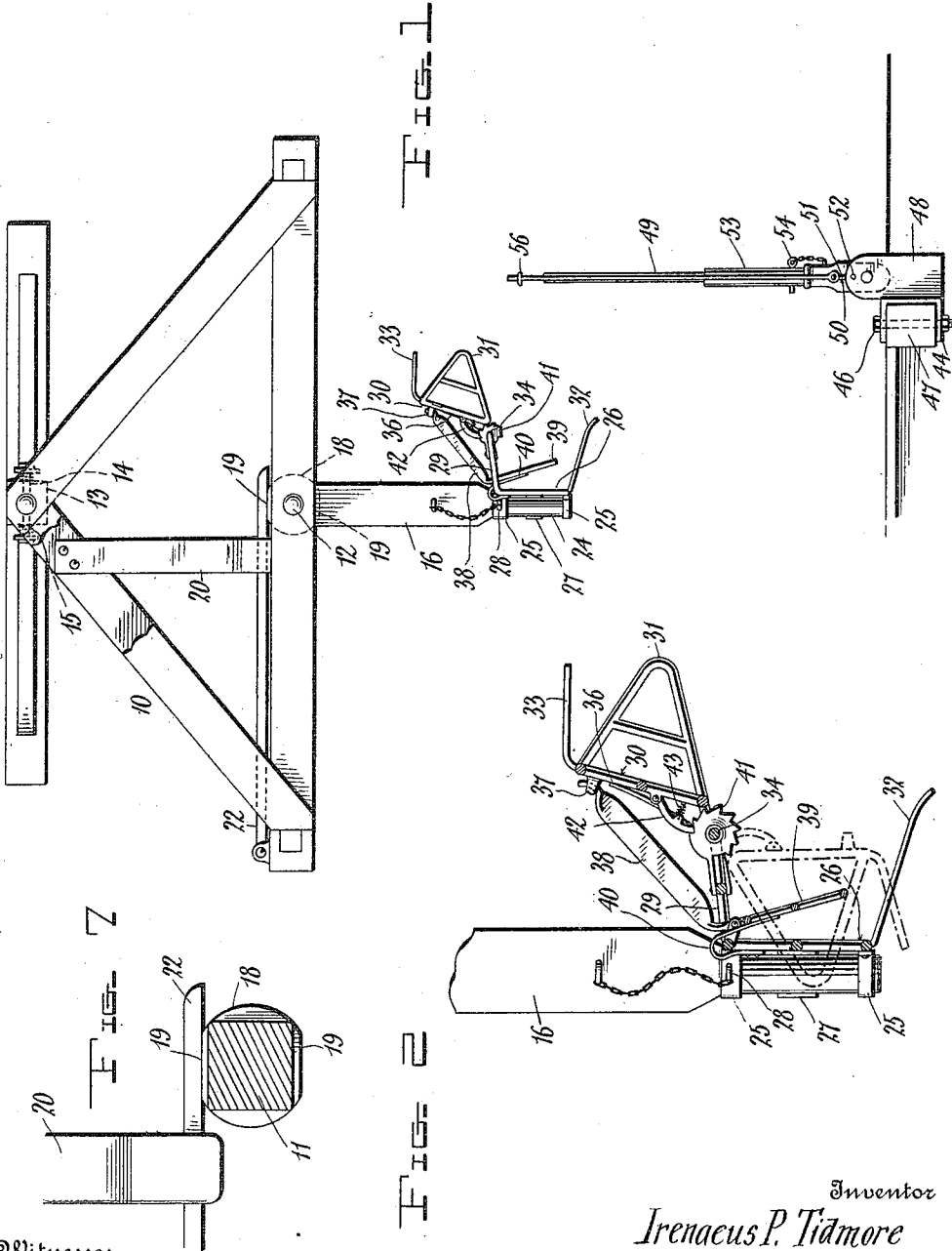


I. P. TIDMORE.
MAIL BAG CATCHING AND DELIVERING APPARATUS.
APPLICATION FILED JULY 7, 1910.

979,723.

Patented Dec. 27, 1910.

