

No. 641,203.

Patented Jan. 9, 1900.

S. E. GIBSON.
MAIL BAG CATCHER.

(Application filed Apr. 20, 1899.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 4.

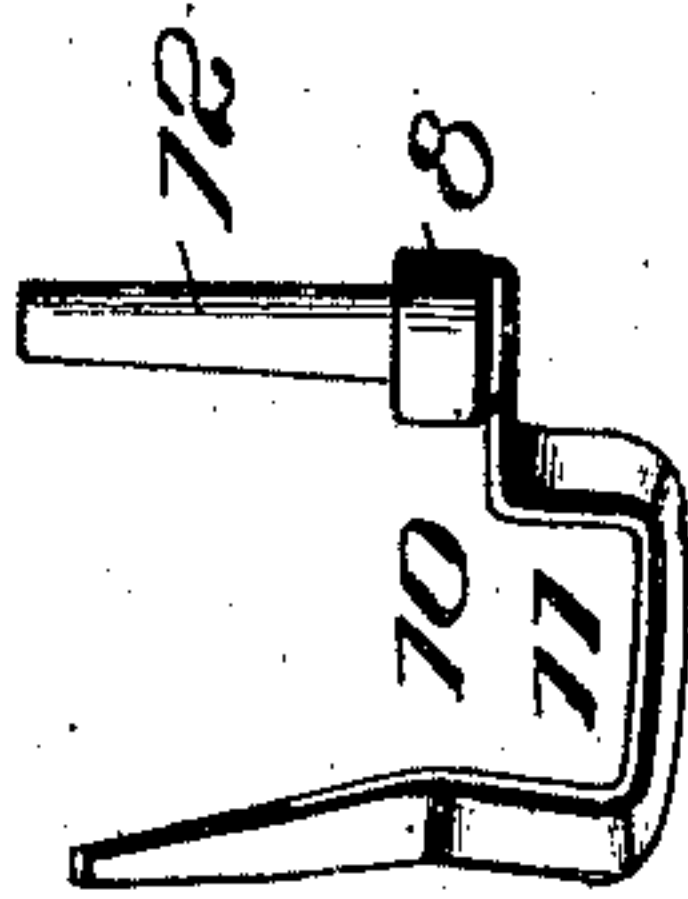


Fig. 5.

