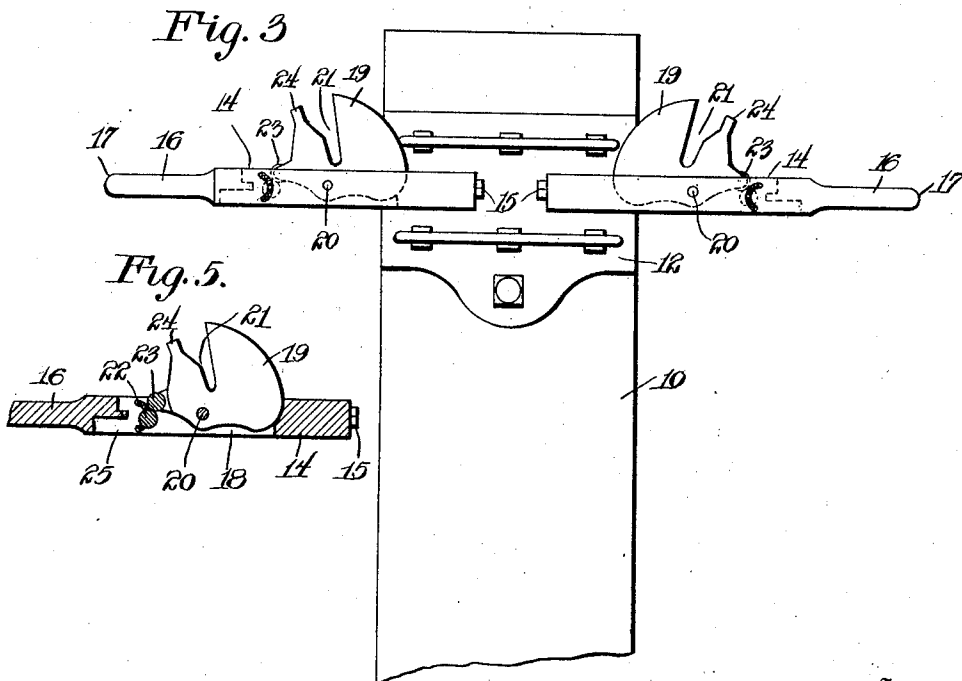
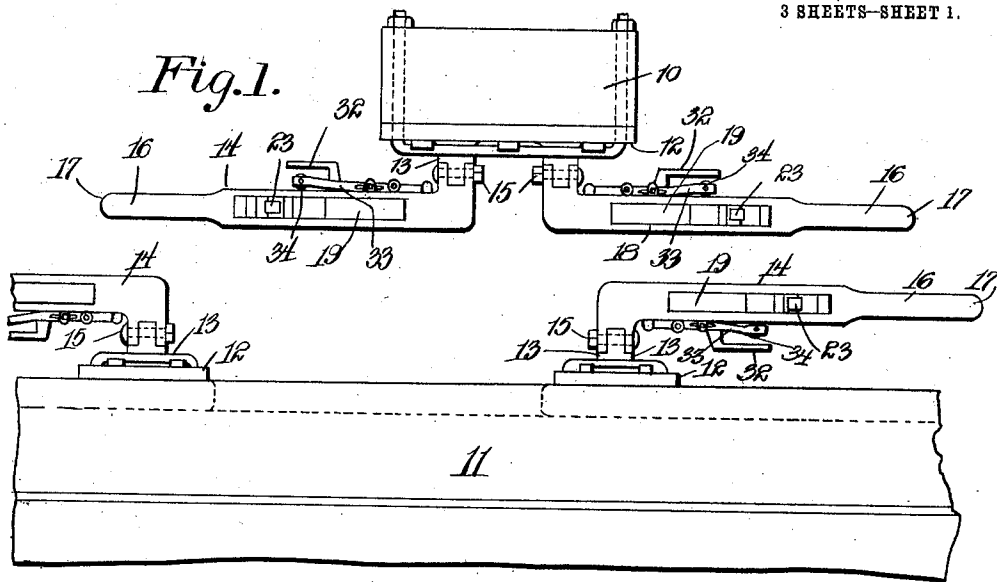


L. E. CLINGENPEEL.
MAIL BAG CATCHING AND DELIVERY APPARATUS.
APPLICATION FILED NOV. 20, 1912.

1,058,553.