3 SHEETS—SHEET 1.



Witnesses
L. N. Gillis
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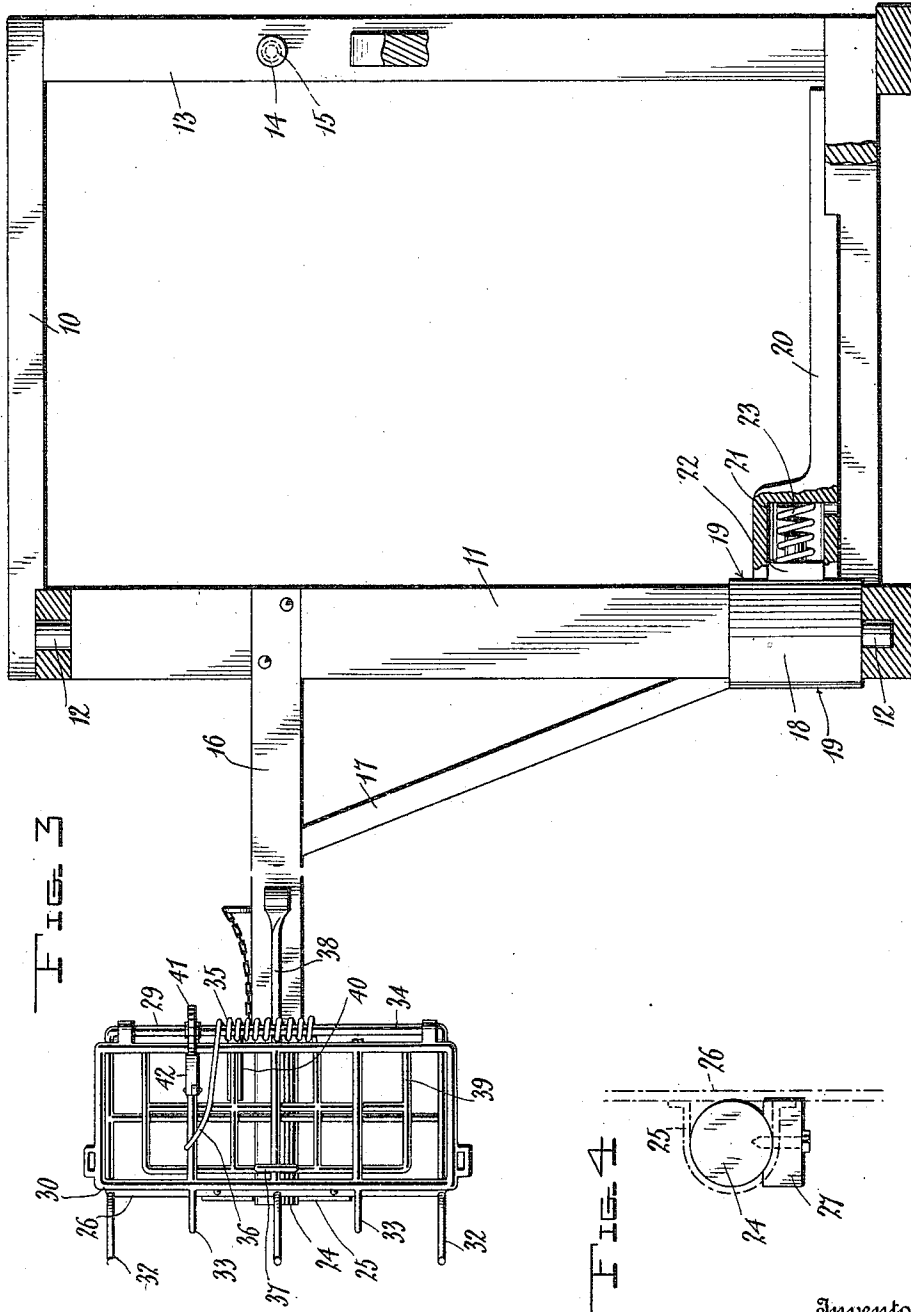
Inventor
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 Attorneys

