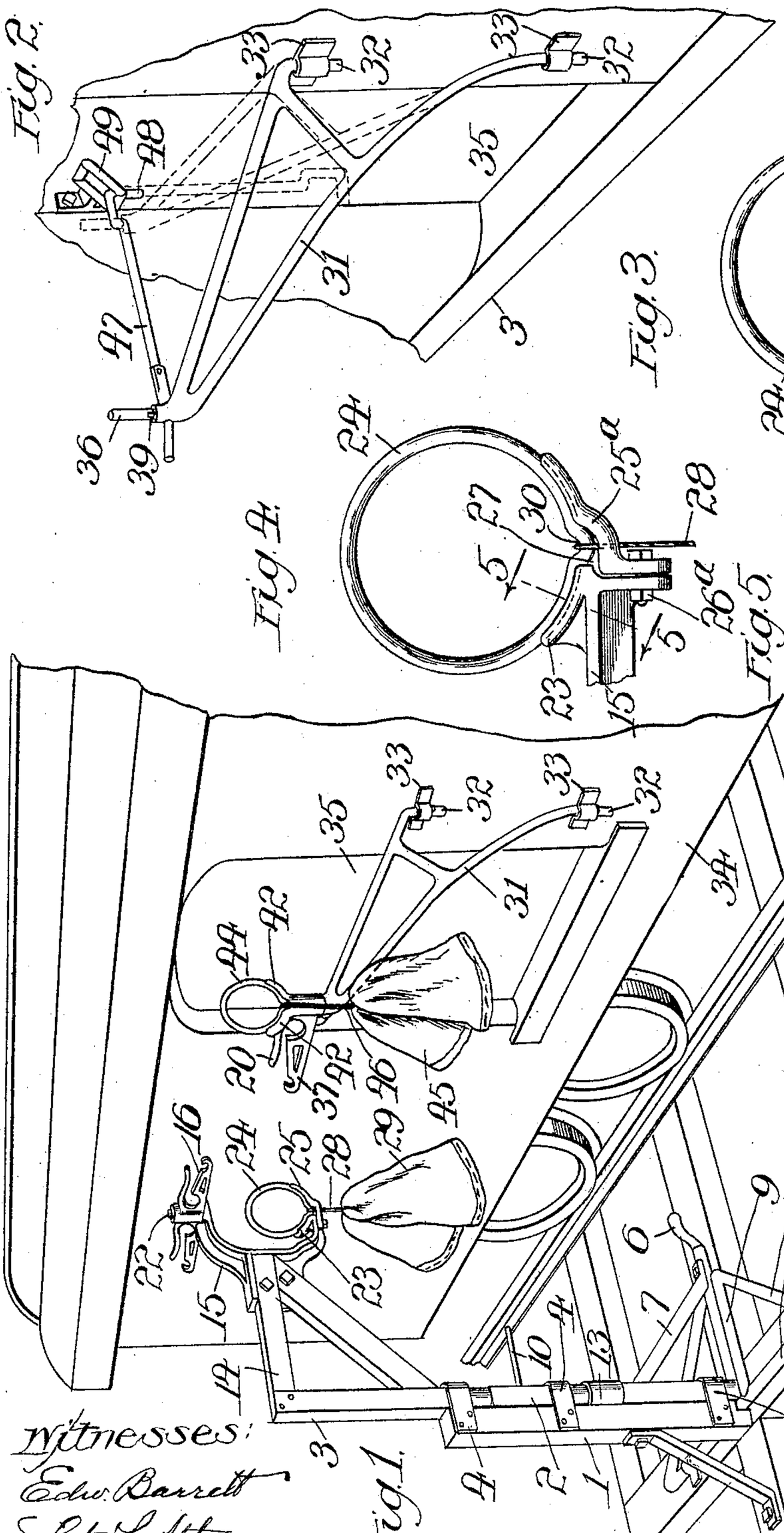
No. 803,242. PATENTED OCT. 31, 1905.

R. C. OGBURN.

MAIL BAG CATCHER AND DELIVERER.

APPLICATION FILED MAR. 4, 1904.

3 SHEETS—SHEET 1.



Witnesses:
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Fig. 1.

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3 SHEETS—SHEET 2.

Fig. 8.

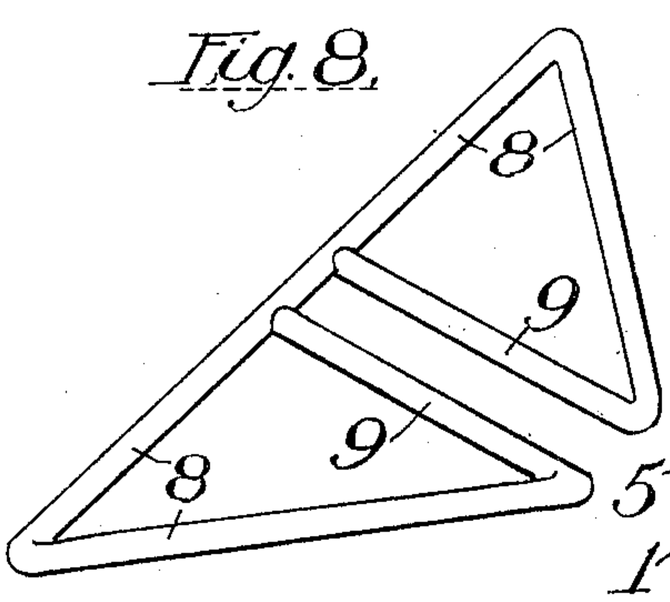


Fig. 7.