Patented Apr. 8, 1913.

3 SHEETS-SHEET 1.



Witnesses

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3 SHEETS—SHEET 2.

Fig. 2.

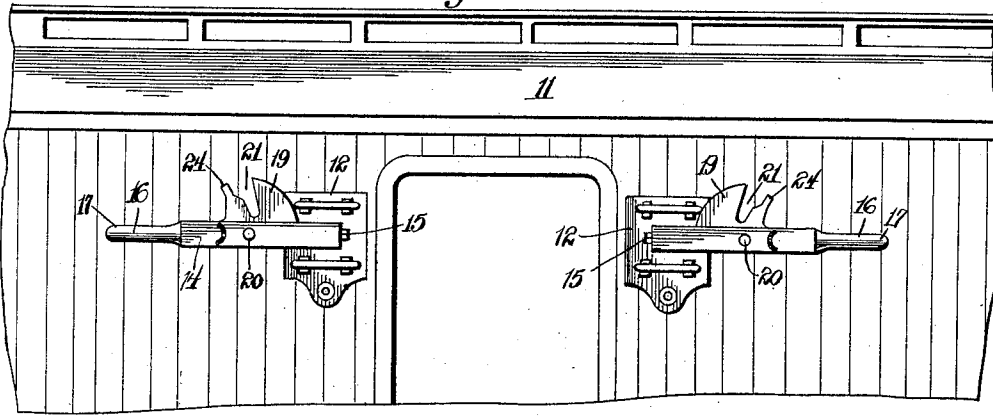


Fig. 9.

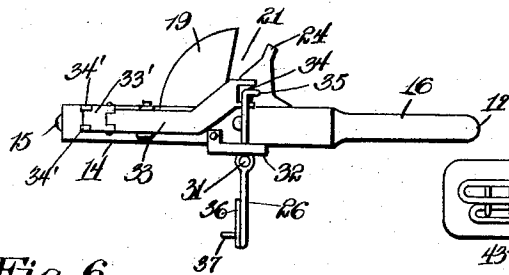


Fig. 8.

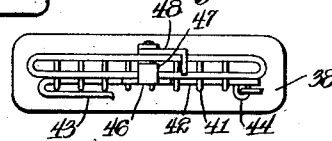


Fig. 6.

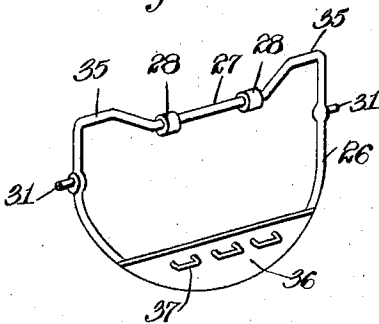
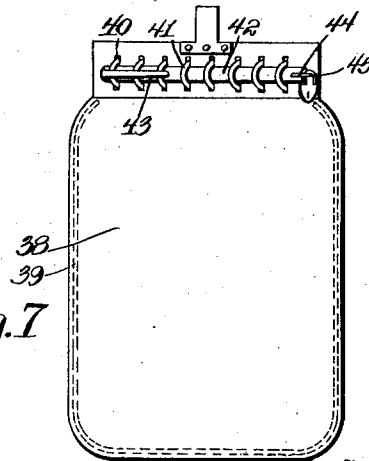


Fig. 7.



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3 SHEETS—SHEET 3.

Fig. 4.

