

No. 831,646.

PATENTED SEPT. 25, 1906.

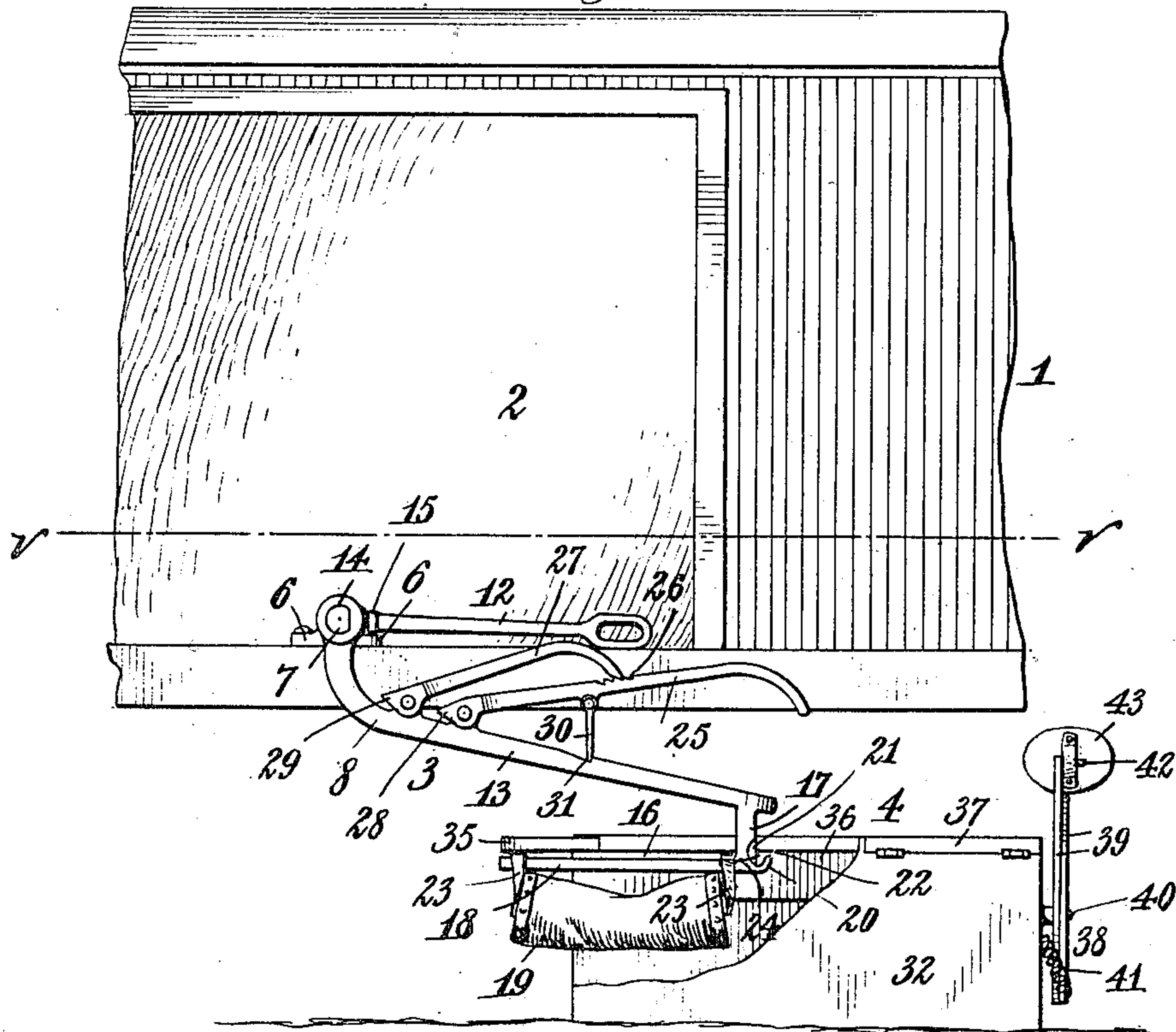
D. M. DALEY.

MAIL BAG RECEIVING AND DELIVERING APPARATUS.

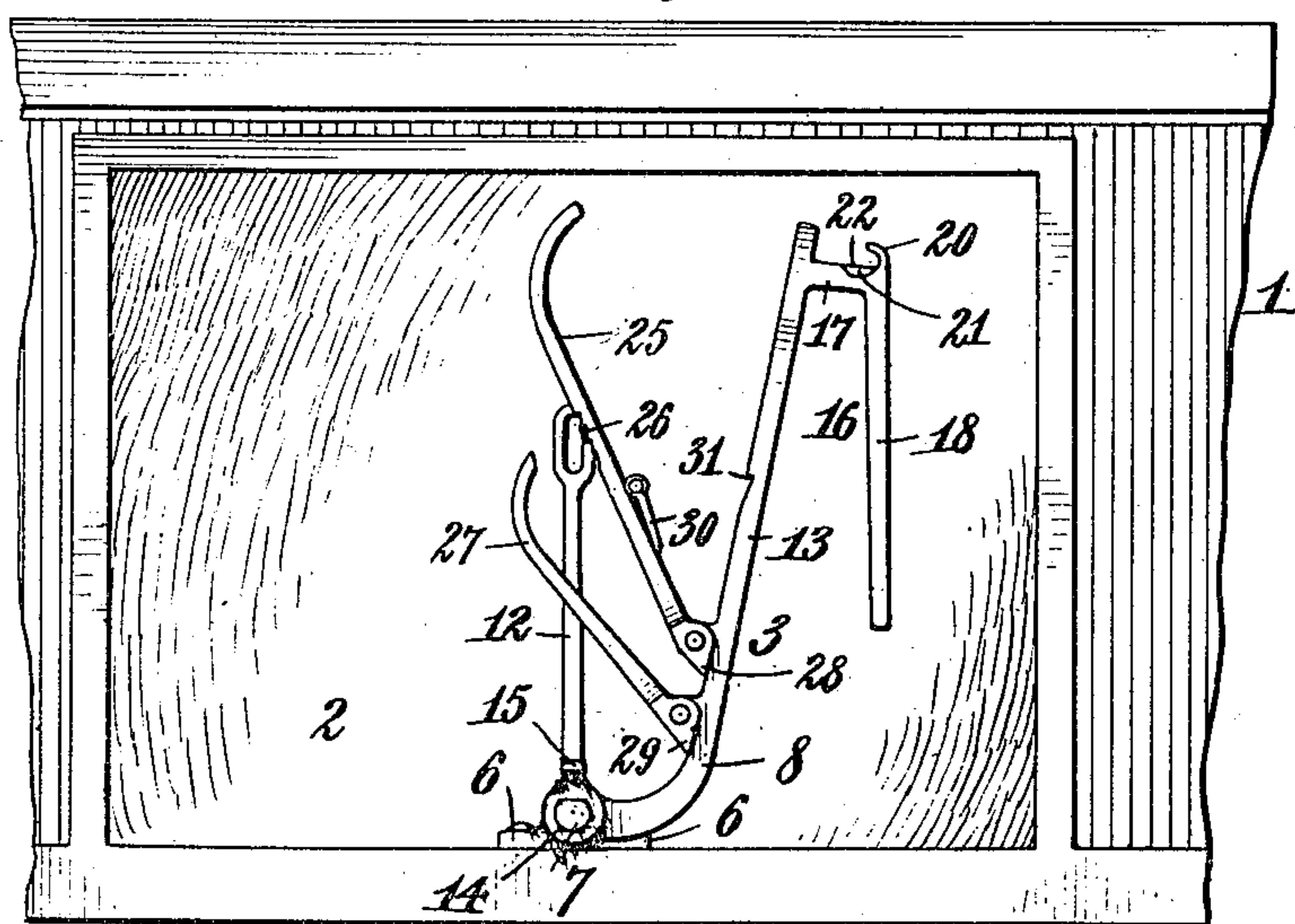
APPLICATION FILED OCT. 23, 1905.

