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A. LEFFORGE & P. O. APPLE.
MAIL BAG CATCHER AND DELIVERER.

APPLICATION FILED APR. 20, 1906.

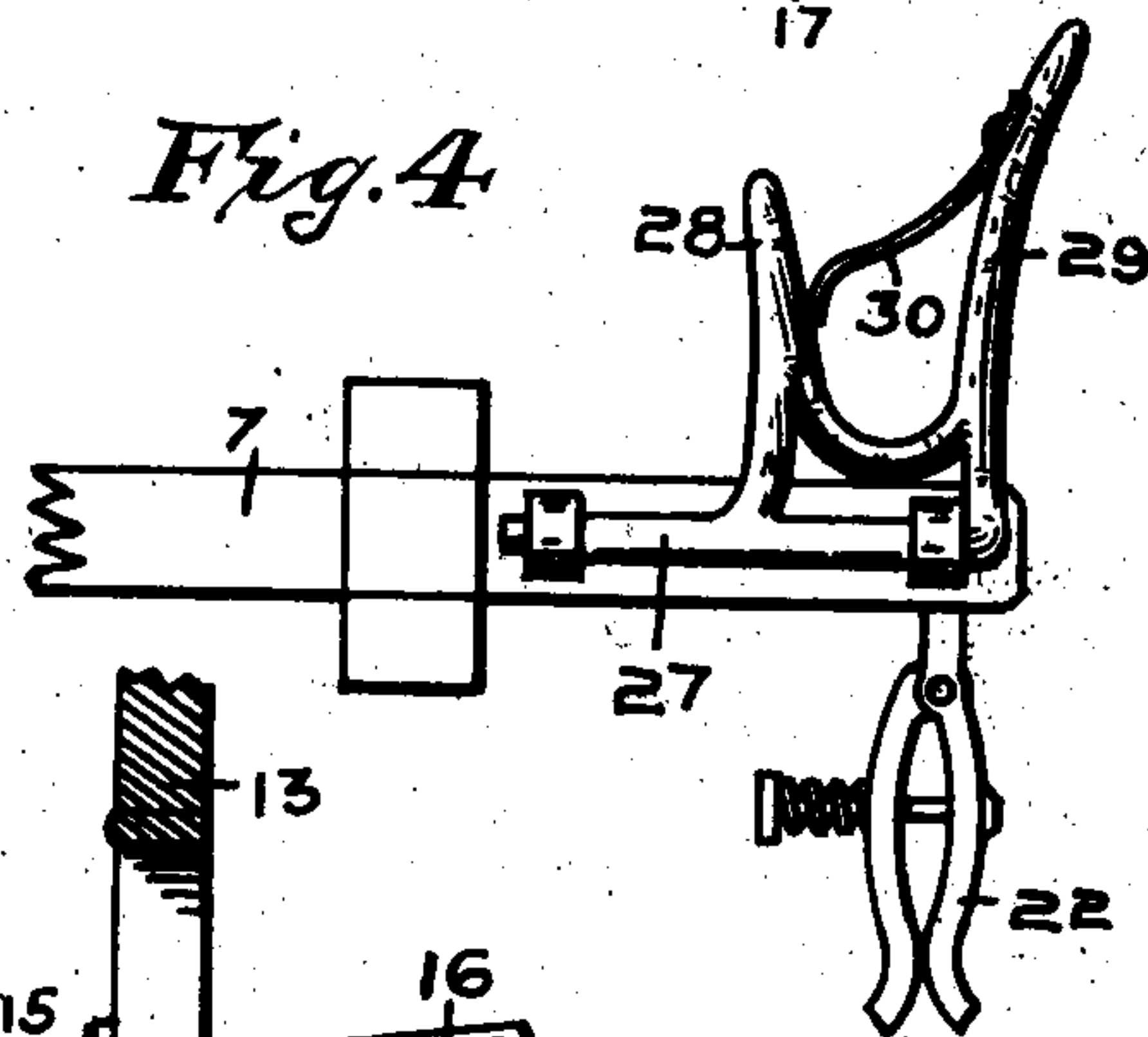
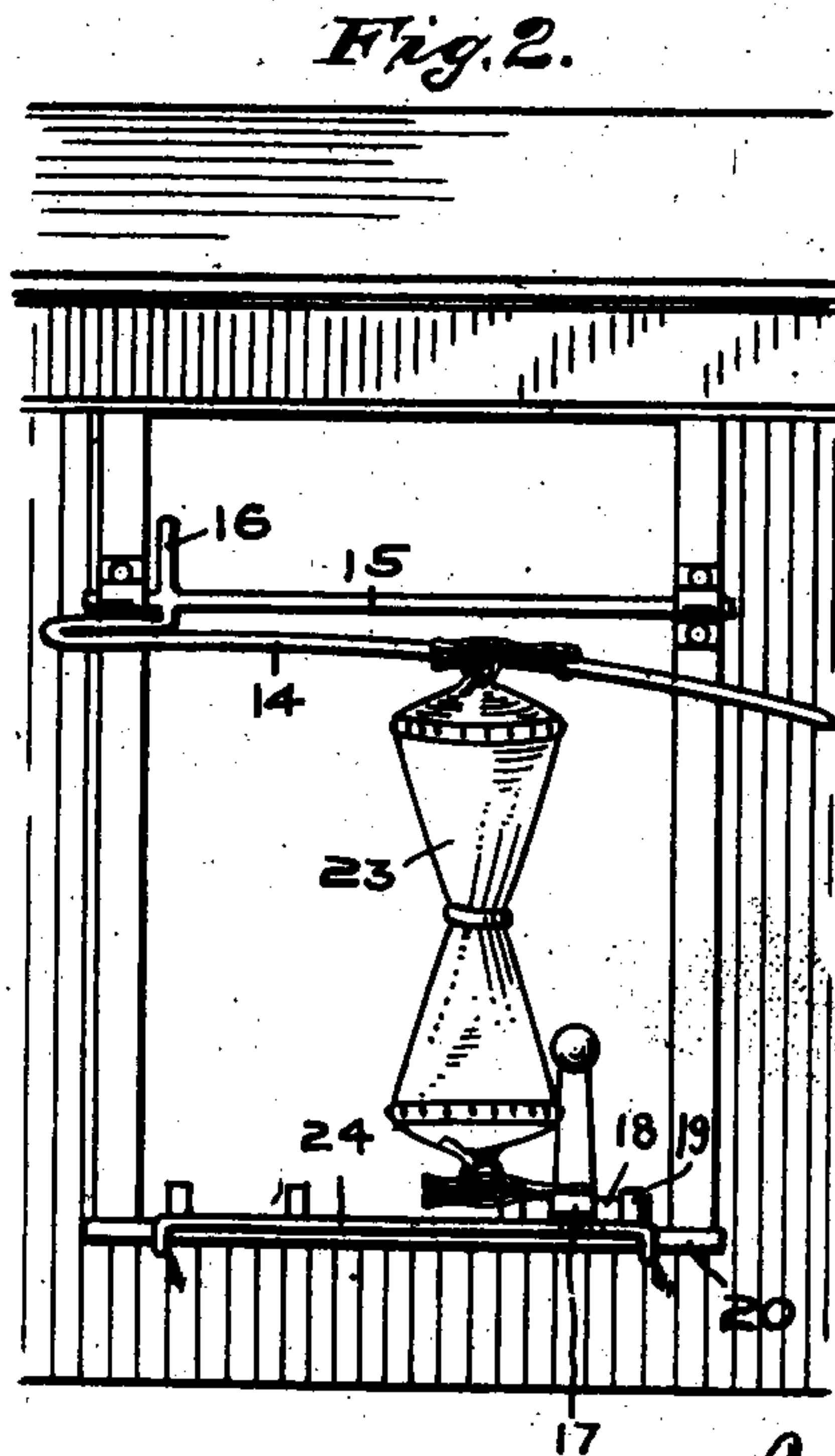