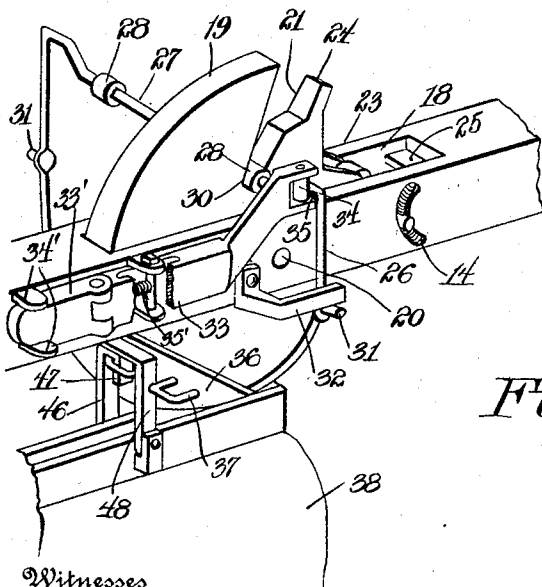
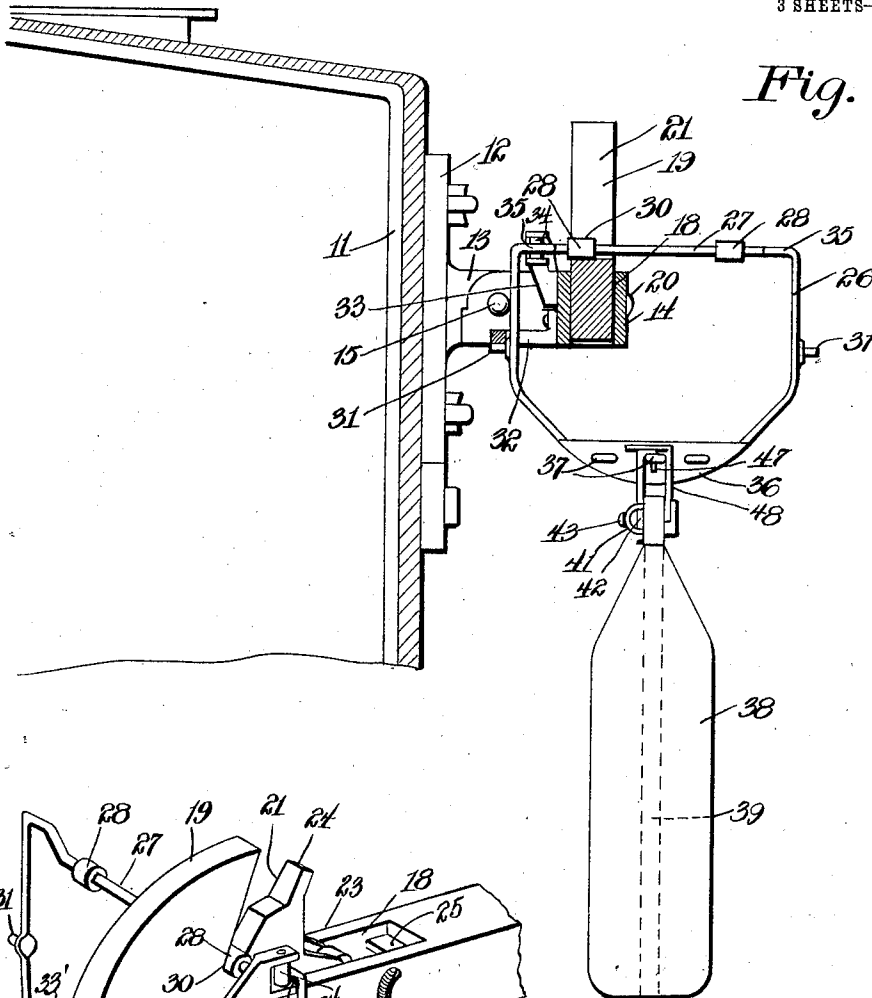


Fig. 10.

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UNITED STATES PATENT OFFICE.

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MAIL-BAG CATCHING AND DELIVERY APPARATUS.

1,058,553.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed November 20, 1912. Serial No. 732,530.

To all whom it may concern:

Be it known that I, LLOYD E. CLINGENPEEL, a citizen of the United States, residing at Bringhurst, in the county of Carroll and State of Indiana, have invented new and useful Improvements in Mail-Bag Catching and Delivery Apparatus, of which the following is a specification.

