

C. R. BENNETT.
MAIL BAG CATCHING AND DELIVERY DEVICE.
APPLICATION FILED FEB. 3, 1912.

1,045,767.

Patented Nov. 26, 1912.
3 SHEETS—SHEET 1.

Fig. 1.

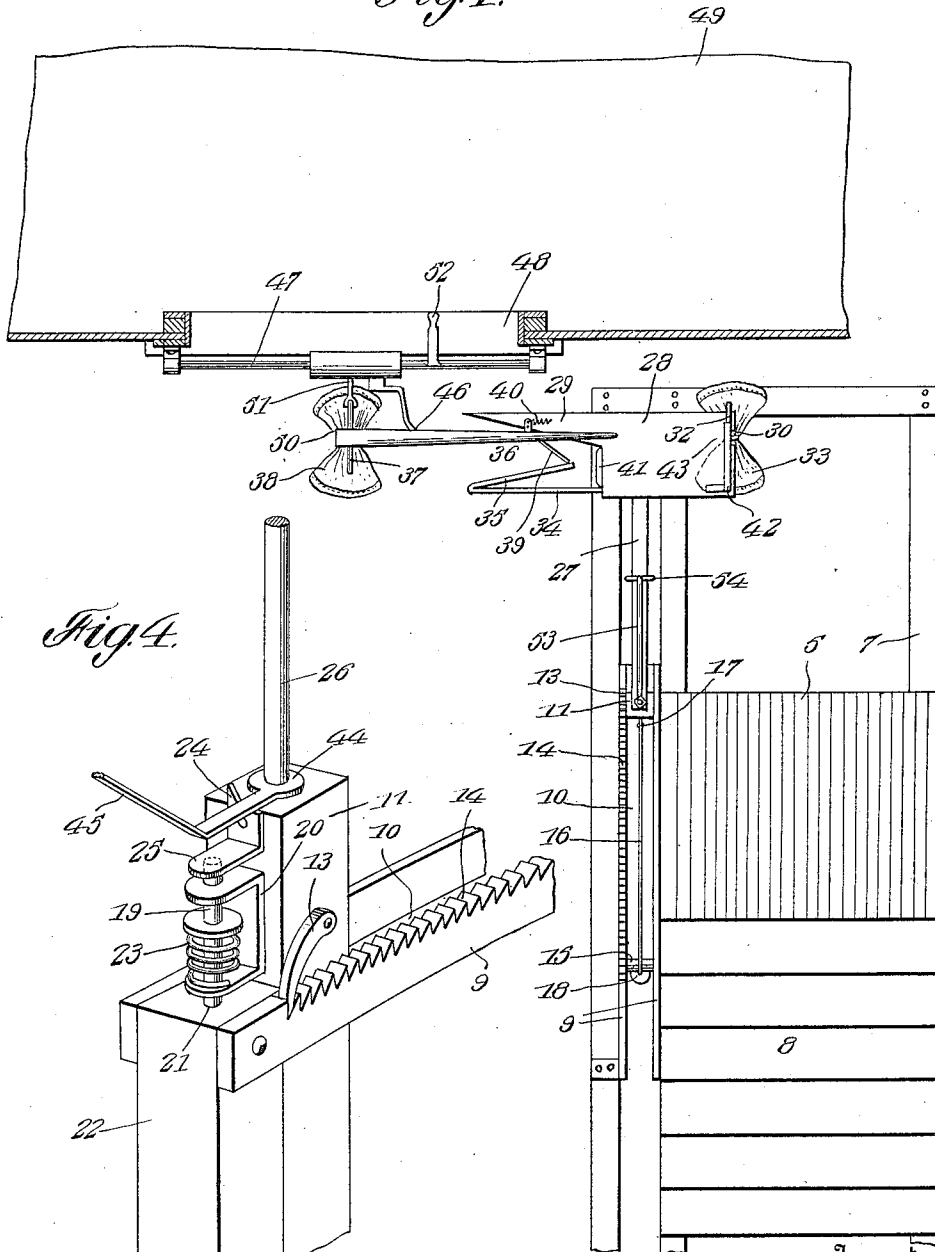
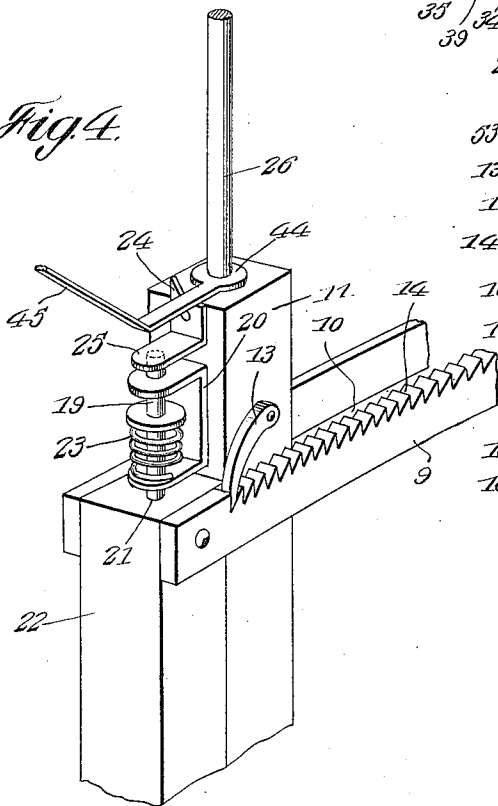


