No. 706,843. Patented Aug. 12, 1902.

W. N. MOORE.

MAIL BOX.

(Application filed Nov. 4, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

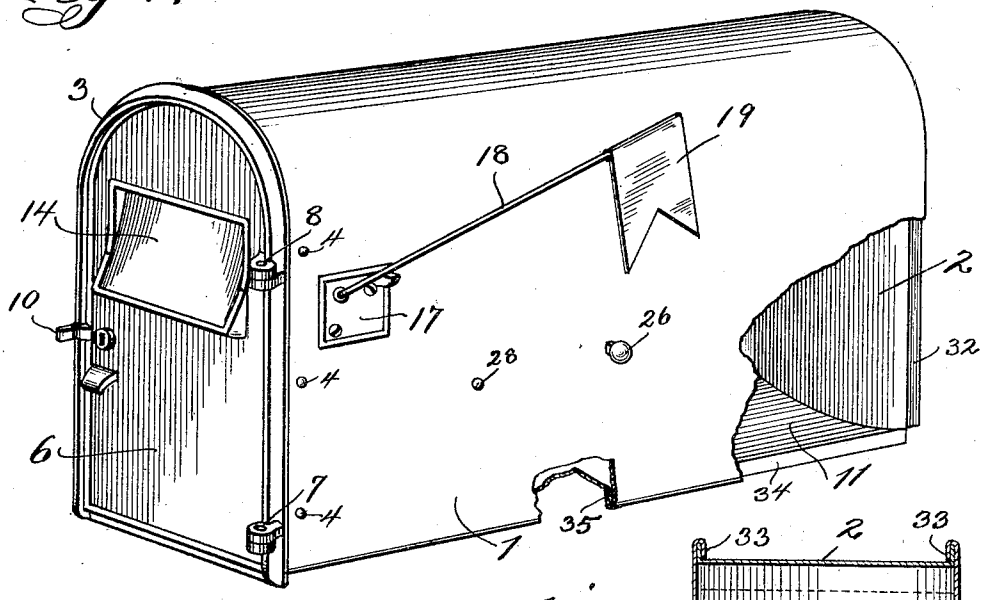


Fig. 2.

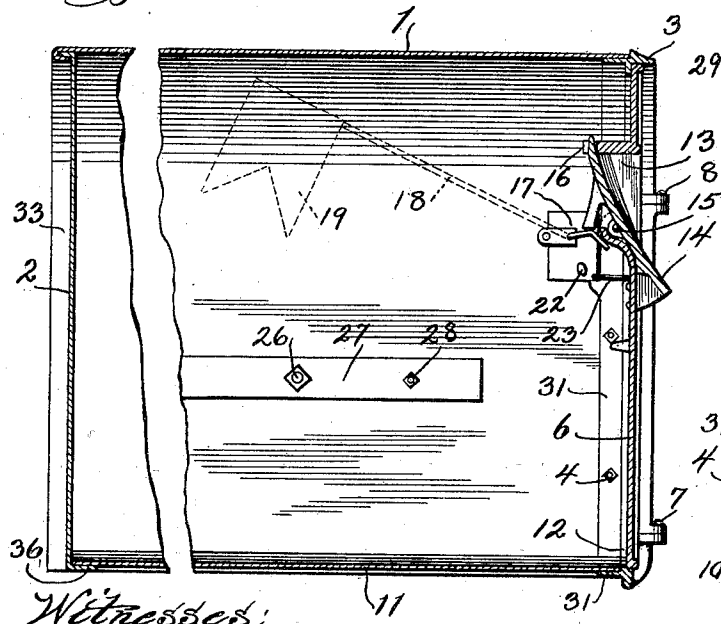
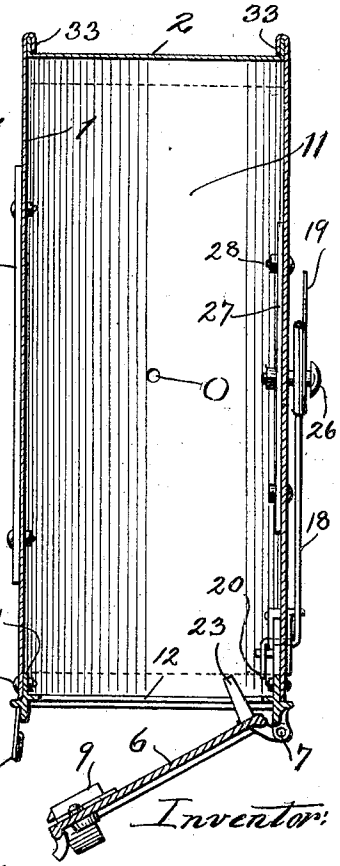


