No. 707,554. Patented Aug. 26, 1902.

# J. E. COURSEN.

## LETTER BOX.

(Application filed Dec. 7, 1901.

(No Model.)

Fig. 1.

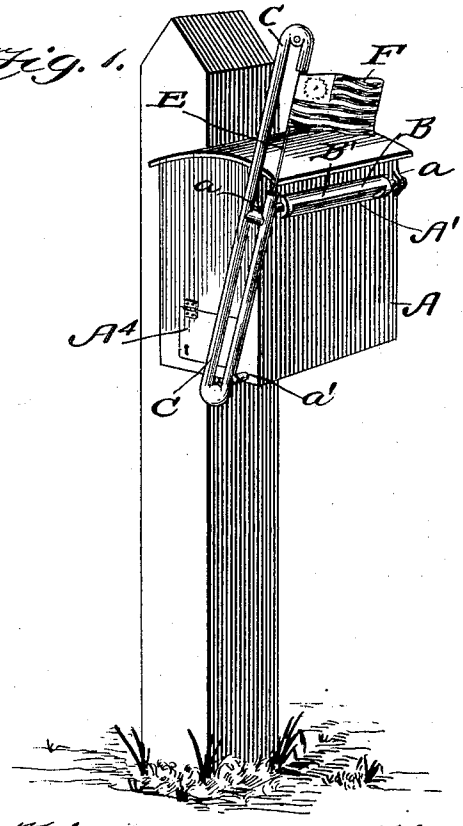



Fig. 2

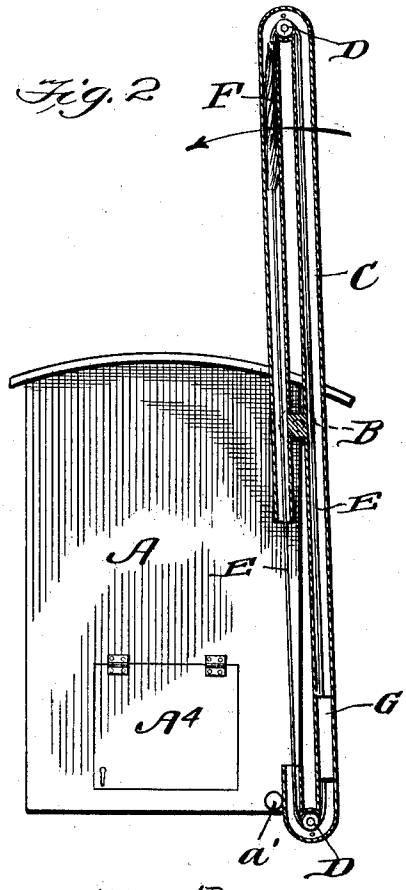



Fig. 3.

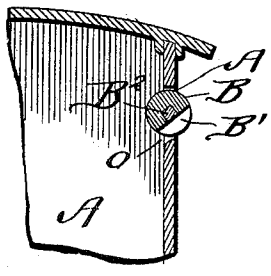



Fig. 4.

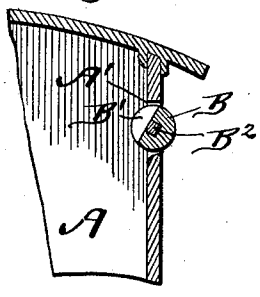



Fig. 5.

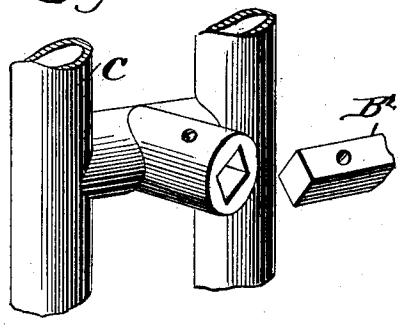



Fig. 6.

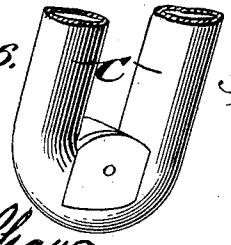
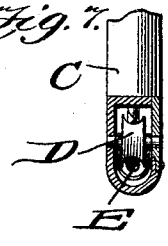



Fig. 7.




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# UNITED STATES PATENT OFFICE.

JACOB E. COURSEN, OF WILMINGTON, DELAWARE.

## LETTER-BOX.

SPECIFICATION forming part of Letters Patent No. 707,554, dated August 26, 1902.

Application filed December 7, 1901. Serial No. 85,026. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB E. COURSEN, a citizen of the United States, residing at Wilmington, in the county of Newcastle and State of Delaware, have invented a new and useful Letter-Box, of which the following is a specification.

This invention is an improvement in letter-boxes, and relates particularly to signal-carrying boxes for use in rural districts; and the object of my invention is to provide an arrangement whereby the signal is positively displayed when mail is deposited and withdrawn when the mail is removed.

With these and other objects in view my invention consists in certain peculiar features of construction and novelties of combination, as will be fully described in the following specification, and pointed out in the claims, reference being had to the drawings, in which—

Figure 1 is a perspective view showing the practical application of my invention. Fig. 2 is a side view of the same, showing a different position of the signal-carrying arm. Fig. 3 is a detail sectional view taken through the opening through which the mail is deposited. Fig. 4 is a similar view showing the arrangement for closing the opening. Fig. 5 is a detail view showing the manner of connecting the signal-carrying arm to the shaft of the cylinder which operates in the opening. Figs. 6 and 7 are detail views of construction hereinafter referred to.

