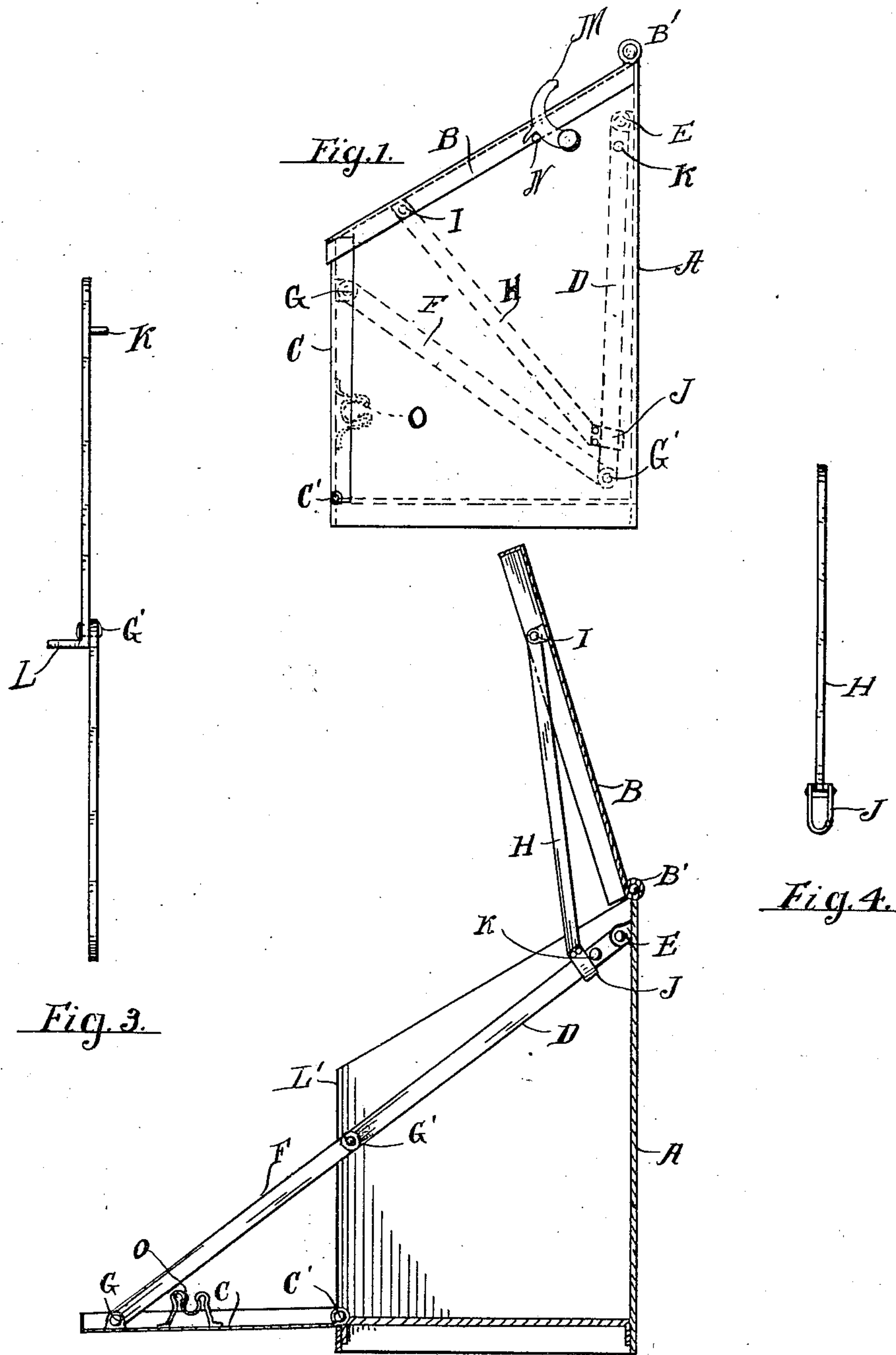


No. 825,503.

PATENTED JULY 10, 1906.

W. H. ZYLSTRA.
MAIL BOX.

APPLICATION FILED APR. 14, 1905.



Witnesses

Edward R. Moore,
Mary S. Looker

Fig. 2.

Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM H. ZYLSTRA, OF GRAND RAPIDS, MICHIGAN.

MAIL-BOX.

No. 825,503.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed April 14, 1905. Serial No. 255,603.

To all whom it may concern:

Be it known that I, WILLIAM H. ZYLSTRA, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Mail-Boxes, of which the following is a specification.

My invention relates to new and useful improvements in mail-boxes, and more especially for mail-boxes used in the rural free-delivery system, although not inappropriate in other places. Its object is to give the collecting-carriers quite free and efficient access to the contents. This object is accomplished by the mechanism shown in the accompanying drawings, in which—

Figure 1 is an end elevation of a box embodying the features of the invention and showing the parts thereof in dotted lines. Fig. 2 is a cross-section taken just inside the end of the box adjacent to the operating means for the drop front and cover. Figs. 3 and 4 are details of the opening mechanism.

