Dec. 31, 1929. C. W. BOND 1,742,128

MAIL BOX FLAG CONTROL

Original Filed May 16, 1927 2 Sheets-Sheet 1

Fig. 1.

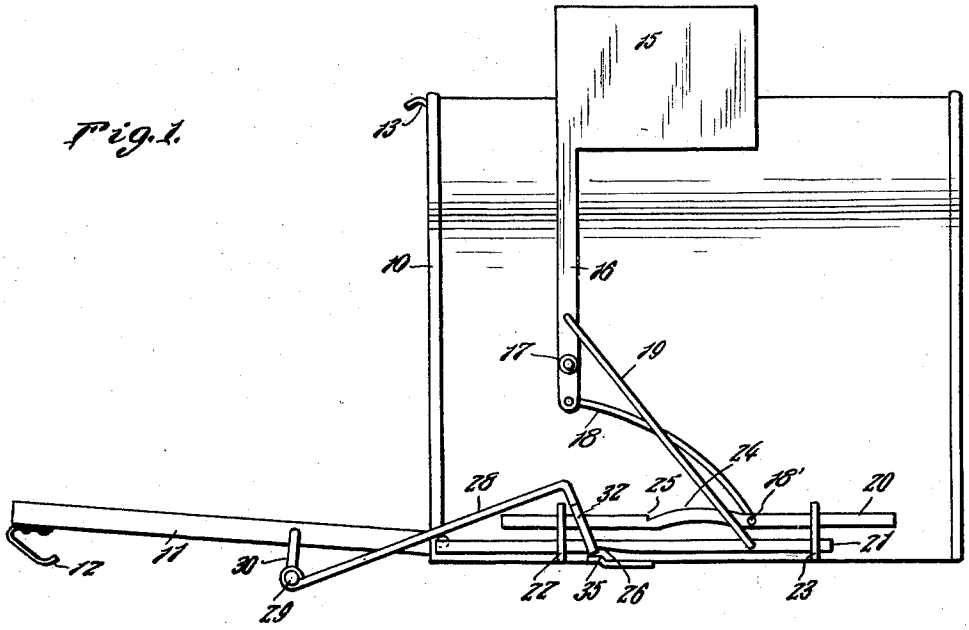
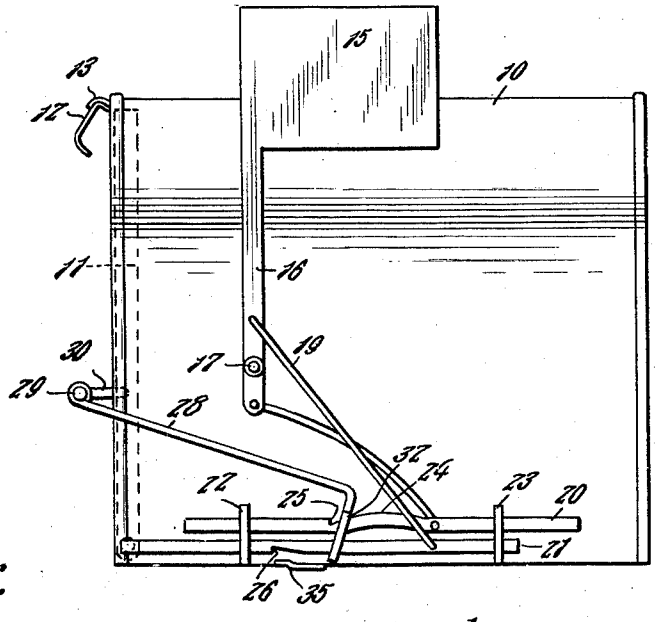


Fig. 2.



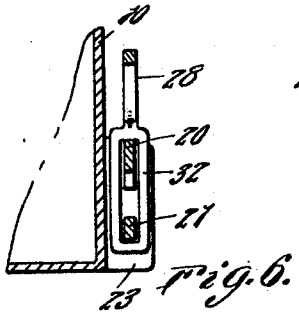


Fig. 6.

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Fig. 3.

