E. AMROCK & C. JUDSON.

Mail-Bag Catches.

No. 165,293. Patented July 6, 1875.

Fig. 1.

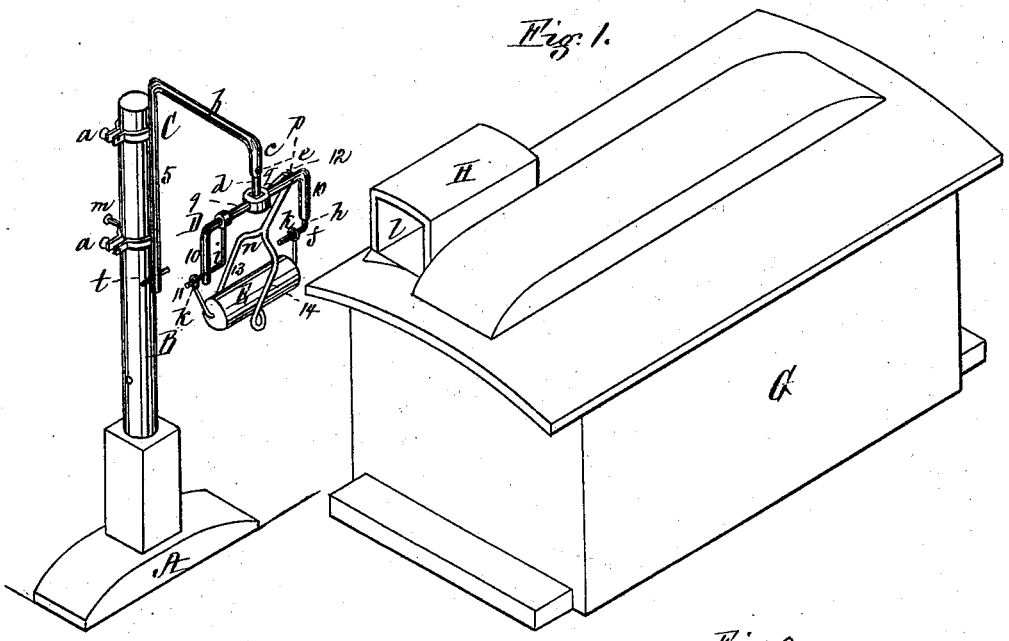


Fig. 3.

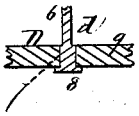


Fig. 2.

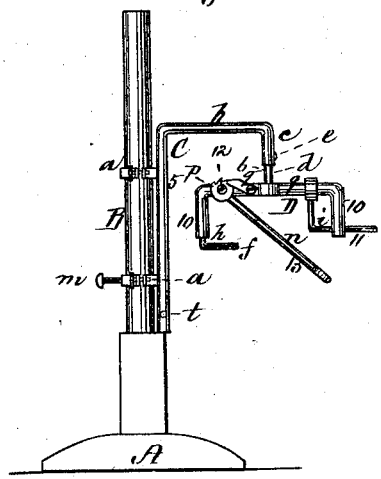
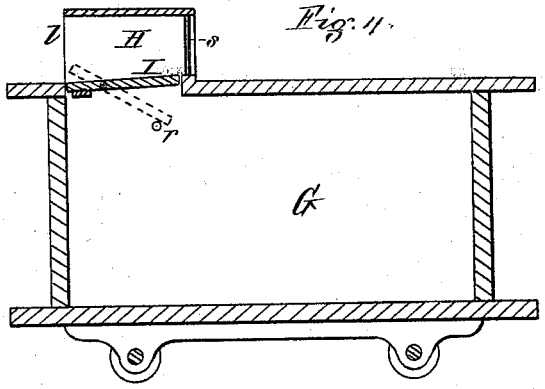


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDWARD AMROCK AND CHESTER JUDSON, OF WEST NEWTON, MASS.

IMPROVEMENT IN MAIL-BAG CATCHES.

Specification forming part of Letters Patent No. **165,293**, dated July 6, 1875; application filed May 11, 1875.

To all whom it may concern:

Be it known that we, EDWARD AMROCK and CHESTER JUDSON, both of West Newton, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Railroad Postal-Cars, and in apparatus for holding the mail-bag in readiness to be received thereby, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of the same, in which—

Figure 1 is a perspective view of a railroad mail-car constructed in accordance with our invention, together with our device for supporting the mail-bag in a position to be taken by the car while in motion. Fig. 2 is a front elevation of the said device when lowered and swung to one side away from the track. Fig. 3 is a sectional detail of the same. Fig. 4 is a vertical section through a postal-car of our improved construction.

Our invention consists in supporting a mail-bag in a horizontal or other position by means of a hanger or hooked holder projecting from and made adjustable upon a standard erected at the station; and, in connection with the above, our invention also consists in a box or compartment at or near the top of the mail-car, and preferably situated on the side toward the station, the said box or compartment being open or provided with a self-closing door in front, and with a pivoted lid or floor, which forms its bottom, upon which the bag is deposited, the contact of the box therewith, as the car advances, serving to detach the bag from its holder and deposit it upon the floor, which is tipped down at its rear end by the weight of the bag, in such manner as to open a passage for it through or near the top of the car, after which the pivoted bottom is returned by a weight or otherwise to its original closed position, in readiness to receive the mail-bag of the next station, by which means the usual detention occasioned by stopping the car for this purpose is avoided.