Fig. 4.



Inventor
Charles R. Bennett,

Witnesses

J. F. Crawford,
A. O. Parker,

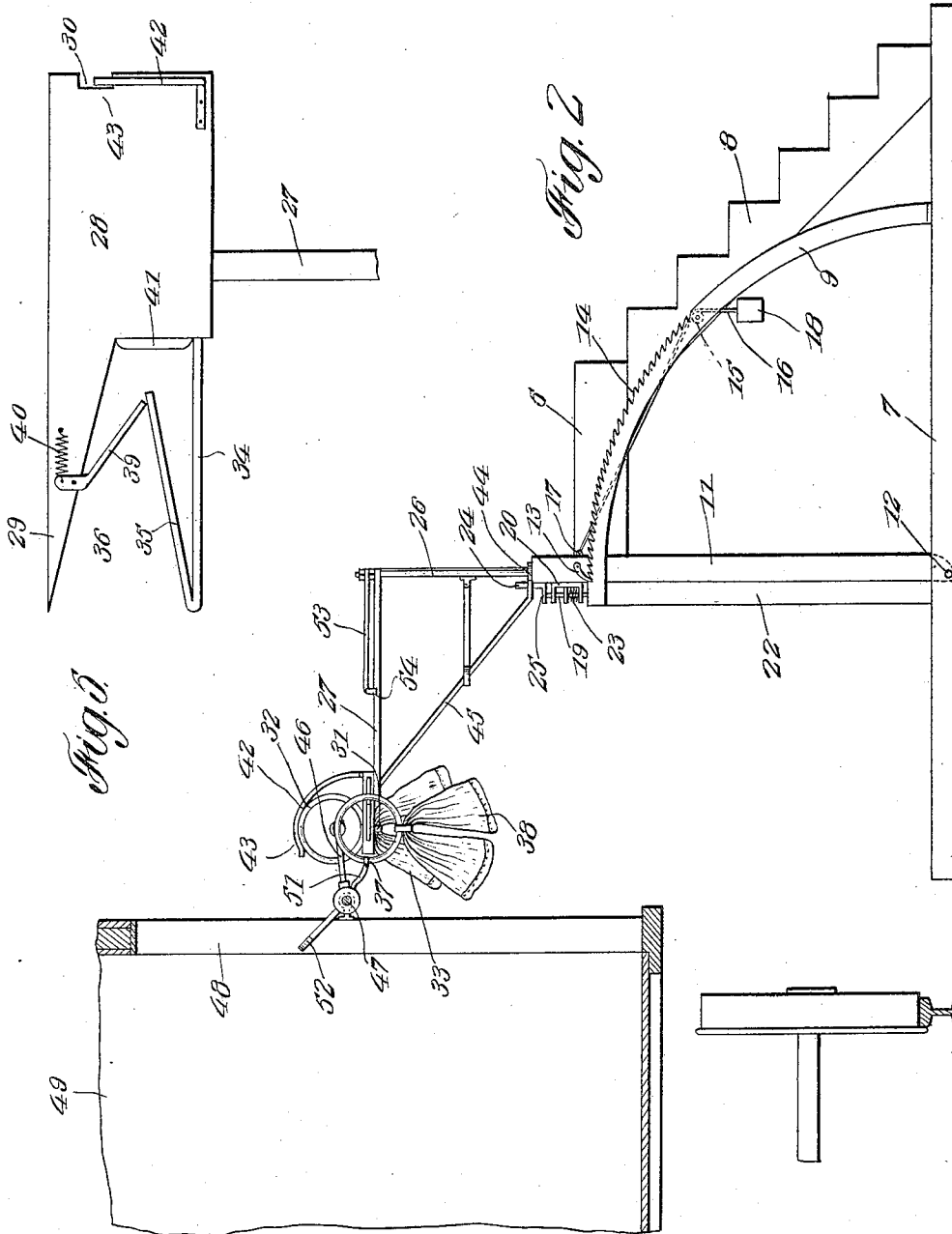
By Victor J. Evans
Attorney

C. R. BENNETT.
MAIL BAG CATCHING AND DELIVERY DEVICE.
APPLICATION FILED FEB. 3, 1912.

1,045,767.

Patented Nov. 26, 1912.

3 SHEETS—SHEET 2.



Inventor
Charles R. Bennett

Witnesses
J. H. Crawford
F. O. Parker

By Victor J. Evans
Attorney

1,045,767.

3 SHEETS—SHEET 3.



J. H. Crawford
A. Parker

Attorney

UNITED STATES PATENT OFFICE.

CHARLES R. BENNETT, OF TRENTON, NEW JERSEY.

MAIL-BAG CATCHING AND DELIVERY DEVICE.

1,045,767.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed February 3, 1912. Serial No. 675,171.

To all whom it may concern:

Be it known that I, CHARLES R. BENNETT, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented new and useful Improvements in Mail-Bag Catching and Delivery Devices, of which the following is a specification.

This invention relates to a mail bag catching and delivery apparatus and has for its primary object to provide an apparatus of this nature in which mail bags may be simultaneously receiving from and delivered to a train at a station without requiring the slowing down of the speed of the train or the stopping of the same.

Another object of the invention is the provision of an apparatus of this character in which the handling of the mail bags to and from a train at a station will be automatic, thereby obviating the necessity of a train operator or a manual handling of the mail bags and at the same time avoiding the necessity of the stopping of the train for the exchange of the mail bags.

A further object of the invention is the provision of an apparatus of this character which permits of the easy removal of the mail bag, when caught thereby, from a passing train, the bag being held fast so as to prevent the throwing of the same when released from the moving train, thereby avoiding injury to persons when standing in a vicinity close thereto.

A still further object of the invention is the provision of an apparatus of this character which is simple in construction, strong, durable, thoroughly reliable and efficient in operation and inexpensive in installation.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the following claims.

In the drawings: Figure 1 is a top plan view of the mail bag catching and delivery apparatus constructed in accordance with the invention and the same being in a position to deliver a mail bag to a passing car