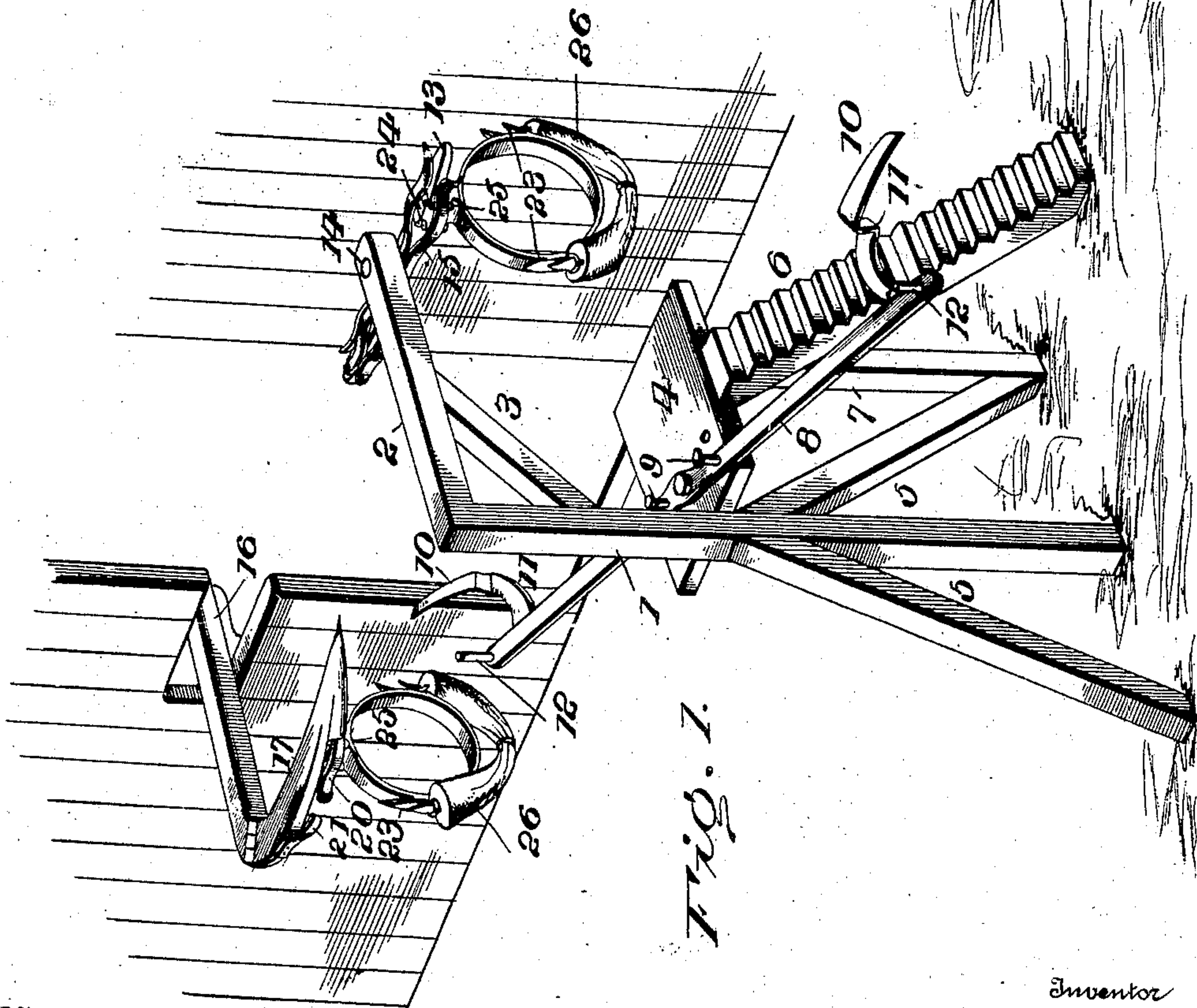
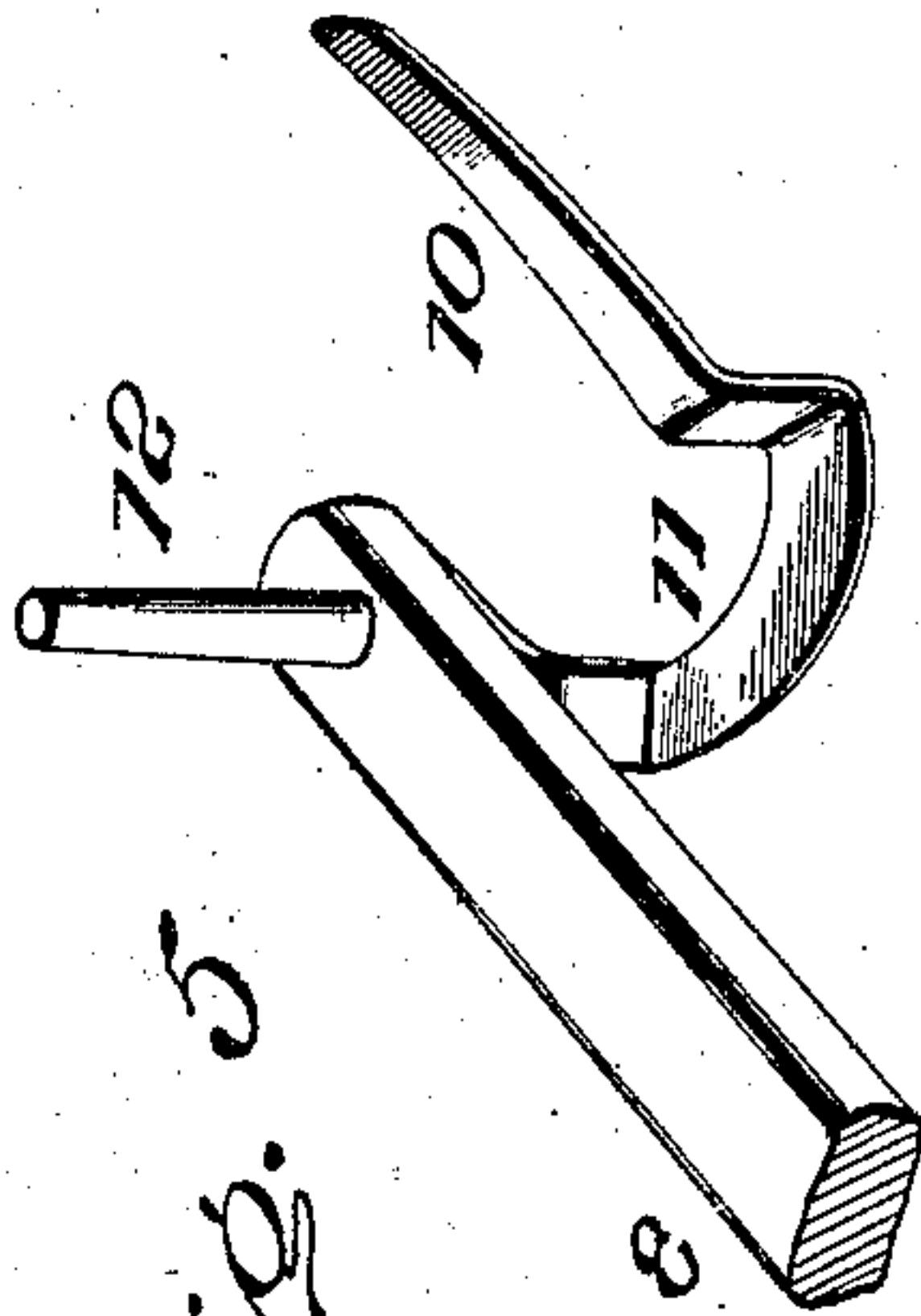


Fig. 1.

