

J. E. RESER.
MAIL BAG RECEIVING AND DELIVERING APPARATUS.
APPLICATION FILED APR. 8, 1909.

934,356.

Patented Sept. 14, 1909.

3 SHEETS—SHEET 2.

FIG. 4.

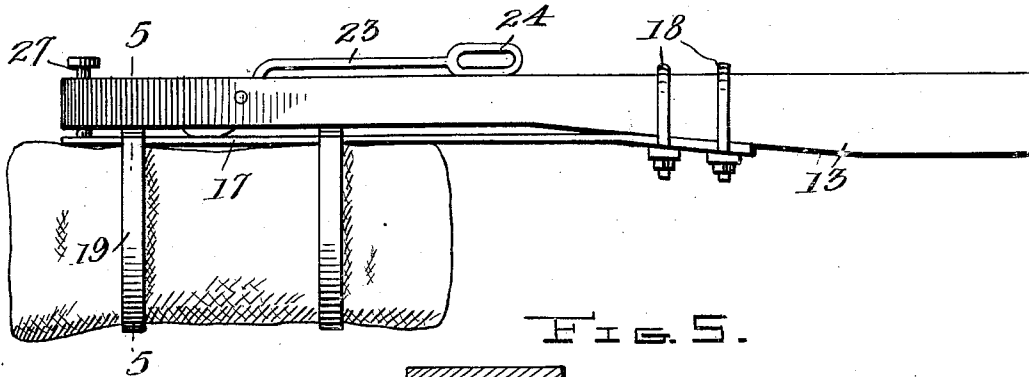


FIG. 5.

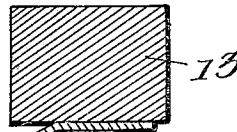


FIG. 6.

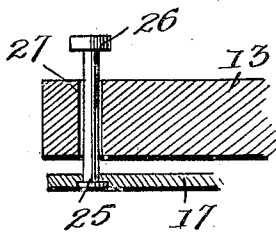


FIG. 7.

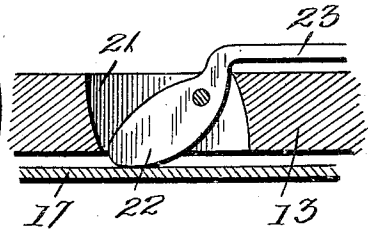
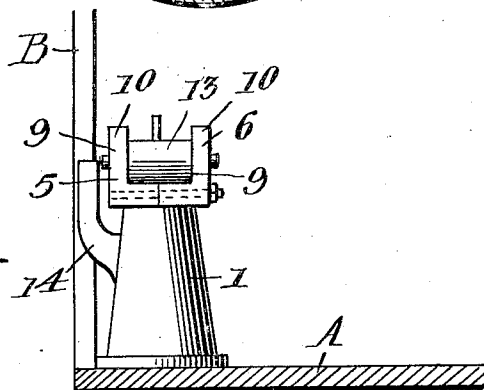


FIG. 8.



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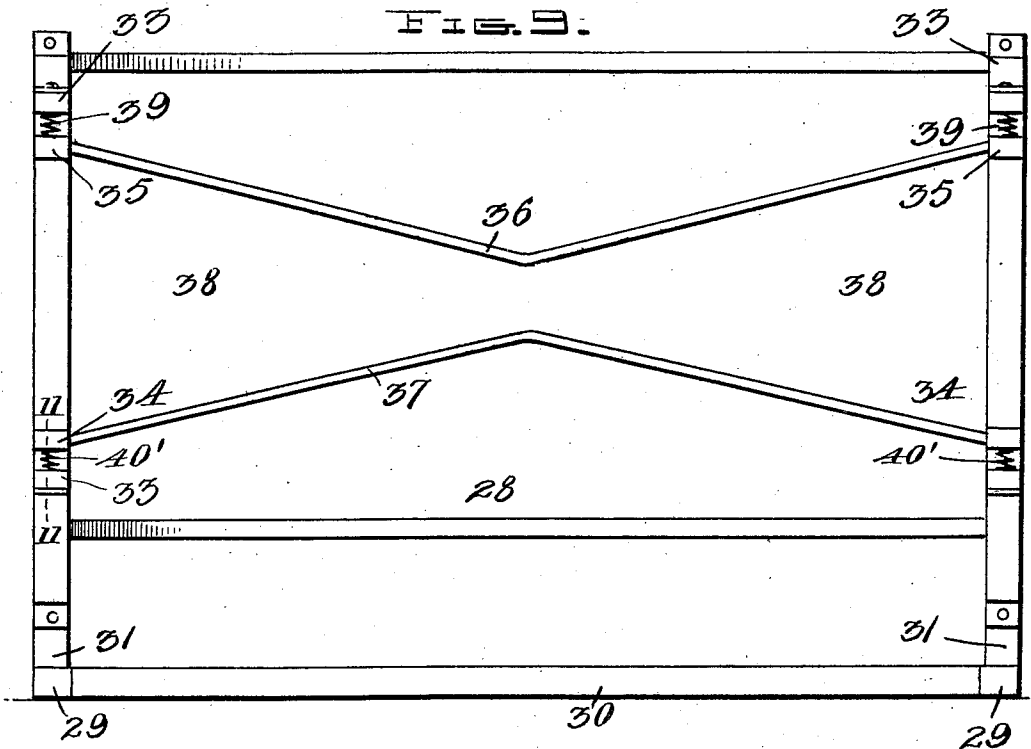