Fig. 3.



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No. 706,843. Patented Aug. 12, 1902.

W. N. MOORE.

MAIL BOX.

(Application filed Nov. 4, 1901.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 5.

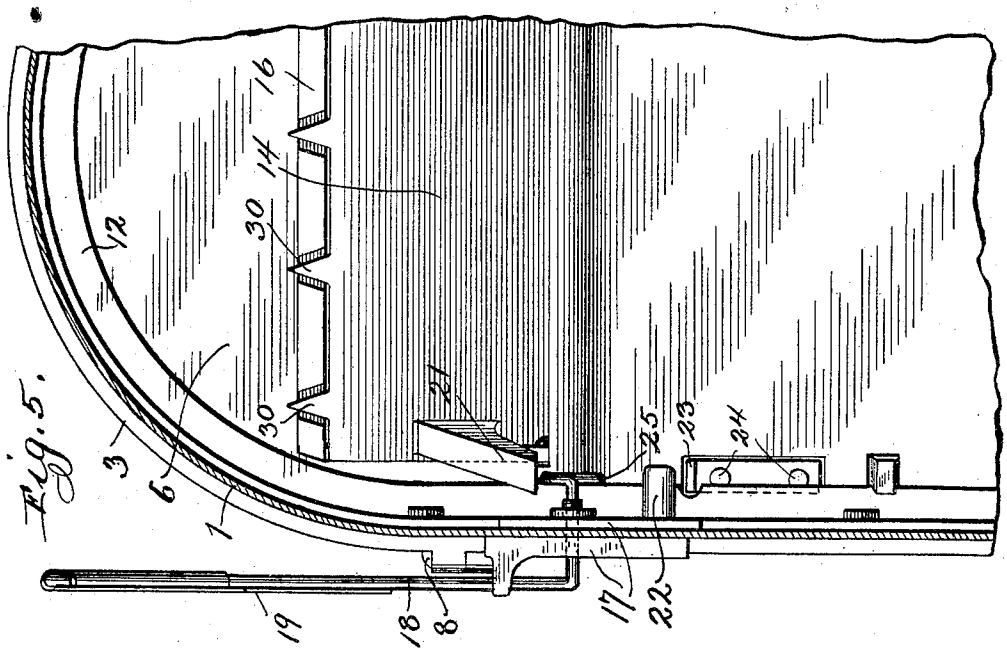
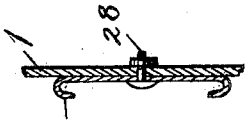


Fig. 6.