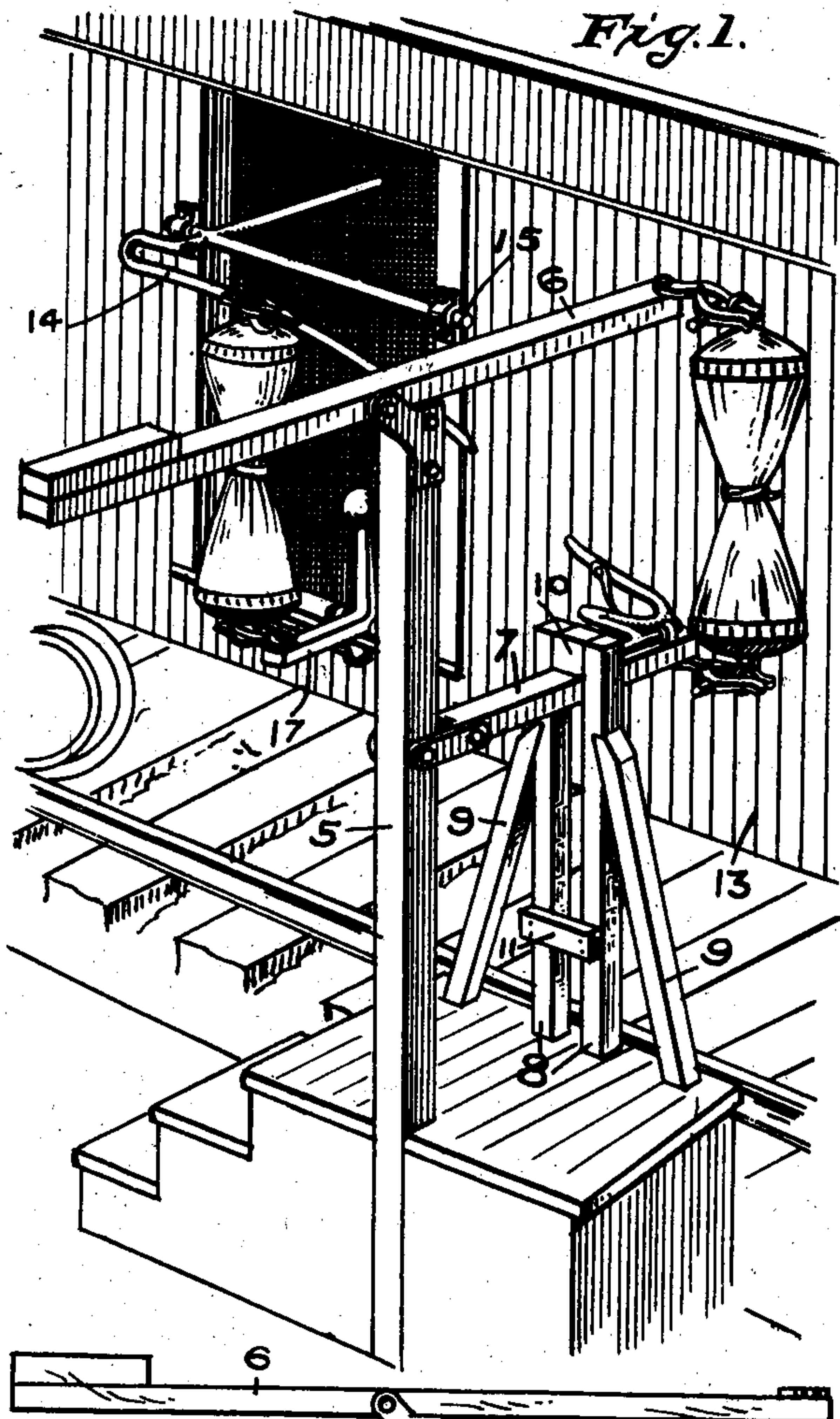
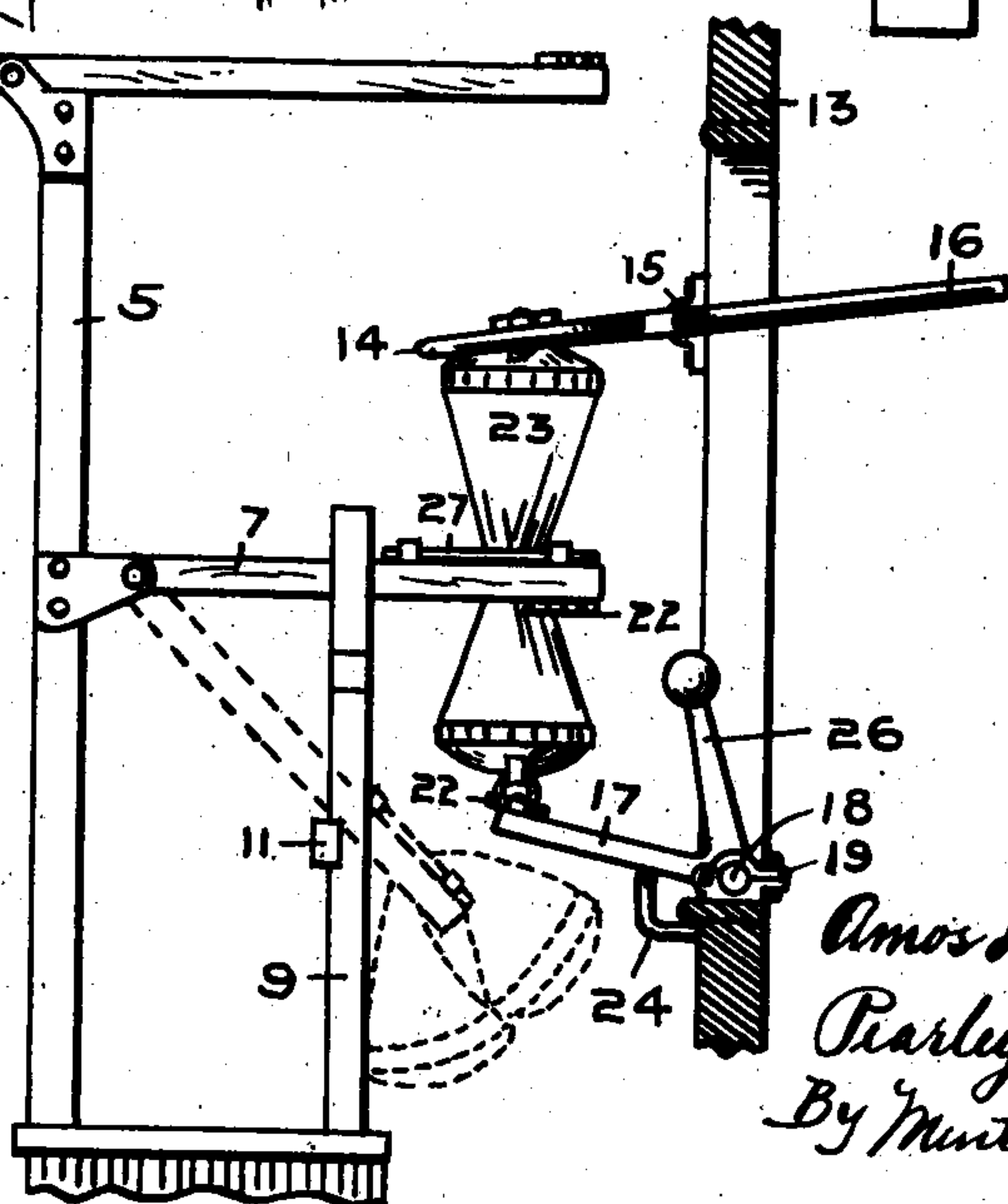