FIG. 10.

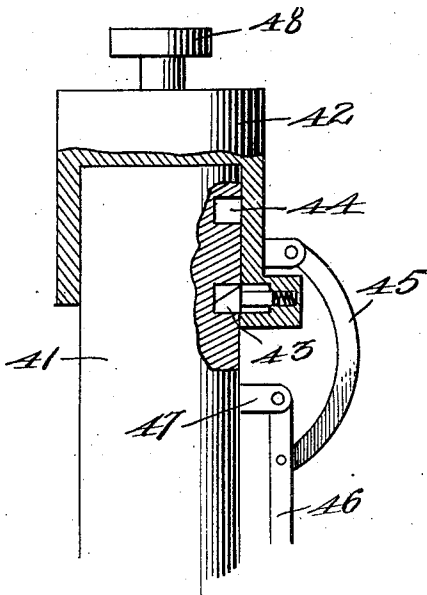
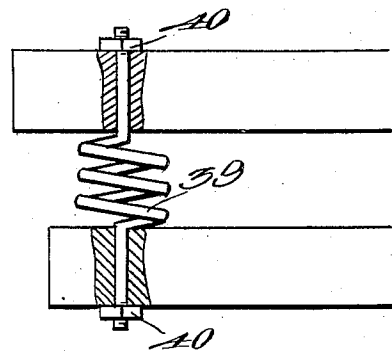


FIG. 11.



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MAIL-BAG RECEIVING AND DELIVERING APPARATUS.

934,356.

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To all whom it may concern:

Be it known that I, JULIAN E. RESER, a citizen of the United States, residing at Great Bend, in the county of Barton and State of Kansas, have invented new and useful Improvements in Mail-Bag Receiving and Delivering Apparatus, of which the following is a specification.

This invention relates to mail bag receiving and delivering apparatus and has for an object to provide apparatus of this character adapted to be installed upon a mail car and being arranged with reference thereto so that one or a plurality of mail bags can be effectively moved from the interior of the car to the exterior thereof in position to be engaged by the receiving apparatus located adjacent to the car.

A still further object of the invention is to provide novel means for retaining temporarily one or more mail bags to the delivering arm, providing effective means for allowing the mail bag or bags to be removed by the receiver.

Another object of my invention is to provide simple and effective receiving apparatus embodying a frame adapted to be positioned at a mail receiving station and arranged to receive mail bags from moving trains without injuring the contents of the bags.

Other objects and advantages will be apparent as the nature of the invention is better disclosed and it will be understood that changes within the scope of the claims can be made without departing from the spirit of the invention.

In the drawings forming a portion of this specification and in which like characters of reference indicate similar parts in the several views: Figure 1 is a transverse section through a car showing a mail bag delivering apparatus in position to deliver a mail bag to the receiving apparatus. Fig. 2 is a perspective view of the stand or support. Fig. 3 is a detail section taken through a portion of the stand or support showing the manner of connecting thereto for revoluble movement the mail bag supporting element. Fig. 4 is an enlarged side elevation of the delivering arm. Fig. 5 is a vertical section taken on the line 5—5 of Fig. 4. Fig. 6 is a detail longitudinal section taken through the outer extremity of the delivering arm. Fig. 7 is a similar view through a portion of the delivering arm showing the spring actuating lever. Fig. 8 is a view

similar to Fig. 1 showing the arm supporting element in an inoperative position. Fig. 9 is a front elevation of the receiving apparatus. Fig. 10 is a detail view of a modified form of supporting stand. Fig. 11 is a detail section taken on the line 11—11 of Fig. 9.