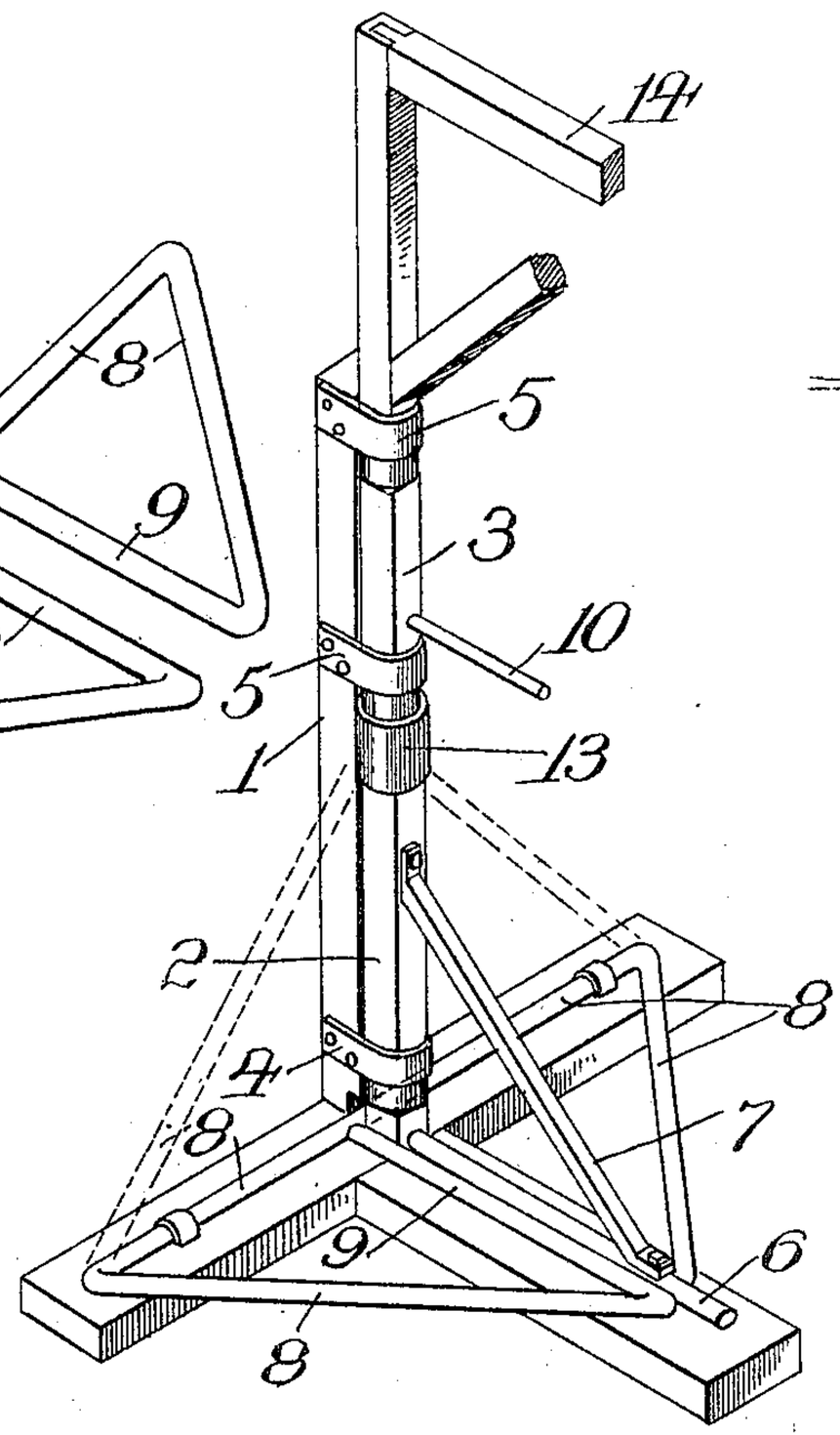
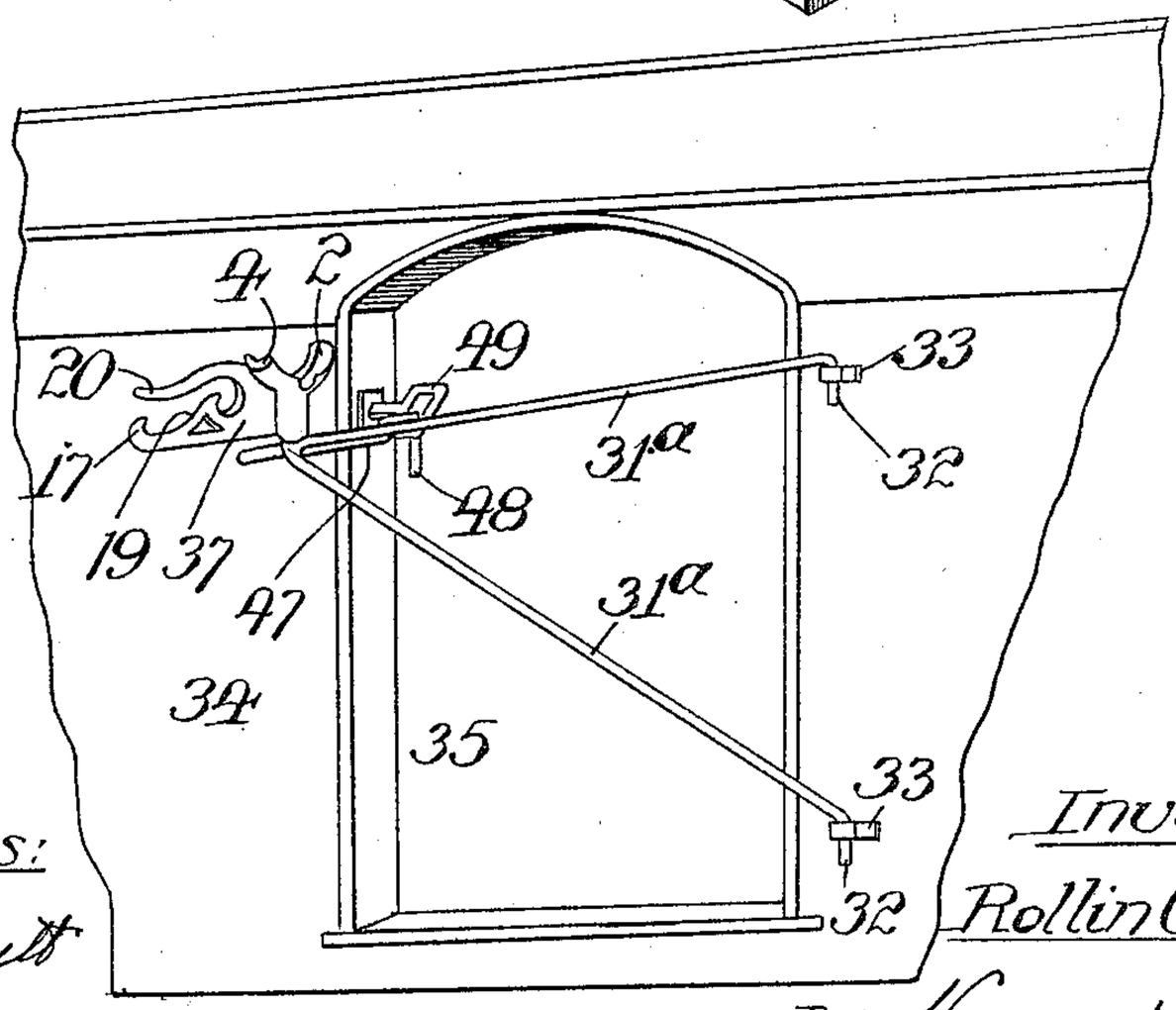


