

J. B. McMILLAN.
MAIL BAG CATCHER AND DELIVERER.
APPLICATION FILED JUNE 9, 1908.

906,815.

Patented Dec. 15, 1908.

2 SHEETS—SHEET 1.

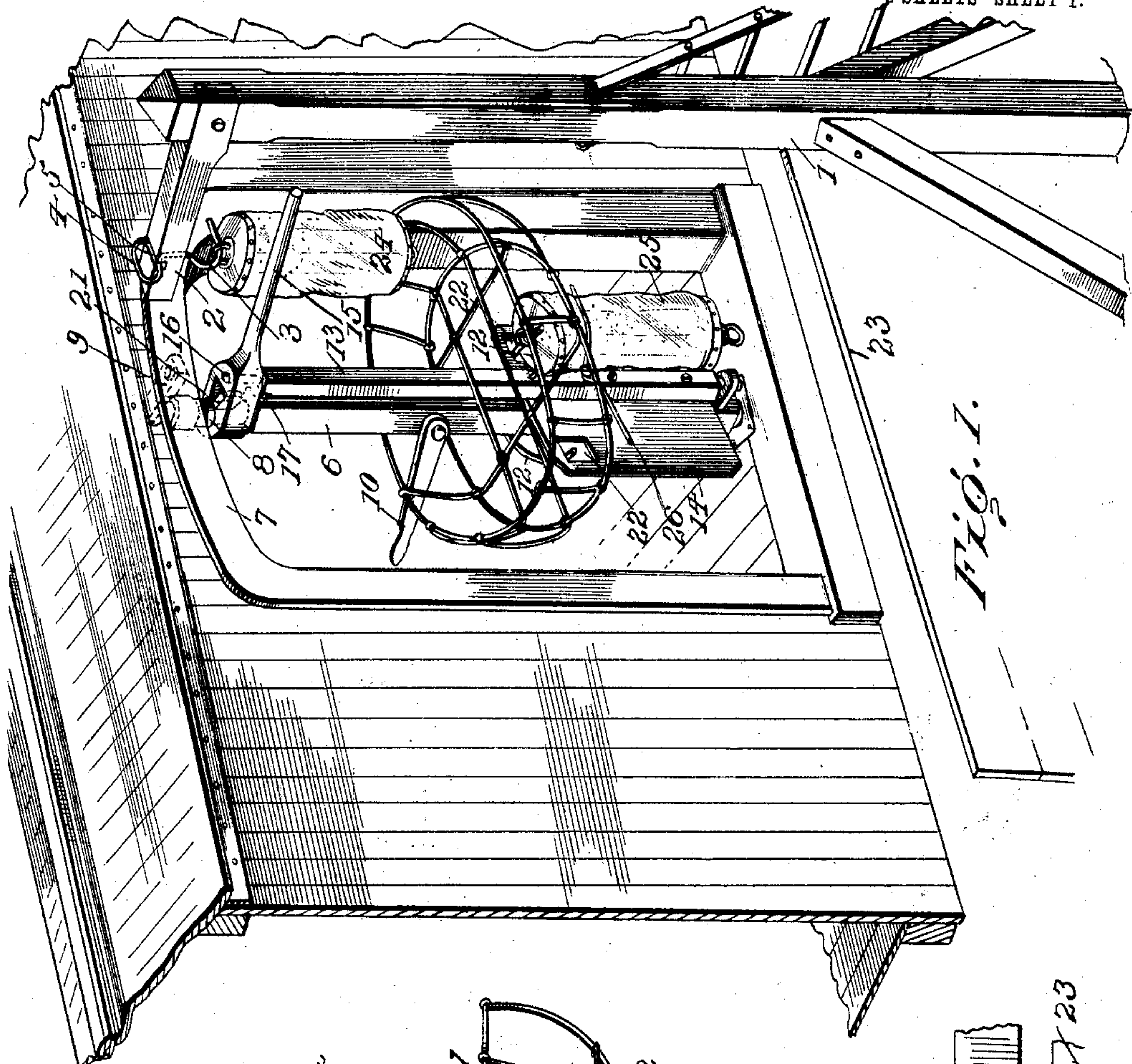


FIG. 1.

