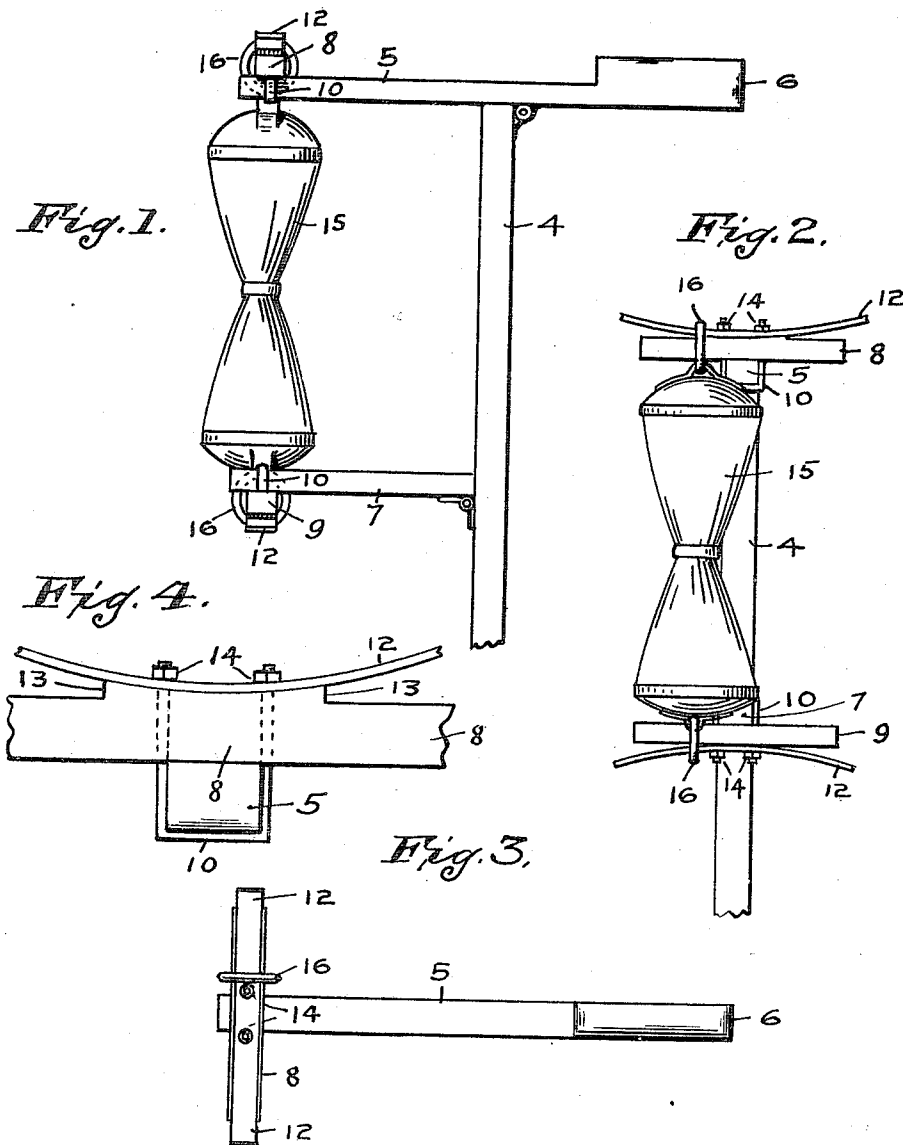


J. H. BOS.  
ATTACHMENT FOR MAIL CRANES.  
APPLICATION FILED APR. 28, 1910.

964,746.

Patented July 19, 1910.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JACOB H. BOS, OF MORRIS, INDIANA.

ATTACHMENT FOR MAIL-CRANES.

964,746.

Specification of Letters Patent.

Patented July 19, 1910.

Application filed April 28, 1910. Serial No. 558,198.