Fig. 6.



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3 SHEETS—SHEET 3.

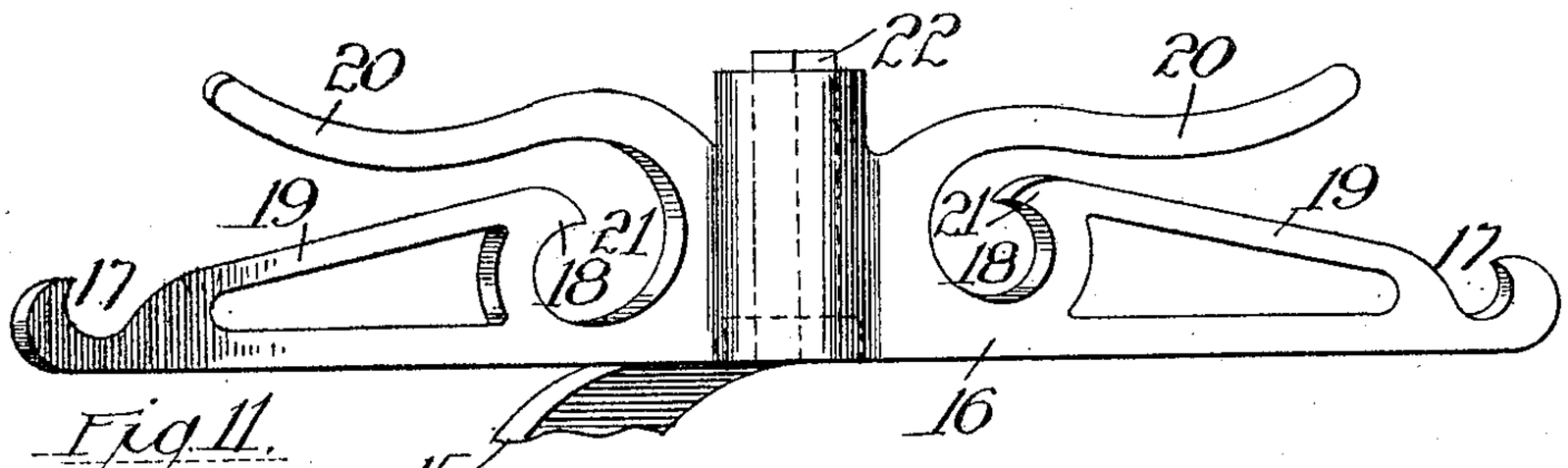


Fig. 11.

