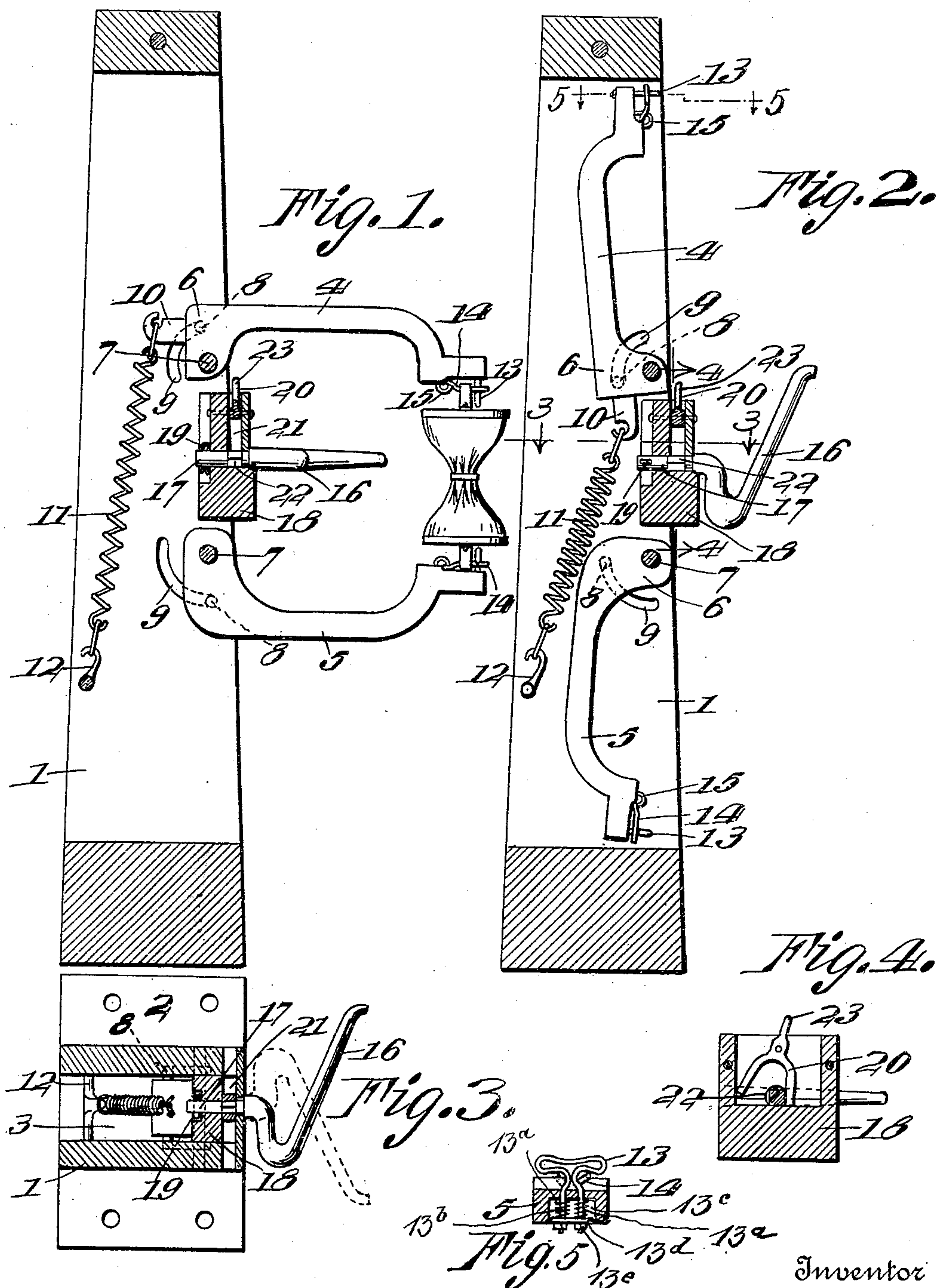


J. G. FLEENOR, JR.  
MAIL BAG CRANE AND CATCHER.  
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Witnesses  
E. O. A. Brown.  
C. H. Griesbauer.

