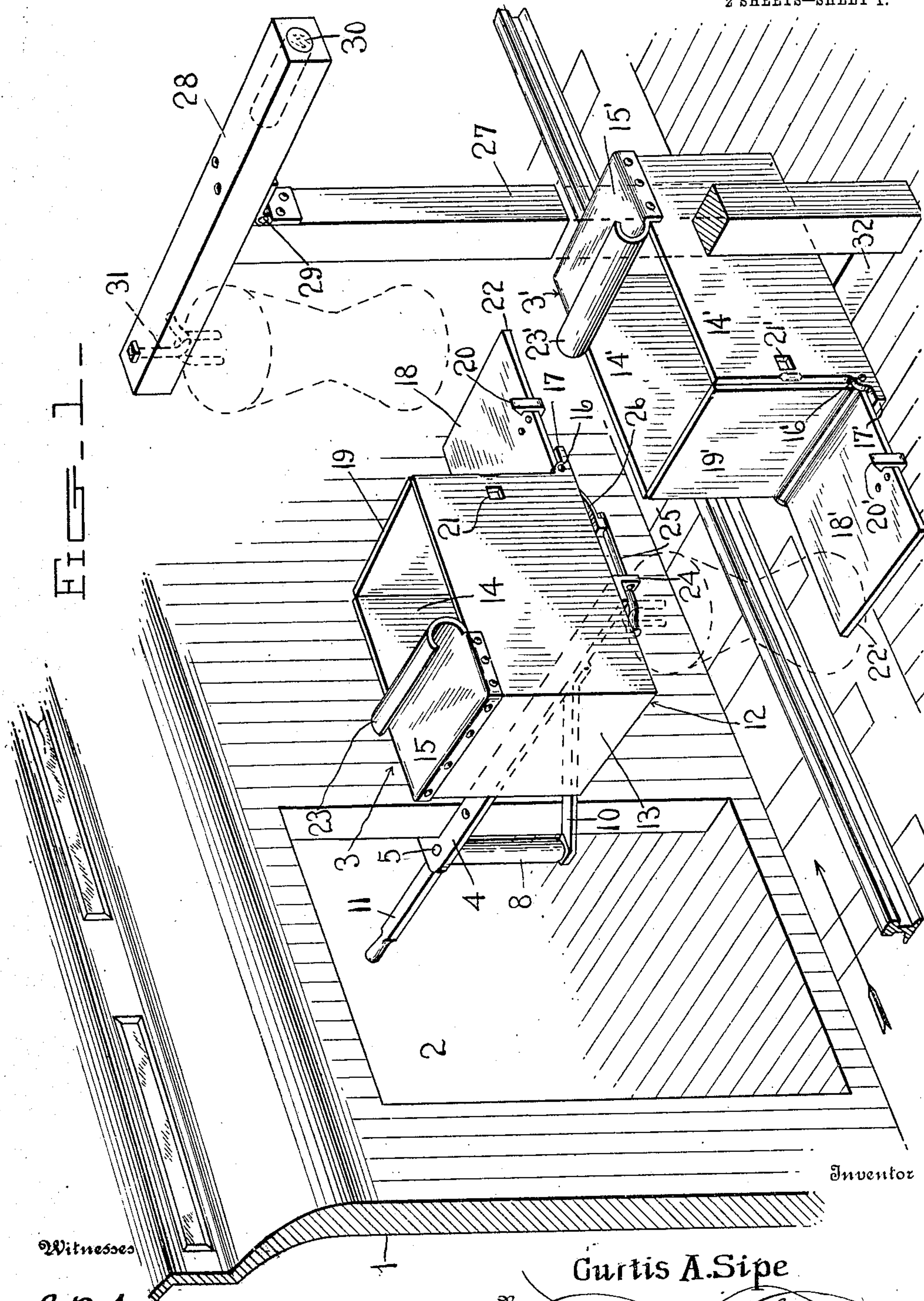


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MAIL BAG CATCHING AND DELIVERING APPARATUS.
APPLICATION FILED JUNE 23, 1908.

912,907.

Patented Feb. 16, 1909.