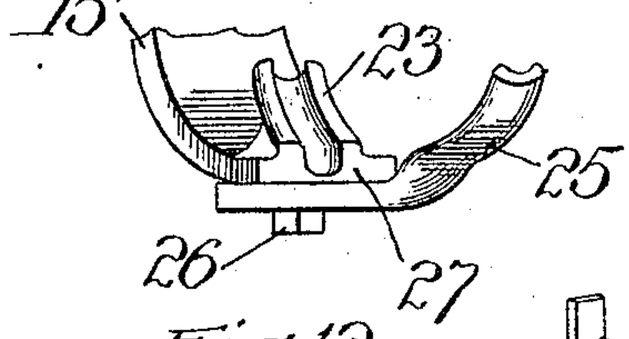
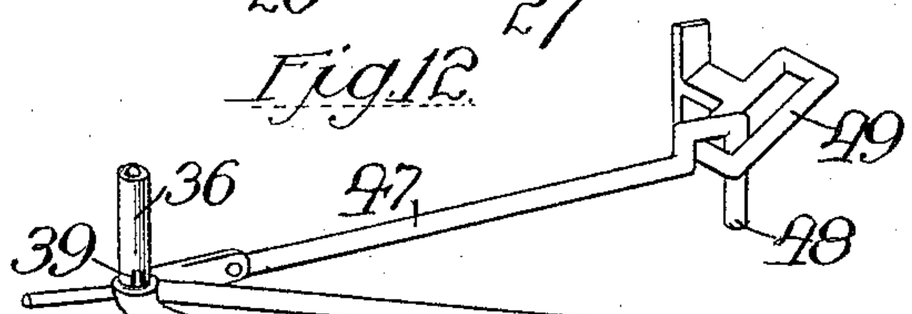


Fig. 12.



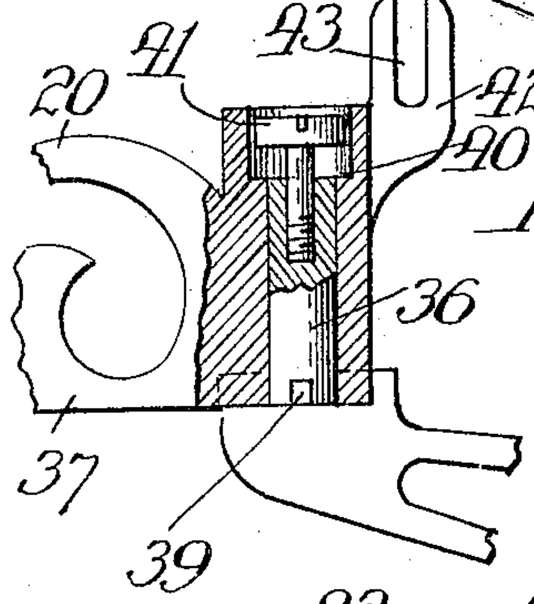


Fig. 13.

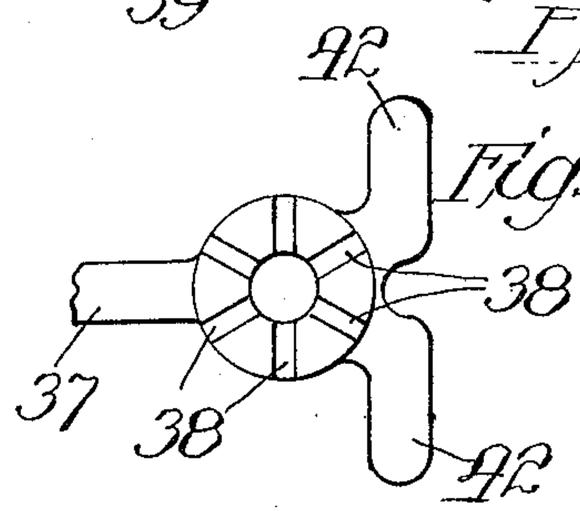


Fig. 14.