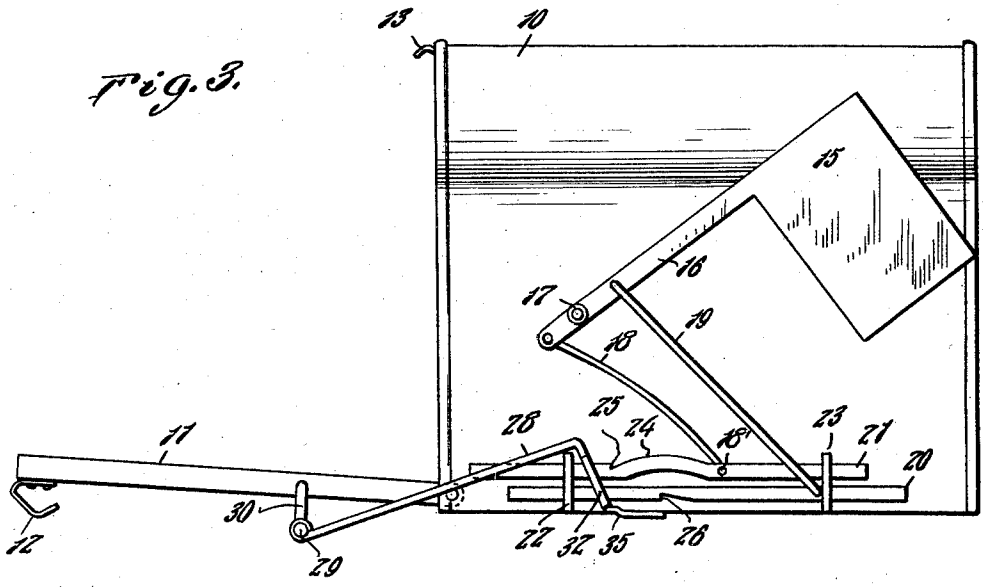


Fig. 4.

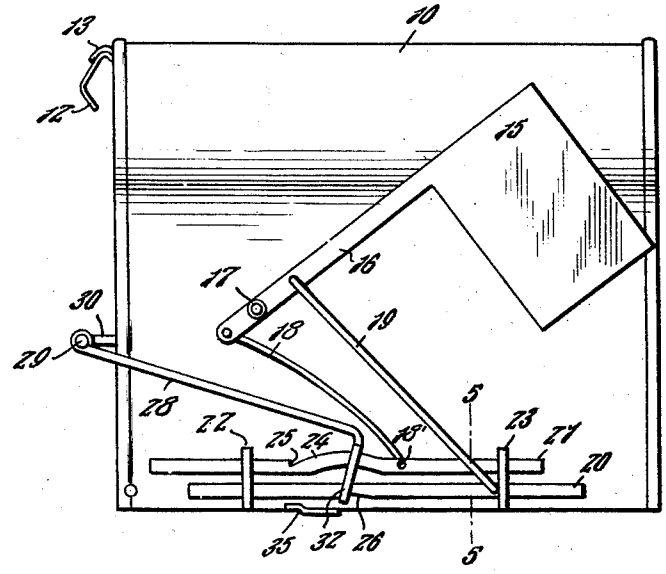
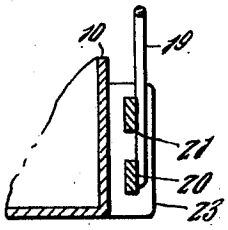


Fig. 5.



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UNITED STATES PATENT OFFICE

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MAIL-BOX-FLAG CONTROL

Application filed May 16, 1927, Serial No. 191,882. Renewed July 25, 1929.

The object of this invention is to provide particular means for controlling a signal flag on a letter box by the operation of the door of the box, and more especially to effect this result by the use of slidable devices moving in reverse directions, and controlling the position of the signal, when operated by an arm which selectively engages the bars.

With the foregoing and other objects in view, the invention consists in the novel construction and arrangement of elements described, illustrated and claimed, it being understood that modifications may be made within the scope of the claim, without departing from the spirit of the invention.

In the drawings forming part of this application,

Figure 1 is a view in elevation, showing the position of the elements when the carrier has opened the box for the insertion of the mail.

Figure 2 is a view in elevation showing the position when the carrier has closed the box.

Figure 3 is a further view in elevation, showing that the flag has moved to inoperative position upon the opening of the box by the owner, for withdrawing the mail.