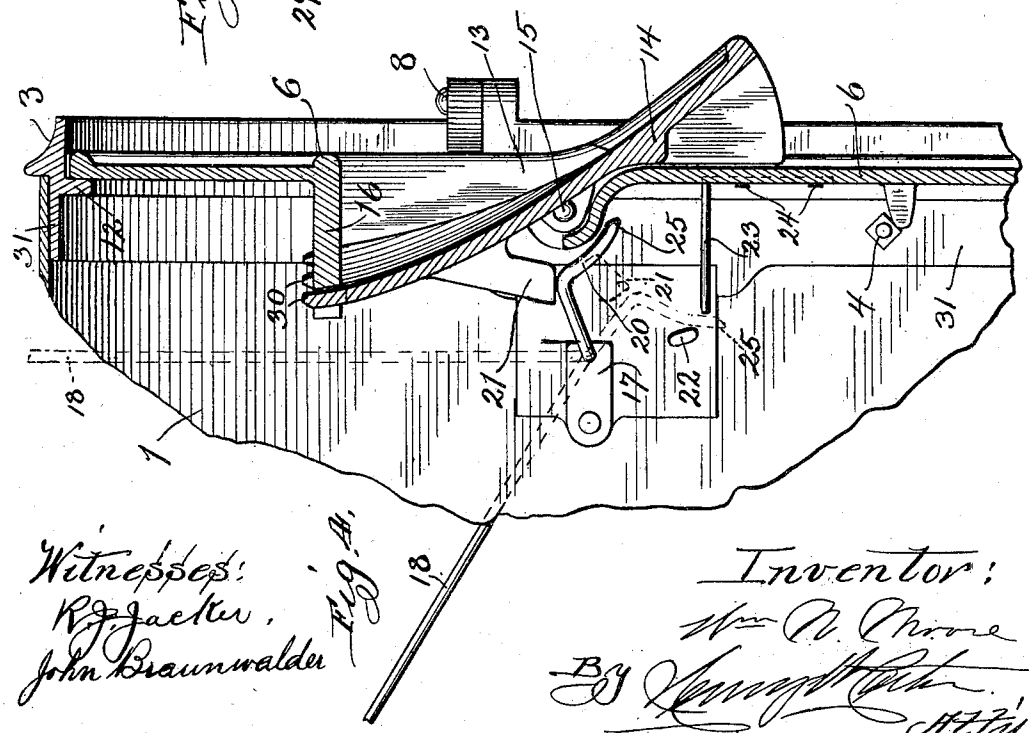


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM N. MOORE, OF JOLIET, ILLINOIS.

MAIL-BOX.

SPECIFICATION forming part of Letters Patent No. 706,843, dated August 12, 1902.

Application filed November 4, 1901. Serial No. 80,996. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. MOORE, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Mail-Boxes, of which the following is a specification.

This invention relates to improvements in mail-boxes, and while not in all respects confined thereto more particularly contemplates improvements in signal mail-boxes of that class in which the act of introducing postal matter into the box operates to display a signal indicative of the fact that the box contains matter to be collected or removed, mail-boxes of this character being more particularly designed for use in rural districts, where the boxes must frequently be placed at some distance from the regular lines of travel.

The object of the invention is to provide an improved construction in mail-boxes; and it consists in the matters herein set forth, and particularly pointed out in the appended claims.

Figure 1 is a perspective view of a signal mail-box provided with my improvements. Fig. 2 is a longitudinal section thereof. Fig. 3 is a top plan section thereof. Fig. 4 is an enlarged detail showing a side view of the signal mechanism. Fig. 5 is a similar detail in end elevation. Fig. 6 is a sectional detail of the card-plate.

The body portion 1 and rear end wall 2 of the mail-box thus illustrated will desirably be made of sheet metal and shaped to conform to the outline of a cast-iron door-frame 3, which is secured within the front end of the box-body by rivets or bolts 4. A door 6 is hinged at 7 and 8 within the door-frame and is provided with a suitable lock 9, which enables the box to be closed against all but authorized persons provided with proper keys. A spring-latch 10 is also desirably provided for keeping the door normally shut when unlocked. The bottom 11 of the box is herein shown as longitudinally concaved and terminates at its front end flush with the sill 12 of the door, so as to form a smooth path on which any matter within the box may be readily slid out through the door-opening.