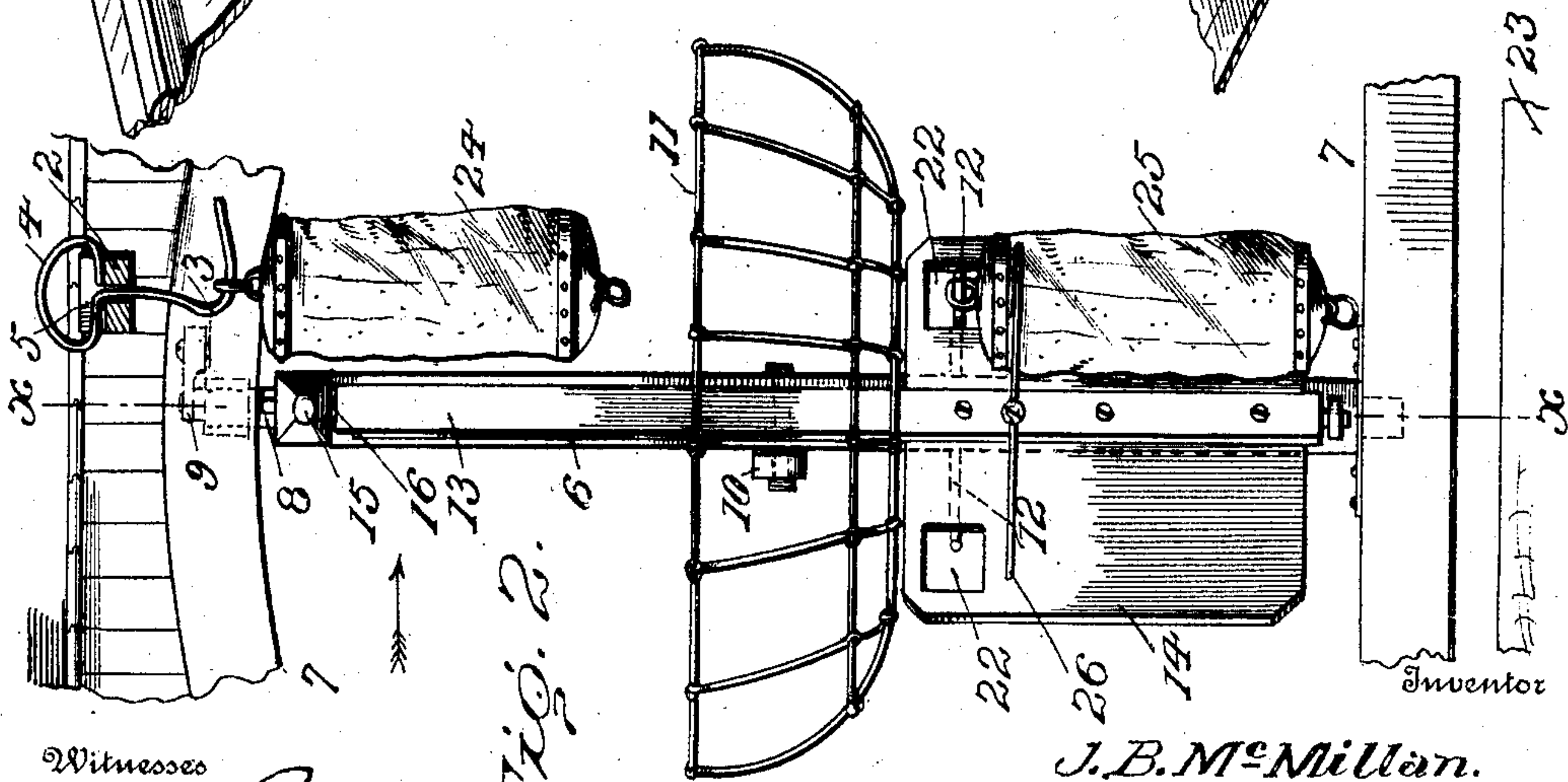


FIG. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

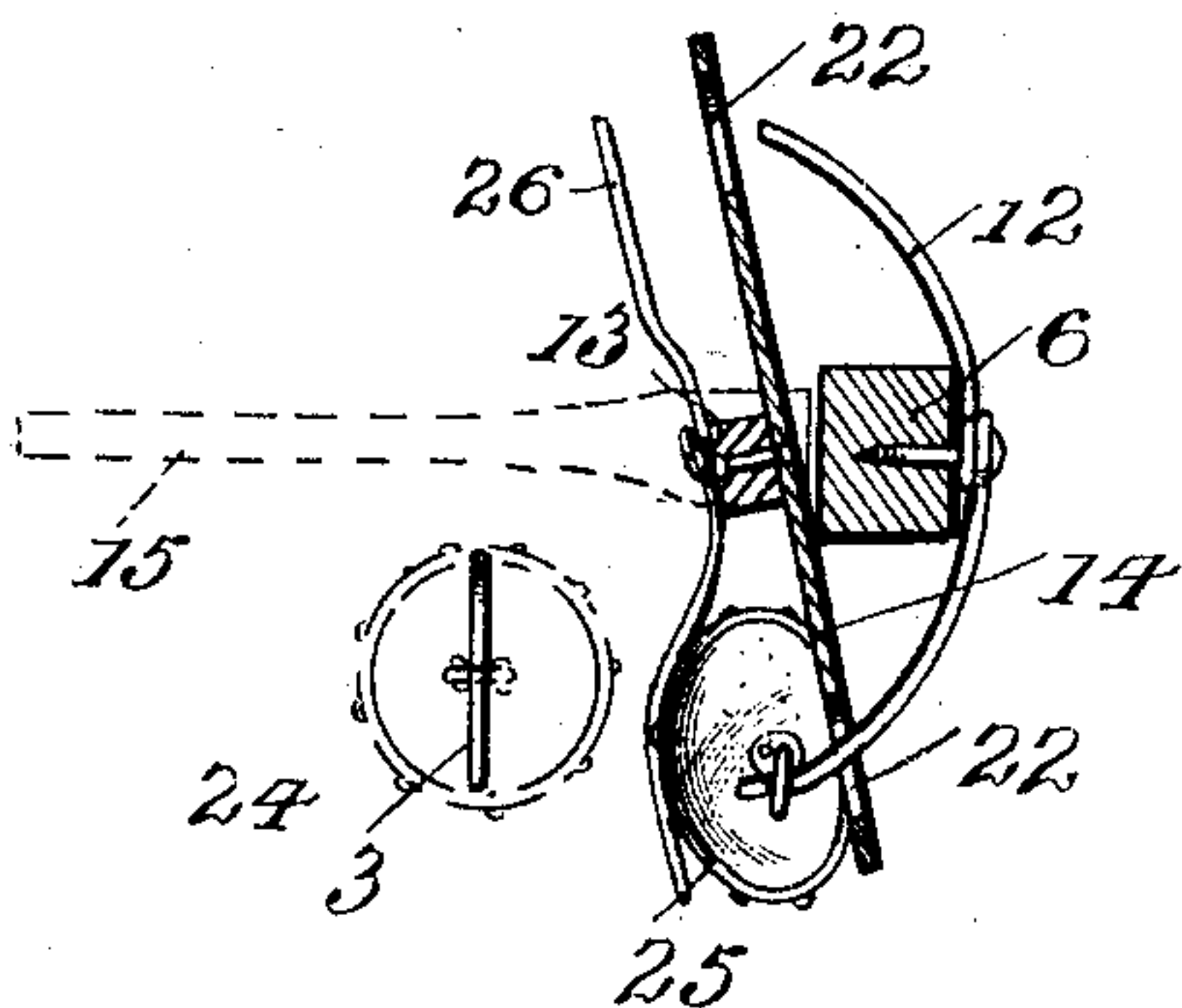