Inventor  
John G. Fleenor, Jr.  
by *A. B. Wilson & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

JOHN G. FLEENOR, JR., OF BENHAMS, VIRGINIA.

MAIL-BAG CRANE AND CATCHER.

935,596.

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To all whom it may concern:

Be it known that I, JOHN G. FLEENOR, Jr., a citizen of the United States, residing at Benhams, in the county of Washington and State of Virginia, have invented certain new and useful Improvements in Mail-Bag Cranes and Catchers; and I do 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.

This invention relates to improvements in mail bag catchers and cranes.

The object of the invention is to provide a mail bag catcher and crane having an improved construction and arrangement of bag holding mechanism and reversible bag catching device, by means of which a mail bag may be taken from a moving train.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1, is a vertical sectional view of a mail bag catcher and crane, constructed in accordance with my invention, showing the bag supporting arms in operative position for holding a mail bag. Fig. 2, is a similar view showing the bag holding arms in an inoperative position. Fig. 3, is a horizontal section taken on the line 3—3 of Fig. 2, showing in full lines the bag catching hook in position for taking a bag from a train moving in one direction, and in dotted lines the position of the hook for taking the bag from a train moving in the opposite direction. Fig. 4, is a detail vertical sectional view through the catcher supporting mechanism taken on the line 4—4 of Fig. 2, and showing the manner in which the hook is held in its operative positions. Fig. 5, is a detail sectional view on the line 5—5 of Fig. 1, showing the construction of the bag holding device.

In the embodiment of my invention I provide a supporting post or standard 1, secured at its lower end in a suitable base 2. The post or standard 1 is provided with a centrally disposed passage 3, and in said

apertured portion of the standard is pivotally mounted an upper bag supporting arm 4 and a lower bag supporting arm 5. The arms 4 and 5 are provided on their inner ends with enlarged heads 6, in which are arranged pivot pins 7, which extend into the opposite portions of the standard 1, thereby pivotally supporting arms in operative position. In the heads 6 are also arranged stop pins 8, the ends of which project beyond the opposite sides of the heads 6, and are engaged with segmental grooves or recesses 9 formed in the opposite walls of the aperture 3 of the standard. When the arms 4 and 5 are swung outward in operative position as shown in Fig. 1, the ends of the stop pins 8 will engage one end of the recesses 9, thereby limiting the outward movement of the arms. When the arms are swung in an inoperative position, as shown in Fig. 2, the ends of stop pins 8 will engage the opposite ends of the grooves 9, thereby limiting the inward movement of the arms.

On the inner end of the heads 6, of the upper arm 4, is arranged a hook 10, with which is connected the upper end of a coil retracting spring 11, the lower end of which is secured to a hook 12, arranged in the lower portion of the aperture 3, of the standard. The pressure of the spring 11, when thus arranged is exerted to retract or swing the upper arm 4 upwardly and rearwardly into the upper portion of the recess 3 to an inoperative and out of the way position. When the arm 4 is thus swung to an inoperative position the movement of the same is limited by the stop pin which engages the inner end of the recesses 9, as hereinbefore described.

When the arms 4 and 5 are arranged in operative position to support the mail bag, the bag is arranged between the outer ends of the extended arms and the holding loops on the opposite ends of the bag are engaged with suitable holding devices arranged in the outer ends of the arms. The holding devices for the bag comprise a keeper member 13, having a T-shaped head, the projecting ends of which are adapted to be engaged by the bent end of a latch bar 14, which is loosely connected by means of an eye 15, with the ends of the arms adjacent to the