3 SHEETS—SHEET 1.

*Fig. 1.*



*Fig. 2.*



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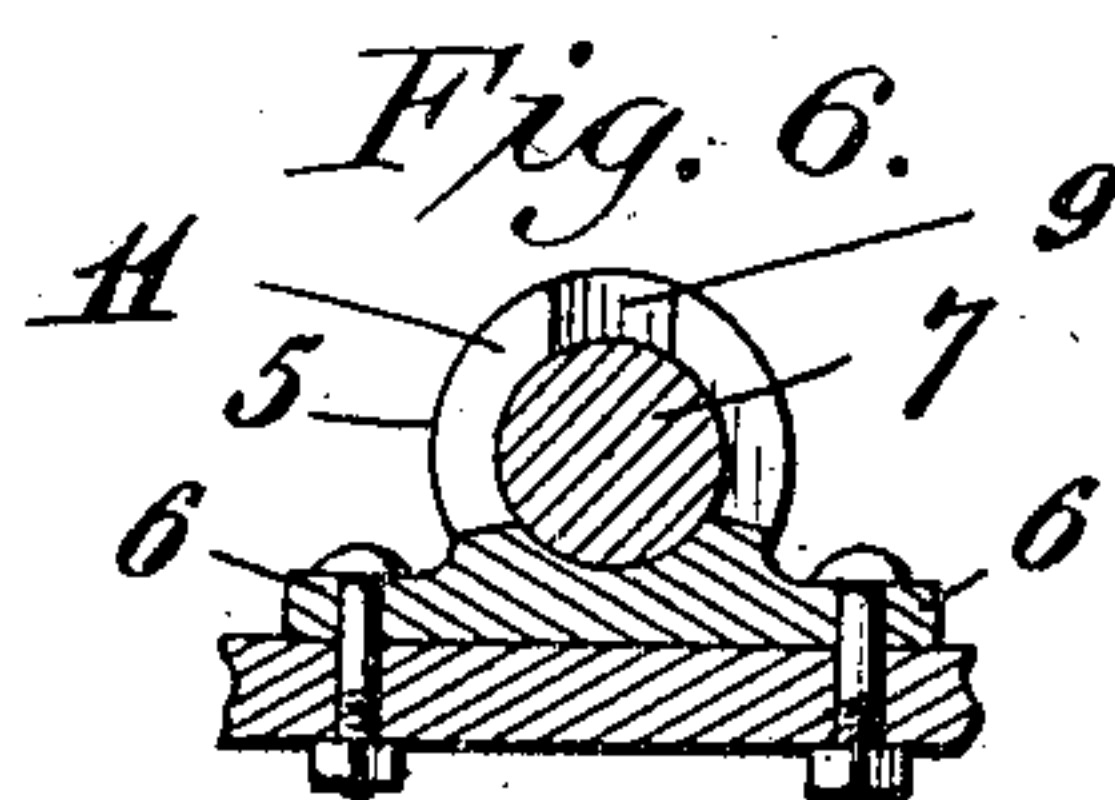
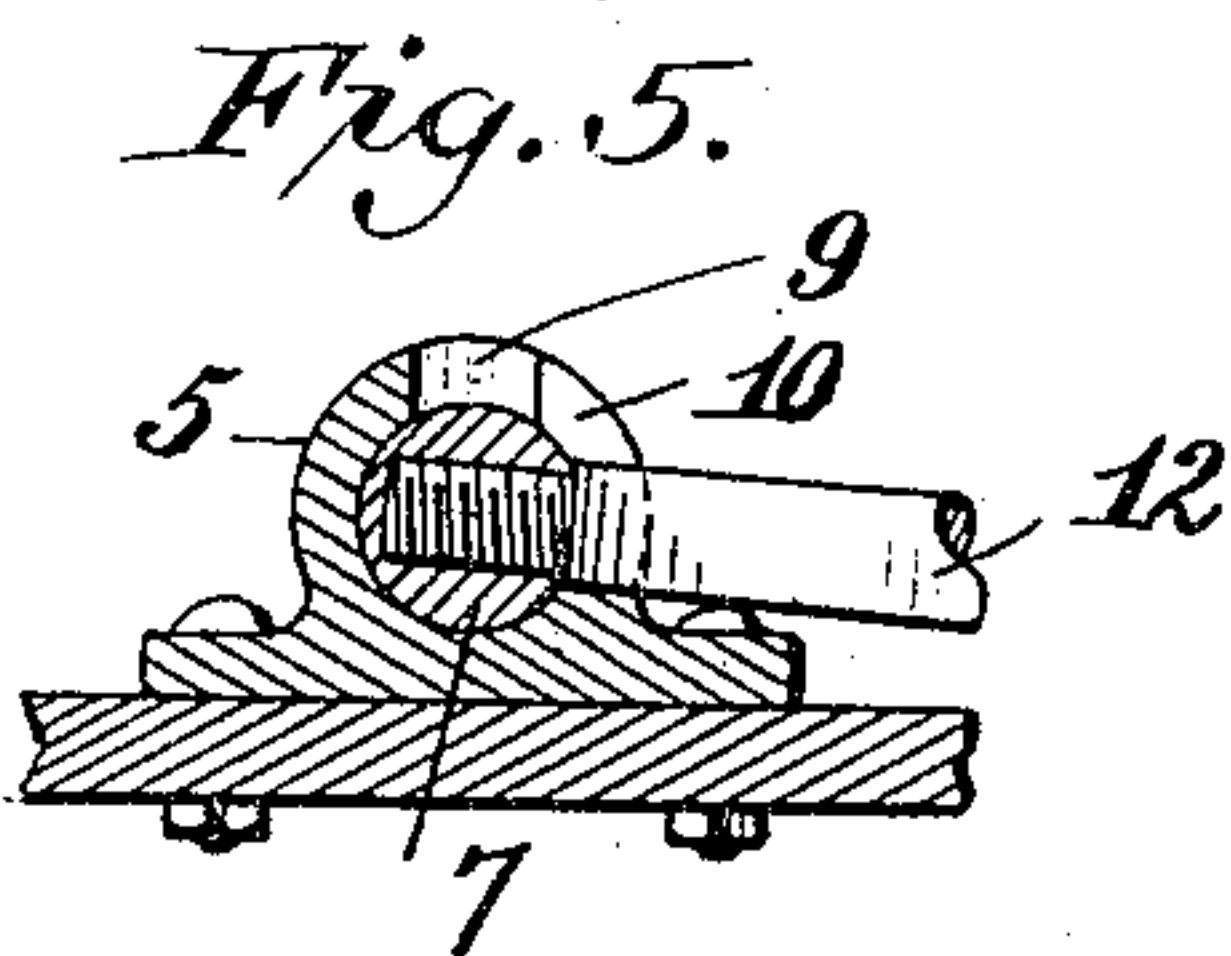
