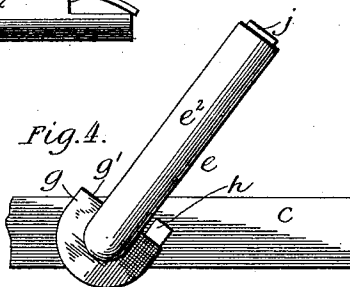
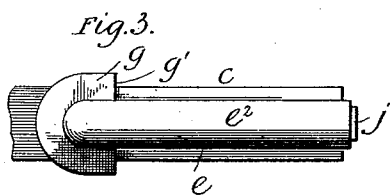
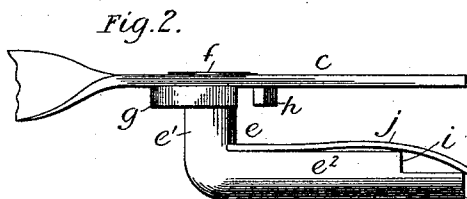
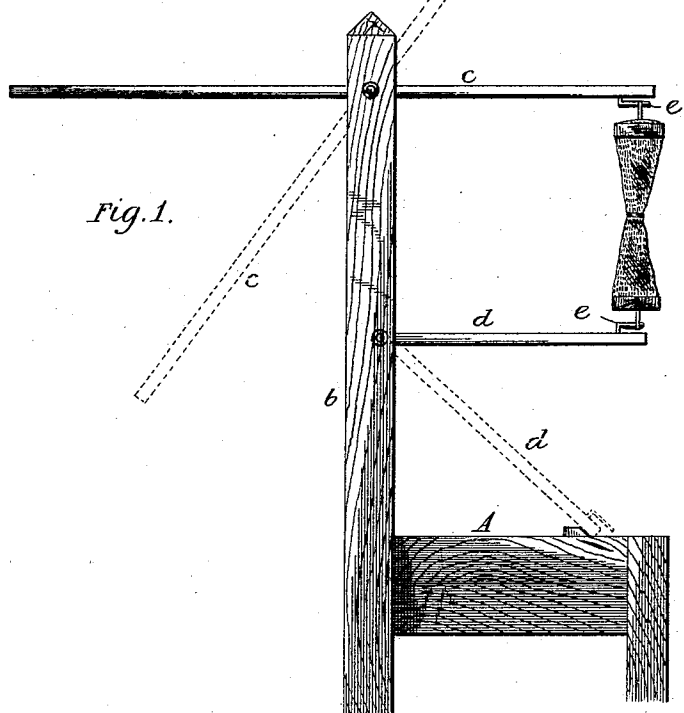


(No Model.)

R. A. OGDEN.
MAIL CRANE.

No. 484,641.

Patented Oct. 18, 1892.



Witnesses

Wm. T. Norton
Geo. H. Brown

Inventor

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by *James Tanner*
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UNITED STATES PATENT OFFICE.

ROBERT A. OGDEN, OF WALTON, KANSAS.

MAIL-CRANE.

SPECIFICATION forming part of Letters Patent No. 484,641, dated October 18, 1892.

Application filed July 22, 1892. Serial No. 440,929. (No model.)

To all whom it may concern:

Be it known that I, ROBERT A. OGDEN, a citizen of the United States, residing at Walton, in the county of Harvey and State of Kansas, have invented certain new and useful Improvements in Mail-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.

My invention relates to improvements in mail-cranes designed to deliver mail-bags to trains in motion, and has for its object to provide a device which shall be simple in construction and efficient in operation and in which the liability of injury to the sack and its being blown or moved out of position is reduced to the minimum.

My invention consists in the construction, relative arrangement and operation of the several parts constituting my improved mail-crane, all of which will be hereinafter fully and clearly described and specifically claimed.

Reference being had to the accompanying drawings, forming a part of this specification, Figure 1 illustrates in side elevation my improved mail-crane with a mail-sack in position to be caught, the dotted lines representing the position of the arms when disengaged therefrom; Fig. 2, a detail, enlarged, of the end of one of said arms and showing the device for holding the mail-sack ring. Fig. 3 is a bottom plan view of said device; and Fig. 4, a similar view, the parts in another position.

Like letters of reference refer to like parts in the several figures of the drawings.

The reference-letter A denotes a platform, and *b* is a post extending upward therefrom, to which are pivotally connected the arms *c* *d*, which support the mail-sack. In the outer end of each arm is arranged a hook *e*, which holds temporarily the ring of the mail-sack and which consists of a vertical portion *e'*, which is passed through the arm and upset, a suitable washer *f* being interposed to lessen

the wear. The other portion *e''* of this hook is at right angles to the part *e'* and is normally in a horizontal position, as shown in full lines in Fig. 1. This hook by reason of its pivotal connection with the arm has a movement in a horizontal line in order to permit the requisite play of the parts during the delivery of the sack to the train. *g* is a collar fixed to the part *e'* below the arm, which operates with the washer *f* to steady the hook at its pivotal connection with the arm. This collar is cut away at *g'* to form a shoulder or stop which, when the hook is moved to the right or left, engages a lug *h* in the under side of the arm to limit the movement thereof and prevent the sack from being blown or moved out of position to be caught. On the outer side of the part *e''* of the hook is a shoulder *i*, which is formed by cutting away the hook at this point and which forms a seat for the hook of the mail-sack. A leaf-spring *j* is secured to the upper portion of this hook by rivets or other suitable connection and extends outward and over this shoulder *i* in order to retain the ring. The tension of this spring is sufficient to hold the ring under ordinary conditions, but when the mail-sack is engaged by the catcher on the train the spring readily gives and the rings are released.

In operation the arms are brought to a horizontal position and the rings of the mail-sack are inserted in the ends of the hooks and temporarily held by the action of the springs. The catcher on the mail-car engages the bag centrally and swings the hooks on their pivots until they are stopped by the lugs, when the sack is disengaged and the arms assume the position indicated by the dotted lines in Fig. 1. By reason of the lugs employed and the construction of the shouldered hook all liability of the mail-sack being blown or moved accidentally out of position to be caught is overcome. The parts are few in number, simple in construction, and very efficient in operation.

I claim—

A mail-crane comprising an upright, arms pivoted thereto, each of which is provided

with a lug, a hook on each arm having a vertical portion pivotally connected to the arm, a collar on said portion, part of which is cut away to form shoulders for engagement with
5 the lug to limit the movement of the hook, and a horizontal portion having a part of its end cut away to form a shoulder for the ring, and a horizontally-extending spring secured

to the hook and extending over such shoulder, substantially as described. 10

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

ROBERT A. OGDEN.

Witnesses:

M. T. JOHNSON,
ORLA PATTON.