Referring now more particularly to the drawing, there is shown a car A of usual construction, employed in the railway mail service, and as illustrated the car has mounted upon the bottom thereof a stand 1 located adjacent to the doorway B. The stand 1 is provided at the upper end thereof with a removable stud 2 provided with a cylindrical head 3 disposed above and in spaced relation to the top of the stand 1.

An arm supporting element is shown at 4 and comprises members 5 and 6 secured to each other by means of bolts or similar fastening devices 7. Each of the members 5 and 6 has formed therein recesses 8 of semi-cylindrical form, the said recesses being arranged to register with each other, so that they will effectively receive the head 3 of the stud 2, thus providing means for allowing the arm supporting element to be revolved upon the stand or support 1. The members 5 and 6 are provided with cut-away portions 9, and in the vertically extending spaced portions 10 of the members 5 and 6 are formed passages 11 for receiving a removable pivot pin 12 engaged with the inner end of a mail bag supporting arm 13. As shown, the inner end of the arm 13 is arranged between the vertically extending portions 9 and 10 of the members 5 and 6, and by providing the movable pin 12 it is obvious that when the latter is removed the delivering arm can be conveniently removed from the arm supporting element.

In view of the foregoing description it will be seen that the arm supporting element can be revolved upon the stand 1 so that the arm 13 can extend outwardly of the car A at right angles thereto as shown in Fig. 1 of the drawings, and in order to prevent rotary movement of the arm supporting element when the arm is in the above described position I provide the stand or support 1 with a fork 14, the portion of the arm 13 adjacent to the arm supporting element being arranged to lie between the arms 15 of the fork 14 and to rest upon a shoulder or seat 16, thus removing considerable strain from the pin 12.

The arm 13 is provided upon the under side thereof with a longitudinally extending leaf spring 17, the inner extremity of the said spring being secured to the arm by means of retaining clips 18. Normally, the spring 17 is arranged to yieldingly engage the under side of the arm 13 for a purpose to be hereinafter more fully described. Mail bag retaining straps or similar flexible elements 19 are provided and as shown, one end of each strap is secured by means of a rivet 20 to the spring 17. When it is desired to deliver one or a plurality of bags from the car the straps 19 are passed around the body of the bag as shown in Figs. 1 and 4 of the drawings and the free or terminal ends of the straps are passed between the springs 17 and the under side of the arm 13. It will of course be understood that the spring 17 will be sufficient in strength to hold the straps 19 in their adjusted position so that while not permanently holding the bags to the arm 13 the spring effectively serves to temporarily hold the bags until they have reached the delivering apparatus to be hereinafter more particularly described. The arm 13 adjacent to the outer end thereof is provided with a vertically disposed slot 21, and between the walls of the slot is pivotally mounted a cam head 22 having a longitudinally extending handle 23 provided with a hand hold 24. By providing the cam head 22 and the handle 23 therefore it is obvious that the latter can be actuated so that the head 22 can be engaged with the spring 17 to force the same downwardly and away from the arm 13 so that during the operation of applying the mail bag to the arm the terminal ends of the straps 19 can be freely passed between the spring and the arm. In order to prevent movement of the spring 17 in a movement downwardly beyond a predetermined point, I secure to the spring a pin or stem 25 having a headed upper end 26 adapted to be engaged with the arm 13 to serve as a stop when the spring 17 is pressed downwardly. The pin or stem 25 is guided in its movement by being arranged in a passage 27 formed in the arm 13.

A mail bag receiving apparatus is shown at 28 and comprises supporting members 29 disposed in spaced relation to each other, and as shown these members are connected by longitudinally extending bars 30. Vertically extending standards or posts 31 are carried by the members 29 and are preferably braced by suitable members or posts 32 so as to form a perfectly rigid structure. Each of the said posts or standards 31 carries a horizontally disposed arm 33 disposed in spaced relation to each other. As illustrated the said arms are disposed adjacent to the upper and lower ends of the posts or members, the lower arms being provided

upon their upper faces with yieldingly supported members 34 and the upper arms as clearly illustrated are provided upon their undersides with yieldingly suspended members 35. The arms 35 are provided with longitudinally extending spaced rods 36 which are preferably of V-form and the arms 34 are provided with similar rods 37 of inverted V-form which are arranged with respect to the rods 36 so that they form in conjunction therewith a substantially V-shaped throat 38 at each end of the said receiving apparatus. As previously stated the members 35 are yieldingly suspended from the arms 33 and to this end I employ strong coil springs 39, the said springs being provided with threaded extremities for receiving clamping nuts 40 and as illustrated the said springs have portions disposed in passages formed in the arms 33 and in the members 35. This construction provides means so that the said members 35 may be moved vertically for a purpose to be presently described. The members 34 are connected by means of coil springs 40' to the arms 33, and in this instance the said springs are constructed in a manner identical with the springs 39. It will thus be seen that the members 34 and 35 and the rods 36 and 37 carried thereby are yieldingly supported in such manner that they are free for movement away from each other when a mail bag is impinged between the said rods 36 and 37 in movement of the train.