2 SHEETS—SHEET 1.



Witnesses

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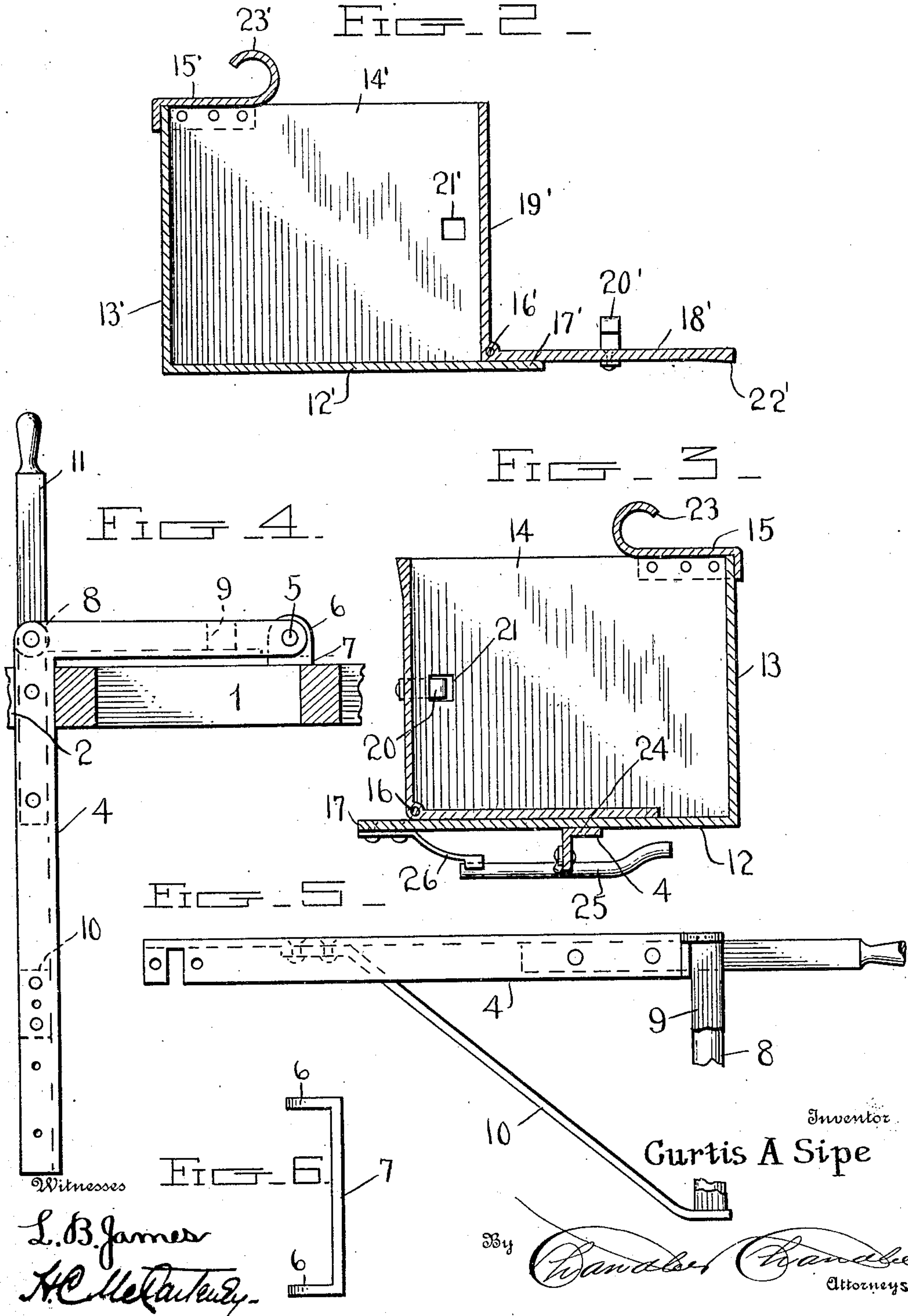
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UNITED STATES PATENT OFFICE.

CURTIS A. SIPE, OF EMIGSVILLE, PENNSYLVANIA.

MAIL-BAG CATCHING AND DELIVERING APPARATUS.

No. 912,907.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed June 23, 1908. Serial No. 440,011.

To all whom it may concern:

Be it known that I, CURTIS A. SIPE, a citizen of the United States, residing at Emigsville, in the county of York, State of Pennsylvania, 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.

The present invention relates to improvements in mail-bag catching and delivering apparatus, its principal object being the provision of an extremely simple and inexpensive device for automatically removing a mail-bag from a support carried by a moving train or by a crane located adjacent the tracks upon which the train travels, in the safest and most effective manner.

The invention especially resides in the construction of this removing device or catcher as it will be hereinafter termed, in the form of a receptacle whose front member or wall is capable of a swinging movement upon a horizontal axis, and in the attachment to its top member of a spring buffer, the front member above referred to presenting a rear side which normally occupies a vertical position, and a second or front side arranged at right angles thereto, being thus disposed normally in a horizontal plane, the impetus of the blow struck the vertical side by the mail-bag being sufficient to rock said member upon its axis, so as to move said vertical side inwardly and downwardly into a horizontal position, and the horizontal side inwardly and upwardly into vertical position, thus retaining the mail-bag within the receptacle, the buffer serving to prevent the bag from striking against and being injured by the rear wall or member of the receptacle.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which corresponding parts or features are designated by the same reference numerals throughout the several views.