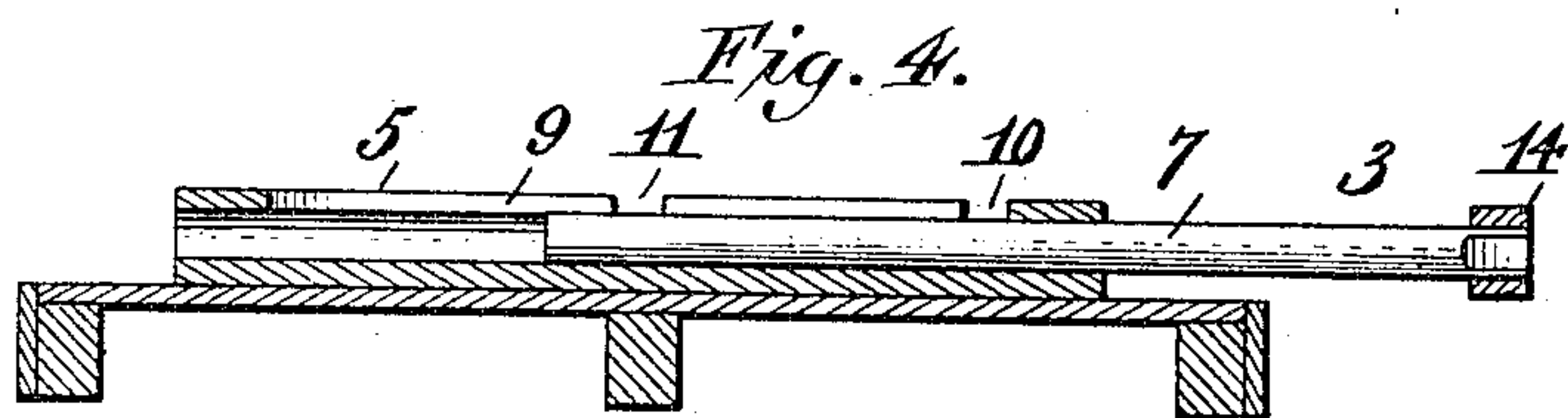
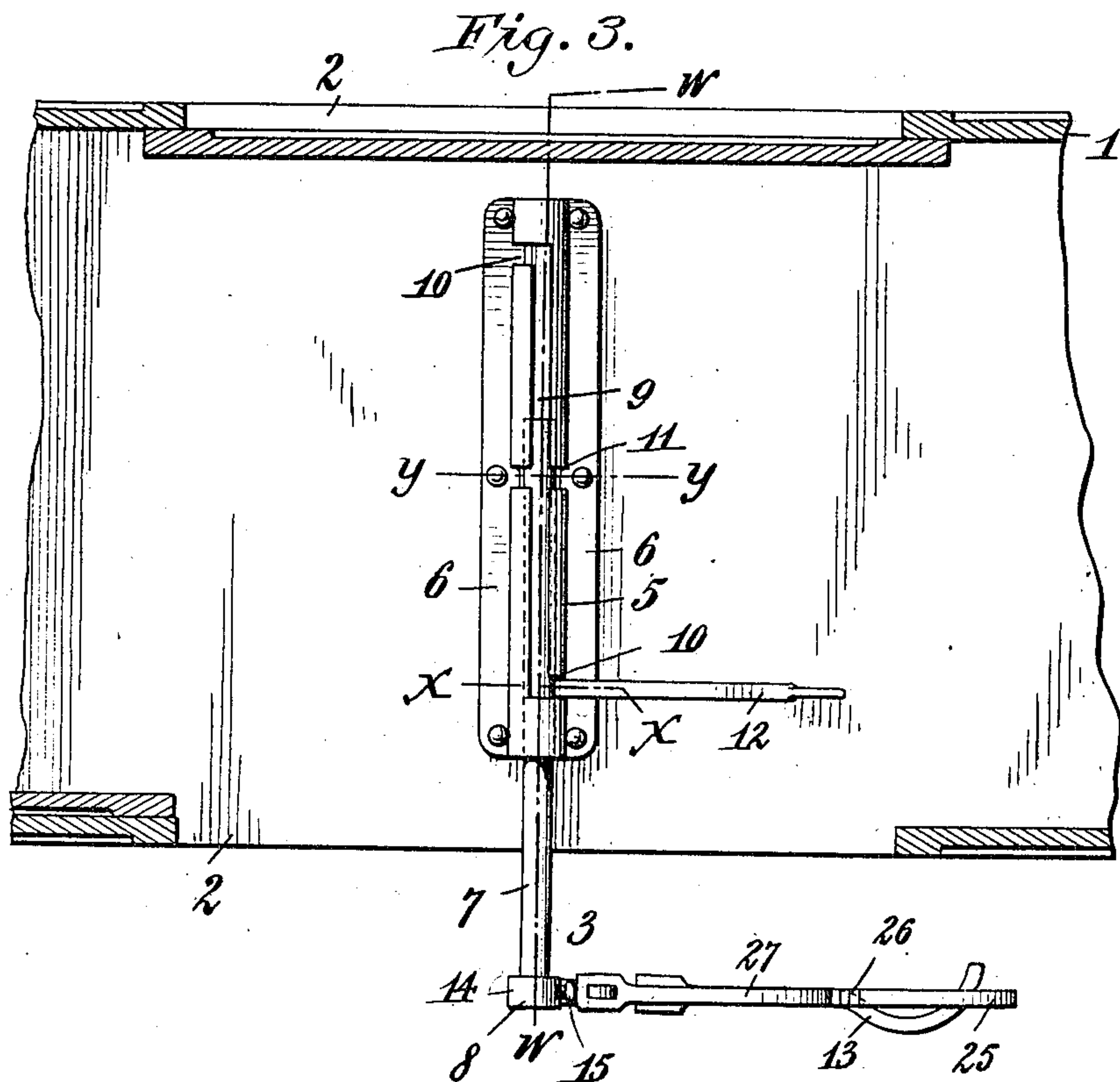
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## MAIL BAG RECEIVING AND DELIVERING APPARATUS.