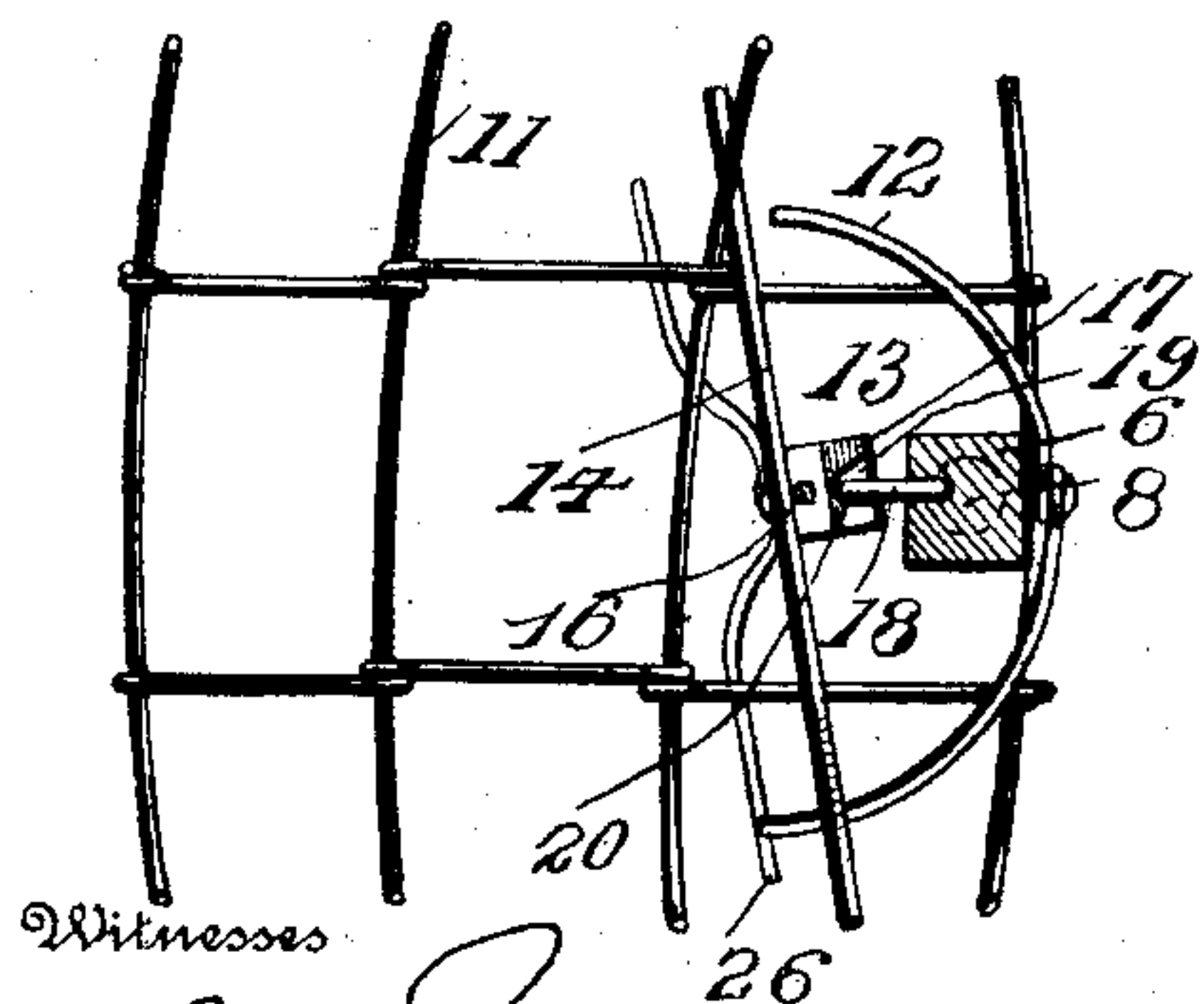