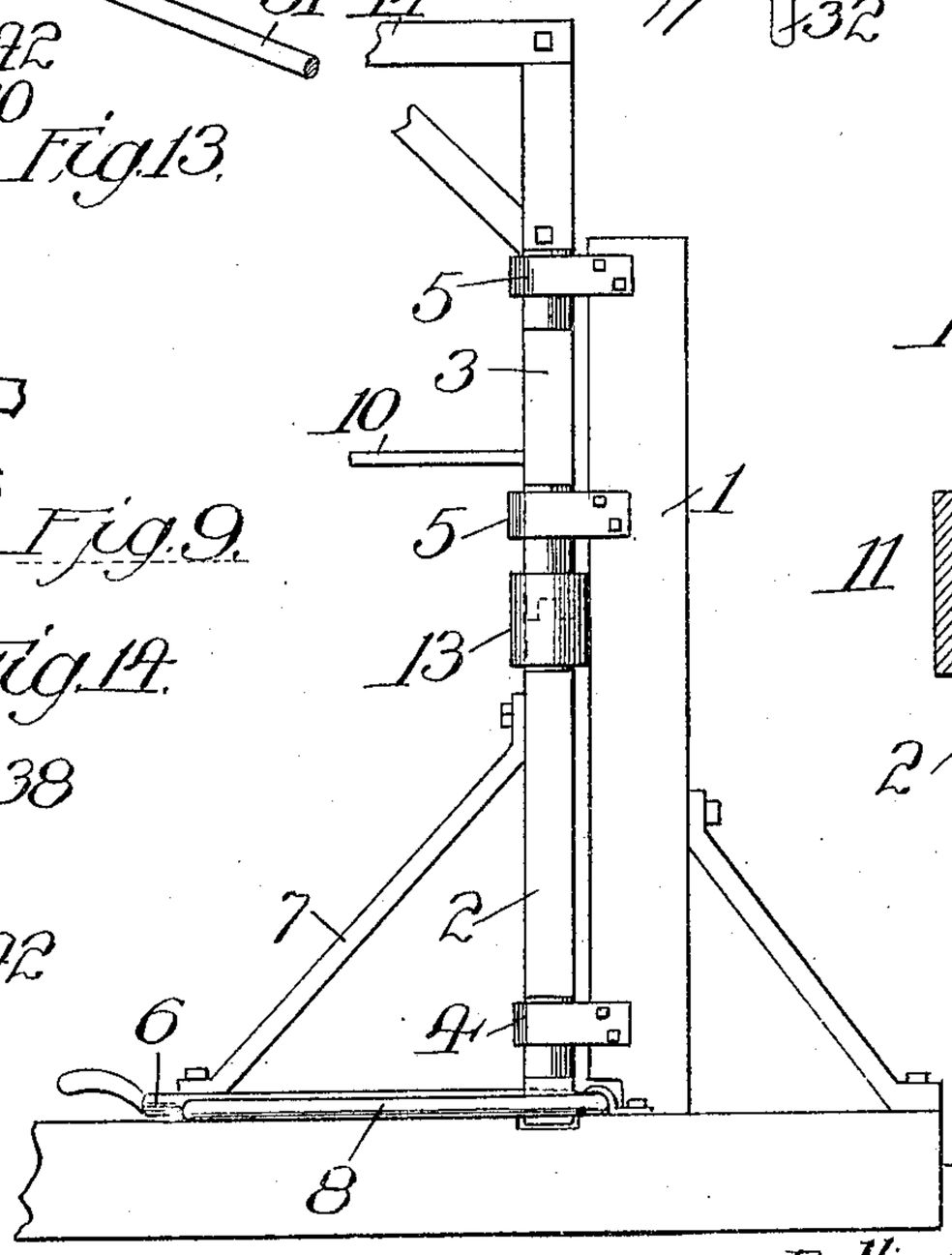


Fig. 9.

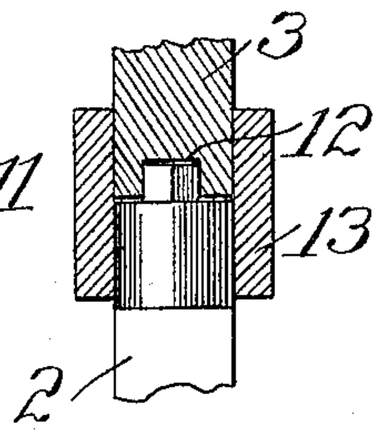


Fig. 10.

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UNITED STATES PATENT OFFICE.

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MAIL-BAG CATCHER AND DELIVERER.

No. 803,242. Specification of Letters Patent. Patented Oct. 31, 1905.

Application filed March 4, 1904. Serial No. 196,566.

To all whom it may concern:

Be it known that I, ROLLIN C. OGBURN, a citizen of the United States, residing at Normal, in the county of McLean, State of Illinois, have invented a new and useful Improvement in Mail-Bag Catchers and Deliverers, of which the following is a specification.

My invention relates to improvements in mail-bag catchers and deliverers, and more particularly to the track-crane and to the means thereon and on the car for receiving and delivering mail-bags; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

The objects of my present invention are, first, to provide a track-crane having an improved revolving post and means for securely locking the same in position; second, to provide means whereby the upper mail-supporting portion of the revolving crane-post may, if desired, be rotated out of operative position independently of the lower portion thereof.

Third. My invention contemplates the use of preferably circular rings for effecting the transfer of the mail-bag from the crane to the car, and vice versa; and an object of my invention is to provide an improved double-ring catcher for the crane-post, whereby without changing said ring-catcher the rings carrying the mail-bags may be caught from a car moving in either direction; fourth, to provide a ring-holder on the crane-post of such construction that the mail-bag rings may be caught up therefrom no matter in which direction the car may be moving; fifth, to provide mountings for the ring catcher and holder so constructed that they may be attached to the outside of the car for permitting the car-door to be closed when said catcher and holder is set in operative position, but may be swung in toward the car-door for attaching or removing the mail-bag and may be there fastened, so as to avoid the danger of striking anything near the track when the device is not in use.

In the accompanying drawings, Figure 1 is a general perspective view of the mechanism embodying my invention. Fig. 2 is a perspective view of the bracket and setting-arm attached to the car for carrying the catching and delivering mechanism. In this figure the full lines show the parts set in operative position and the dotted lines indicate the position of the parts when not in use. Fig. 3 shows the preferred form of ring and ring-holder. Fig. 4 shows a modified form of ring-holder. Fig. 5 is a fragmentary sectional view on the line 5 5, Fig. 4, showing the shallow groove of the ring-holder which forms a seat for the ring. Fig. 6 is a perspective view of the car-bracket and arm, showing the combination ring catcher and holder in position thereon and showing a slightly-modified form of bracket. Fig. 7 shows in perspective the crane-post and means for locking the same in position. Fig. 8 is a perspective view of the frame at the base of the crane for locking the same in position. Fig. 9 is a side view of the crane. Fig. 10 is a fragmentary view, partly in vertical section, showing the interlocking connection between the upper and lower portions of the crane. Fig. 11 is an enlarged view of the ring-holder and double-ring catcher. Fig. 12 is a fragmentary perspective view of the bracket, arm, and eye, showing the preferred construction of said eye, which is adapted to be attached to the car and engage said arm. Fig. 13 is a fragmentary view, partially in section, of the ring-catcher and ring-holder attached to the car, showing means for holding same in different positions. Fig. 14 is a plan view of Fig. 13.

Similar reference characters denote similar parts throughout the several views.