Witnesses
J. M. M. M.
Gladys L. Thompson.

Inventor
Sallie E. Gibson
by *Chas. R. Racy* His Attorney

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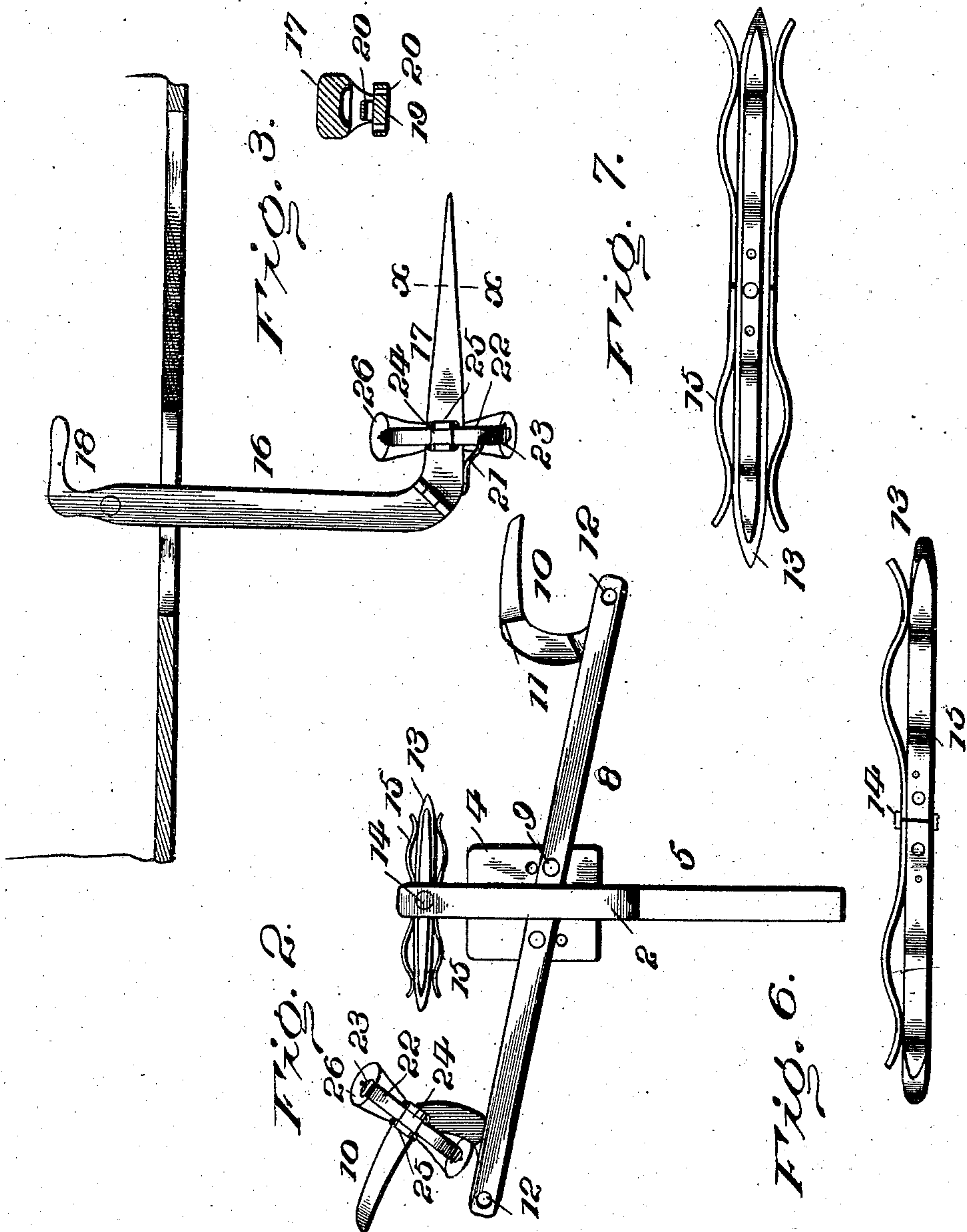
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3 Sheets—Sheet 2.



Witnesses

John M. M. M.
Glady L. Thompson.

Sallie E. Gibson Inventor

by R. H. R. R. his Attorney

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3 Sheets—Sheet 3.

Fig. 8.