The box consists, essentially, of the casing A, consisting of the usual back, bottom, and ends firmly attached together in any customary way. This box carries a cover B, hinged to the back at B', as is customary, and I prefer to construct the device so that this cover when closed will have a forward slope, as shown. The cover B also for efficiency and for excluding snow and water has upon the front and upon each end a depending flange, as shown, which shuts down over the top edges of the ends and front and makes a better joint. The front piece C also of itself in the usual form is hinged at C' to the front edge of the bottom, so that this front when closed has a vertical position and when opened falls down, turning on this hinge so as to have approximately a horizontal position.

I connect the hinged cover to the back by the pivoted double arm D F. This is pivoted to the back near the upper edge thereof at E, as shown, and is pivoted to the front near the top thereof at G, as shown. The two parts of the double arm are pivoted together at G'. This pivoted arm D F is so attached to the back and front that it lies along the inner surface of the end and does not take up appreciable space within the box or interfere with its contents. This pivoted arm D F carries the stop L, so located that it will at the proper time make contact with the inwardly-extending flange L' on the front

edge of the end, and carries also a lug or pin K, preferably located near the point of pivotal attachment to the back. I connect the hinged cover to this arm D F by means of the arm H, which is pivoted to the cover at any convenient point, as I, and which, upon the lower end, carries the sleeve J, traveling upon the arm D F. I also provide a signal M, operated by a pin or lug N, situated on the cover; but this is a usual form of signal and no part of my invention.

Attached to the interior of the drop front and at any convenient location, preferably about centrally, I provide a clip O, suitable for holding the mail in position and especially adapted to receive one or more envelopes and hold them by their edges, so that they will stand at an angle to the front cover and will be held with a sufficient spring or other pressure, so that they will not drop out of the clip of their own weight. This clip I have shown in Figs. 1 and 2. The connecting means between the back, cover, and front may be duplicated at each end.

In operation, assuming that the box is closed and that the connecting means occupy the position shown by the dotted lines in Fig. 1, I first take hold of the cover and raise this up by its hinge. As the cover is raised the arm H rises and the sleeve J also rises, sliding upward upon the arm D F without any effect upon any other part. It is apparent, therefore, that the cover can be raised a considerable distance, more or less, according as the parts are adjusted and without effecting the front or causing it to open. Indeed, the weight of the arm D F, suspended inwardly from near the top of the drop front, operates positively to keep the same closed during the first part of the rising motion of the cover. When the sleeve J in its upward travel strikes the pin K, it immediately sets in motion the arm D F and causes the drop front to begin to open. As soon as this front is opened a very short distance so that the center of gravity is sufficiently changed, it will freely and without further actuating drop to its fully-open position or to whatever point of opening the construction may determine to be the limit of its forward motion. This forward motion will be certainly and positively checked when the arm D F becomes completely extended, as shown in Fig. 2, and the stop L, carried by the arm D F, may at any predetermined point come in contact with the flange upon the inner side of the front

edge of the end, as shown, or with any suitable stop provided in connection with the end, and thereby the forward motion of the front may be stopped where desired. The box is now
 5 fully open, and the letters therein contained are standing on edge upon the horizontal drop front, which serves as a bottom extension, and are in the most convenient position to be grasped by the carrier, and at the same
 10 time the box is fully open, both as to its top and as to its front, adapted to receive any articles, whatever their shape, which the carrier wishes to place therein. Lowering the cover then reverses the operation. These arms are
 15 so pivoted and adjusted that the sliding sleeve J brings the arm D to its substantially vertical position adjacent to the back appreciably in advance of the time when the cover is fully closed, and therefore of necessity the
 20 drop front is fully closed before the cover is ready to close down thereover.

It is especially desirable that with a mail-box of this class it should be possible to open the cover far enough to get easy access to the
 25 interior and without disturbing the front or causing it to open. This is especially necessary during a rain or other storm. It is also a desirable feature of my device that the front is a drop front and that as soon as it is
 30 tripped it will fall fully open without any further actuation. It is also desirable that the mail should be presented to the carrier upon the front, and therefore nearer to him, rather than in the interior of the box.

35 Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. In a mail-box, in combination with the main body thereof, a hinged top and a hinged
 40 drop front, and means for actuating the drop front by the motion of the cover and includ-

ing tripping devices, whereby the drop front will remain unaffected by the first part of the opening motion of the cover and through the operation of the tripping devices drop with-
 45 out further actuation to its completely-open position.

2. In a mail-box, in combination with the main body thereof, a hinged cover and a hinged drop front, and means for actuating
 50 the drop front by the motion of the cover and including devices for returning the drop front to its normally closed position before the cover is completely closed.

3. In a mail-box, a body having a cover
 55 and a hinged drop front, and means actuated by the motion of the hinged cover to open and close the drop front and including devices which do not operate to affect the means co-
 60 operating with the drop front until the cover has been raised nearly to its completely-open position.

4. In a mail-box a body having a hinged cover and a drop front, the cover having a depending flange closing down over the top
 65 of the drop front, mechanism for actuating the drop front by the motion of the hinged cover, such mechanism including means for preventing the actuation of the drop front until the depending flange of the cover has
 70 been raised therefrom, and for returning the drop front to its completely-closed position before said depending cover-flange closes down over the drop front.

In testimony whereof I have hereunto set
 75 my hand in presence of two subscribing witnesses.

WILLIAM H. ZYLSTRA.

Witnesses:

A. C. DENISON,
 MARY S. TOOKER.