In carrying out my invention I employ a box A, which may be made of any suitable size and construction and having a slot A′ arranged in the front face thereof near the top, in which is adapted to operate a cylinder B, that has one portion of its periphery cut away, as shown at B′. This cylinder is constructed with a non-circular bore, in which is adapted to fit a correspondingly-shaped shaft $B^2$, that is slidably journaled in lugs *a*, formed on the front of the box, and at the opposite ends of the slot this shaft has a head formed upon one end, and to its opposite end is connected a link-shaped tubular arm C, that has one portion thereof cut away, as clearly shown in Figs. 1 and 2 of the drawings. In the ends of this arm are journaled rollers D, around which is adapted to pass an endless cord or tape E, to which is secured the signal F, preferably a flag; but it will be understood that any piece of flexible bunting may be used. A weight G is secured to the tape and is adapted to operate in the unbroken portion of the arm C. In practice the arm is secured in such position upon the shaft that the cylinder is normally turned to entirely close the slot in the box and is held in such position by a lug or pin *a*′, formed upon the end of the box adjacent the door, as clearly understood from Figs. 2 and 4 of the drawings. Now when it is desired to place mail in the box the arm C is turned in the direction indicated by the arrow, so that said arm will lie across the door, and by such movement the cylinder is rotated, so that the cut-out portion will be arranged diagonally across the slot, thus leaving a drop-opening O through which the mail may be passed, and when the arm is thus turned the weight will slide downwardly in the tube, which will draw the flag upwardly, so that it will be displayed to indicate that mail has been left, and when the owner of the box calls for the mail it will be necessary for him to reverse the arm, so that he may open the door in the box, and in doing so he throws the arm C around to the position shown in Fig. 2 of the drawings, which reverses the cylinder, closing the drop-opening and also causing the weight to drop down in the arm, drawing the signal within the tubular arm, which indicates that the mail has been taken out. It will thus be seen that by this arrangement a signal is secured which indicates whether or not the mail has been deposited or collected and that has to be operated before the mail can be deposited or removed, which prevents either occurrence without a positive operation of the signal.

My invention will be found particularly useful in rural districts, and especially when the box is placed some distance from the house, as it will enable the owner to see that mail has been left without the necessity of leaving the house to examine the box.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination with a box having a cut-off arranged within the letter drop-opening, of a signal-carrier operatively connected

with the said cut-off, whereby a signal is displayed when the cut-off is turned to allow ingress to the box through the drop-opening and withdrawn when said cut-off is turned to its opposite position to close the said drop-opening, substantially as shown and described.

2. The combination with a box having a cut-off, at the letter drop-opening, of a reversible signal-carrier connected with the said cut-off, whereby the cut-off is operated and a signal displayed and withdrawn, substantially as described.

3. The combination with a box having a cut-off at the letter drop-opening, and an outwardly-opening door at one side of the box, of a reversible signal-carrier connected with the cut-off and adapted to display and withdraw a signal, one end of said carrier being adapted to extend across the door when the signal is displayed, substantially as described.

4. In a letter-box having a drop-opening formed in the front thereof, a cylinder arranged therein and adapted for opening and closing the drop-opening, an arm connected to the cylinder and carrying a signal device, whereby through the movement of the arm the drop-opening will be closed or opened and the signal respectively withdrawn or displayed, substantially as shown and described.

5. In a letter-box having a drop-opening arranged in the front and a door arranged upon the side thereof, a shaft journaled in the front of said box, a cylinder arranged upon the shaft and having a portion of its periphery cut away a tubular link-shaped arm arranged upon one end of the shaft, a signal carried by the said arm, and means for opening and closing the said drop-opening and respectively displaying or withdrawing the signal, substantially as shown and described.

6. A letter-box having a drop-opening arranged in the front thereof, a door hinged to the side of said box, a shaft mounted in the front of the box and having a cylinder mounted thereon which is adapted to operate in the said drop-opening, a tubular link-shaped arm arranged upon the shaft and having one portion thereof cut out, rollers journaled in the ends of the arm, a cord or cable held within the said arm and having a flexible signal secured thereto, and a weight arranged upon the cord, substantially as shown and described.

7. A letter-box having a drop-opening arranged in the front and a door upon the side thereof, a shaft journaled in the front of said box and having a cylinder mounted thereon whose periphery is cut away upon one side, a signal-carrying arm arranged upon the shaft and means arranged within the said arm for carrying a signal and adapted to be displayed when the cylinder is turned to allow ingress to the box and adapted to be withdrawn when the cylinder is revolved to close the said drop-opening and preventing ingress to the box, the said arm being held across or in alinement with the door when the cylinder is in position to allow ingress to the box, and a stop-pin arranged upon the box for holding the arm in such position substantially as shown and described.

8. A letter-box having a drop-opening formed in the front thereof, an arm mounted upon the side of the box, a cord arranged within the arm and having a signal thereon and a cylinder arranged within the drop-opening and adapted to be turned by the arm, the said cylinder having a portion of its periphery cut away and means arranged within the arm whereby to cause the signal to be displayed when the arm is turned to revolve the cylinder to allow ingress through the opening in the box and the said signal withdrawn when the arm is turned to cause the said cylinder to close the said drop-opening, substantially as shown and described.

JACOB E. COURSEN.

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