

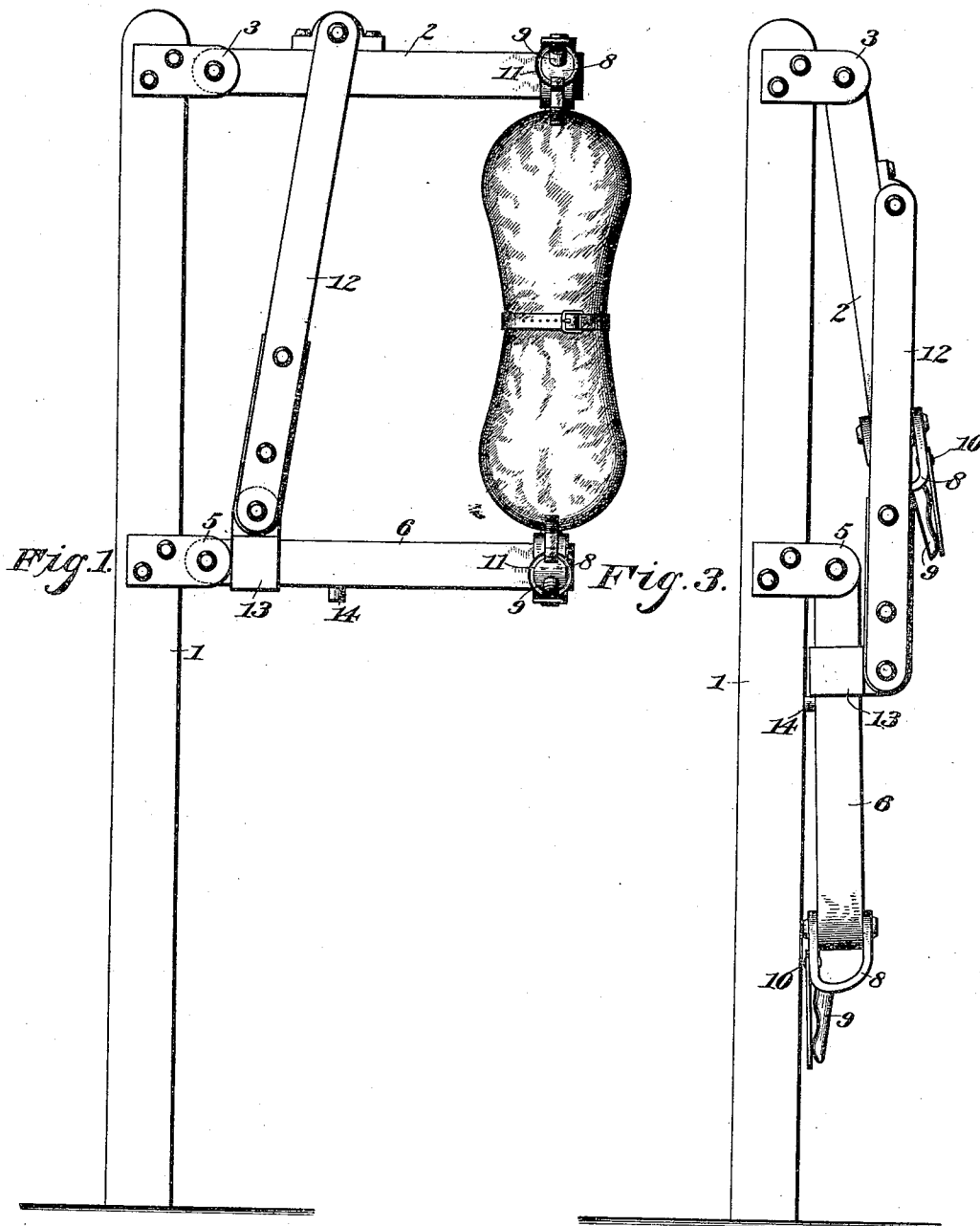
(Model.)

2 Sheets—Sheet 1.

W. H. CHAPPEL & J. C. WAGNER.
MAIL BAG CRANE.

No. 513,032.

Patented Jan. 16, 1894.



Witnesses;

J. M. Withers
J. J. Myers

Inventors,
William H. Chappel
& *John C. Wagner,*

By Stephen A. Atkins
Attorneys.

