

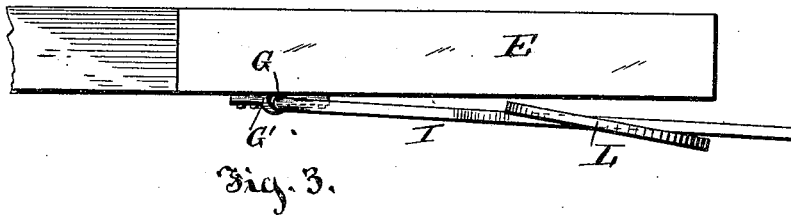
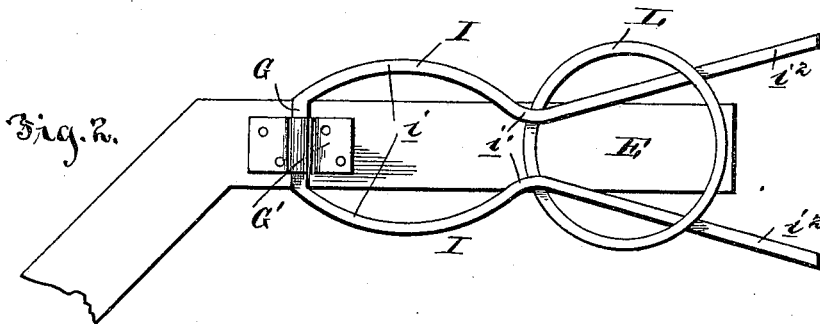
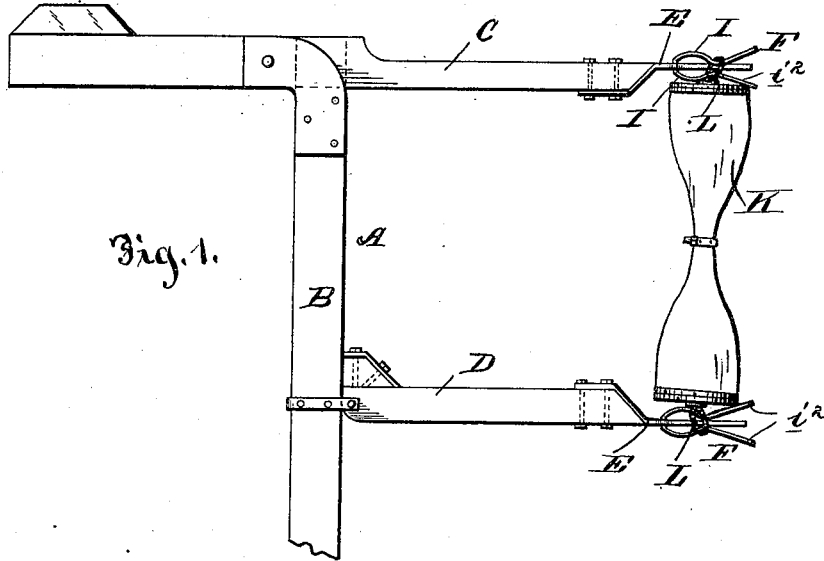
No. 649,025.

Patented May 8, 1900.

W. H. WILLIAMS.
MAIL BAG DELIVERING CRANE.

(Application filed Aug. 28, 1899.)

(No Model.)



WITNESSES:

A. L. Amussen
W. C. Shuraker

INVENTOR,

William H. Williams

BY

Milo B. Stevens
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM H. WILLIAMS, OF SLATEFORD, PENNSYLVANIA.

MAIL-BAG-DELIVERING CRANE.

SPECIFICATION forming part of Letters Patent No. 649,025, dated May 8, 1900.

Application filed August 26, 1899. Serial No. 728,579. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WILLIAMS, a citizen of the United States, residing at Slateford, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Mail-Bag-Delivering Cranes; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in mail-bag-delivering cranes intended to support a mail-bag at the side of the track in position to be engaged by an arm carried by the mail-car and disengaged from the crane, and has especial reference to the spring device for detachably holding the bag on the crane.

One object of the invention is to produce an exceedingly simple and cheap device for the purpose described, which, while being composed of the fewest possible and simplest parts, will yet be effective for the intended purpose of securely holding the bag in position and of readily releasing the same when the bag is caught by the receiving-arm on the mail-car.

A further object is to provide a novel spring device adapted to enter the holding-ring on the mail-bag and yieldingly hold the same.

Another object is to so mount the device on the crane in an exceedingly-simple manner that it can swing into the proper position to release the bag when caught by the receiving-arm.

A further object is to generally improve and simplify devices for the purpose described.

With such objects in view the invention is embodied in the novel construction of parts and the arrangement and combinations thereof hereinafter described, and particularly set forth in the claims.