Fig. 6.



Witnesses

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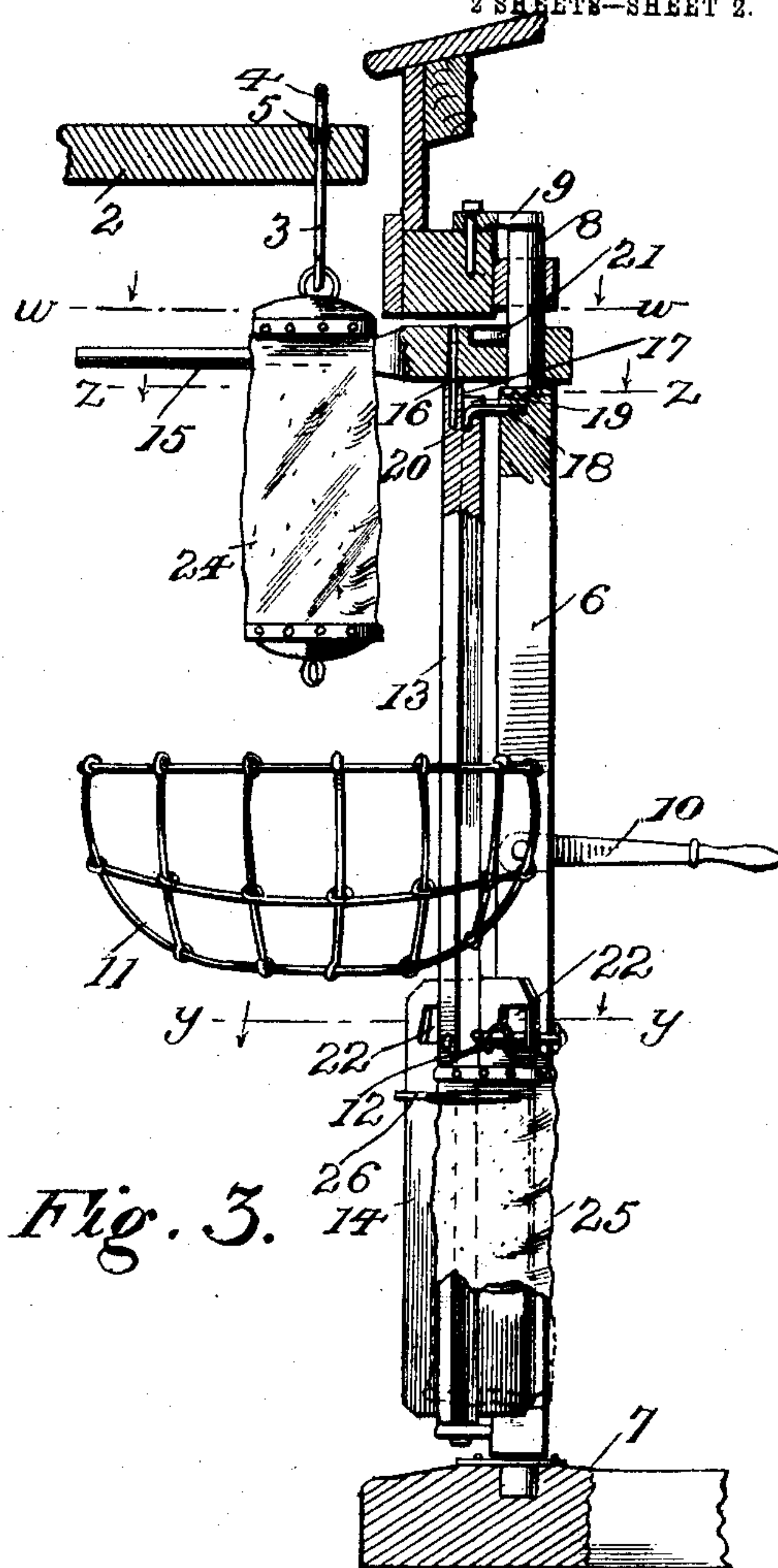
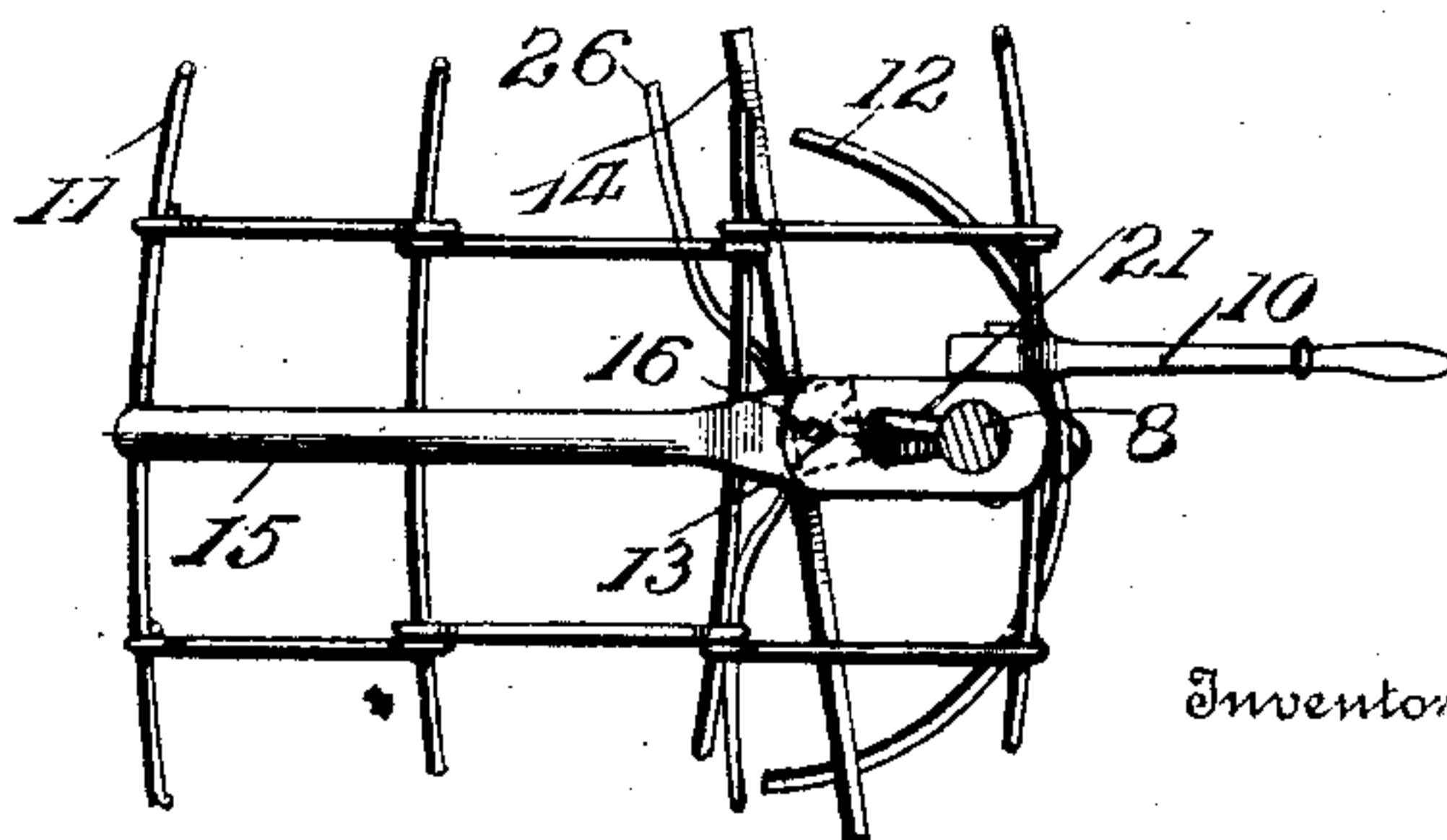