keeper members 13. In arranging the bag in position, the strap loops on the opposite ends of the bag are engaged with the latch bars 14, of the opposite arms; after which the ends of the latch bars are engaged under one or the other of the projecting ends of the T-shaped head of the keeper members 13, thus securely holding the bag in position between the arms, at the same time permitting the bag to be readily disengaged from the arms by the catching mechanism of the passing train. When the loops of the bag have been engaged with the bars 14, the latter are engaged with that end of the T-head which opens in the direction in which the train will pass, so that when the bag is engaged by the catcher on the train the latch bars will be pulled out from beneath the ends of the T-head, thus releasing the bag. As soon as the bag has thus been taken from between the arms 4 and 5, the former will be swung upwardly to an inoperative position by the retracting springs 11, while the latter or lower arm 5, will drop by gravity to an inoperative position. In order that the T-shaped heads of the keeper members 13, will yieldingly hold the latch bars 14, when engaged with the mail bag, I preferably provide coiled retracting springs 13<sup>a</sup>, which are arranged on the fastening rods 13<sup>b</sup>, of the keeper members and have their inner ends engaged with a recess 13<sup>c</sup>, formed in the ends of the bag supporting arms and their outer ends engaging a retaining plate 13<sup>d</sup> arranged on the outer ends of the rods 13<sup>b</sup>, as shown in Fig. 5 of the drawings. The plate 13<sup>d</sup> is held in position on the ends of the rods 13<sup>b</sup>, and in the recess by means of nuts 13<sup>e</sup> screwed on the outer ends of the rods 13<sup>b</sup>. By thus securing the keeper heads in the arms 4 and 5, the latch bars 14 will be yieldably secured to hold the bag in position, thus permitting the bag to be taken from the holding bars 4 and 5, without danger of injuring the bag.

In connection with the bag holding mechanism I provide a bag engaging hook 16, which may be employed for taking a bag from a moving car. The hook 16, is provided with a reduced stem 17, which is revolutely mounted in a bearing block 18, arranged on the outer or front side of the standard preferably at a point midway between the inner ends of the arms 4 and 5. The hook 16, is secured in operative position in the block 18, in any suitable manner but as here shown, is preferably held in position by a cotter pin 19, arranged in the inner end of the stem 17. By revolutely mounting the hook 16, in the supporting block 18, the hook may be turned or reversed to positions for catching the bag from a car passing in either direction. In order to hold the hook in operative position, I provide the holding pawl 20, which is pivotally mounted in a recess 21 in the upper portion of the support-

ing block 18, and is provided with a forked lower end, one member or the other of which is adapted to be engaged with a notch or recess 22, formed in the reduced stem 17, as clearly shown in Fig. 4 of the drawings, thereby holding the hook in one position or the other. The pawl 20 is provided with an operating handle 23, which projects above the supporting block 18, as shown.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention, what I claim as new is:

1. A mail bag catcher and crane, comprising a post having a centrally disposed aperture, the opposite walls of which have formed therein segmental grooves, upper and lower bag holding arms pivotally mounted in said aperture, stop pins arranged in said arms and adapted to engage said grooves to limit the movement of the arms when swung to an operative or inoperative position, a spring connected to the upper arm to swing the latter to an inoperative position, and means on the outer ends of said arm to detachably hold a mail bag in position to be taken by a passing train.

2. A mail bag catcher and crane, comprising a supporting post, upper and lower bag holding arms pivotally mounted in said post, means to swing the upper arm to an inoperative position, bag holding devices comprising a keeper having a T-shaped head, and a loosely connected latch bar adapted to receive the supporting loop of the mail bag and to be engaged with one end or the other of said T-shaped head.

3. A mail bag catcher and crane, comprising a post, upper and lower bag holding arms pivotally mounted in said post, means to swing said upper arm to an inoperative position, a bag catching mechanism arranged on said post, said mechanism comprising a slotted supporting block, a bag engaging hook having a stem pivotally mounted in said block, said stem having formed therein a notch, a hook holding pawl having a forked lower end, one or the other member of which is adapted to be engaged with the notch in said stem, thereby holding the hook in position to take a bag from a train moving in either direction.

4. A mail bag catcher and crane, comprising a supporting post, upper and lower bag holding arms pivotally mounted in said post, means to swing the upper arm to an inoper-



ative position, bag holding devices comprising a spring retracted keeper having a T-shaped head and a loosely connected latch bar adapted to receive the supporting loop of the mail bag and to be engaged with one end or the other of said T-shaped head.

In testimony whereof I have hereunto set

my hand in presence of two subscribing witnesses.

JOHN G. FLEENOR, JR.

Witnesses:

W. A. FINEANNAN,

W. H. FLEENOR.