APPLICATION FILED OCT. 23, 1905.

3 SHEETS—SHEET 2.



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No. 831,646.

PATENTED SEPT. 25, 1906.

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MAIL BAG RECEIVING AND DELIVERING APPARATUS.

APPLICATION FILED OCT. 23, 1905.

3 SHEETS—SHEET 3.

Fig. 7.

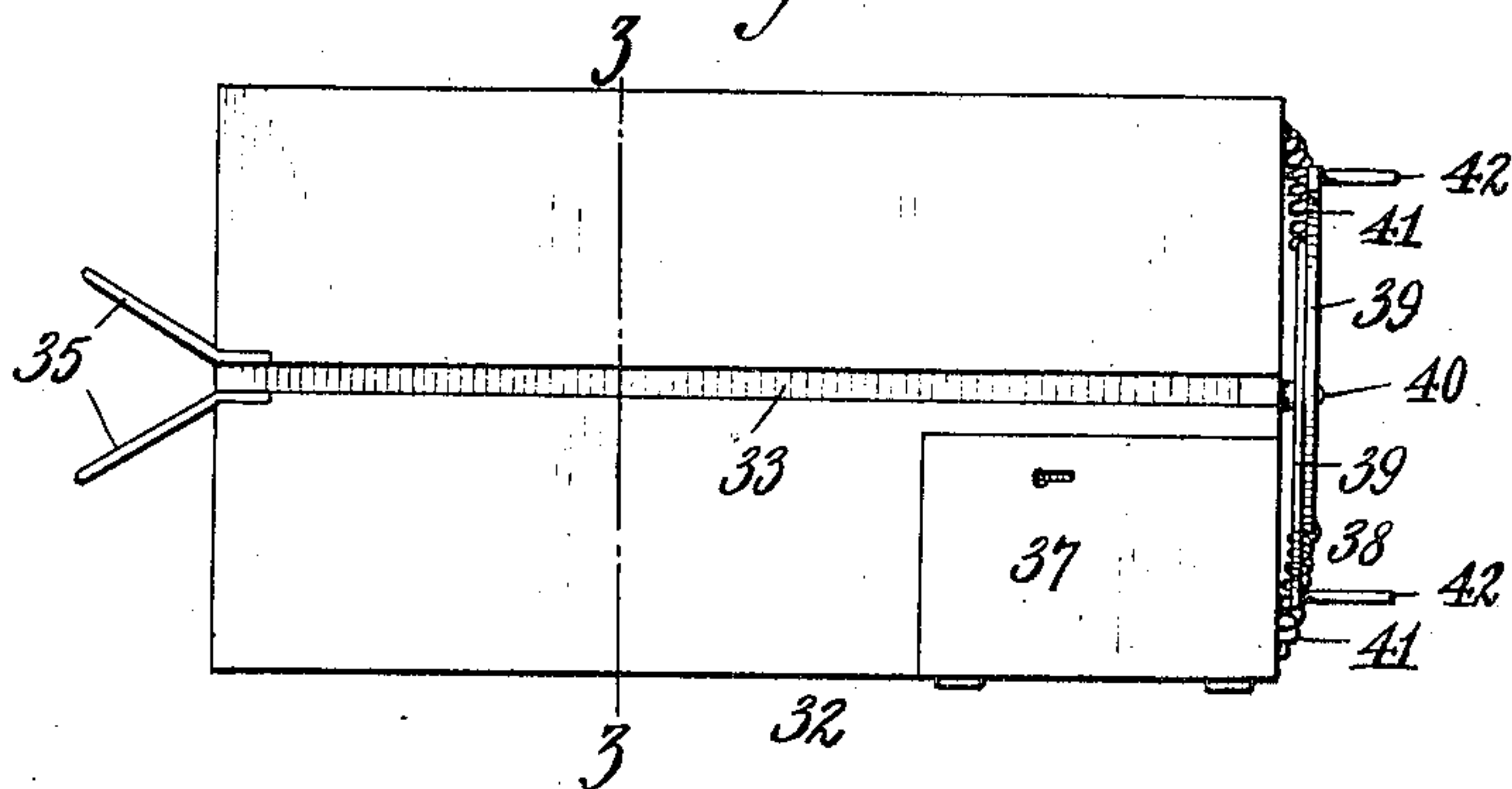


Fig. 8.