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MAIL-BAG CATCHER AND DELIVERER.

No. 834,916.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed April 20, 1906. Serial No. 312,907.

To all whom it may concern:

Be it known that we, AMOS LEFFORGE and PEARLEY O. APPLE, citizens of the United States, residing at Oaklandon, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Mail-Bag Catchers and Deliverers, of which the following is a specification.

This invention relates to improvements in mail-bag catchers and deliverers for railway-trains; and the object of the invention is to provide a safe and reliable means for taking a mail-bag into a rapidly-moving car and for discharging a mail-bag from said car simultaneously with the first operation without slowing up the speed of the train and without danger of dropping either of the bags so as to allow same to be drawn under the wheels of the car or otherwise injured.

A further object of the invention is to provide an efficient but simple and inexpensive mechanism which can be applied to the mechanism now in common use for this purpose.

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

Figure 1 is a perspective view of a mail-crane with our novel features applied thereto and showing a mail-bag suspended from the crane, and the view also shows a mail-car equipped with our improvement and about to discharge and take on mail-bags. Fig. 2 is a detail in side elevation of a mail-car, showing the door and our improved appliances for catching and delivering the mail-bags. Fig. 3 is a view of the mail-crane looking longitudinally of the railway-track and showing a detail in vertical section of the mail-car in the act of delivering a mail-bag. Fig. 4 is a detail in top plan view of the device on the crane-arm for receiving and holding the mail-bag discharged from the car.

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

5 is the vertical or main post of the crane, and 6 is the upper arm, which is hinged to the top of the post 5 in the usual manner.

7 is the lower arm, which is hinged at its inner end to the post 5 and is confined to movement in a vertical plane by the two parallel posts 8. These posts 8 stand close to the arm 7 and are braced by the diagonal braces 9. The tops of the posts 8 are connected by the block 10, which limits the upward move-

ment of the arm 7. A cross-bar 11, connecting the two posts 8 lower down on the latter, limits the downward movement of the arm 7.