Figure 4 is also in elevation, and shows the box after having been closed by the owner, upon the removal of the mail, the flag being in lower position, and the controlling devices being set for a new operation by the carrier when opening the box for the insertion of mail, on another trip.

Figure 5 is a section on line 5—5 of Figure 4.

Figure 6 is a detail view, in vertical section showing the parallel slidable bars passing through a loop member formed on a bar having pivotal connection with the door, in the manner illustrated in the larger views,

The box is designated 10, and the door 11 is pivotally mounted, or swingingly mounted at its lower end, the door being provided with a catch 12 adapted to engage an element 13 on the upper wall of the box.

A flag signal is designated 15, and includes an arm 16 pivoted at 17 to one wall of the box.

Connected with the arm 16 on opposite sides of the pivotal point 17, are rods or bars 18 and 19, bar 18 having pivotal connection at 18', with a slidable bar 20, and bar 19 having pivotal connection with a slidable bar 21. These bars 20 and 21 operate through guides such as 22 and 23, and are movable longitudinally and in parallel relation.

The upper bar 20 includes an upwardly curved portion 24, and at the end of this curved portion is a notch and shoulder at 25, another notch and shoulder at 26 being provided in lower bar 21.

An arm 28 is pivotally connected at 29 with a device or arm 30 secured to the door 11, and this arm 28 includes a loop member 32 of the form shown in Figure 6, and adapted to receive between the side members of the loop, the bars 20 and 21, and to engage the latter at the notched portions.

The lower portion of link 32 is guided by a stationary element 35, facilitating the engagement of the link with a shoulder at the notched portion 26, when the upwardly curved part of bar 20 contacts with inner side of the link at the top portion thereof, said curved portion 24 lifting the link 32 so that engagement is insured at 26.

Assuming that the box has been emptied after a given trip by the carrier, and the elements are in the position of Figure 4, the carrier in opening the door 11 will throw the flag to the position of Figure 1, the slidable bars 20 and 21 being reversely operated, incident to the opening movement of the door 11, and the engagement of the lower portion of the loop member 32 with the shoulder at 26. This produces the positive movement of lower bar 21 to the left, while bar 20 moves to the right, the position of Figure 1 representing the change over the position of the elements shown in Figure 4.

After depositing the mail, the carrier closes the door, and the elements are shifted from the position of Figure 1 to the position of Figure 2, arm 28 and the loop member 32 being the only parts the position of which is changed by the closing movement. The flag signal remains in vertical position.

When the owner opens the door 11 for withdrawing the mail, the flag 15 falls to the posi-

tion of Figure 3, because of engagement between loop member 32 and notched portion 25, which engagement takes place in an obvious manner, as will be observed from an inspection of Figure 2. The middle portion of element 35 is offset or shouldered, this portion being engaged by link 32 when moving to the left from the position of Figure 2, and while the link is changing position it swings around this shoulder and the upper inner part of the link engages shoulder at 25 and then moves to the position of Figure 3, being lifted over the shoulder at 25 by the upward bend of 35. The drop of link 32 at the left of 24 previously effected disengagement at 26. The relative position of bars 20 and 21 in Figures 2 and 3 is reversed, the flag of Figure 3, being in lower position, and the element 32 having moved to the left, and to a position adjacent to the end of element 35.

The owner now closes the door of the empty box, the flag signal, and bars 20 and 21 remaining in the position of Figure 4, and the arm 28 and loop member 32 assuming the position of Figure 4, and the device being in condition for use when the carrier makes another trip.

The movement of either bar 20 or 21 to the left imparts an upward thrust to its rod 18 or 19, and because of the point of connection on opposite sides of the pivotal point 17, the signal is raised by the upward movement of bar 19, and is lowered, by the thrust imparted to element 18.

What is claimed is:

In a device of the class described, a box and a door therefor, a pivotally mounted signal, a slidable bar and means connecting the bar with the signal on one side of the pivotal point thereof, a second bar, and means connecting the second bar with the signal on the opposite side of the pivotal point, and means operated by the door and engaging and operating one of the bars, the remaining bar simultaneously moving to position for engagement by said means last named upon the further operation of the door.

In testimony whereof I affix my signature.

CHARLES W. BOND.