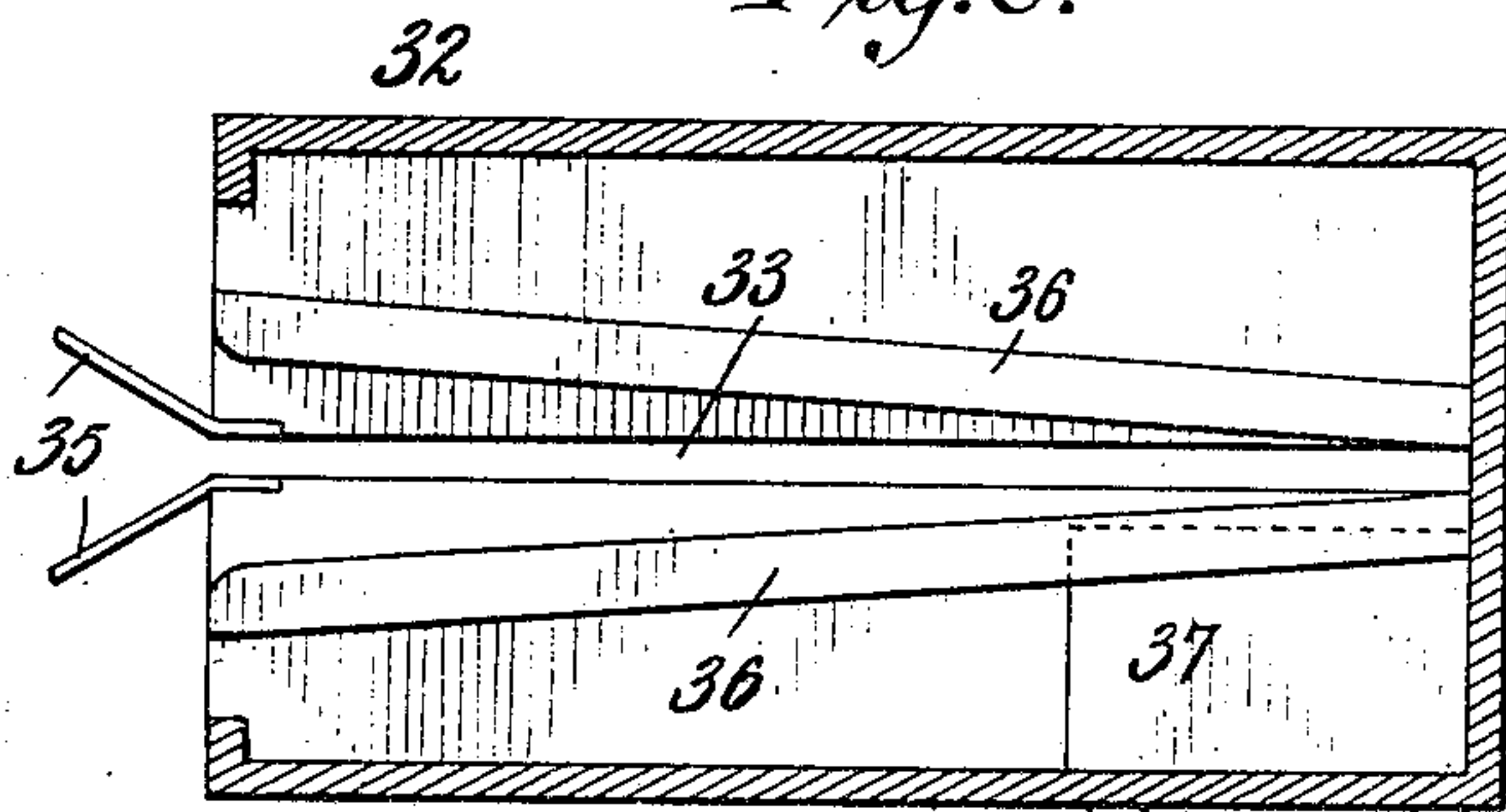


Fig. 9.