Fig. 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

JAIRUS B. McMILLAN, OF NORTH VERNON, INDIANA.

MAIL-BAG CATCHER AND DELIVERER.

No. 906,815.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed June 9, 1908. Serial No. 437,566.

To all whom it may concern:

Be it known that I, JAIRUS B. McMILLAN, a citizen of the United States, residing at North Vernon, in the county of Jennings and State of Indiana, have invented certain new and useful Improvements in Mail-Bag Catchers and Deliverers, of which the following is a specification.

The present invention appertains to means for delivering mail bags or like matter to and from moving trains, the purpose being to provide a novel construction which will reduce the wear upon the bags or containers to the smallest amount possible, and which will prevent the matter from getting beneath the wheels of the cars.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a mail bag catcher and deliverer embodying the invention. Fig. 2 is a front view thereof, the arm of the frame being in section. Fig. 3 is a vertical section on the line $x-x$ of Fig. 2. Fig. 4 is a horizontal section on the line $y-y$ of Fig. 3. Fig. 5 is a horizontal section on the line $w-w$ of Fig. 3. Fig. 6 is a horizontal section on the line $z-z$ of Fig. 3.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

A crane is located at one side of the track at the station to receive mail and from which mail is delivered to a passing train. This crane consists of a post 1 and arm 2. A hook 3 is fitted to the outer end of the arm 2 for holding the mail bag or other package in position to be taken up by the passing train. The hook is provided at its upper end with a cross-piece 4 which serves as a stop and handle. A transverse kerf or groove 5 is formed in the upper side of the arm 2 and receives the cross-piece 4 so as to hold the hook facing in either direction.

When the hook is moved upward in the arm 2 a distance to withdraw the cross-piece 4 from the kerf or groove 5, it may be turned to face either up or down track, and when lowered and the cross-piece 4 is fitted in the kerf or groove 5, the position of the hook is fixed. A post 6 is mounted in bearings provided above and below the door opening in the side of the car 7 provided with the invention. The upper journal 8 of the post 6 is made longer than the lower journal to provide for unshipping the post when the device is to be laid aside or to be moved from one side of the car to the other. A turn button 9 is adapted to engage with the upper end of the journal 8 and prevent vertical movement of the post when it is required to secure the same in its bearings. When the turn button 9 is moved aside, the post 6 may be lifted to withdraw its lower journal from the lower bearing, after which a downward movement of the post withdraws the journal 8 from the upper bearing. A handle 10 is pivoted at one end to the post 6 so as to fold out of the way. When the handle 10 is extended, the post may be turned in its bearings and held secured in the proper position. A basket or catcher 11 is secured to the post 6 and is adapted to receive the mail bag or other package when detached from the hook 3. The basket or catcher 11 may be of any light and substantial construction, and is elongated so as to insure catching the bag when released from the hook 3. A double hook 12 is firmly attached to the post 6 and is designed to receive and support the material to be delivered.

A displacer is provided for disengaging the mail bag or other container from the hooks 3 and 12, and is carried by the post 6. The displacer comprises a post 13, stripper 14 and arm 15. The post 13 is mounted upon the post 6 and has a limited movement about a vertical axis. The lower end of the post 13 is stepped in a bearing near the lower end of the post 6, whereas its upper end receives a pintle 16, consisting of the pendent member of a hook bolt applied to the post 6 near its upper end. The inner side of the post 13 is cut away at 17 to receive the horizontal member of the hook bolt so as to permit of the post 13 having a limited pivotal movement. The arm 15 is loose upon the journal 8 and has a limited

horizontal play thereon. A tongue 18 projected from the journal 8, enters a groove 19 leading from the opening 20 provided in the arm to receive the journal, said groove 5 19 being wider than the thickness of the tongue 18 to admit of the post 13 having a limited play. A pin 21 projected from the upper end of the post 13 is adapted to enter the arm 15 and form positive connection 10 therewith to insure a turning of the post 13 when said arm 15 comes in contact with the mail bag or other container or package suspended from the hook 3.

The stripper 14 consists of a plate firmly 15 attached to the post 13 below the basket 11, said plate projecting from opposite sides of the post and provided near its upper corners with openings 22 to receive the members of the double hook 12. The bag or container holding the mail or other matter to 20 be delivered from the train, is suspended upon a member of the hook 12 and rests against an edge portion of the stripper 14. When the arm 15 comes in contact with the 25 mail bag suspended from the hook 4, the post 3 is turned and imparts a like movement to the stripper 14, which latter in turn frees the bag from the hook 12 and permits the same to drop at the station. A fender 30 23 is located at one side of the track and consists of a board and prevents the mail bag from being drawn beneath the cars and injured.