To enable others skilled in the art to understand and use our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, A represents the platform of a railway-station, from which rises a circular post or standard, B, over which slide split rings or bands *a a*, to which is secured the vertical portion 5 of a crane, C, the upper portion, *b*, of which is bent at a right angle thereto, so as to project out horizontally, the outer end of the horizontal portion being bent down, so as to form a short vertical portion, *c*, which is hollowed out at its lower end for the reception of the top of a pin, *d*, secured in place by means of a screw, *e*. The upper portion 6 of this pin is of circular form, while its lower portion 7 is square in cross-section, and provided at its bottom with a head or enlargement, 8, upon which rests the central portion of a yoke or holder, D, of the form seen, consisting of a horizontal bar or rod, 9, having a vertical portion, 10, projecting down from each of its extremities. From the bottom of one of the vertical portions 10 extends the horizontal branch *f* of an arm, *h*, and through the other vertical portion 10, near its bottom, passes the horizontal branch 11 of another arm, *i*, which may be adjusted so as to cause its horizontal branch 11 to project a greater or less distance outside of the said vertical portion 10 of the holder by simply sliding the head of this vertical portion along the horizontal bar or rod 9.

The above-described device is intended to support the mail-bag E in a direction to be received by the car G as it passes by the station, the opposite ends of the bag being provided with straps having rings *k* secured thereto, the rings being caught over and sliding upon the horizontal portions of the arms *h i*, by which the bag is suspended in a horizontal position in a direct line with the center of the opening *l* of the front of a box or compartment, H, projecting up from the top of the postal or mail-car G, the box H being, preferably, on the side next the station, and the bag-holder being swung out over the track after being raised to the required height, where it is secured by means of a pin, *m*. To prevent the bag from being moved by the wind from side to side, I employ a bifurcated rod or guide, *n*, pivoted at 12 to the horizontal bar 9, the bifurcations 13 14 being swung up, so as to be on opposite sides of the bag, a ratchet-wheel, *p*, and pawl *q* being provided to hold the guide after being adjusted in place. The

passage between the top of the car and the box or compartment H is closed by a pivoted floor or bottom, I, which is weighted in front on its under side, by which it is automatically closed immediately after the bag has passed through into the car beneath. *r* is a small pin projecting from the inside of the car a little below the pivoted bottom or floor I, this pin serving as a stop to prevent the inner end of the bottom from being thrown over to the opposite side of its center or pivot by the weight of the bag and the sudden impact of the box therewith. After the bag is in the car the floor is bolted or locked in place from the inside, so as to prevent the entrance of trespassers through the top. The rear end of the box is provided with grate-bars *s s*, which, while they preclude the possibility of the bag passing out of the box at this point, (without passing down into the car,) also allow the compressed air to escape, and thus avoid the danger of its exerting sufficient pressure to tip the bottom up into a position which would obstruct the free entrance of the bag. After the bag has been received by a passing train the pin *m* is removed and the vertical rod lowered and turned one-quarter or one-half of a revolution, so as to bring the bag-holder over the platform, when the holder is raised above the square portion 7 of the pin *d* to its circular portion 6, around which it is also turned, by which means the bag-holder is brought into a position accessible for hanging the next bag in place, the holder being turned but a quarter of a revolution for a bag to be received by a train coming from the same direction as the previous one, or a half-revolution for a bag to be taken by a train coming in the opposite direction, the outer ends of the horizontal branches *f* 11 always pointing in the same direction as that taken by the next mail-train, so as to admit of the rings *k* sliding off the holder to release the bag. In case the mail-car should not run on the track immediately next the station, the horizontal portion *b* of the crane C may be extended, so that the holder may occupy a place to conform to the location of the box H of the mail-car thereon.

The pivoted bottom may be dispensed with and a spring-door be pivoted at the front of the box, which would readily open when brought into contact with the bag, and would automatically close after the bag had been deposited in the car beneath this closed door in front, also preventing the entrance of rain, cinders, &c.

The bottom of the crane C is provided with a handle, *t*, by which it may be raised or lowered; but it is evident the crane may be hoisted by a rope or line passing over a block or pulley without departing from the spirit of our invention.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The yoke or holder D for supporting a mail-bag, provided with the two arms 10 and hooks *f* and 11, in combination with the pivoted bifurcated guide *n* and a crane, C, erected near the railroad-track, all constructed to operate substantially in the manner and for the purpose set forth.

2. The adjustable sliding arm *i*, in combination with the holder D and crane C, substantially as described, for the purpose specified.

3. The bifurcated guide *n*, with its ratchet *p* and pawl *q*, in combination with the holder D, operating as and for the purpose set forth.

Witness our hands this 6th day of May, A. D. 1875.

EDWARD AMROCK.
CHESTER JUDSON.

In presence of—
N. W. STEARNS,
W. J. CAMBRIDGE.