Of the said drawings, Figure 1 is a perspective view of the complete invention. Figs. 2 and 3 are vertical sections taken longitudinally through one of the catching receptacles, illustrating both positions of the movable front member. Figs. 4 and 5 are respectively a top plan and a side ele-

vation of the support upon which is mounted the catching receptacle carried by the car. Fig. 6 is a detail view of a bracket employed in connection with the support.

Referring more particularly to the drawings, 1 designates generally, the mail-car, 2 the door-way formed in one of the sides thereof, and 3 the catching device which is carried by the car and is mounted upon an L-shaped support 4 whose shorter arm has secured to its free end the upper end of a rod 5 which passes loosely through alining perforations formed in the out-turned ends 6 of an interiorly-located bracket 7 secured in any preferred manner to the car side adjacent the doorway 2. The above-mentioned arm is further connected by a pair of depending rods 8 and 9 with the foot of an L-shaped brace 10, as shown in Figs. 4 and 5, the body portion of said brace being inclined upwardly and riveted at its free end to the longer arm of the support 4.

Owing to the loose fit of the rod 5 in the perforations in the bracket ends 6, the support will be capable of a swinging movement in a horizontal plane through the doorway, when the transfer of the mail-bags from the car to the complementary mechanism at the receiving station, and vice versa, is to be effected, said support being provided with an operating handle 11 by means of which its movement from one position to the other is accomplished.

The catching receptacle 3 consists, as shown in Figs. 2 and 3, of bottom and rear members 12 and 13, spaced sides 14 secured at their rear and lower edges to the first-mentioned members in any preferred manner, and a top member 15 whose forward edge terminates short of that of the bottom member, its width being approximately one-third of that of the latter member. The sides 14 are formed at their lower front corners with a pair of bearing openings which are adapted to receive the ends of a rod carried by a member 17 which serves as the front wall of the receptacle and is in the form of a dihedral angle, said member comprising front and rear wings 18 and 19 disposed at right angles to each other. The rod which is made fast to said member, fits in an opening or bore formed in the apex of the angle, owing to which construction, said member is capable of a swinging or rocking movement between the sides 14, inwardly

and outwardly of the receptacle. In its normal position, the front wing 18 occupies a horizontal position and rests upon the projecting front end of the bottom member 12, while the rear wing 19 occupies a vertical position.

When the bag is caught by the catcher as subsequently described, the rear wing 19 is swung inwardly and downwardly, so as to rest upon the bottom member 12, while the front wing 18 is raised into vertical position, in which position, it is retained by means of a spring hook 20, secured to one of its side edges, the bill portion of the hook being arranged for engagement in an opening 21 formed in the adjacent side member 14. The front wing 18 is also held against displacement during its normal position owing to the fact that its weight is greater than that of the rear wing, its front portion being thickened, as indicated by the numeral 22.

The member 15 which partially closes the top of the receptacle is formed of heavy spring metal, and its front portion is curved upwardly and rearwardly, as indicated by the numeral 23, to form a buffer against which the mail-bag delivered to said receptacle, as hereinafter described, will contact. The bottom member 12 of the receptacle is in turn, provided with a depending bracket 24 to the free end of which is pivoted centrally a hook 25, the stem of which is normally slightly depressed by the tension of a leaf spring 26, which is also fastened to the under face of said bottom member. The bill portion of the hook 25 is adapted to support the upper ring of the mail-bag to be delivered to the station mechanism.

The apparatus complementary to that above described, is carried by a crane located at the receiving station adjacent the tracks over which the train travels, said crane comprising a stationary lower member or post 27, and an upper member 28 which is hinged centrally to the upper end of the first-mentioned member, as indicated by the numeral 29. The rear end of the member 28 is provided with a weight 30, while its forward end is formed with a vertical opening for the reception of the stem portion of a bag-supporting hook 31 which is retained in place by nuts, or in any other manner preferred. The lower end of the post 27 has fastened thereto a supporting beam 32 upon which is mounted a catching receptacle 3', similar in its construction to the receptacle 3, and therefore requiring no extended description, the various members of the receptacle 3' being indicated by primed reference numerals corresponding to those employed in the description of the first-mentioned receptacle. The disposition of the receptacles 3 and 3' with respect to each other and to the bag-supporting hooks 25 and 31 is such that as the train passes the station, the first-mentioned recep-

tacle projects sufficiently far outwards from the car to directly overhang the receptacle 3'.