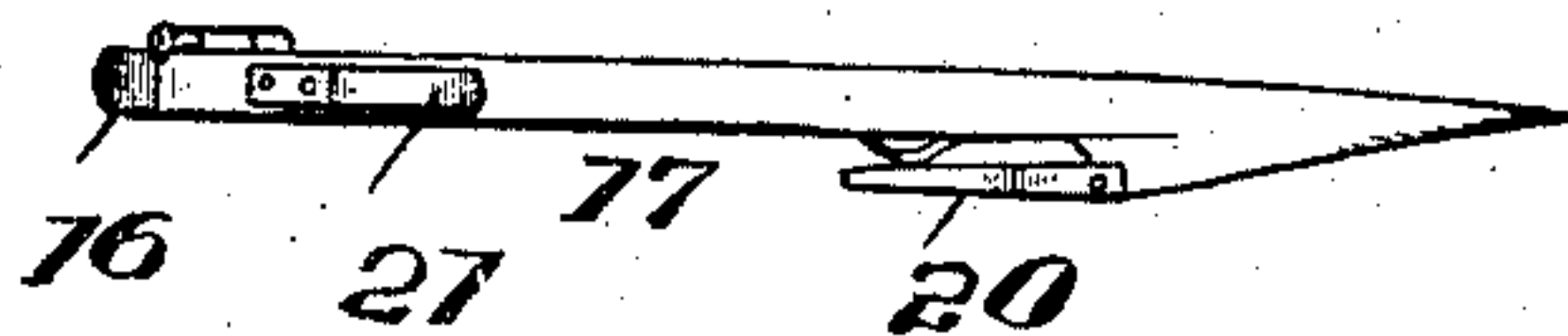


Fig. 9.