*To all whom it may concern:*

Be it known that I, JACOB H. Bos, a citizen of the United States, residing at Morris, in the county of Ripley and State of Indiana, have invented certain new and useful Improvements in Attachments for Mail-Cranes, of which the following is a specification.

This invention relates to improvements in cranes with arms for supporting mail bags which are to be taken on board of rapidly moving cars, and the object of the invention is to provide fasteners which will prevent the accidental removal of the bags, but which will allow them to be removed freely by the usual appliance for that purpose on the car, without danger of injury to the bag.

The further object of the invention is to provide a simple, durable, and convenient fastener which can be applied as an attachment to mail cranes already in use.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1, is a view in side elevation of a mail-crane equipped with my improved fastener and showing a mail bag secured thereon in position ready to be caught by the usual device on a moving car; Fig. 2, is a front elevation of same; Fig. 3, is a top plan view, and Fig. 4, is a detail in front elevation on a larger scale, of one of the fasteners.

Like characters of reference indicate like parts throughout the several views of the drawing.

4 represents the vertical post of a crane, 5 the top arm which is hinged to the top of the post and is weighted at its rear end 6, and 7 the lower arm, also hinged to the post. All of these parts may be and are of usual and well known construction.

Secured to corresponding outer ends of arms 5 and 7, are the fastener-bars 8 and 9, which are secured to their respective arms by means of U-shaped clips 10, the two bolts of which clips are passed through suitable holes in the fastener-bars. The fastener-bars are formed with saddles to receive the curved springs 12. The curvature of the springs 12 cause the springs to recede toward their ends from the fastener-bars, and the saddles terminate with abrupt ends 13 which develop the resiliency of the spring

extensions therefrom as the spring-bars from the shoulders on out to the ends of the bars are thus held away from the arms. The springs are single leaf springs and are secured to their saddles by passing the bolts of the clips 10 through suitable holes in the springs, and then all of the parts are drawn tight and held by nuts 14 on the ends of the said bolts.

15 is the mail-bag having the usual end rings 16. These rings are slipped, in setting the crane, upon the fastener-bars 8 and 9, by first compressing the ends of the springs 12 on that side of the crane toward which the mail car to take the bag, is moving. The finger-bars and springs are made to project on both sides of the crane in order to adapt the device to hold a mail bag for cars going in either direction laterally of the crane. After the rings of the mail bags are in position the expansion of the springs away from the finger-bars prevent the accidental removal of the bags, and moreover, so hold them as to require a considerable force, such as is supplied by a rapidly moving car, to remove the bags by forcing their rings over the expanded springs.

Having thus fully described my invention, what I claim as new and wish to secure by Letters Patent of United States, is—

1. As an attachment for mail cranes, a fastener bar, a leaf spring secured at its middle to the bar and bent with a continuous outward curve away from said middle both bar and spring being passed through the ring on the mail bag to secure the latter, and means for securing the spring to the bar.

2. The combination, with the arm of a mail-crane, of a fastener-bar near the outer ends of the bar and transverse thereto, a leaf spring secured approximately at its middle to the bar said spring being curved away from the bar at its ends, a U-shaped clip passing around the arm and having its bolts extended through the fastener-bar and spring, and nuts on the threaded ends of the bolts.

3. The combination, with the arm of a mail-crane, of a fastener-bar near the outer end of the arm and transverse thereto, a leaf spring secured approximately at its middle to the bar, said spring being curved away from the bar at its ends, a saddle extension

on said fastener-bar to fit the spring and  
terminating with abrupt ends, a U-shaped  
clip passing around the arm and having its  
bolts extended through the fastener-bar and  
5 spring and nuts on the threaded ends of the  
bolt.

In witness whereof, I, have hereunto set

my hand and seal at Indianapolis, Indiana,  
this 20th day of April, A. D. one thousand  
nine hundred and ten.

JACOB H. BOS. [L. s.]

Witnesses:

FRANK A. ROESENER,  
J. A. MINTURN.