The track-crane comprises a stationary post 1, suitably braced, and a revolving post consisting of the lower section 2 and upper section 3. The bands or straps 4 and 5 5 on post 1 hold said sections 2 and 3 and permit the same to revolve about a vertical axis. Said lower section 2 is rotated by means of an arm 6, attached at or near the lower extremity of said section and preferably connected thereto by a brace 7.

In order that the arm 6 and revolving crane-post may be securely locked in operative position, a frame 8 is provided, which has two stops 9 9, adapted to be swung alongside of said arm 6 to prevent movement thereof. Said frame is pivoted at or behind post-section 2, so as to swing about a horizontal axis transverse to arm 6, and the parts are so constructed that said arm and lower post-section are locked when said frame is down, as shown in full lines, Fig. 7, but are free to

revolve when said frame is swung up out of the way, as shown in dotted lines in said figure.

Under certain conditions—such, for example, as would follow a heavy snowfall—it becomes inconvenient or undesirable to operate the crane from the bottom, and for such exigencies I provide means for operating the crane from a point remote from the ground. With this end in view the upper post-section 3 is made not only revoluble, but also vertically movable in straps 5 5, and is provided with a handle 10 for raising and rotating it. The preferred method of connection between sections 2 and 3 is shown in detail in Fig. 10. A boss 11 on one of said sections is made to fit a corresponding socket 12 in the other of said sections, and the section 2 is constructed to revolve within sleeve 13, which is attached to section 3. Upon raising post-section 3 sufficiently for socket 12 to be disengaged from boss 11 said section 3 may be rotated independently of section 2 and the lower part of the crane.

A crane-arm 14 is attached to the upper extremity of the crane and carries the stationary parts of the mail catching and delivering mechanism. The manner of operating the crane is as follows: When the crane is to be set in operative position with the crane-arm 14 extended toward the track, if the lower part of the crane is not obstructed the arm 6 is grasped by the operator and rotated to such position as to cause the crane-arm 14 to extend toward the track. The crane is then locked in this position by swinging the frame 8 down until the stops 9 come adjacent to said arm 6 and prevent lateral movement thereof. If the lower portion of the crane is obstructed, however, the crane-arm is rotated by first lifting the post-section 3 upward sufficiently to permit the socket in the lower extremity of said post-section to clear the boss or nut 11 in the upper extremity of post-section 2. The crane is then rotated by said handle to the proper position and then permitted to drop, so that said boss may be again engaged by said socket, thereby locking the crane-arm. It is desirable that the sleeve 13 be long enough to permit the socket 12 to clear boss 11 without completely withdrawing said post-section 2 from said sleeve.

The frame 15, which is preferably U-shaped and has its opening at the side toward the track, is mounted on the crane-arm 14 and carries the stationary ring-holding and ring-catching mechanism.

The ring-catcher 16 is provided with a pocket 17 near its point, a pocket 18 remote from its point, an inclined way or lifting-bar 19, rising obliquely upward from said point toward pocket 18, and a guard 20, located above said bar and opening toward the point of the catcher. A retaining-shoulder 21 is formed at said pocket 18 and projects inwardly for preventing accidental release of the mail-bag ring in the manner hereinafter more fully described. Said ring-catcher is double, so as to be operative for cars moving in either direction, and is apertured so as to fit over the post 22, formed in the frame 15. Said catcher is therefore removable and in order to prevent rotation on said post 22 is preferably square or of any other cross-section other than circular. The ring-holding device is upon the lower branch of frame 15, and the preferred construction is shown in detail in Fig. 3.

Referring to Fig. 3, 23 is a chair formed at the extremity of the lower branch of frame 15 and is provided with a shallow groove to form a seat for the mail-bag ring 24. The holder extension 25 is pivoted to the extremity of said lower branch of frame 15 by means of the bolt 26 or its equivalent and is also provided with a groove corresponding to the groove in said chair 23. A space 27 is left between the grooved portions of parts 15 and 25 to afford room for the depending cord or cable 28, which suspends the mail-bag 29 from ring 24. Said ring has therein a bend 30, which constitutes a point of attachment for cable 28 and is intended to occupy a position in the space 27 between the parts 23 and 25. The parts are so arranged that when the ring 24 is seated in the grooved parts 23 and 25 and the cable 28 hangs down the weight of the cable 28 and mail-bag thereon will hold said ring in an upright position transverse to the tracks. Inasmuch as the grooves in said portions 23 and 25 are shallow, the ring may be readily lifted out therefrom by the moving mail-bag-catching device without causing any appreciable shock or jar to frame 15. The reason for forming the ring-seat in two parts, one of which is pivoted to the other, as above described, is to render the ring-holding device operative, no matter upon which side thereof the cable 28 passes. As a result of this pivoted construction of the ring-holder it is not necessary that the cable 28 hang down behind the ring-holder, as would be the case if the ring-holder consisted of a single piece; but said cable may hang down either in front or behind the pivoted part 25, and if the mail-car is approaching in such a direction that said cable is in front of said part 25 the effect will be merely to rotate said part 25 in a horizontal plane about the bolt 26 as an axis, thus rotating said part 25 back out of the way.

In the modified form of ring-holder (shown in Fig. 4) the construction is the same except that the part 25^a instead of being pivoted to part 15 so as to rotate in a horizontal plane is pivoted by means of bolt 26^a or its equivalent so as to rotate in a vertical plane. In operation of the modified form of ring-holder (shown in Fig. 4) if the car is approaching in

such direction that cable 28 hangs in front of part 25ª said part 25ª will rotate downward and said cable will glide on the back of said part 25ª and be thrown off to one side thereof. The chief object in providing the bend 30 in ring 24 is to lower the point of attachment of cable 28 to said ring, and thereby create more or less leverage to hold said ring upright in the grooved ring-holder.