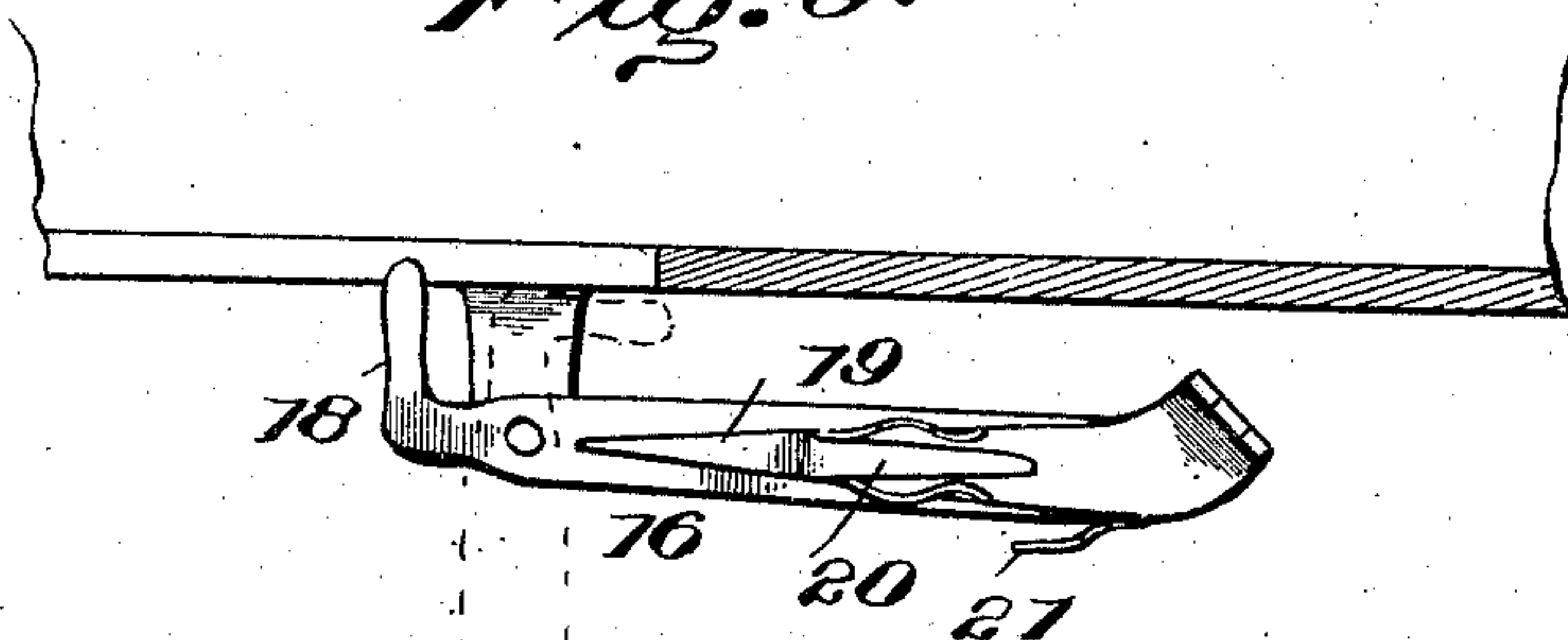
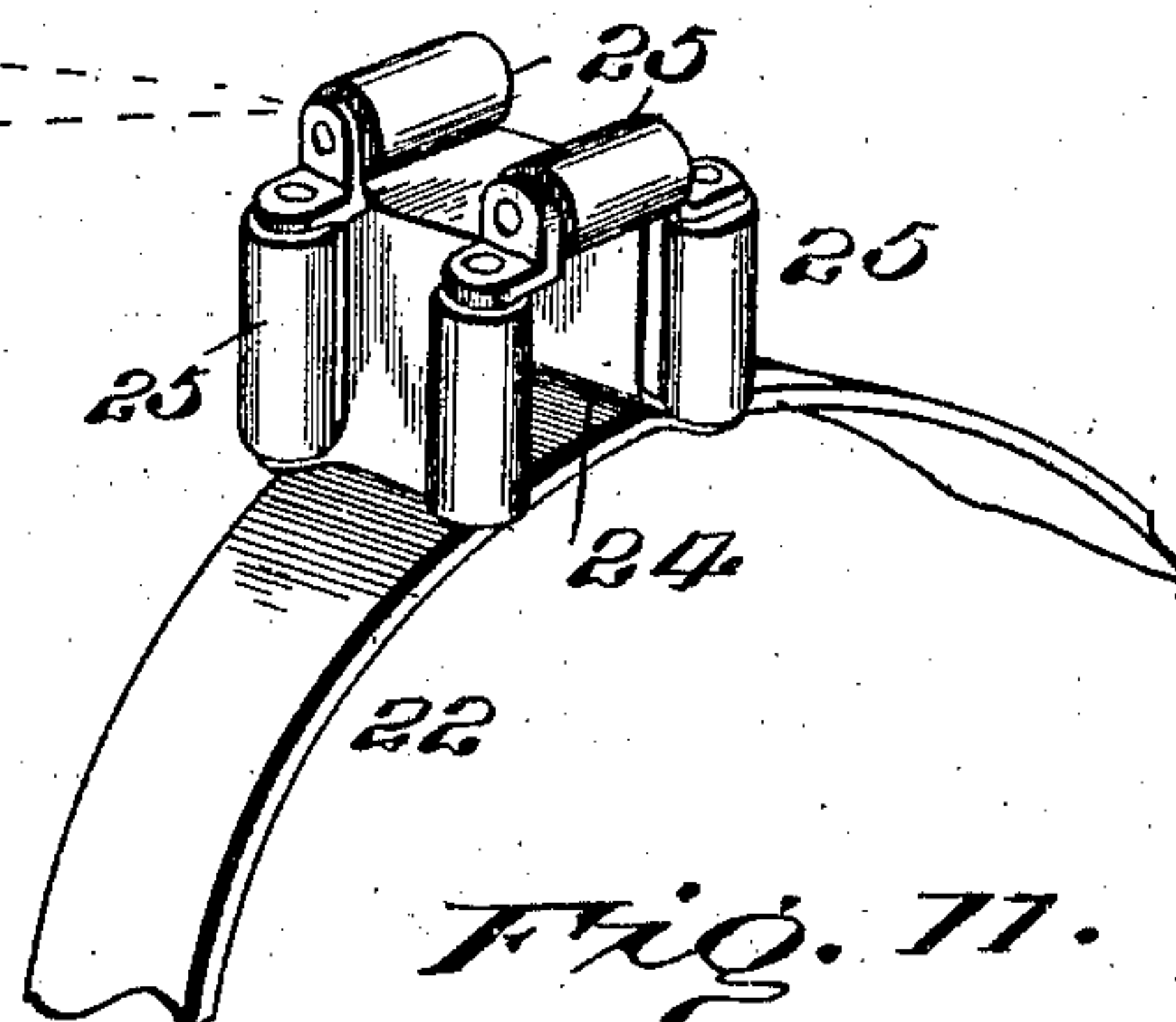
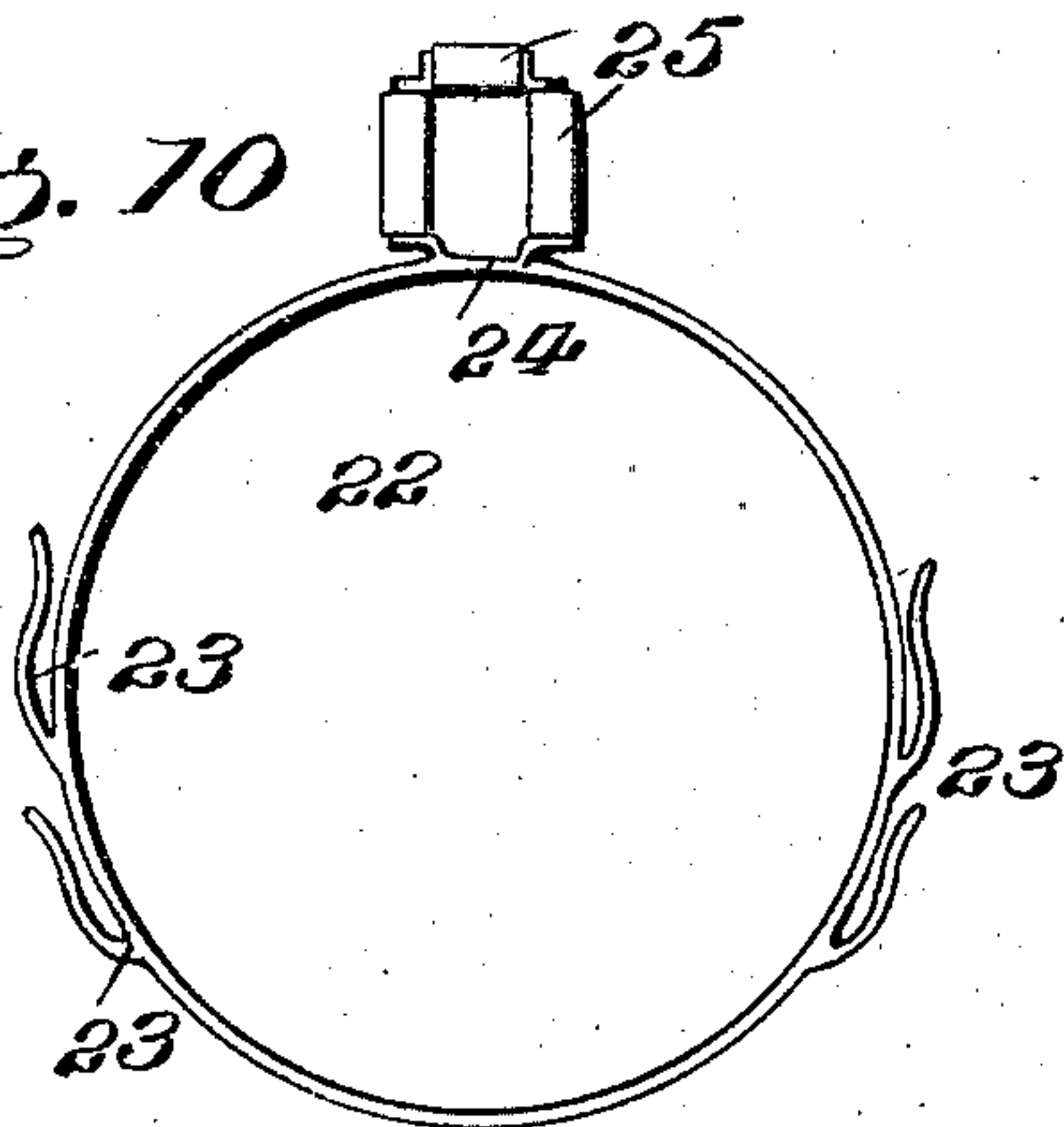