and also for receiving a mail bag from the car, the car being only partly shown. Fig. 2 is a side elevation thereof. Fig. 3 is a similar view showing the apparatus in shifted position whereby the mail bag caught thereby may be readily removed therefrom. Fig. 4 is a fragmentary perspective view on an enlarged scale of the locking device for the swinging catch arm of the apparatus. Fig. 5 is a plan view of the catching and delivery head of the apparatus.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings by numerals the mail bag catching and delivery apparatus comprises a raised platform 5 which is preferably constructed from wooden boards fixed to and supported upon a frame 6 located at one side of a railway track and rises from a plurality of base or supporting sills 7, arranged in spaced parallel relation to each other and disposed at right angles to the rails of the track, the frame being provided with ordinary steps 8, which enable a person to ascend on to the platform or descend therefrom.

Located at and fixed to one end of the frame 6 is an upwardly bowed, arcuate shaped guide 9 formed with a central slot 10, and movable through the latter is a swinging post or standard 11, the same being connected between adjacent base sills 7 by means of a pivot 12 engaging therein and in the said base sill, thus enabling the post or standard to swing vertically from perpendicular to an inclined position or vice versa, the post or standard 11 carrying at one side thereof a pivoted locking dog or pawl 13, which is adapted to engage in any one of a series of ratchet teeth 14 formed on the guide 9 at one side of the slot 10 thereof, so that when the post or standard is moving to an inclined position it will be prevented from returning to perpendicular position until the dog or pawl 13 is released from the tooth engaged thereby of the ratchet teeth 14 on the guide.

Journaled in the guide 9 at a point intermediate the ends thereof and bridging the slot 10 is a friction roller 15 over which is trained a cable 16, one end of which is

connected to an eye 17 mounted in the upper end of the post or standard 11, and its opposite end carries a weight 18, which serves to retract the post or standard 11 from perpendicular inclined position, for a purpose presently described.