In the accompanying drawings I have illustrated a practical embodiment of the invention, but desire it understood that I do not limit the improvements in their useful application to the construction which for the sake of a better understanding of the invention I have therein shown.

In the drawings, Figure 1 is an elevation showing a supporting-crane with my improvement applied thereto and supporting a mail-bag. Fig. 2 is an enlarged elevation of the spring holding device, and Fig. 3 is a plan view thereof.

Referring to the drawings, A indicates a crane which is of the usual or any preferred construction and need not be particularly described. Briefly stated, however, the crane comprises a standard B, an upper weighted arm C, pivoted at the top of the standard and adapted to swing from a vertical to a horizontal position, and a lower arm D, pivoted to the standard and adapted to swing in a horizontal position parallel with the arm C. Each arm has at its end a reduced portion or bracket E.

To each bracket one of my improved spring holding devices or clips is secured, and both being the same in construction, manner of operation, &c., I believe it to be sufficient to describe but one. The spring holding device or clip is represented at F and is constructed, preferably, of a piece of spring metal having a vertical securing portion G and two horizontally, or substantially horizontally, extending spring-arms I, the inner portions being bowed or curved outwardly, as indicated at *i*, and having inward portions at *i'*, from which the outer ends of the arms diverge, the diverging portions being indicated at *i''*. The device F is hinged to the bracket some distance from its end by a cap-plate G, secured in any desired manner, as by rivets, to the bracket E and having a vertical socket in which the vertical portion G is inclosed. It will thus be seen that the device can swing in a horizontal plane by reason of its vertical hinge connection with the bracket from one side of the bracket, but the bracket prevents the spring-clip from swinging to the other side thereof. Such being the construction of the holding device and one being secured to the upper and one to the lower arm of the crane, they are intended to operate as follows:

The mail-bag (indicated at K) has a ring L secured to its bottom and top ends. The outer diverging portions of the spring clips or devices are forced or pressed together and slipped one into each ring of the mail-bag.

When pressure is released from the ends of the clips, the latter will spring apart and prevent accidental displacement of the rings and bag therefrom. The inbent portions of the 5 spring-arms afford seats for the rings and tend to hold the latter always in the same relative position or distance from the end of the crane-arm. The bowed or curved portions of the arms of the spring devices are larger than 10 the interior diameter of the bag-rings and prevent the same slipping inward toward the connections of the clips with the arms. It is evident that with a bag so supported on the hinged spring-clips when it is engaged by 15 the receiving-arm on the mail-car the clips will be swung in horizontal planes into a position substantially parallel with the direction in which the train is moving, and the bag being pulled by the arm toward the outer ends 20 of the clips the rings will slide on the outer diverging portions of the clips, compress the same, and permit the disengagement of the rings from the clips.

It is evident that the entire device F need 25 not be made of spring metal, as it would operate if but one arm thereof were resilient and permitted to move toward and from the other.

Having thus described my invention, what 30 I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a mail-bag-delivering crane, of a spring mail-bag-holding device hinged thereto and comprising two arms 35 adapted to be forced toward each other and enter a ring carried by the mail-bag, one of said arms being resilient, said device having a retaining portion on which the ring rests to prevent the accidental displacement of the 40 ring therefrom, substantially as described.

2. The combination with a mail-bag-delivering crane, of a spring bag-holding device

hinged thereto comprising two arms each having an outwardly-bowed portion, an inbent portion and an outwardly-extending end portion, said arms being adapted to be forced toward each other and inserted in a ring on the bag and hold the ring on said inbent portion, 45 substantially as described.

3. The combination with a mail-bag-delivering crane, of a spring bag-holding device comprising a securing portion G hinged to the crane, and two spring-arms having outwardly-bowed inner portions, inwardly-bent retaining portions, and diverging end portions, 55 which latter are adapted to be forced toward each other and enter the ring and hold the same on said inwardly-bent portions, substantially as described.

4. A spring holding device for the purpose 60 described comprising a securing portion B, two arms one of which is resilient, said arms having outwardly-bowed inner portions, inbent retaining portions, said arms adapted to enter a ring on the bag and retain the same 65 on said retaining portion and diverging outer end portions, substantially as described.

5. The combination with a crane having an upper and lower arm, a spring bag-holding device for each arm, each comprising a securing portion G, a cap-plate for securing the same to crane-arm, and two arms one of which is resilient, having outwardly-bowed inner portions, inbent retaining portions and diverging outer end portions, adapted to enter 75 rings on the bag and retain the same on said retaining portions, substantially as described.

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

WILLIAM H. WILLIAMS.

Witnesses:

WILLIAM C. J. HEGARTY,
PAUL K. SERFASS.