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Witnesses

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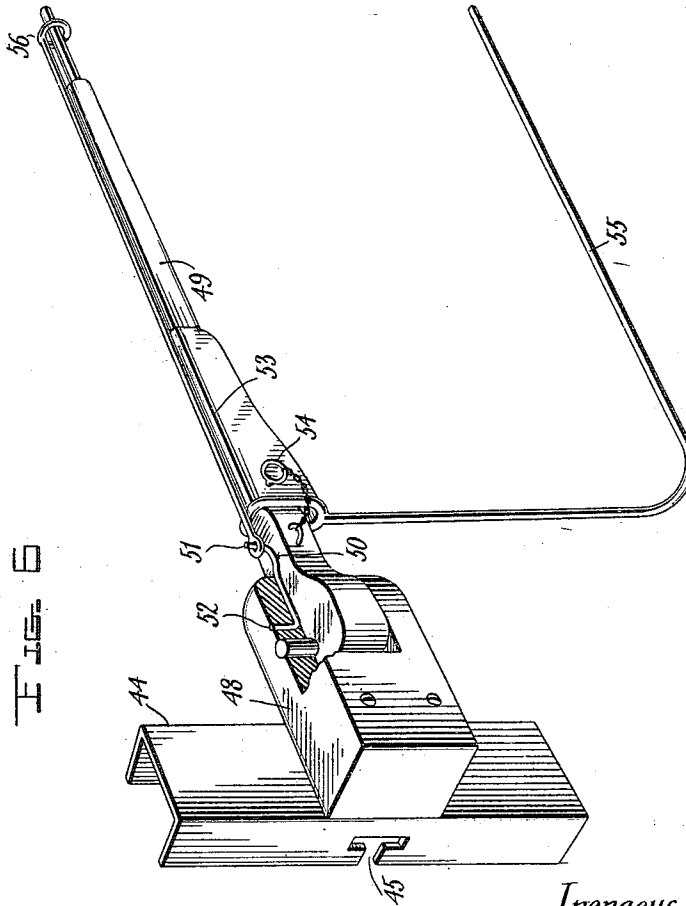
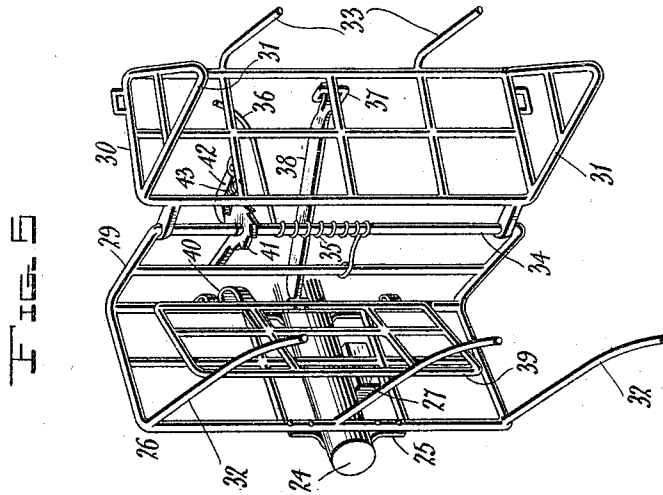
Attorneys

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3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

IRENÆUS P. TIDMORE, OF MALAKOFF, TEXAS.

MAIL-BAG CATCHING AND DELIVERING APPARATUS.

979,723.

Specification of Letters Patent.

Patented Dec. 27, 1910.

Application filed July 7, 1910. Serial No. 570,812.

To all whom it may concern:

Be it known that I, IRENÆUS P. TIDMORE, a citizen of the United States, residing at Malakoff, in the county of Henderson, State of Texas, have invented certain new and useful Improvements in Mail-Bag Catching and Delivering Apparatus; and I do hereby declare the following to be a full, clear, 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.

This invention relates to mail bag catchers and deliverers.

One object of the invention is to improve the general construction of the catching device common to apparatus of this character.

A second object of the invention is to improve the general construction of the delivering devices common to such apparatus.

A further object of the invention is to provide improved forms of catching and delivering devices which may be used with a train running in either direction so that the apparatus may be placed on either side of a single track.