To lock the post or standard 11 in perpendicular position there is provided a trip latching device comprising a locking bolt 19 slidably mounted in a guide bracket 20 fixed to the upper end of the post or standard 11, the bolt being adapted for locking engagement in a socket 21 formed in the upper end of an abutment beam 22 mounted vertically on the frame 6 and this locking bolt 19 is adapted to be moved to releasing position by means of a coil spring 23 acting thereon and mounted in the bracket 20, the bolt 19 being held in locking position by means of a trip lever 24 pivoted to the upper end of the post or standard 11, said lever being formed with an outturned end 25 frictionally engaging the end of the bolt 19 adjacent thereto, and on the tripping of the lever 24 the outturned end 25 will frictionally slide out of contact with the bolt and the spring 23 will act thereon to retract it for the disengagement of the same from the beam 22, thereby freeing the post or standard 11 which will be acted upon by the weight 18 pulling the same from perpendicular to inclined position, the trip lever 24 being operated by means of mechanism presently described.

Suitably mounted in the upper end of the post or standard 11 is a stem or rod 26 on the upper end of which is swiveled a horizontally swinging supporting arm 27 to which is fixed at its free end the mail bag catching and delivery head comprising a horizontally disposed board or plate 28, the same being formed at one end with an outwardly tapering ring grabbing finger 29, while its opposite end is provided with a notch 30 in which is adapted to engage the eye connection 31 between a ring 32 and a mail bag 33, which is to be delivered from the station to a passing railway car on the track, the ring being designed to rest upon the board or plate 28 of the mail bag catching or delivery head, so that said ring will be in a position to be grabbed or caught by the mail bag catching and delivery device upon said car, which will be presently described.

Opposite the finger 29 on the board or plate 28 and fixed to the latter is a guard comprising a V-shaped resilient bar 34, the inner limb 35 thereof is disposed in converging relation to the inner edge of the tapered finger 29 so as to provide therebetween an inwardly tapering gap or entrance mouth 36 so as to permit the ring 37 connected to a mail bag 38, to be engaged on the finger 29 when the ring 37 is suspended from the

mail bag catching and delivery device upon the car, and prevent the possibility of the slipping of the ring 37 from the said finger of the head during the travel of the car. Pivoted to the finger 29 of the head is a swinging catch 39 which is held in closed position for intersecting the entrance space or gap 36 between the guard 34 and the finger 29 of the head by means of a spring 40, mounted in the plate or board 28, as shown, the catch 39 locking the ring 37 of the mail bag 38 when caught upon the finger 29 of the catching and delivery head.

The edge of the plate or board 28 of the head facing the entrance space or gap 36 between the guard 34 and finger 29, is provided with a buffer pad 41, which prevents the pounding of the ring 37 of the mail bag 38 on the head when caught by the finger 29 thereof.

Fixed to the board or plate 28 of the head and rising above the same is a spring wire like retaining arm 42 having a forked free end 43 which is adapted to engage the ring 32 of the mail bag 33 when positioned on the head so as to hold the ring in a proper manner, whereby it will be engaged and caught by the mail bag catching and delivery device on the car.

Loosely engaging about the stem or rod 26 is the lower loop end 44 of a brace bar or rod 45, the upper end of which is fixed to the swinging supporting arm 27, and this bar is adapted to swing in the path of the trip lever 24 for tripping the same when the catching head has delivered the mail bag 33 therefrom and received the mail bag 38, whereby the bolt 19 will automatically release for the freeing of the post or standard 11, so as to permit it to swing from perpendicular to inclined position, it being understood of course that the mail bag catching and delivery head swings from the position shown in Figs. 1 and 2 to the position shown in Fig. 3 about the stem or rod 26, serving as the axis of movement of the said head, thus in the position shown in Fig. 3, the mail bag 38, caught by the same, may be readily and easily removed therefrom.

The car mail bag catching and delivery device comprises a hook like arm 46 connected with and offset from a rocking bar 47 horizontally mounted across the door way 48 in the side of the car 49, the arm 46 being adapted for swinging movement from within the car to a horizontal position exteriorly thereof, so as to project into the path of the mail bag catching and delivery head of the apparatus at the station, thus the car 46 when in this position will grab or catch the ring 32 of the mail bag 33, thereby detaching it from the board or plate 28 of the station apparatus. At the rear end of the arm 46 is formed a seat

extension 50 from which is swung the ring 37 of the mail bag 38, the said ring 37 being engaged by means of a spring finger 51 formed on and projecting outwardly from the bar 47 to hold the said ring 37 in a position to be engaged or grabbed by the finger 29 on the head of the station apparatus.