The invention relates to mail bag catching and delivery apparatus.

The primary object of the invention is the provision of an apparatus of this character wherein mail bags can be delivered from a moving train to a station or from the latter to the train without requiring the stopping of the train at the station, or the slowing of the speed of travel thereof.

Another object of the invention is the provision of an apparatus of this character wherein mail bags can be hung in a novel manner both upon the device on a train and also a device at the station so that the bags can be exchanged from the train to the station or vice versa without the throwing of the mail back during the exchange thereby avoiding excessive wear upon the mail bag or damage to the same resulting from severe usage.

A further object of the invention is the provision of an apparatus of this character in which mail bags can be conveniently handled for the receiving and delivery thereof between moving trains and a station without undue wear upon the mail bag and eliminating all possibility of injury to persons while the mail bags are being exchanged from the train to the station or vice versa.

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

With these and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a fragmentary top plan view of a mail car showing the mail bag receiving and delivery device thereon constructed in accordance with the invention and also a similar device at a station so that the exchange of mail bags may be made therebetween. Fig. 2 is a fragmen-

tary side elevation of a mail car with the device thereon. Fig. 3 is a side elevation of the station mail bag receiving and delivery device. Fig. 4 is a fragmentary vertical transverse sectional view through the mail car showing the device supporting a mail bag. Fig. 5 is a fragmentary vertical longitudinal sectional view through one of the receiving and delivery arms of the device. Fig. 6 is a perspective view of the suspension bail for the mail bag. Fig. 7 is a side elevation of a mail bag used with the device. Fig. 8 is a top edge elevation thereof. Fig. 9 is an inner side view of one of the catching and delivery arms of the device. Fig. 10 is a fragmentary perspective view of one of the devices supporting a bag for delivery therefrom.

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

Referring to the drawings by numerals 10 designates a stationary upright or post which is adapted to be anchored in the track bed at one side of a railway track over which is adapted to travel the mail car 11, which is of the ordinary well-known construction, only a portion of the said car being shown to illustrate clearly the manner of mounting thereon the mail bag catching and delivery device hereinafter more fully described.

The post 10 and the car 11 each has mounted thereon a mail bag catching and delivery device which comprises a base plate 12 the same being secured to the said post or side of the car in any desirable manner. The plate 12 supports a pair of oppositely extending substantially L-shaped mail bag catching and delivery arms each comprising an inner stationary section 13 and an outer vertically swinging section 14, the latter being swingingly pivoted at 15 to the said inner section 13 which is designed to offset the said outer section 14 with respect to the plate 12, the section 14 being horizontally disposed and by reason of the pivotal connection 14 with the said inner section 13 which may be swung vertically to inoperative position. The outer section 14 of each arm is formed with a reduced rounded outer end portion 16 having a pointed tip 17, while the inner or remaining portion of the said arm is formed with an elongated slot 18 in which is arranged a rotatable latch segment 19 supported upon a pivot 20

passed transversely through the section 14 and the said segment so that the latter will rotate thereon. Formed in each segment 19 is an inwardly tapered slot 21 which opens through the perimeter thereof for accommodating a suspension bail presently described.

Suitably mounted in the slot 18 at the outer end thereof is a spring held friction roller 22 which is adapted to be engaged by a friction roller 23 journaled on the segment 19 at the outer edge thereof, while spaced from the said roller 23 is a stop projection 24, which is integrally formed with the segment 19 and is adapted to engage a bearing or shoulder 25 located at the outer closed end of the said slot 18 when the segment 19 has been moved, whereby the slot 21 therein will lie in a plane substantially parallel with the outer section 14 of the arm so that a mail bag can be caught on the latter and retained thereon by the latch segment 19 which in this instance is adapted to be shifted so that the slot 21 will be locked vertically, the friction roller 23 during the movement of the segment 19 to such position, being designed to trip over the friction roller 22 in the slot 18 of the outer section 14 of the arm, thus holding the said segment 19 in position for locking the mail bag upon the latter.