With the above and other objects in view, the invention consists in general of a frame supporting a novel catching apparatus and a train supported delivering apparatus of improved character.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a plan view partly in section showing the catching and delivering apparatus in position just before a bag is caught, a portion only of a railroad car being shown. Fig. 2 is an enlarged detail view of the extremity of the receiving or catching crane showing the apparatus open in full lines and closed in dotted lines. Fig. 3 is an elevation partly in section showing the frame and catching crane employed with this apparatus. Fig. 4 is an end view of the crane arm, the parts behind being omitted and the view showing the stop member employed to position the catcher. Fig. 5 is a detail perspective view of the catcher in its open position. Fig. 6 is a detail perspective view of the delivering apparatus. Fig. 7 is a detail plan view of certain stop

mechanism used in connection with the crane.

Situated at a convenient point adjacent a railroad track is a frame which is indicated in general by the numeral 10. Pivoted to the side of this frame next to the track is a crane post 11 having journal pins 12 upon which it is journaled to said frame. Immediately to the rear of this crane post 11 is a stop or check post 13 which has oppositely disposed recesses 14 formed in its side faces and in these recesses are held buffer springs 15, these buffer springs being in the path of a crane arm 16 secured to the post 11 and braced thereto by a suitable brace 17. In this manner the swinging of the crane in either direction will be arrested by the buffer 15 corresponding to the direction in which the crane arm swings. The bottom end of this crane post 11 is provided with a collar 18 having oppositely disposed flattened sides 19 and between these sides the surface of this collar is that of a cylinder. Extending across the bottom members of the frame 10 is a bar 20 wherein is formed a spring pocket 21. Loosely attached to one of the frame members is a bar 22 which extends across the mouth of the spring pocket 21 and bears against the collar 18. A spring 23 is held in the spring pocket 21 and has its outer end bearing against the back of the bar 22 so that this bar is kept firmly pressed against the collar 18. The flattened portions 19 of this collar are so arranged that the pressure of the bar 22 will tend to retain the crane arm 16 extended either directly toward the track or in approximately the opposite direction, the check post and buffers preventing its entire movement to this opposite direction.

The outer or free end of the crane arm 16 is cylindrical in form as indicated at 24 and around this cylindrical portion are spaced collars 25 to which is secured a frame 26. On the bottom of this cylindrical portion is a stop block 27 against which the frame 26 is adapted to contact so that this frame may be moved from a vertical position on one side of the crane arm 16 to a similar position on the opposite side, being retained in either of said positions by a pin 28 passing diametrically through one of the collars 25 and the cylindrical end 24. The frame 26 is provided with a lateral extension 29 on its inner vertical edge and to this lateral extension

is hinged a mail bag clamp frame 30 having top and bottom lateral portions 31. To the edge of the frame 26 opposite the extension 29 are secured fingers 32 arranged in spaced relation and to the free edge of the frame 30 are secured other fingers 33 which interdigitate with the fingers 32 when the device is closed as shown in the dotted lines in Fig. 2. A hinge pintle which connects the extension 29 and the frame 30 is indicated at 34 and surrounding this hinge pintle is a strong coil spring 35 having one end bearing against the frame 30 as at 36 while the other end is fixedly secured to the extension 29. This spring is so arranged as to normally urge the clamp frame 30 to close to the position shown in dotted lines in Fig. 2. In order to prevent the premature closing of this frame a loop 37 is formed on the back of the frame and pivoted to the frame 26 is a latch 38 which is adapted to engage this loop when the device is open, the object of this latch being to retain the frame 30 in open position against the action of the spring 35. Connected to this latch 38 is a trip frame 39 to which is secured one end of a spring 40, the opposite end being secured to the frame 26, and this spring normally acts to force the trip 39 away from the frame 26 so that the latch 38 will properly engage in the loop 37. In order to prevent rebounding of the frame 30 and to hold the same positively in closed position a ratchet 41 is fixedly secured to the extension 29 concentric with the axis of the hinge pintle 35 and on the frame 30 is a pawl 42 which is normally kept in engagement with the ratchet 41 by means of a spring 43. This ratchet is so arranged that when the frame 30 has been closed by the action of the spring 35 the pawl will engage the ratchet and prevent backward movement of the frame until the pawl is manually released from said ratchet.