A slot 13 in the door provides for the introduction of mail-matter when the door is closed, and this slot is guarded by a swinging shutter or flap 14, the ends of which are pivoted or hinged to the door at 15. Extending through the side of the box and through reinforcing-plates 17 thereon at a point just within the door and about on a level with the pivots of this shutter is a signal-lever 18, the outer end of which is bent parallel with the side of the box and carries any suitable target or signal device 19, while its inner end is also bent parallel with the side of the box and projects into close proximity with the door, where it terminates in a downwardly and outwardly bent end 20. This latter is adapted to be engaged in the closed position of the door by an arm 21, secured to and preferably cast integral with the shutter 14, said arm serving to press down the inner end of the signal-lever, and thus elevate the flag, whenever the shutter or flap 14 is oscillated. A stop 22 limits the movement of the signal-lever when thus oscillated, and just before it strikes this stop the inner extremity of the lever is forced past a yielding latch 23, which is secured to the door, and this prevents the lever from returning or falling to its normal position and the signal from being lowered again when thus once oscillated until after the door is opened, no matter how often the shutter may be oscillated in the meantime. As herein shown, the latch 23 is made in the form of a spring-arm which is rigidly secured to the door by rivets 24 or otherwise, and the end of the signal simply presses down this arm and snaps by it when depressed by the opening of the shutter. As a further improvement also and to relieve the shutter from any frictional engagement with the arm after the latter has passed the spring-latch 23 the tip 25 of the inner end of the signal-lever is beveled off, as shown, so that the springing up of the latch against this beveled tip as the latter is forced past the latch will serve to give an additional impulse tending to throw the signal into position. This will thereby carry the inner end of the lever forward and clear of the shutter-arm 21, as shown in dotted lines in Fig. 4, and leave the shutter free to oscillate thereafter without further interference with the signal until the door is opened and closed again.

The operation of the device will be readily

understood from the foregoing description. When the door is closed, any raising of the shutter 14 will force the signal up into position, where it will be visible for considerable distances and will serve to attract the attention of the postman or of the householder who is using the box to the fact that the shutter has been operated, presumably for the insertion of mail-matter to be delivered or collected. The signal will then remain locked in its elevated position until the door is opened, whereupon the latch 23 will be withdrawn from the end of the signal-lever and permit the latter to drop back into its normal lowered and invisible position behind the box, Figs. 1 and 3.

In its details of construction the box may be varied and altered as deemed necessary or desirable, and the separate improvements may be used either independently or in conjunction, as herein shown. Suitable fastening devices for securing the box to any appropriate support (not herein illustrated) will be provided, a fastening-bolt 26 being in this instance shown as passed through the side of the box into a reinforcing-strip 27, that is secured to the sheet-metal wall by bolts 28 or otherwise. Holes for these bolts 26 and 28 are shown in both side walls, and the fastening may thus be transferred to either side of the box as described. Moreover, such holes in the side opposite that chosen for the fastening are herein shown as utilized for securing to the exterior of the box a card plate or receiver 29, within which may be inserted the name of the householder or any desired designation for the box. This card-plate may be interchanged with the fastening devices whenever it is necessary to shift the latter from one side of the box to the other.

The shutter 14 herein shown is peculiar in that it is arranged to have the mail thrust in above instead of beneath it, the pivots 15 of the shutter being located at the lower margin of the slot 13 and the upper portion of the shutter being extended up into the box through the slot far enough to normally close against a flange 16, formed on the inside of the cover along the upper margin of the slot. This flange is shown as notched at intervals, and the upper edge of the shutter is provided with points or teeth 30, which normally enter these notches, but which when the shutter is open tend to catch and prevent the withdrawal of any object or matter once thrust through it. The lower and exterior portion of the shutter forms in this case a handle by which it may be swung open, as well as a weight to counterbalance its upper portion and maintain it normally closed. Ordinarily, however, it will be unnecessary to use such handle, since one of the great advantages of this construction is that the shutter may be opened merely by the thrusting of the mail-matter into the slot 13 and against its upper portion, which will readily swing back to admit the mail and then automatically close again when the pressure against it is relieved, thus requiring the use of only one hand in the operation instead of two, as is the case with drop-shutters ordinarily employed.

Owing to the concave shape of the bottom of the box, any water which may beat in during stormy weather will collect along the middle of the bottom and drain off through a suitable opening or openings O, provided therein, and the pieces of mail resting upon the bottom will ordinarily bridge over, as it were, the hollow, and thus be kept from serious wetting.