Now when the bag 38 is caught by the arm 46 from the head of the station apparatus and the bag 38 is caught by the latter from the arm 46 of the device on the car the head will be caused to turn by reason of a slight jar incident to the catching of the ring 37 of the mail bag 38, thereby causing the brace rod 45 to trip the lever 24, which releases the bolt 19 for the freeing of the post or standard 11, which by reason of the connection with the weight 18 will swing from perpendicular to inclined position, thereby enabling the mail bag 38 caught by the head of the station apparatus to be readily and easily removed therefrom. The resetting of the apparatus will be obvious and therefore a detailed explanation of the same will be omitted.

It will be evident that the mail bags 33 and 38 will be exchanged between the station apparatus and the device on the car during the travel thereof without requiring the slowing down of the speed of the car or the stopping of the same, the device upon the car being thrown from inoperative to operative position by means of a hand lever 52 in the usual manner.

From the foregoing it is thought that the construction and operation of the invention will be clear and therefore a more extended explanation has been omitted. However, to prevent the supporting arm 27 carrying the catching and delivery station apparatus from swinging out of normal position for delivering and receiving mail bags, there is provided a spring catch 53 having a forked end 54 engaging the supporting arm 27, but this catch 53 will release the arm 27 simultaneously with the interchange of the mail bags to and from the station apparatus and the device on the car.

What is claimed is:

1. The combination with a mail bag catching and delivery device upon a car, of a station mail bag and delivery apparatus comprising a frame, a slotted upwardly bowed arcuate shaped guide fixed to one end of the frame, a pivoted swinging post working in the slot in the guide, locking means on the post for normally holding the same in perpendicular position, means for swinging the post from perpendicular to an inclined position on the release of the locking means, a mail bag catching and delivery head carried by the post, means at one end of the head for holding the mail bag in position to be caught by the device

on the car, means at the opposite end of the head for catching a mail bag mounted on the device on the car, and means for releasing the locking means on the post upon the turning of the said head.

2. The combination with a mail bag catching and delivery device upon a car, of a station mail bag and delivery apparatus comprising a frame, a slotted upwardly bowed arcuate shaped guide fixed to one end of the frame, a pivoted swinging post working in the slot in the guide, locking means on the post for normally holding the same in perpendicular position, means for swinging the post from perpendicular to an inclined position on the release of the locking means, a mail bag catching and delivery head carried by the post, means at one end of the head for holding the mail bag in position to be caught by the device on the car, means at the opposite end of the head for catching a mail bag mounted on the device on the car, means for releasing the locking means on the post upon the turning of the said head, and means for locking the post when swung to inclined position.

3. The combination with a mail bag catching and delivery device upon a car, of a station mail bag and delivery apparatus comprising a frame, a slotted upwardly bowed arcuate shaped guide fixed to one end of the frame, a pivoted swinging post working in the slot in the guide, locking means on the post for normally holding the same in perpendicular position, means for swinging the post from perpendicular to an inclined position on the release of the locking means, a mail bag catching and delivery head carried by the post, means at one end of the head for holding the mail bag in position to be caught by the device on the car, means at the opposite end of the head for catching a mail bag mounted on the device on the car, means for releasing the locking means on the post upon the turning of the said head, means for locking the post when swung to inclined position, and means for normally holding the head against swinging movement.

4. The combination with a mail bag catching and delivery device upon a car, of a station mail bag and delivery apparatus comprising a frame, a slotted upwardly bowed arcuate shaped guide fixed to one end of the frame, a pivoted swinging post working in the slot in the guide, locking means on the post for normally holding the same in perpendicular position, means for swinging the post from perpendicular to an inclined position on the release of the locking means, a mail bag catching and delivery head carried by the post, means at one end of the head for holding the mail bag in position to be caught by the device

on the car, means at the opposite end of
the head for catching a mail bag mounted
on the device on the car, means for releasing
the locking means on the post upon the
5 turning of the said head, means for locking
the post when swung to inclined position,
means for normally holding the head
against swinging movement, and means on

the head for locking the mail bag caught
thereon when caught thereby.

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

CHARLES R. BENNETT.

Witnesses:

VINCENT PERRINE,
GEORGE KEEGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."