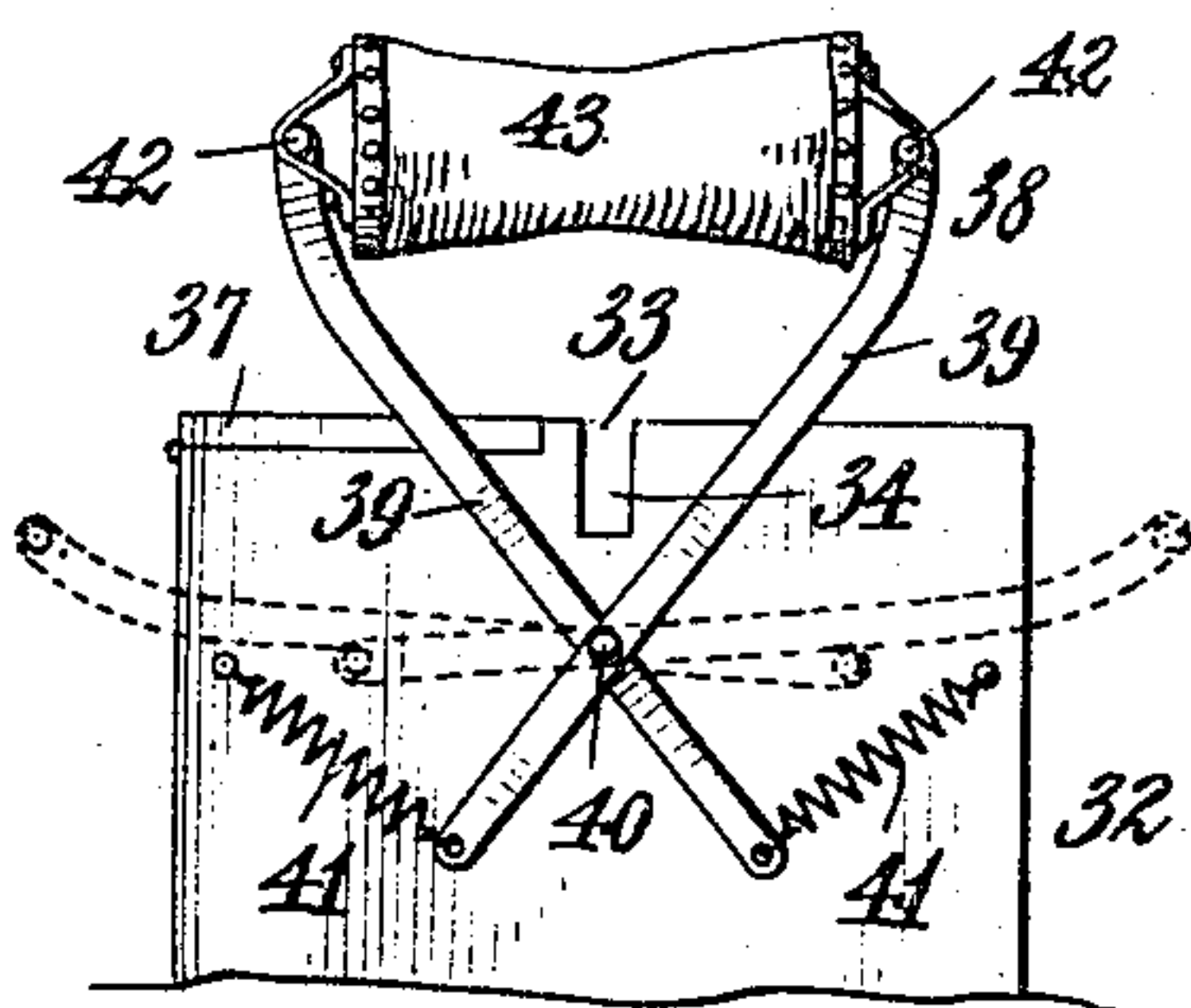
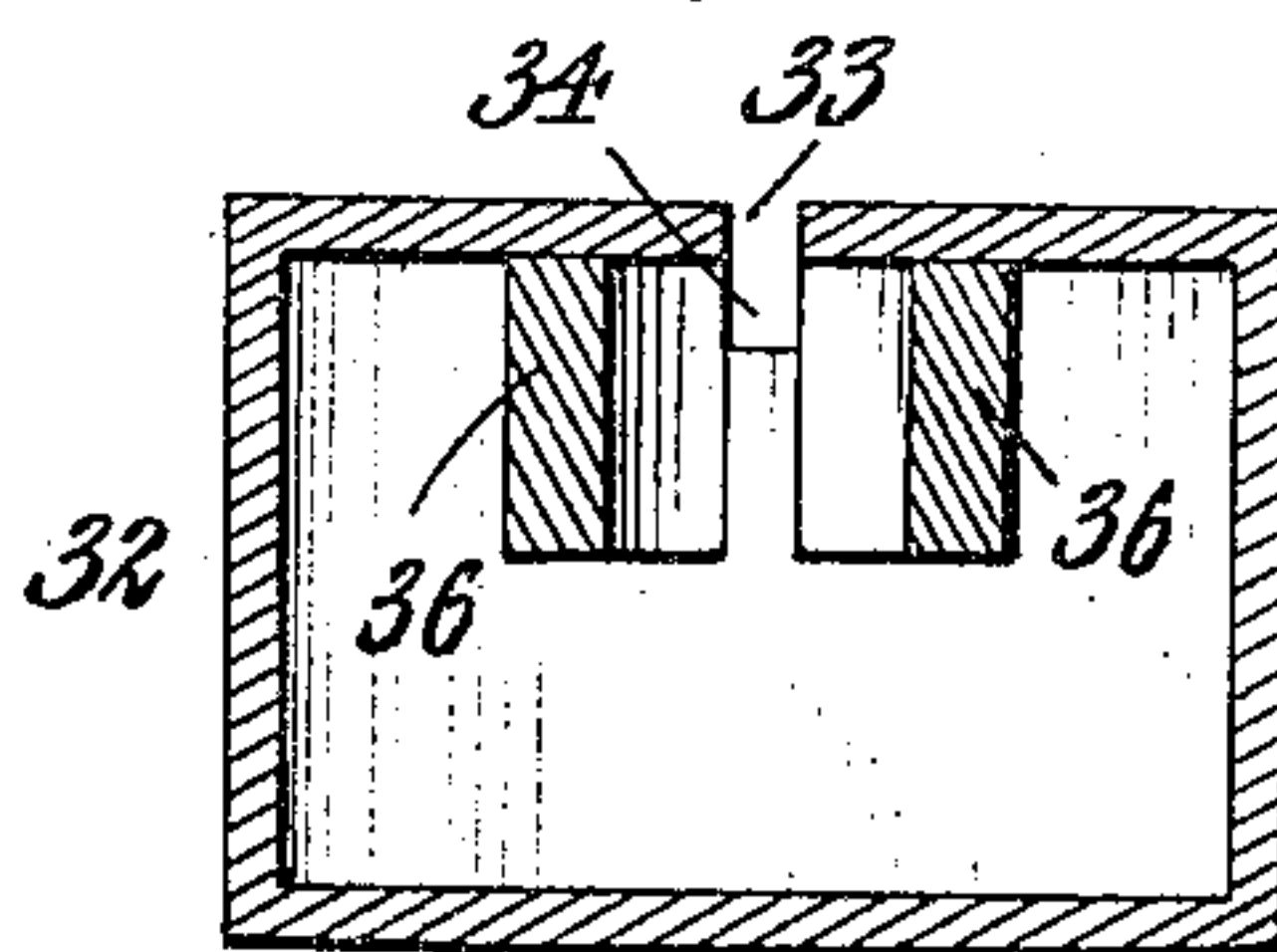


Fig. 10.



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# UNITED STATES PATENT OFFICE.

DANIEL M. DALEY, OF WEST SENECA, NEW YORK.

## MAIL-BAG RECEIVING AND DELIVERING APPARATUS.

No. 831,646.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed October 23, 1905. Serial No. 284,002.

*To all whom it may concern:*

Be it known that I, DANIEL M. DALEY, a citizen of the United States, residing at West Seneca, in the county of Erie and State of New York, have invented certain new and useful Improvements in Mail-Bag Receiving and Delivering Apparatus, of which the following is a specification.

My invention has for its object to provide improved mail catching and delivering mechanism for taking up mail-bags supported on a bag-receiver and for delivering mail-bags into said receiver.

Other objects are to provide a single supporting-arm for the bag receiving and delivering arm so arranged that the mail-bags may be taken and delivered from either side of the car, to provide an improved bag-receiver, and to otherwise improve on mail catching and delivering devices now in use.

With these objects in view the invention consists in the novel construction, arrangement, and combination of parts, to be hereinafter described, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of a portion of a car equipped with my invention and a sectional elevation of my improved bag-receiver connected therewith, the mail-bag arm being positioned for delivering a bag into the bag-receiver and for taking up a bag supported on said receiver. Fig. 2 is a side elevation of a portion of a car equipped with my invention and showing the mail-bag arm elevated and drawn into the car. Fig. 3 is a horizontal section taken on line *vv*, Fig. 1, the bag-receiver being omitted. Fig. 4 is a transverse section taken on line *ww*, Fig. 3. Fig. 5 is an enlarged section taken on line *xx*, Fig. 3. Fig. 6 is an enlarged section taken on line *yy*, Fig. 3. Fig. 7 is a plan view of the mail-bag receiver. Fig. 8 is a horizontal section through the mail-bag receiver looking up. Fig. 9 is an end view of the same. Fig. 10 is a transverse section taken on line *zz*, Fig. 7.