The train supported delivering apparatus comprises a channel member 44 having its flanges provided with opposed tee-slots 45 which are adapted to be received on the shank of a double headed bolt 46 extending through the door jamb 47 of the car. By means of this peculiar construction the channel member 44 may be attached to the door with either end up. Secured to this channel member 44 is a bracket 48 to which is pivoted an arm 49, preferably termed the upper arm and this arm is provided adjacent the bracket 48 with a depression 50 adapted to be engaged by a bowed portion formed adjacent the end of a spring arm 51 which is secured to a bracket 48 as at 52. This arm 49 has slidably mounted thereon a sleeve 53 which may be fitted upon the arm with either side up and this sleeve is retained in position on said arm by means of a pin 54 which passes through the sleeve and arm.

Secured to the sleeve 53 is a bottom arm 55 formed of a bar extending downward from the sleeve and provided with a right angled extremity terminating beneath the extremity of the arm 49. Upon the arm 49 is a retaining hook 56, this hook being positioned adjacent the extremity and so arranged that when the loop of a mail bag is positioned on the extremity of the arm 49 the hook 56 may be dropped over said loop and hold the mail bag from accidental displacement from said arm.

In the operation of the device the channel member 44 is attached to that side of the door-way which is nearest the front end of the train, care being taken that the arm 49 is in such position that it will swing across the door-way. The mail bag is then placed upon the arms 49 and 55, one loop of the bag being engaged upon the extremity of the arm 49 and the other upon the extremity of the arm 55. The hook 56 is then dropped over the upper loop to insure the bag remaining in position until the delivery point has been nearly reached. When the delivery point has been approached close enough to suit the operator the arm 49 is swung out, the hook 56 being thrown back prior to this movement. The spring 51 will engage in the notch 50 and hold the arm 49 from displacement due to the jarring of the train. When in this position the bag will hang so that its path will intersect the extremity of the crane arm 16 when the latter is swung out as in Fig. 1. The receiving device is made ready for use by opening the clamp 30 and engaging the latch 38 in the loop 37, the crane arm 16 being swung outward as indicated in said Fig. 1. As the train passes the delivery point the mail bag strikes the trip 39 and disengages the latch from the loop 37. The spring 35 throws the clamp frame 30 quickly around and this frame closes to the position shown in dotted lines in Fig. 2. At the same time the pawl and ratchet act to lock the frame in the closed position and prevent rebounding thereof. The inertia of the moving bag causes the arm 16 to swing around and strike against the buffer 15. The bag may then be removed and the device reset.

It is to be noted that the catching frame is always positioned on that side of the arm in the direction of the approaching train and that the arm 55 is so positioned on the arm 49 that it always hangs below said arm.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but

it is wished to include all such as properly come within the scope of the appended claims.

Having thus described the invention, what is claimed as new, is:—

1. In a mail bag catcher, a crane arm, a frame carried by said crane arm, a lateral extension on said frame, a swinging bag clamp hinged to the edge of said extension, means constantly urging said clamp to close toward said frame, a latch member engageable with said clamp to hold the same open, and a trip operatively connected to said latch member.

2. In a mail bag catcher, a crane arm, a frame carried by the crane arm, a lateral extension on said frame, a swinging bag clamp hinged to the end of said extension, means constantly urging said clamp in the direction of said frame, a latch member engageable with said clamp to hold the same open, a trip operatively connected to said clamp and arranged to release said latch when struck by a mail bag, and retaining elements to hold the clamp closed after actuation by said means.

3. In a mail bag catcher, a crane arm, a frame carried by the crane arm, a lateral extension on said frame, a swinging bag clamp hinged to the end of said extension, means constantly urging said clamp in the direction of said frame, a latch member engageable with said clamp to hold the same open, a trip operatively connected to said clamp and arranged to release said latch when struck by a mail bag, a ratchet fixed to the extension concentric with the hinge of the clamp, and a pawl carried by the clamp and engaging said ratchet to hold the clamp closed after actuation by said means.

4. In a mail bag catcher, a crane arm, a frame pivoted on said arm to swing in a vertical plane transverse the crane arm, means to hold said frame in vertical position on either side of the crane arm, and a clamping device carried by said frame and movable therewith.

