end of the box. A preferable way of providing this opening is by reducing the height of the door with reference to the opening it is intended to close.

Only for removal of mail from the box does it become necessary to open the door, and to obviate such when not necessary a signal may be provided whereby either to the other, the carrier to the box-owner, and vice versa, indicates the presence of mail within. Such a signal may consist of a flap 18, hinged so as to hang down in front of opening 17, and if there is any mail dropped in such may be indicated by changing its position, for instance, to one as shown in Fig. 1.

In the form of my invention shown in Figs. 4, 5, and 6, also operating in the same manner and for the same purpose, the two locks 14 and 15 are connected to the door, and the construction is modified to the extent that one lock is connected to and carried by the bolt of the other one. In this case lock 15 is connected to bolt 19 of lock 14 in any suitable manner—as, for instance, by an intermediate plate 21. In Fig. 4 the position of the parts is shown when unlocked by one of the persons—for instance, the carrier, he having used lock 15, of which he has retracted the bolt. After locking the same again the bolt assumes a position as shown in dotted lines, being behind flange or jamb 16. The owner of the box, who uses lock 14, retracts the bolt of lock 15 by moving the latter bodily, rendered possible by reason of its connection to the bolt of the former lock. For purposes of such movement lock 15 is contained in a casing 22, within which it is guided. The connection of the two locks in this case might also be accomplished by having one continual bolt passing through the two lock mechanisms.

As shown in Figs. 7 and 8, my invention is arranged to permit the use of padlocks, but operate otherwise for the same object. For such purpose I provide at each of the upright edges of the door channeled strips 23, which are hingedly secured to these edges. These strips with their open part fit closely over the corresponding upright edges 24 at the ends of the long sides of the box. There are openings, all registering, one near each of each edge 24 and one in each of the two members of each of strips 23, which latter close over these edges and through all of which three openings the bail of the padlock passes. If one of these latter is unlocked and removed, the door may be opened from that corresponding side, it swinging then on the other one of strips 23, which is held in place on the other edge 24, which it engages by means of the other padlock. In this case, all parts of the box being of sheet metal, the hinges are formed by parts of the door and of strips 23, which parts are shaped and curled accordingly to form the barrels for such hinges.

The form of locking means shown in Figs. 4, 5, and 6, where one lock moves the other bodily, might be modified in this way, that instead of having the locks in line edgewise one behind the other they might be arranged and connected as to be flatwise behind each other, as shown in Fig. 9. In this case one keyhole will receive the two keys, the one for the inner lock entering correspondingly deeper.

If my locking means are used in connection with a mail-box, such box may be constructed of any suitable material and in any suitable manner.

Having described my invention, I claim as new—

1. In closing means for the purpose described, the combination of a door, two key-operated locks each so placed as to be capable of locking or unlocking the door and a keyhole for each lock accessible from the outside of the door only.

2. In closing means for the purpose described, the combination of a door, two key-operated locks, each so placed as to be capable of locking or unlocking the door, a keyhole for each lock, accessible from the outside of the door only and a key specially fitted to each lock and not operative in the other.

3. In closing means for the purpose described, the combination of a door, a key-operated lock thereon, an additional key-operated lock attached in a stationary position and the bolt of which when in its operative or projecting position is adapted to act as a keeper for the lock on the door, a keyhole for each lock both accessible from one side of the door only, and a key specially fitted to each lock and not operative in the other lock.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ORRIN A. REYNOLDS.

Witnesses:
C. SPENGEL,
ARTHUR KLINE.