Adapted to be hung upon the respective arms of each device on the post 10 or car 11 and to be detached therefrom is a suspension bail 26, the same being formed with a distorted or bowed portion 27 carrying spaced rollers 28 either of which being designed to engage in the slot 21 which is formed near its inner end with beveled notches 30 accommodating the roller 28 so as to avoid lateral displacement of the bail 26 when engaged in the slot 21 in the segment 19 and also to sustain the same at a slight angle with respect to the arm on which it is engaged. The bail 26 is formed at opposite sides with outwardly projecting lugs 31 either of which is adapted to be engaged by means of an offset brace finger 32 fixed to the inner side of the outer section 14 of each arm so that the said bail 26 will be prevented from rocking laterally of the arm and also will be held projected beyond the outer side of the said arm.

Mounted upon the inner side of the section 14 of each arm is a slidable keeper 33 carrying at one end a roller 34 which is adapted to engage the bight 35 in the distorted portion 27 of the bail when the latter is engaged by the segment 19 after the said bail has passed on to the arm. Thus, in this manner, the bail 26 will be prevented from rising in the slot 21 formed in the segment 19 when the latter is retaining the bail on the outer section 14 of the arm the keeper 33 being manually manipulated.

The keeper 33 has hinged to its outer end a swinging section 33' which is adapted to engage with lugs 34' integral with and projecting outwardly from the outer section 14 so as to hold the said slidable keeper 33 in position for engagement with the bight 35 in the distorted portion 27 of the bail, as shown in Figs. 4, 9 and 10 of the drawings. On disengaging the section 33' from the lugs 34' the spring 35' will act upon the keeper 33, thereby retracting it and disengaging the same from the bail.

Mounted on the lower portion of the bail 26 is a bridge plate 36 in which are fixed outwardly extending staples 37 for the detachable connection therewith of a mail bag the details of which will be hereinafter fully described.

The mail bag comprises a sack 38 having a substantially U-shaped resilient reinforcing frame 39 mounted interiorly thereof so as to prevent the collapsing or crushing of the sack when in use and also to assist in the opening thereof. The sack 38 is formed at one side of the mouth thereof with a plurality of slots 40, while at the opposite side are fixed a series of loops or staples 41 as usual, the latter being designed to pass through the slots 40 when it is desired to close and fasten the mouth of the sack. After the staples 41 have been passed through the slots 40 the latch bar 42 is engaged in the said staples 41 for holding the mouth of the bag closed, one end of the bar 42 being formed with a hook 43 adapted to embrace several of the staples 41, while the opposite end is formed with an aperture 44 for receiving a keeper lug 45 mounted on the sack at the mouth thereof and to this keeper lug 44 may be attached any suitable lock, thus fastening the mail bag closed.

Suitably fixed to the mouth edge of the sack 38 is a coupling plate 46, the same being formed with a resilient tongue 47 which is adapted to engage in any one of the staples 37 mounted on the plate 36 of the bail 26, while at the opposite side of the mouth edge of the sack 38 is pivoted the latch or hasp 48 which is adapted to engage the staple 37 passed through the coupling plate 46 so as to detachably secure the sack 38 suspended from the bail 26, the coupling plate 46 being fixed centrally to the mouth edge of the sack, so that when the mail bag is suspended by the bail 26 from either arm of the device it will not hang to either side of a vertical plane.

In the operation of both the devices of the car and at the station, presuming that mail bags are hung from the supporting arms of both the said devices, so that the mail bags may be exchanged between the station and the mail catch during the travel of the train, each mail bag is suspended from the bail 26 which is engaged in the segment

19 both on one of the arms of the device on the car and one of the arms of the device at the station. Assuming that the car is approaching the station the mail bag to be delivered therefrom will be engaged by the arm disposed in the direction of the approaching car, it being understood of course that the rear arm of the device on the car supports the bag to be delivered to the station, while the front arm of the said device is adapted to grab and receive the mail bag carried by the other arm of the device at the station so that the mail bags between the latter and the car can be exchanged during the travel of the said car without requiring the speed thereof to be reduced or the stopping of the same.