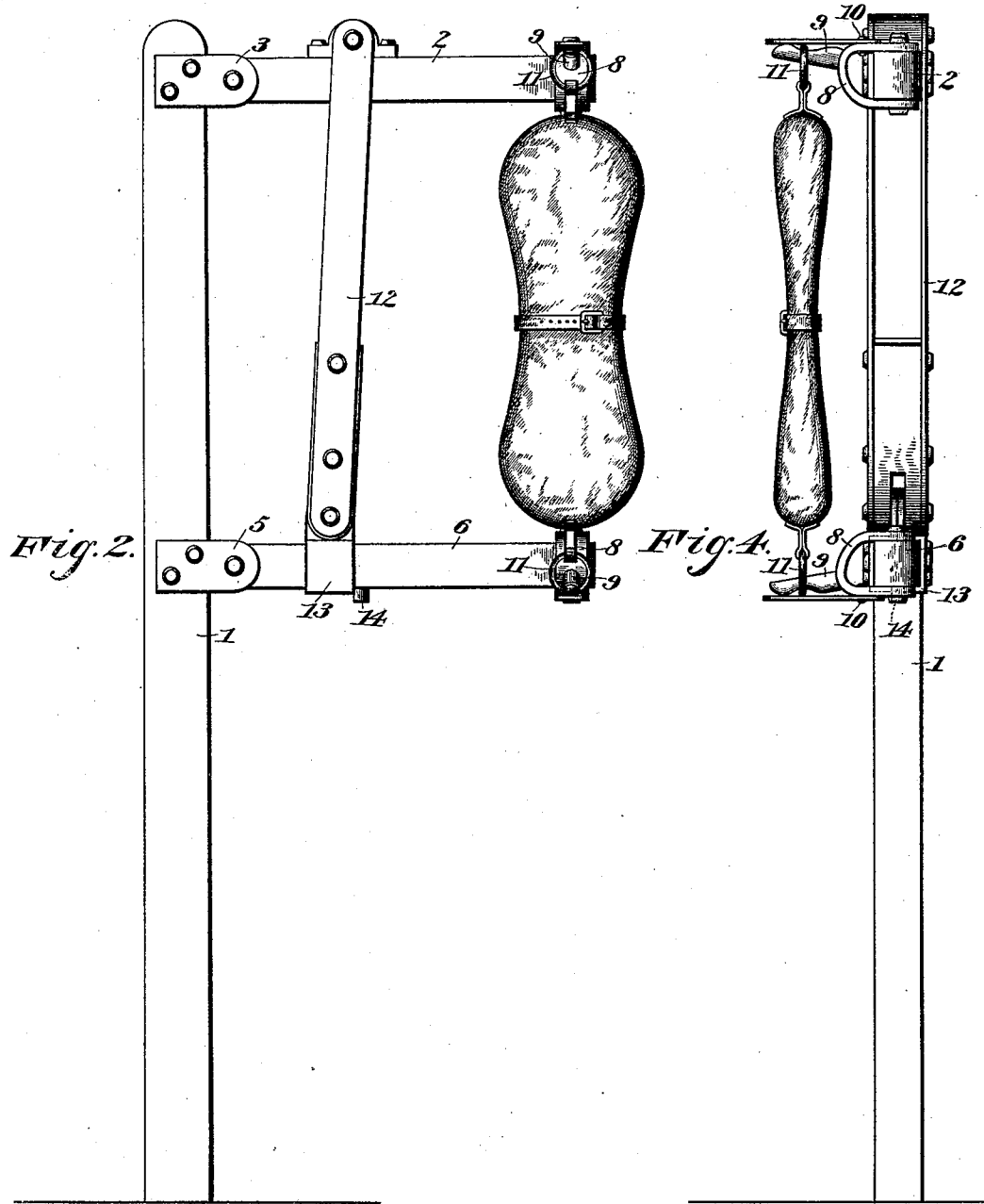
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UNITED STATES PATENT OFFICE.

WILLIAM H. CHAPPEL AND JOHN C. WAGNER, OF GLEN ELLYN, ILLINOIS.

MAIL-BAG CRANE.

SPECIFICATION forming part of Letters Patent No. 513,032, dated January 16, 1894.

Application filed March 30, 1893. Serial No. 468,343. (Model.)

To all whom it may concern:

Be it known that we, WILLIAM H. CHAPPEL and JOHN C. WAGNER, of Glen Ellyn, county of Du Page, State of Illinois, have invented certain new and useful Improvements in Mail-Carriers, of which the following is a specification, reference being had to the accompanying drawings.

The object of our invention is to produce an improved form of mail crane which, when the mail bag is suspended as in use, may be automatically locked in the elevated position by raising the arms into place, and which will automatically drop by the separation of the bag from the arms, thereby presenting the arms for use without attention of any sort upon the part of an operator.