Fig. 10.



Witnessed
Jm. M. M. M.
Gladys L. Thompson

Inventor
Sallie E. Gibson
by R. H. Racey, Attorneys

UNITED STATES PATENT OFFICE.

SALLIE E. GIBSON, OF PRINCESS, KENTUCKY.

MAIL-BAG CATCHER.

SPECIFICATION forming part of Letters Patent No. 641,203, dated January 9, 1900.

Application filed April 20, 1899. Serial No. 713,787. (No model.)

To all whom it may concern:

Be it known that I, SALLIE E. GIBSON, a citizen of the United States, residing at Princess, in the county of Boyd and State of Kentucky, have invented certain new and useful Improvements in Mail-Bag Catchers; and I do hereby 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.

This invention has relation to the class of devices for mechanically handling mail pouches or matter at stations, such matter being delivered by the moving train and taken up by a receiver at the station and the train at the same time taking up any matter to be delivered thereto from the station. Usually the exchange or reception and delivery of the mail is attended with great wear and tear upon the pouches, and the latter are soon unfitted for further service without undergoing repairs and are maintained in a serviceable condition only at great expense.

The present invention is designed to relieve the pouches containing the mail-matter from excessive wear and strain, thereby prolonging their period of usefulness and obviating the necessity for early repairs and reducing the cost of their maintenance to the smallest amount possible.

A further purpose of the invention is the provision of mechanisms capable of being easily and safely handled without danger to the manipulator, and which when not required for immediate service can be folded into compact form and turned out of the way.