As herein shown, the body 1 of the box is composed of a single sheet of metal, which is arched over to form side and top walls. The shape of this arch is maintained at the front end of the box by a flange 31 on the door-frame, which projects into the arch, and through which pass the fastening bolts or rivets 4. The rear end wall 2 is made of the same shape as the door-frame and is formed along its side and top edges with an outwardly-projecting flange 32, around which the corresponding edges 33 of the body are tightly folded, Figs. 2 and 3. Similarly the side edges 34 of the bottom 11 of the box are flanged downwardly and the lower edges of the side walls are folded tightly up around the flanges 34, as shown at 35. The rear end of the bottom rests upon an inwardly-projecting flange 36 of the rear wall 2, while its front end rests upon the flange 31 of the door-frame, and the several walls of the box are thus thoroughly interlocked and the entire structure made of great rigidity at a minimum of cost.

I claim as my invention—

1. In a mail-box provided with a door and mail-receiving slot, a shutter normally closing said slot, a signal-lever mounted with its inner end in proximity to the shutter, a part on the shutter for moving the lever to display the signal when the shutter is opened, and a latch carried by and swinging with the door and adapted to engage the lever when oscillated by the shutter to lock it in signaling position until the door is opened, substantially as described.

2. In a mail-box provided with a door and mail-receiving slot, a shutter normally closing said slot, a signal-lever mounted with its inner end in proximity to said shutter, a part on the shutter for moving the lever to display the signal when the shutter is opened, a spring-latch carried by and swinging with the door and engaging the lever when oscillated by the shutter to lock it in signaling position until the door is opened, substantially as described.

3. In a mail-box provided with a door and mail-receiving slot, a shutter normally closing said slot, a signal-lever mounted with its inner end in proximity with said shutter, a part on the shutter for moving the lever to display the signal when the shutter is opened, a spring-latch carried by and swinging with

the door and engaging the lever when oscillated by the shutter to lock in signaling position until the door is opened, said spring coacting with the tip of the lever to snap the lever away from engagement with the shutter and leave the latter free to swing, substantially as described.

4. In a mail-box provided with a door and mail-receiving slot, a shutter normally closing the slot and pivoted near the lower margin thereof with its upper portion projecting through the slot into the box and its lower portion exterior thereto, a signal-lever mounted with its inner end in proximity to the shutter, a part on the shutter for moving the lever to display the signal when the shutter is opened, and a latch carried by and swinging with the door for locking the lever in signaling position while the door is closed, substantially as described.

5. A mail-box provided with a fastening device consisting of a bolt passing through a hole in the wall of the box and through a reinforcing-strip therein, bolts passing through holes in the wall of the box to secure the reinforcing-strip in place, similar bolt-holes on the opposite side of the box, and a card-plate bolted to the opposite wall of the box, through said holes and interchangeable with the fastening device, substantially as described.

6. A mail-box comprising a bottom wall, a rear end wall, top and side walls folded around an outwardly-projecting flange of the end wall and around downwardly-projecting flanges of the bottom wall, and a door and frame secured in the front end of the box, the ends of the bottom resting on inwardly-projecting flanges of the rear wall and door-frame, substantially as described.

7. A mail-box provided with a mail-receiving slot, a shutter pivoted near the lower margin of the slot with its upper portion normally closing the slot from within but adapted to be pressed back to disclose an opening above the shutter through which mail may be introduced into the box, the lower portion of the shutter projecting through the slot out of the box and normally overbalancing its upper portion to hold it in closed position and being cut away behind its lower edge to form a handle, and the outer or exposed face of the shutter being a smooth uninterrupted and substantially plane surface, the upper edge of the shutter and adjacent wall of the box being provided with interfitting projections and recesses, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two subscribing witnesses.

WILLIAM N. MOORE.

Witnesses:
HENRY W. CARTER,
R. A. COSTELLO.