In the form of stand shown in Fig. 10, I provide an element or vertical member 41 which is preferably of cylindrical form and has slidably mounted thereon a cap 42 provided with a spring actuated sliding dog 43 adapted for locking engagement in notches 44 formed in said element or standard. The cap 42 has pivoted thereto one end of an arcuate link 45, the other end of said link being pivotally connected to an actuating lever 46 pivoted at one end to a bracket 47 upon the standard or element. The cap 42 is provided with a head 48 with which the arm carrying means shown in the preferred form of my invention may be engaged. It is obvious upon reference to the modified form that its construction is such that the cap 42 is adjustable vertically and can be raised or lowered to suit the convenience of the operator.

In operation when it is desired to deliver a mail bag from the car the bag is connected with the arm 13 to the latter as in the position shown in Fig. 8 and the arm 13 revolves until it assumes a point approximately at right angles with respect to the car whereupon, the arm 13 can be moved upwardly and engaged between the arms 15 of the fork 14 to effectively hold the arm supporting element against rotary movement. When

the car arrives at the station at which the mail bag is to be deposited or delivered the bag will pass between the rods 36 and 37 of the receiving apparatus and incident to the peculiar construction of the said arms the bag will be effectively forced away from the straps 19 and removed entirely from the arm 13 without injury to the contents of the bag.

While I have shown the straps 19 supporting but one bag it will be appreciated that the construction shown and described by me readily affords means so that a plurality of mail bags can be delivered at one operation.

What is claimed is:—

1. Apparatus of the class described embodying a revoluble arm supporting element, an arm carried by said element, bag supporting straps; a spring secured at one of its ends to the arm, said bag supporting straps each having one end secured to said spring and arranged to be held in loop form by engaging the terminal ends of the straps between the spring and the said arm, and bag receiving apparatus adapted to release a mail bag from the straps.

2. The combination with a bag delivering means, of receiving apparatus comprising a pair of horizontally disposed yielding supported spaced members, rods extending longitudinally of said members and connected at their ends thereto, a pair of horizontally disposed yielding supported members beneath the first named members and rods connecting the last named members and disposed beneath the first named rods and located in spaced relation thereto.

3. The combination with a stand, of an arm supporting element revolubly connected with the stand, a bag supporting arm carried by the element, a spring carried by the arm, mail bag engaging straps carried by the spring, and means carried by the stand for engaging the arm to hold the element against rotary movement when the arm is in operative position.

4. Apparatus of the class described comprising a stand, an arm supporting element revolubly connected with the stand, an arm carried by said element, a spring carried by the arm adapted to yieldingly engage the same normally, bag supporting straps car-

ried by the spring adapted to have their terminal or free ends detachably secured to the arm, a lever pivotally connected with the arm and provided with spring engaging means adapted to force said spring downwardly and away from the arm.

5. The combination with a bag delivering apparatus having means for holding a bag in horizontal position, of a receiving apparatus comprising a plurality of horizontally disposed yielding supported upper members and a plurality of horizontally disposed yielding supported lower members, rods connecting the said plurality of lower members and rods connecting the plurality of upper members, said first and last named rods being of V-form so that substantially wedge-shaped throats or passages are provided at the ends of the said receiving apparatus.

6. The combination with a mail bag delivering arm, of a receiving apparatus comprising yielding supported upper and lower members adapted for movement toward and away from each other, longitudinally extending rods connected with said arms and arranged with respect to each other longitudinally of the receiving apparatus so that substantial wedge shaped spaces are formed at the ends of the receiving apparatus therein.

7. The combination with a bag delivering apparatus comprising a horizontally disposed arm, a spring secured at one end to the arm and extending longitudinally thereof, straps adjacent to the outer end of the arm, said straps each having one end secured to said spring and adapted to have its other end confined between the spring and a portion of said arm of receiving apparatus having means for disengaging the last named ends of the said straps from between the spring and the said arm so as to permit of the removal of the bag.

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

JULIAN E. RESER.

Witnesses:

ED. L. CHAPMAN,
GEO. F. STARR.