Referring now to the drawings in detail, like numerals of reference refer to like parts in the several figures.

The reference-numeral 1 designates a car having the usual door-openings 2, said car being equipped with my improved mail-bag catching and delivering mechanism 3 and with my improved bag-receiver 4.

The bag delivering and catching mechanism comprises a cylindrical guide or sleeve 5,

having flanges 6, by means of which it is secured to the floor of the car, a slidable and rotatable support or bar 7, guided in said sleeve, and the mail-bag delivering and catching arm 8, removably affixed to either end of said bar. The guide-sleeve 5 is arranged transversely of the car between opposite door-openings, it being provided on its upper side with a longitudinal slot 9, terminating at its ends in lateral but opposite lock-slots 10. Mid-length the sleeve is slotted transversely, as at 11, which slot is also designed for locking the slidable bar 7 in its normal position, this being accomplished by operating-lever 12, having a reduced threaded end fitting a threaded opening in the support 7. The latter being rotatable as well as slidable in the guide or sleeve 5, it is actuated by the operating-lever, so that the mail-bag arm 8 may be moved from its normal position or position at rest (shown in Fig. 2) to its acting position. (Shown in Fig. 1.) In its normal position the mail-bag arm is drawn into the car and swung into a substantially vertical position, and when moved outward into its acting position it is swung into a substantially horizontal position. When projected through the door-opening of the car, the mail-bag arm is maintained in its proper position by the operating-lever 12, which bears against the floor of the car, as shown in Fig. 1, and thus checks the tendency of the mail-bag arm gravitating to a vertical depending position by reason of its weight being to one side of the rotatable support 7.

The mail-bag arm comprises a downwardly and forwardly directed arm 13, having its outer end curved outward and thence inward, as shown in Fig. 3, and provided at its inner end with a socket 14, which fits onto the projecting end of the support 7 and is secured thereto by a set-screw 15, said arm being therefore removable to permit its being affixed to the opposite end of the support. Depending from the arm 13 is a bag-support 16, consisting of a short downwardly-directed member 17 and a rearwardly-directed member 18, on which the mail-bag 19 is carried. At the angle of both members of said support a hook 20 is provided; and adjacent said angle the member 17 is beveled, as at 21, to form a sharp edge 22. In fastening the mail-bag to said support the loops 23 of the bag are passed over the member 18, and a piece of twine or other suitable fastening 24 is passed through the front loop of the bag



and around the beveled portion of member 17 and tied or otherwise connected to prevent accidental dislodgment of the bag from the support while the car is under way. The bag is fastened to the support before the arm is projected through the door-opening, and the fastening 24 also serves to prevent the bag dropping from the support while being projected and swung from a vertical to a horizontal position. Pivotaly secured to the upper side of the arm 13 is a lock or catch arm 25, having its outer or free end curved downward and its upper face provided with lock-notches 26, adapted to be engaged by the free end of a detent-lever 27, which serves to prevent the upward movement of the catch-arm 25, both the latter and the detent-lever 27 having stops 28 and 29, respectively, which limit the extent to which they may swing outward. A prop or lever 30 is pivotaly connected to the under side of the catch-arm 25, and its free end is designed to engage a notch 31 in the arm 13, and thus hold the catch-arm 25 in a position to receive a mail-bag. As shown in Figs. 1 and 3, the catch-arm 25 has its downwardly-curved end extending beyond the inwardly-curved end of the arm 13, and when a mail-bag is caught between the two the bag is held against accidental disengagement, since the catch-arm closes down on the bag and the downwardly-curved end of the same extends beneath the front end of arm 13. As the mail-bag enters between arms 13 and 25 it comes in contact with the prop or lever 30 and causes the same to be swung rearward out of engagement with the notch on the arm 13, thereby permitting the catch-arm to close on the bag. During this action the free end of the detent-lever 27 is brought into engagement with a different notch on the catch-lever, preventing thereby the raising of the catch-lever and causing the bag to be held securely to the catching device.

As shown in Fig. 3, the extent of movement of the operating-lever is from lock-slot 10 at one end of the sleeve or guide 5 to the center transverse slot. When the car is drawn in a reverse direction or when the bag is to be delivered or taken up on the opposite side of the car, the catching device is affixed to the opposite end of the support or bar 7, and when so used the bar must be slid in its guide to project the opposite end. The operating-lever then has its range of movement from the center transverse slot to the lock-slot at the opposite end of the guide. Located adjacent the track over which the car passes is a bag-receiver 32 in the form of a rectangular box-like structure, having a longitudinal slot or opening 33 in its upper wall, through which the bag-support 16 passes. This receiver is open at its receiving end, and the wall at the opposite end is notched at 34 to provide the proper depth of opening for

the bag-support to pass through. Two oppositely-inclined arms 35 may be secured to the bag-receiver to form a flaring entrance or guide for the bag-support, and secured to the under side of the top wall on opposite sides of the slot therein are two diverging check or stop members 36, between which the bag to be delivered is received. The bag enters between said check or stop members until it reaches a point where the space between said members is slightly less than the bag. The latter is checked in its course, while the bag-support is carried through the receiver, and the twine loop or fastening 24 is strained and severed by the knife-edge on the bag-support. The bag is therefore deposited and the delivering mechanism permitted to pass through the receiver. It is apparent that by reason of the check members being placed at a slight angle to each other bags of different capacity or containing different quantities of mail may be deposited with equal facility. For convenience in removing the mail-bags when delivered a door 37 may be provided at the top of the receiver.

A bag-holder 38 is affixed to the closed end of the receiver and comprises two arms 39, pivoted between their ends on a common center 40. Springs 41 have one of their ends attached to the lower ends of said arms and their opposite ends secured to the receiver to maintain said arms in the position shown in dotted lines, Fig. 9. Pins 42 project from the upper ends of arms 39, onto which the loops of a mail-bag 43 to be delivered are hooked. By reason of the springs 40 acting to draw the upper ends of said arms outward and downward the bag is drawn taut between said arms and when engaged by the mail-catching arm on the car is clamped between arms 13 and 25 and released from the holder.

This invention may be modified in form and construction without departing from the principle involved or sacrificing any of the advantages thereof.

Having thus described my invention, what I claim is—

1. In a mail-bag-catching apparatus, the combination with a car having door-openings in its side walls, of a support arranged transversely and movable to be projected through either of said door-openings, and a mail-bag arm removably secured to said support so that it may be attached to either end thereof.