Further objects and advantages will appear as the nature of the invention is unfolded in the following description and drawings hereto attached, in which—

Figure 1 is a perspective view of a station and mail-coach, showing the application of the invention and the relation of the parts when an interchange of mail-matter is about to take place. Fig. 2 is a detail plan view showing the disposition of the parts after the exchange has been effected. Fig. 3 is a plan section of a portion of the car, showing the catcher applied thereto and in position for delivery and taking up mail-matter from a station. Fig. 4 is an end view of the catcher located at the station. Fig. 5 is a perspec-

tive view of the part shown in Fig. 4. Fig. 6 is a detail view in elevation of the support for receiving the mail at the station to be delivered to the passing train. Fig. 7 is a plan view of the said support. Fig. 8 is a detail view of the outer end portions of the catcher applied to the mail-coach. Fig. 9 is a detail view similar to Fig. 3, the full lines showing the catcher folded and the dotted lines showing it extended and in readiness to be swung outward. Fig. 10 is a front view of the ring-holder. Fig. 11 is a detail view in perspective of the upper portion of the holder having the suspending-loop applied thereto and showing more clearly the relation of the anti-friction-rollers.

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 each of the stations and is provided with the devices for receiving and delivering the mail. As shown, the crane consists of a post 1, an upper arm 2, braced from the post by an interposed stay 3, and a lower arm 4. This post is set in the ground and is strengthened by braces 5, and its arm 2 is reached by a ladder or steps 6, extending from the ground to the lower arm 4, the latter serving as a support for the person when placing the holder upon the receiver applied to the arm 2. The arm 4 is supported at its outer end by means of a stay or brace 7.

The catcher at the station consists of a beam 8, mounted at an intermediate point upon the lower arm 4, so as to be turned to bring either end in position for receiving the mail-matter from the passing train, according to the direction of movement thereof. When out of action, the beam 8 is turned so as to occupy a position about parallel with the railroad-track, and when turned so as to bring either of its ends in position to receive the mail-matter from the passing train it is held in place by pins 9, passing through openings in the beam and entering corresponding openings formed in the arm 4. A hook 10 is applied to each end of the beam 8, and its outer end portion is upwardly inclined, and its inner or closed end is depressed, as shown at 11, to receive the mail-bag holder and prevent it slipping off the hook when received there-

on. The hook is approximately of U shape in plan view, the longitudinal members being divergent and the inner closed end dropped or depressed at 11, forming vertical shoulders at the ends of the part 11 to engage with and limit the movement of the bag-holder when received thereon. A pin 12 is applied to each end of the beam 8 and rises vertically therefrom and is designed to come in contact with the mail-bag holder and prevent it slipping upon the beam 8 and coming in contact with the crane or braces thereof.

The support for receiving the holder at the station consists of a bar 13, pivotally connected intermediate its ends 2 by means of a bolt 14, which can be tightened to a greater or less extent, so as to increase the resistance to the turning of the bar upon its pivotal support. Longitudinal springs 15 are applied to the top and sides of the end portions of the bar 13 and are secured thereto at their inner ends and are free at their outer ends, which are deflected slightly to facilitate the entrance of the suspension-loop of the mail-bag holder upon the bar when placing it in position. The springs 15 exert a lateral pressure against the top and sides of the suspension-loop sufficient to prevent the accidental displacement of the holder when properly positioned upon the bar 13, and they also serve to steady the holder and maintain it in proper position to be engaged by the catcher of the mail-coach.

The catcher applied to the postal car is foldable and consists of a bar 16, pivoted at its inner end to a side of the car, so as to swing horizontally, and an arm 17, hinged or pivoted to the outer end of the bar 16, so as to fold thereon when the catcher is not required for immediate use. A handle 18 is applied to the inner end of the bar 16 and is grasped by the postal clerk when operating the device. The catcher operates through an opening in the side of the car and is limited in its outward movement by coming in contact with the inner or rear end of said opening. The arm 17 is disposed about at right angles to the length of the bar 16 and is connected therewith by means of a butt or rule joint, so as to limit the downward movement of the arm and hold it about in the plane of the bar 16 and in position to receive the mail-matter to be delivered to the car at the station. The means for supporting the matter to be delivered from the moving train to the station are similar to the corresponding means employed at the station for a like purpose and consist of a bar 19, rigidly attached to the arm 17, and a series of springs 20, arranged at the top and sides of said bar. This bar 19 is located beneath the arms 17 and is secured at its front end thereto, a space being formed between the remaining portion of the bar and the arm 17 to receive the top-most spring 20 and the upper portion of the suspending-loop of the mail-bag holder. A hook or projection 21 is applied to the inner end portion of the arm 17 and is designed to

engage with the mail-bag holder and prevent the latter from slipping back too far upon the catcher and prevent its ready passage through the door or opening in the side of the car.