From the foregoing description, taken in connection with the accompanying drawings it is thought that the construction and operation of the invention will be clearly understood, and therefore, a more extended explanation has been omitted.

What is claimed is:

1. The combination with a station mail bag catching and delivery device, of a base plate adapted to be mounted upon the side of a car, a pair of oppositely extending arms fixed to said base plate in spaced horizontal relation to each other, a slotted segment pivoted in each of said arms for rotation, means on each of said arms and said segment respectively for limiting the rotation of the latter and a bail adapted to be received upon and detached from either of said arms and engageable with and disengageable from the said segment.

2. The combination with a station mail bag catching and delivery device, of a base plate adapted to be mounted upon the side of a car, a pair of oppositely extending arms fixed to said base plate in spaced horizontal relation to each other, a slotted segment pivoted to each of said arms for rotation, means on each of said arms and said segment respectively for limiting the rotation of the latter, a bail adapted to be received upon and detached from either of said arms and engageable with and disengageable from the said segment, and means carried by the arm and engageable with the bail to hold the same offset with respect to said arm and also to sustain it in rigid position.

3. The combination with a station mail bag catching and delivery device, of a base plate adapted to be mounted upon the side of a car, a pair of oppositely extending arms fixed to said base plate in spaced horizontal relation to each other, a slotted segment pivoted to each of said arms for rotation, means on each of said arms and said segment respectively for limiting the rotation of the latter, a bail adapted to be received upon and detached from either of said arms and engageable with and disen-

gageable from the said segment, means carried by the arm and engageable with the bail to hold the same offset with respect to said arm and also to sustain it in rigid position, and means adapted to detachably connect a mail bag to the bail.

4. The combination with a station mail bag catching and delivery device, of a base plate adapted to be mounted upon the side of a car, a pair of oppositely extending arms fixed to said base plate in spaced horizontal relation to each other, a slotted segment pivoted to each of said arms for rotation, means on each of said arms and said segment respectively for limiting the rotation of the latter, a bail adapted to be received upon and detached from either of said arms and engageable with and disengageable from the said segment, means carried by the arm and engageable with the bail to hold the same offset with respect to said arm and also to sustain it in rigid position, means adapted to detachably connect a mail bag to the bail, each of said arms being formed in two sections, and a pivot connecting the sections to permit swinging of one section to inoperative position.

5. The combination with a station mail bag catching and delivery device, of a base plate adapted to be mounted upon the side of a car, a pair of oppositely extending arms fixed to said base plate in spaced horizontal relation to each other, a slotted segment pivoted to each of said arms for rotation, means on each of said arms and said segment respectively for limiting the rotation of the latter, a bail adapted to be received upon and detached from either of said arms and engageable with and disengageable from the said segment, means carried by the arm and engageable with the bail to hold the same offset with respect to said arm and also to sustain it in rigid position, means adapted to detachably connect a mail bag to the bail, each of said arms being formed in two sections, a pivot connecting the sections to permit swinging of one section to operative position, and friction rollers carried by the bail and engageable in the slot in the segment.

6. The combination with a station mail bag catching and delivery device, of a base plate adapted to be mounted upon the side of a car, a pair of oppositely extending arms fixed to said base plate in spaced horizontal relation to each other, a slotted segment pivoted to each of said arms for rotation, means on each of said arms and said segment respectively for limiting the rotation of the latter, a bail adapted to be received upon and detached from either of said arms and engageable with and disengageable from the said segment, means carried by the arm and engageable with the

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said arm and also to sustain it in rigid posi-
tion, means adapted to detachably connect
a mail bag to the bail, each of said arms be-
5 ing formed in two sections, a pivot connect-
ing the sections to permit swinging of one
section to inoperative position, friction roll-
ers carried by the bail and engageable in
the slot in the segment, and means on the

arm and engageable with the bail to hold 10
the latter within the slot in the segment
when the said bail is caught thereby.

In testimony whereof I affix my signa-
ture in presence of two witnesses.

LLOYD E. CLINGENPEEL.

Witnesses:

J. R. RAMEY,

ROSS ALLEN.

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