In the accompanying drawings: Figure 1 is a side elevation, showing the arms raised and locked in position. Fig. 2 is a similar view, showing the lock lever moved in position to lower the arms when the bag is in place. Fig. 3 shows the arms in the depending position. Fig. 4 is a front elevation of the device as shown in Fig. 1.

Referring to the figures on the drawings: 1, indicates an upright of suitable material and dimensions. It is designed to be suitably supported in proximity to a railway track, as is usual with mail cranes.

At the top of the upright a movable arm 2, vertically pivoted, as to a hinge 3, is secured. At a suitable distance below this upper arm, determined by the length of the bag which the crane is designed to carry, is vertically pivoted, to a hinge 5, a lower movable arm 6. Upon the free ends of each of the arms we employ a bag retaining device which preferably consists of a swiveled frame 8 having a notched lug 9 and a protector, preferably composed of spring metal secured at one end, as at 10, to the swiveled frame and projecting outwardly over the notch of the lug. Rings 11 upon opposite ends of the bag are designed to be slipped into the respective notches of the retaining devices, from which, by a sufficient pull in the direction of their open ends, they may be readily separated. To accomplish the automatic operation of these arms, as above suggested, we employ suitable automatic arm locking mechanism,

preferably consisting, as illustrated, of a lock lever 12 pivoted at its upper end to the arm 2, at a short distance from its hinge 3, and pivoted at its lower end to a sliding collar 13, or the like which preferably surrounds and slides upon the lower arm 6. The movement of the collar upon the arm is limited, as by the hinge 5, in one direction and by a stop lug or screw 14 in the other direction. When the bag is in place and the collar 13 is slipped toward the hinge 5 the arms are held at right angles to the upright and are positively and securely supported in that position. The reason of this is that the arcs, described by the arms at their points of connection with the lock lever, having different radii, and the arms being compelled to move in unison by the bag secured between them, the result is that the arms are sustained in the elevated position. The arms being connected by the locking lever, the movement of the lower arm raises the upper. The locking operation is automatic, because the collar upon the lower arm, when that arm is slightly raised above the horizontal position, slides toward the hinge and locks the two parts in place. If, while the bag is in place, it is desired to lower the arms for any purpose, by slipping the collar 13 toward the stop 14 thereby equalizing the distances between their pivots and their connections with the lock lever they may be readily lowered. If, however, while the arms are in the elevated position, the bag is separated from the retaining devices, the arms will instantly drop and will present the retaining devices within easy reach of an operator wishing to hang a bag in place.

We do not desire to limit ourselves to the details of construction herein shown and described, but reserve the right to modify and vary them at will within the scope of our invention.

What we claim is—

1. In a mail crane, the combination with a support and arms pivoted thereto on one side thereof, of bag retaining mechanism upon the movable arms and automatic locking mechanism connecting the arms upon that side of the support to which they are pivoted, substantially as set forth.

2. In a mail crane, the combination with a

support and arms pivoted thereto on one side thereof, of bag retaining mechanism on the arms, a lock lever connecting the arms on that side of the support to which they are pivoted, and locking mechanism for securing the lever to the arms, substantially in the manner and for the purpose specified.

3. In a mail crane, the combination with a support and movable arms pivoted thereto on one side thereof, of bag retaining mechanism and a lock lever pivoted to one of the arms and pivoted to a movable connection on the other arm, said lock lever being located upon that side of the support to which the arms are pivoted, substantially as set forth.

4. In a mail crane, the combination with a support and arms pivoted thereto on one side thereof and having their ponderable ends extending from one side only of their pivoted points, of bag retaining mechanism on the free ends of the arms, and locking mechanism connecting the arms and adapted to sustain them when the bag is in place and to automatically release them upon the removal of the bag, substantially as set forth.

5. In a mail crane, the combination with a support, arms pivoted thereto on one side thereof, and bag retaining mechanism on the end thereof, of a lock lever located on that side of the support to which the arms are pivoted, and pivoted to one of the arms, a collar pivoted to the lock lever and movable upon the other arm, and stop mechanism for limiting the movement of the collar, substantially as set forth.

6. In a mail crane, the combination with a support, arms pivoted thereto on one side thereof and bag retaining mechanism, of a lock lever located on one side of the support and pivotally united to the arms at different distances, respectively, from their pivotal point of union with the support, substantially as set forth.

In testimony of all which we have hereto subscribed our names.

WILLIAM H. CHAPPEL.
JOHN C. WAGNER.

Witnesses:

J. A. MANN,
J. L. MILES.