In the operation of the invention as a whole, the mail-bags to be delivered are suspended from the hooks 25 and 31, the weight of the mail-bag supported by the latter hook being sufficient to retain the upper crane member 28 in horizontal position so as to rest upon the top face of the post 27. After the mail-bag to be delivered from the car has been attached to the hook 25, the support 4 is swung outwardly through the doorway by means of its handle portion 11. When, therefore, the mail-car passes the crane, the wings 18 and 18' of the front members of the two receptacles will present their outer faces for contact with the mail-bags. The bags, on striking said members will be removed from the supporting hooks, whose bill portions are only very slightly curved, and will strike against the buffers 23 and 23'. The force with which the mail-bags strike the front members of the receptacle is sufficient to rock said members inwardly upon their pivots, thus bringing the outer wings 19 and 19' thereof, into vertical position, in which position they are locked by their engagement with the spring hooks 20 and 21. Owing to the provision of the spring buffers, it will be apparent that the mail-bags, on contacting therewith, will be uninjured, said buffers yielding when struck. When the delivery of the mail-bags to the two receptacles has been effected, the support 4 carried by the bracket 7, which latter is bolted or otherwise secured to the car side, may be moved into the interior of the car, after which the mail-bag is removed from the receptacle. The upper crane member 28, when the mail-bag has been removed therefrom, will swing upon its hinge into vertical position under the action of its weighted end.

What is claimed is:

1. A mail-bag catcher, comprising a receptacle having its front wall formed by a member arranged for pivotal movement inwardly of the receptacle in a vertical plane, said member comprising front and rear wings disposed at right angles to each other, and means for holding the rear wing in position to present its outer face for contact with the mail-bag.

2. A mail-bag catcher, comprising a receptacle having its front wall formed by a member arranged for pivotal movement inwardly of the receptacle upon a horizontal axis, said member comprising front and rear wings disposed at right angles to each other, and means for holding the rear wing in vertical position, to present its outer face for contact with the mail-bag.

3. A mail-bag catcher, comprising a receptacle including spaced vertical sides and a front member arranged for pivotal movement between said sides inwardly and out-

wardly of the receptacle, said member comprising a pair of wings disposed at right angles to each other, and means carried by one of said wings and arranged for engagement with one of said sides, to retain the front wing in vertical position subsequent to the catching of the mail-bag.

4. A mail-bag catcher, comprising a receptacle including spaced vertical sides, and a front member arranged for pivotal movement between said sides upon a horizontal axis inwardly and outwardly of the receptacle, said member comprising front and rear wings disposed at right angles to each other, and means for holding the rear wing in vertical position, to present its outer face for contact with the mail-bag.

5. A mail-bag catcher, comprising a receptacle having its front wall formed by a member arranged for pivotal movement in a vertical plane inwardly and outwardly of the receptacle, said member comprising a pair of wings disposed at right angles to each other, means for holding the rear wing in position to present its outer face for contact with the mail-bag, and a buffer located at the top of said receptacle.

6. A mail-bag catcher, comprising a receptacle including spaced vertical sides, a front member arranged for pivotal movement between said sides inwardly and outwardly of the receptacle, and a top member terminating short of said front member, said front member comprising front and rear wings disposed at right angles to each other, means for holding the rear wing in position to present its outer face for contact with the mail-bag, and a buffer forming a part of said top member.

7. A mail-bag catcher, comprising a receptacle including spaced vertical sides, a front member arranged for pivotal movement bodily inwardly and outwardly of the receptacle, said member comprising a pair of wings disposed at right angles to each other, and a top member terminating short of said front member, means for holding said rear wing in position to present its outer face for con-

tact with the mail-bag, and a spring buffer forming a part of said top member. 50

8. A mail-bag catcher, comprising a receptacle including spaced vertical sides, and a front member arranged for pivotal movement bodily inwardly and outwardly of the receptacle between said sides, said member comprising front and rear wings arranged at right angles to each other, means for holding the rear wing in position to present its outer face for contact with the mail-bag, and a spring metal plate forming the top member of said receptacle and having its forward portion bent upwardly to provide a spring buffer. 55 60

9. A mail-bag catcher, comprising in combination, a receptacle including spaced vertical sides, a front member arranged for pivotal movement bodily inwardly and outwardly of the receptacle between said sides, said member comprising a pair of wings disposed at right angles to each other, and a top member terminating short of said front member, means for holding the rear wing in position to present its outer face for contact with the mail-bag, and a forwardly-projecting spring buffer forming a part of said top member. 65 70 75

10. A mail-bag catcher, comprising in combination, a receptacle including spaced vertical sides, a front member arranged for pivotal movement upon a horizontal axis between said sides inwardly and outwardly of the receptacle, said member comprising front and rear wings disposed at right angles to each other, and a top member terminating short of said front member, means carried by one of said wings and arranged for engagement with one of said sides, to hold the same in vertical position, and a forwardly-projecting spring buffer forming a part of said top member. 80 85 90

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

CURTIS A. SIPE.

Witnesses:

F. C. MACCARTENDY,
GEO. H. CHANDLEE.