The mail-bag holder consists of a ring or support 22 of annular form, and this ring is provided at its sides with a series of hooks 23 at different elevations and at its upper end with a suspension-loop 24 of a size to snugly fit upon the bars 13 and 19. The suspending-loop is preferably right angular to conform to the straight sides of the bars 13 and 19, the latter being of like cross-sectional area, so as to enable the holder 22 to be used interchangeably therewith. In order to prevent binding of the suspension-loop 24 against the sides of the bars 13 and 19, it is provided at its top and sides with antifric-tion-rollers 25, the latter being in pairs and located at the front and the rear edges of the loop. The hooks 23 at the sides of the holder or ring 22 receive the rings usually provided at the ends of a mail-pouch 26, thereby supporting the latter at each end and holding it extended, as indicated most clearly in the drawings. The provision of a plurality of hooks 23 enables a number of mail-pouches being delivered at a single operation and does away with the necessity for providing two or more cranes at a station.

It being required to effect an interchange of mail-matter between a moving train and a station, the matter to be received and delivered is inclosed in mail-pouches 26 in the usual manner. These mail-pouches are applied to the holders 22 by engaging the rings at their ends with the hooks 23 at the sides of said holders, and the latter are suspended by means of their loops 24 from the respective bars 13 and 19 in the manner herein set forth. As the train approaches and passes the station the hook 10 of the station-catcher will engage with the holder suspended from the mail-car and disengages it from the bar 19, and an instant later the catcher of the mail-coach will engage with the holder of the bar 13 and remove it therefrom. The postal clerk grasps the handle 18 and turns the bar 16 upon its pivotal connection with the coach to bring the mail-matter received thereon into the car. The station-master removes the mail-matter from the end or hook 10 of the beam 8. When applying the holder to the bar 19, the station-master mounts the ladder or steps 6 and turns said bar, so as to enable the suspending-loop 24 to be conveniently engaged therewith, after which said bar 19 is turned to a position about parallel with the track, so as to bring the holder, with the matter applied thereto, in position to be engaged by the catcher applied to the mail-coach of the moving train.

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

1. In a mail-bag catcher, the combination with the receiving and delivering mechanisms,

of a holder adapted to be applied to either of said mechanisms and provided at its sides with means for attachment thereto of both end portions of a mail-pouch, substantially as set forth.

2. In a mail-bag catcher, a bag-holder substantially of annular form and provided at its sides with a series of hooks to engage with the terminal rings of a mail-pouch, substantially as described.

3. In a mail-bag catcher, the combination with a supporting-bar, of a mail-bag holder having a suspension-loop, and having the top and sides of said loop provided with antifriction devices to engage with the top and sides of the said supporting-bar, substantially as and for the purpose specified.

4. In a mail-bag catcher, the combination with a supporting-bar, of a mail-bag holder provided with a suspension-loop, and a pair of antifriction devices at the top and sides of the loop, and having the elements of each pair separated to obviate binding between the supporting-bar and loop, substantially as set forth.

5. In a mail-bag catcher, the combination with a supporting-bar, and restraining-springs at the top and sides of said bar, of a mail-bag holder having a suspension-loop to embrace the top and sides of the supporting-bar and held thereon against accidental displacement by the combined action of the restraining-springs, substantially as set forth.

6. In a mail-bag catcher, the combination with a beam, of a catcher-hook of approximately U form, applied to said beam and having its inner or closed end depressed and having stop-shoulders at the ends of the depressed portion, substantially as described.

7. In a mail-bag catcher, the combination with a beam, of a catcher-hook applied to the

end portion of said beam, and a pin applied to and rising vertically from the said extremity of the beam to prevent the mail-bag holder from slipping upon the said beam, substantially as and for the purpose specified.

8. In a mail-bag catcher, the combination of a bar pivoted so as to swing horizontally and limited in its outward movement, and an arm disposed about at right angles to the length of said bar and hinged thereto so as to fold thereon, substantially as set forth.

9. In a mail-bag catcher, the combination with the catcher applied to the postal car, of a longitudinally-disposed bar secured at its front end to the lower forward portion of the catcher and spaced therefrom to receive and support the mail-matter to be delivered, and a spring cooperating with the said bar to prevent accidental displacement of said matter when in position, substantially as described.

10. In a mail-bag catcher, the combination with a beam, of a catcher-hook of substantially U form having one member attached to the beam and having its opposite member inclined upwardly and outwardly and having its closed end depressed forming stop-shoulders at the ends of the depressed portion, substantially as specified.

11. A mail-bag catcher comprising a bar, a folding arm disposed about at right angles to the bar and hinged thereto, and a hook or projection applied to the folding arm and extending therefrom to form a stop to limit the movement of the mail-matter when received upon the said arm, substantially as described.

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

SALLIE E. GIBSON. [L. S.]

Witnesses:

B. L. GIBSON,
CLAY GIBSON.