2. In a mail-bag-catching apparatus, the combination with a car having a door-opening, a guide secured transversely to the floor of the car, a support slidable in said guide, an operating-lever secured to said support, and a mail-bag arm secured to said support and adapted to be projected through the door-opening.

3. In a mail-bag-catching apparatus, the



combination with a car having a door-opening, a cylindrical guide secured transversely to the floor of the car, a support slidable and rotatable in said guide, an operating-lever  
5 secured to said support, and a mail-bag arm secured to one end of said support to permit of its being moved out through the door-opening.

4. In a mail-bag-catching apparatus, the  
10 combination with a car having a door-opening, of a cylindrical guide secured within the car and having a longitudinal slot and two transverse slots at different points in the length thereof, a support slidable and rotatable  
15 in said guide, an operating-lever secured to said support and projecting through said longitudinal slot, said lever being adapted to enter the transverse slots to hold the support against lengthwise movement in said guide,  
20 and a mail-bag arm secured to the end of said support and adapted to be moved out through the door-opening.

5. In a mail-bag-catching apparatus, the combination with a car having opposite door-  
25 openings in its side walls, a cylindrical guide arranged transversely in the car and having a longitudinal slot provided at its ends with opposite transverse slots and with a transverse slot between its ends, a slidable and rotatable support in said guide adapted to be  
30 projected through either door-opening, an operating-lever secured to said support and extending through said slot, said lever being adapted to be moved into any one of said  
35 transverse slots to prevent longitudinal movement of said support, and a mail-bag arm secured to either end of said support, as may be desired.

6. In a mail-bag-delivering apparatus, a  
40 forwardly-extending arm suitably supported and having a bag-support thereon comprising a short depending member and a rearwardly-extending member adapted to carry a bag, said bag-support having a hook at the  
45 angle of said members, for the purpose described.

7. In a mail-bag-delivering apparatus, a forwardly-extending arm suitably supported and having a bag-support thereon comprising  
50 a short depending member provided with a beveled front edge and a rearwardly-extending member adapted to carry a bag, said bag being tied to said support with the means of fastening passed around the beveled edge  
55 of said depending member.

8. In a mail-bag-delivering apparatus, a forwardly-extending arm suitably supported and having a bag-support thereon comprising a short depending member provided with  
60 a beveled front edge, a rearwardly-extending member adapted to carry a bag, and a hook at the angle of said members, said bag being tied to said support with the means of fastening passed around the beveled edge of  
65 said depending member.

9. In a mail-bag-catching apparatus, the combination of a forwardly-extending arm suitably supported on the car, a catch-arm pivoted to the upper side of said forwardly-extending arm, a prop pivoted to the under  
70 side of said catch-arm and adapted to engage the first-mentioned arm, and a detent-lever having its free end in engagement with the catch-arm to lock the same.

10. In a mail-bag catching apparatus, the  
75 combination of a forwardly-extending arm suitably supported on the car, a catch-arm pivoted to the upper side of said forwardly-extending arm and having a stop in rear of its pivotal point, a prop pivoted to the under  
80 side of said catch-arm and adapted to engage the first-mentioned arm, and a pivoted detent-lever having its free end in engagement with the catch-arm to lock the same and having also a stop in rear of its pivotal point. 85

11. In a mail-bag-catching apparatus, the combination of a forwardly-extending arm suitably supported on the car and having its forward end curved inwardly, and a catch-arm pivoted to said forwardly-extending  
90 arm and having its forward end curved in a vertical plane and terminating in advance of the first-mentioned arm.

12. In a mail-bag-catching apparatus, the combination of a forwardly-extending arm  
95 suitably supported and provided with a notch in its upper side, a catch-arm pivotally secured to the upper side of said forwardly-extending arm, and a prop pivotally secured to the under side of the catch-arm and adapted  
100 to engage the notch in the first-mentioned arm.

13. In a mail-bag-catching apparatus, the combination of a forwardly-extending arm suitably supported, a catch-arm pivotally  
105 secured to the upper side of said forwardly-extending arm, and a prop to hold said catch-arm elevated.

14. In a mail-bag-catching apparatus, the combination of a forwardly-extending arm  
110 suitably supported, a catch-arm pivotally secured to the upper side of said forwardly-extending arm and having a series of notches in its upper side, a prop to hold said catch-arm elevated, and a pivoted detent-lever se-  
115 cured to said first-mentioned arm and adapted to engage one of said series of notches in the catch-arm.

15. In a mail-bag catching and delivering apparatus, the combination of a forwardly-  
120 extending arm suitably supported on a car, a bag-support depending from said arm, a catch-lever pivotally connected to said arm, and means to lock said catch-arm after receiving a mail-bag.

16. In a mail-bag catching and delivering  
125 apparatus, the combination of a forwardly-extending arm suitably supported on a car, a bag-support depending from said arm and comprising a short depending member and a  
130



rearwardly-extending member, a catch-arm secured to the upper side of said forwardly-extending arm, a prop pivoted to said catch-arm to hold the same elevated, and a pivoted  
5 detent-lever acting against said catch-arm.

17. In a mail-bag catching and delivering apparatus, the combination with a bag-catching arm suitably supported on a car, of a bag-holder comprising two crossed arms pivoted  
10 at their points of crossing and adapted to support a bag between their upper ends, and spring serving to swing the arms downward when said bag-catching arm releases the bag from said bag-holder.

18. In a mail-bag-delivering apparatus, the combination with a bag-delivering arm suitably supported on a car, of a bag-receiver comprising a box-like structure having a slot  
15 in its upper wall through which the bag-delivering arm is adapted to pass, and means within said receiver to cause the bag to be removed from said delivering-arm.

19. In a mail-bag-delivering apparatus, the combination with a bag-delivering arm

suitably supported on a car, of a bag-receiver 25 having an opening in its receiving end and a slot in its upper wall extending from end to end thereof, and check members secured to said upper wall and arranged on opposite  
sides of said slot, said check members diverg- 30 ing from the receiving end of the receiver to the opposite end thereof to gradually diminish the space between them.

20. In a mail-bag delivering and catching apparatus, the combination of a mail-bag 35 catching and delivering arm suitably supported on a car, a bag-receiver having its upper wall slotted to permit said arm to pass through, means within the receiver to cause the mail-bag being delivered to be released 40 from said arm, and a bag-holder supported on said receiver in the path of said arm.

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

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Witnesses:

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