In the practical operation of the invention, a mail bag 24 or like container holding 35 the matter to be delivered from the station to the moving train, is suspended from the hook 3, and the mail bag 25 to be delivered from the train to the station is suspended 40 from the hook 12. The clerk turns the post 1 by means of the handle 10 to swing the arm 15 and the basket 11 outward and holds said parts in proper position by means of said handle. When the arm 15 comes in contact 45 with the mail bag 24, it is moved backward a distance determined by the play between the tongue 18 and groove 19, said movement being sufficient to cause the stripper 14 to disengage the mail bag 25 from the 50 hook 12. After the arm 15 has reached the limit of its movement, it disengages the mail bag 24 from the hook 3, said bag being received in the basket or catcher 11. The postal clerk may swing the arm 15 and basket 11 into the car so as to be out of the way 55 and for convenience of removing the mail bag 25 from the basket. It is to be understood that both operations are practically performed at one and the same time. The 60 stripper, when disengaging the mail bag 24 from the hook 3, throws said mail bag rearward or in an opposite direction to the movement of the train, thereby neutralizing wholly or in part the momentum imparted 65 to the mail bag 24 by the movement of the

train, so that said mail bag, instead of being thrown forward, practically drops at the station.

A holder 26 is attached to the post 13 and serves to prevent accidental displacement of 70 the mail bag from the hook 12. The holder 26 is double ended and consists of a rod, bar or strip secured at a middle point to the post 13 and having its end portions outwardly deflected so as to leave a space between them 75 and the strip 14 for the reception of the mail bag. When the stripper is operated to disengage the mail bag from the hook 12, the weight is sufficient to cause the mail bag to drop and thus clear the holder 26. 80

Having thus described the invention, what is claimed as new is:

1. In means for catching and delivering mail, the combination of an arm having a vertical opening and a groove intersecting 85 said opening, and a hook mounted in the vertical opening and provided with a cross-piece to enter said groove and fix the position of the hook.

2. In means for catching and delivering 90 mail, the combination of a support provided with mail bag suspending means, a stripper for disengaging the mail bag from the supporting means, an arm for actuating the 95 stripper mounted upon said support, and cooperating means between said arm and support to limit the play of the arm.

3. In means for catching and delivering mail, the combination of a support provided 100 with mail bag suspending means, a stripper mounted upon said support and having a limited play and adapted to effect disengagement of the mail bag from its suspending means, an arm for actuating the 105 stripper mounted upon said support and having a limited play, and connecting means between the stripper and said arm to insure positive movement between them.

4. In means for catching and delivering mail, the combination of a post mounted to 110 turn about a vertical axis and provided with mail bag suspending means, a second post mounted upon the first mentioned post and having a limited movement, a stripper attached to said second post for effecting dis- 115 engagement of the mail bag from its suspending means, an arm mounted upon the first mentioned post and having a limited play, and a positive connection between said arm and the second post to effect movement 120 of the latter.

5. In means for catching and delivering mail, the combination of means for suspending a mail bag at one side of the track, a 125 post mounted upon a car, a basket carried by said post, a double hook attached to said post, means for turning the post and holding it in proper position, a second post mounted upon the first mentioned post, a stripper applied to said second post, an arm mounted 130

upon the first mentioned post and having a limited play, and a positive connection between said arm and the second post to effect movement of the latter for actuating the
5 said stripper.

6. In means for catching and delivering mail, the combination of a post mounted to turn about a vertical axis and provided with mail bag suspending means, a second post
10 mounted upon the first mentioned post and having a limited movement, a stripper attached to said second post for effecting dis-

engagement of the mail bag from its suspending means, and a holder connected to the second post and adapted to prevent acci- 15 dental displacement of the mail bag from the suspending means.

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

JAIRUS B. McMILLAN. [L. S.]

Witnesses:

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FRANK E. LITTLE.