The crane above described is located alongside of a railway-track in the usual way, as shown in Fig. 1, and over this track the car 13 is drawn in the usual manner. The car 13 is a mail-car of any usual and well-known construction and is provided with the mail-bag-catching arm 14, which is mounted on the rocker-arm 15 and operated by the lever 16, all of usual and well-known construction.

17 is a bell-crank lever having side trunnions 18, which are engaged by eyebolts 19 on the sill 20 of the car-door. The eyebolts 19 are in two pairs, one on each side of the doorway, and one of the eyebolts has a hinged and separable upper part, as shown in Fig. 3, whereby the trunnions may be disengaged from their holdings 19 and the bell-crank lever 17 changed from one side of the doorway to the other according to the direction of travel of the mail-car.

It is necessary to change the catcher-arm 14 end for end when the car is reversed in the direction of its movement, and when the catcher-arm is thus reversed it is necessary to change the bell-crank lever 17 to that side of the door-opening which is first toward the direction of travel of the car.

The lower arm of the lever 17 is provided with a bag-holding device 22, which is described and claimed in Patent No. 792,714, issued June 20, 1905, and a like bag-holding device is pivoted to the catcher-arm 14, and the mail-bag 23 to be delivered from the car is suspended from the upper bag-holding device 22 on the arm 14, and its lower end is secured by the holding device 22 on the arm 17. The mail clerk holds the lever 16 while the mail-bags are being caught and delivered. The arm 17 rests upon the horizontal supporting-bar 24 and is held against said bar 24 by the weighted arm 26, said arm being inclined outwardly past the axis of the trunnions 18, so as to cause its weight to exert a downward pressure on the arm 17.

Mounted upon the arm 7 is the rocker-shaft 27, having the two lateral arms 28 and 29, forming a fork to receive the mail-bag 23, and for that purpose the above-described fork will stand in the path of the mail-bag as carried forward by the moving car. To keep the bag from accidental displacement after it has been received in the fork between the arms 28 and 29, we provide the spring 30,

which is fastened at one end to the arm 29 and extends across the mouth of the fork in the manner shown in Fig. 4, so as to allow the bag to press the inner end of the spring in to admit the bag and then close against the arm 28 to prevent the accidental displacement or removal of the bag.

The upper arm 6 and lower arm 7 each have one of the bag-holding devices 22 to engage and hold the mail-bag in position in the path of the catcher-arm 14 on the passing car. The mail-bag suspended from the catcher-arm 14 will be lodged in the fork of the arm 7 before the catcher-arm reaches the mail-bag suspended from the arm 6, so that there will be no interference in the operations of catching and delivering the two mail-bags.

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

1. The combination with a mail-crane, an arm attached to said crane, a fork on the outer end of said arm, of a railway-car a mail-bag-catching arm carried by said car, a bell-crank lever mounted on the car below the last arm one arm of said lever being weighted and mail-bag-holding devices mounted on the opposite arm of the bell-crank lever and on the bag-catching arm.

2. The combination with a railway mail-car having a side door of a mail-bag-catching arm crossing said door in a horizontal direction, a bell-crank lever pivotally mounted at the bottom of the door-opening said lever having an upper weighted arm and an out-

wardly-extending lower arm, mail-bag-holding devices attached to the mail-bag-catching arm, an outwardly-extended bell-crank arm, a post located alongside the car-track, an arm attached to said post extending across the path of a mail-bag suspended between said bag-holding devices, said post-arm having means for catching and holding a mail-bag.

3. A mail-car having a side opening, a mail-bag-catching arm extending horizontally across the upper part of said opening, an adjustable and removable bell-crank lever, mounted at the bottom of said opening, mail-bag-holding devices mounted on said catching-arm and on one arm of said lever, a post planted alongside of the track of said car, an arm pivoted to the top of said post, a second arm hinged to the post below the top arm and extending toward the car when in its horizontal position, parallel posts between the track and the post to which the last arm is pivoted to prevent the lateral displacement of the last arm, a bag-catching device on the outer end of the last arm and mail-bag-holding devices mounted on both of the arms of said post.

In witness whereof we have hereunto set our hands and seals, at Indianapolis, Indiana, this 29th day of March, A. D. 1906.

AMOS LEFFORGE. [L. s.]

PEARLEY O. APPLE. [L. s.]

Witnesses:

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