5. In a mail bag catcher, a crane arm, a frame pivoted on said arm to swing in a vertical plane transverse the crane arm, means to hold said frame in vertical position on either side of the crane arm, an extension on a lateral edge of said frame directed away from said crane arm, a mail bag clamp hinged to the outer edge of the extension and clamp to force the clamp to close toward the frame, a latch pivoted to said frame, a loop on said clamp engageable with the latch when the clamp is in open position, and a trip on said frame and connected to said latch to release the latch when the trip is struck by a mail bag.

6. In a mail bag catcher, a crane arm, a frame pivoted on said arm to swing in a vertical plane transverse the crane arm,

means to hold said frame in vertical position on either side of the crane arm, an extension on a lateral edge of said frame directed away from said crane arm, a mail bag clamp hinged to the outer edge of the extension and clamp to force the clamp to close toward the frame, a latch pivoted to said frame, a loop on said clamp engageable with the latch when the clamp is in open position, a trip on said frame and connected to said latch to release the latch when the trip is struck by a mail bag, and retaining elements to hold the clamp closed after actuation by said spring.

7. In a mail bag catcher, a crane arm, a frame pivoted on said arm to swing in a vertical plane transverse the crane arm, means to hold said frame in vertical position on either side of the crane arm, an extension on a lateral edge of said frame directed away from said crane arm, a mail bag clamp hinged to the outer edge of the extension and clamp to force the clamp to close toward the frame, a latch pivoted to said frame, a loop on said clamp engageable with the latch when the clamp is in open position, a trip on said frame and connected to said latch to release the latch when the trip is struck by a mail bag, a ratchet fixed to the extension concentric with the hinge of the clamp, and a pawl carried by the clamp and engaging said ratchet to hold the clamp closed after actuation by said spring.

8. In a mail bag catcher, a crane arm, a frame pivoted on said arm to swing in a vertical plane transverse the crane arm, means to hold said frame in vertical position on either side of the crane arm, an extension on a lateral edge of said frame directed away from said crane arm, a mail bag clamp hinged to the outer edge of the extension and clamp to force the clamp to close toward the frame, a latch pivoted to said frame, a loop on said clamp engageable with the latch when the clamp is in open position, a trip on said frame and connected to said latch to release the latch when the trip is struck by a mail bag, a ratchet fixed to the extension concentric with the hinge of the clamp, a pawl carried by the clamp and engaging said ratchet to hold the clamp closed after actuation by said spring, spaced fingers on the edge of said frame opposite said extension, and other spaced fingers on the free edge of said clamp engaging between the fingers of the frame when the clamp is closed.

9. In a mail bag catcher, a frame, a crane post journaled in said frame, a check post in said frame behind said crane post, buffers on opposite sides of said check post, a crane arm projecting from said crane post and adapted to contact with either of said buffers, a bag receiving device journaled on the free end of said crane arm to swing in a

vertical plane transverse the axis of said arm, and means to releasably hold the receiving device on either side of said arm.

10. In a mail bag catcher, a frame, a
5 crane post journaled in said frame, a check post in said frame behind said crane post, buffers on opposite sides of said check post, a crane arm projecting from said crane post and adapted to contact with either of said
10 buffers, a bag receiving device journaled on the free end of said crane arm to swing in a vertical plane transverse the axis of said arm, means to releasably hold the receiving device on either side of said arm, and re-
15 leasable locking elements to hold the crane post with the crane arm extending out from the frame or resting against one of the buffers.

11. In a mail bag deliverer, a channel
20 member adapted to engage the jamb of a door and having its flanges provided with opposed tee-shaped slots engageable over

pins on said jamb, a bracket on said channel member, an arm pivoted to said bracket, and a spring latch carried by said bracket 25 and engaging said arm to releasably hold the arm in extended position.

12. In a mail bag deliverer, a channel member adapted to engage the jamb of a door and having its flanges provided with 30 opposed tee-shaped slots engageable over pins on said jamb, a bracket on said channel member, a top arm pivoted to said bracket, a spring latch carried by said bracket and engaging said arm to releasably hold the 35 arm in extended position, and a bottom arm reversibly mounted on said top arm.

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

IRENÆUS P. TIDMORE.

Witnesses:

H. T. TIDMORE,

G. W. TIDMORE.