Referring now to the parts on the mail-car, 31 represents a bracket provided with pins 32 32, adapted to be journaled in the eyes 33 33 on the mail-car 34 near the doorway 35 in such manner that said bracket may swing about a vertical axis. The precise form of said bracket is immaterial and may be constructed with rods 31ª 31ª, as shown in Fig. 6. The outer extremity of said bracket is provided with a vertical post 36, over which the movable catcher is designed to fit. Said post is preferably cylindrical and the catcher is prevented from accidental rotation by means of the slots 38 38 in the bottom of said catcher, which radiate at different angles and are designed to fit over the lugs or keys 39, formed on said bracket at the foot of post 36, in the manner best shown in Figs. 13 and 14. In order to permit the catcher 37 to be raised sufficiently so as to clear the keys 39 and yet prevent the catcher from leaving post 36, a chamber 40 is formed in said catcher at the upper extremity of said post and a headed tap-screw 41 is screwed into the top of said post in such manner as to engage the shoulder formed at said chamber 40. Said catcher 37 is, like the ring-catcher 16, provided with a pocket 17 near its point, a pocket 18 remote from its point, an inclined lifting-bar 19, rising obliquely upward from said point toward pocket 18, and a guard 20, located above said bar and opening toward the point of the catcher. A retaining-shoulder 21 is formed at said pocket 18 and projects inwardly for preventing accidental escape of the mail-bag ring after the same has been caught. Preferably near the post 36 said catcher 37 bifurcates into two branches 42 42, extending at right angles to the lifting-bar 19, said branches having shallow grooves 43 thereon to form a seat for the moving mail-bag ring 44. Said ring 44 is of the same construction as ring 24 and is adapted to suspend a mail-bag 45 by means of the cable 46. An arm 47 is pivoted to bracket 31 near the outer extremity thereof and provided at its free extremity with a hook 48 for engaging the eye 49, adapted to be secured to the car at the side of door 35. Said eye is inclined slightly to permit said hook 48 and arm 47 to pass into and through the same when said hook is slightly lifted. In the operation of said frame and hook when it is desired to set the movable catcher 37 in operative position bracket 31 is swung out from the car and hook 48 placed in engagement with eye 49. The bracket is thus held rigid in said position; but when it is desired that the bracket shall lie close to the side of the car said hook is slightly lifted in the eye and the arm 47 drawn through said eye. Said arm is then permitted to hang down through the eye, and the weight of the same will hold the bracket in position near the car. This last-named position is indicated in dotted lines in Fig. 2.

In order that catcher 37 may lie parallel to the car when the bracket 31 extends outward therefrom and also lie parallel with the car when the bracket lies close, the slots 38 are arranged at angles corresponding to the angle through which the bracket 31 swings in moving from an operative position to a position parallel to the car.

In the operation of my device when the ring 24 has been set in position in the stationary holder and the ring 44 has been set in the movable holder with crane-arm 14 extending toward the track and bracket 31 extending outward from the car the parts will be in such position that the movement of the car will bring the lifting-bar 19 of the movable catcher 37 into contact with the stationary ring 24, and the movable ring 44 will be projected onto the inclined lifting-bar 19 of the stationary catcher 16. By reason of the inclined surfaces of said lifting-bars rings 24 and 44 will be lifted out of their respective holders, and said rings of the mail-bags suspended thereon will thereby be transferred. Should the motion of the car be so slow that the momentum would be insufficient to bring the mail-bag rings to the inner ends of lifting-bars 19 and into the brackets 18, said rings will slip backward along said lifting-bars and be finally retained in the brackets 17 at the outer extremity of said bars. If, however, the momentum is sufficiently great the mail-bag rings will be brought into the pocket 18 and retained therein by means of the shoulders 21.

The object in mounting the stationary ring-catcher 16 and ring-holder part 23 on a one-piece frame 15 is to obtain rigidity, so that said catcher and holder part will always be at the same distance apart one above the other. This insures the accuracy of operation, as the movable catcher 37 and holder 42 are designed to pass between them. It is for this same purpose of permanent relationship of the parts that I form said movable catcher and holder of a single piece, the reliability of operation of the entire device being thereby increased.

A shelter of any suitable construction may be placed over the track-crane or over any of its parts in order to protect the same from rain, sleet, snow, or the like.

I do not desire to be limited to the precise construction of parts as here shown, as the same may be considerably varied without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a mail-bag catcher and deliverer, adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a ring-holder, and a ring-catcher having an inclined lifting-bar, retaining-pockets, and a guard above said lifting-bar for insuring the retention of the mail-bag ring.

2. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a double ring-catcher having two lifting-bars, retaining-pockets in each of said bars and guards above each of said lifting-bars opening toward the points of said bars for retaining the mail-bag rings.

3. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a ring-holder having a groove therein arranged vertically and transverse to the railway-track for holding the mail-bag ring; the grooved portion of said holder being formed in two parts, one of which is pivoted to the other for the purpose described.

4. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a track-crane, a ring-holder on said crane having a grooved seat for the mail-bag ring, said seat portion being formed in two parts, one of which is pivoted to the other; a mail-bag ring adapted to rest within the seat in said holder, said holder having a space between the two pivoted parts thereof for receiving the cable whereby the mail-bag is suspended from the mail-bag ring.

5. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a track-crane, a ring-holder on said crane having a grooved seat for the mail-bag ring, said seat portion being formed in two parts, one of which is pivoted to the other; a mail-bag ring adapted to rest within the seat in said holder, said ring having a bend therein forming a point of attachment for the cable whereby the mail-bag is suspended from said ring, and said holder having a space between the two pivoted parts thereof for receiving the bend of said ring and the bag-suspending cable.

6. In a mail-bag catcher and deliverer adapted to transfer mail by rings wherefrom the mail-bag is suspended, the combination of a ring having a bend therein, a ring-holder having a shallow groove therein arranged vertically and adapted to extend transverse to the track, and a cable for supporting the mail-bag, said cable being attached to the bend in said ring to thereby set up a leverage tending to hold said ring in an upright position.

7. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a one-piece U-shaped frame open at the side toward the track, a ring-catcher upon the upper one of the branches of said frame, and a ring-holder on the lower one of the branches of said frame.

8. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, the combination of a ring-catching and ring-holding device adapted to be mounted on a mail-car, a stationary ring-catcher for catching the ring from the ring-holder on the car, a stationary ring-holder for holding a ring in position to be caught by the ring-catcher on the car, and a U-shaped frame whereon said stationary holder and catcher are located, the opening of said frame being toward the catching and holding device on the car for permitting the same to pass between the upper and lower branches of said U-shaped frame.

9. In a mail-bag catcher and deliverer, a revoluble crane and an arm extending laterally therefrom, in combination with lateral fixed swinging stops for engaging said arm to thereby prevent rotation of said crane, said stops being pivoted and adapted to swing out of the path of said arm to thereby permit the rotation of said crane.

10. In a mail-bag catcher and deliverer, a track-crane having a vertically-revoluble post, an arm near the lower portion thereof for rotating said post, and swinging stops adapted to be swung to a position at the side of said arm to thereby prevent lateral movement thereof and adapted to be swung up out of the path of said arm to thereby permit lateral movement of said arm.

11. In a mail-bag catcher and deliverer, a track-crane comprising a vertically-revoluble post, an arm extending laterally from a point near the foot thereof for rotating said crane, a frame pivoted near the foot of said crane and stops on said frame for preventing the lateral movement of said arm when rotated to a position adjacent to said arm and said arm being free to move laterally when said frame and the stops thereon are rotated about their pivot.

12. In a mail-bag catcher and deliverer, a track-crane comprising a vertical post formed in two independent sections revoluble about a common axis; means for locking the lower one of said sections, and means for rotating the upper one of said sections independently of said lower section.

13. In a mail-bag catcher and deliverer, a track-crane comprising a vertical post formed in two independent sections revoluble about a common axis; means for rotating and locking the lower one of said sections, means for raising and lowering and rotating the upper

one of said sections, a pocket in one of said sections and a boss on the other of said sections adapted to fit into said pocket for preventing the rotation of said upper post-section when the latter is lowered onto said lower section.

14. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, stationary mail-catching and mail-delivering mechanism, and a ring-holder adapted to be supported from the moving mail-car, said moving holder being bifurcated and provided with a groove in each of the bifurcations thereof wherein the mail-bag ring may be seated.

15. In a mail-bag catcher and deliverer adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, stationary mail-catching and mail-delivering mechanism, a ring having a bend therein forming a point of attachment for the cable whereby the mail-bag is supported, and a ring-holder adapted to be supported from the moving mail-car, said moving holder being bifurcated and provided with a groove in each of the bifurcations thereof wherein the mail-bag ring may be seated, and there being a space between the bifurcations of said moving holder to thereby afford room for the bend in said mail-bag ring and for the suspending-cable.

16. In a railway-mail device, the combination with rings for supporting the mail-bags, of means for seating said rings; and a ring-catcher for catching said rings, said ring-catcher having an inclined lifting-bar for lifting said rings out of their seat, pockets for retaining said rings, and a guard above said lifting-bar for preventing the escape of said rings from the ring-catcher.

17. In a mail-bag catcher and deliverer, adapted to transfer mail by means of rings wherefrom the mail-bag is suspended, stationary mail-catching and mail-delivering mechanism, a one-piece ring catcher and holder adapted to be supported from the moving mail-car, said catcher and holder having a grooved ring-seat, and also having a ring-catcher provided with retaining-pockets and a lifting-bar for the purpose described.

18. In a railway-mail device, the combination, with rings for carrying the mail-bag, of stationary means for holding one of said rings; stationary means for catching one of said rings; a catcher and deliverer on the moving mail-car; a bracket pivoted to the car for supporting said moving catcher and deliverer; a hooked arm pivoted to a swinging portion of said bracket; and an eye on said bracket for receiving said arm and the hook thereof for the purpose described.

19. In a railway-mail-bag catcher and deliverer adapted to transfer mail by means of bag-supporting rings, the combination of a bracket adapted to be pivotally attached to a mail-car; a vertical post on said bracket; and a combined ring-catcher and ring-holder having a ring-seat and a lifting-bar, said combined catcher and holder having a sleeve adapted to fit over said post in different positions; whereby said combined catcher and holder is reversible.

20. In a railway-mail-bag catcher and deliverer adapted to transfer mail by means of bag-supporting rings, the combination of a bracket adapted to be pivotally attached to a mail-car; a vertical post on said bracket; and a combined ring catcher and holder having a sleeve adapted to fit over said post in different positions; a key 39 at the base of said post; and slots in the base of said sleeve for fitting over said key, whereby said combined catcher and holder may be set at different angles.

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