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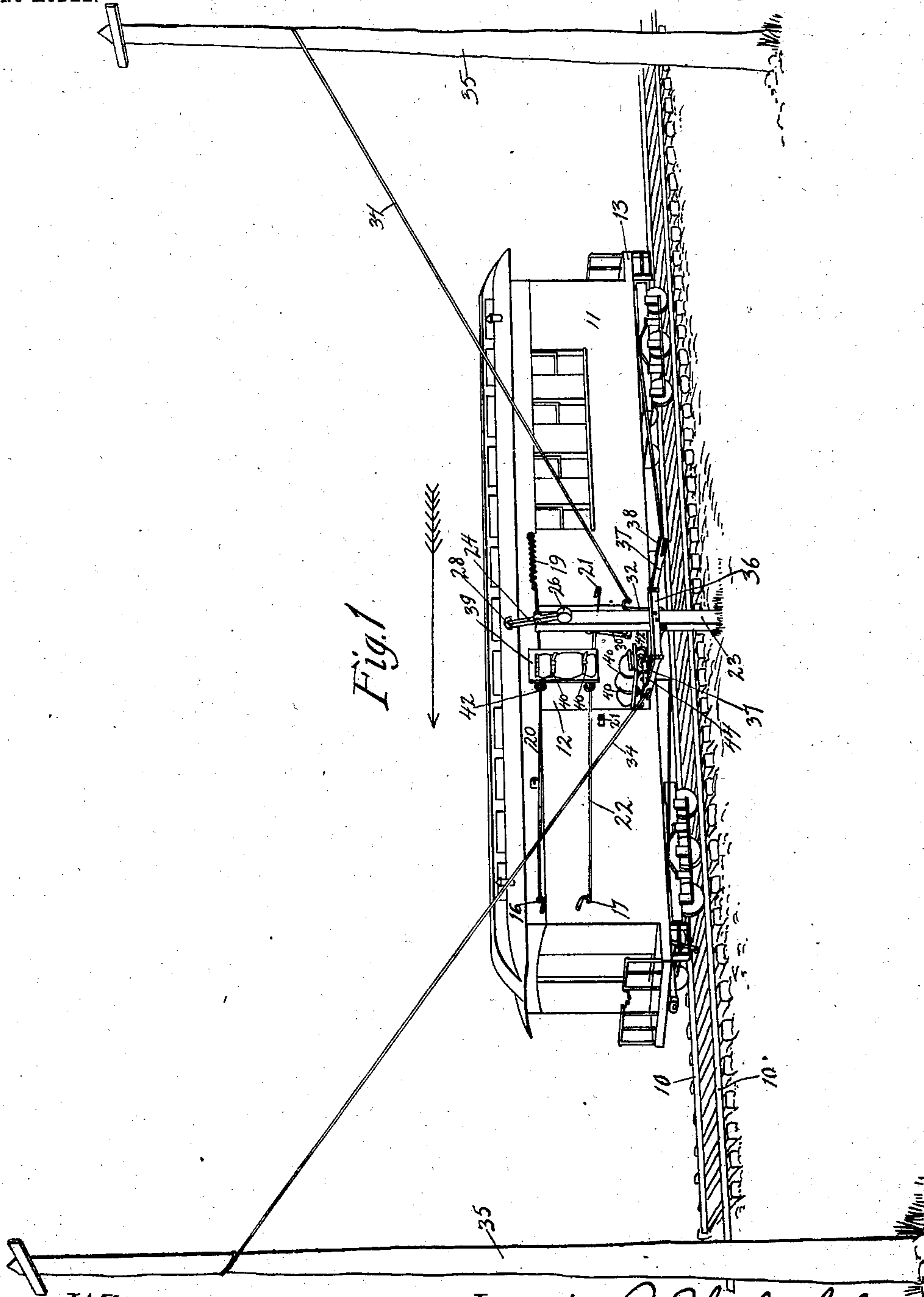
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MAIL DELIVERING AND RECEIVING APPARATUS FOR RAILWAY CARS.

APPLICATION FILED JUNE 30, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses.
L. L. Leibold
Henry Manger.

Inventor, R. Shedenhelm
by Oving & Lane Attorneys

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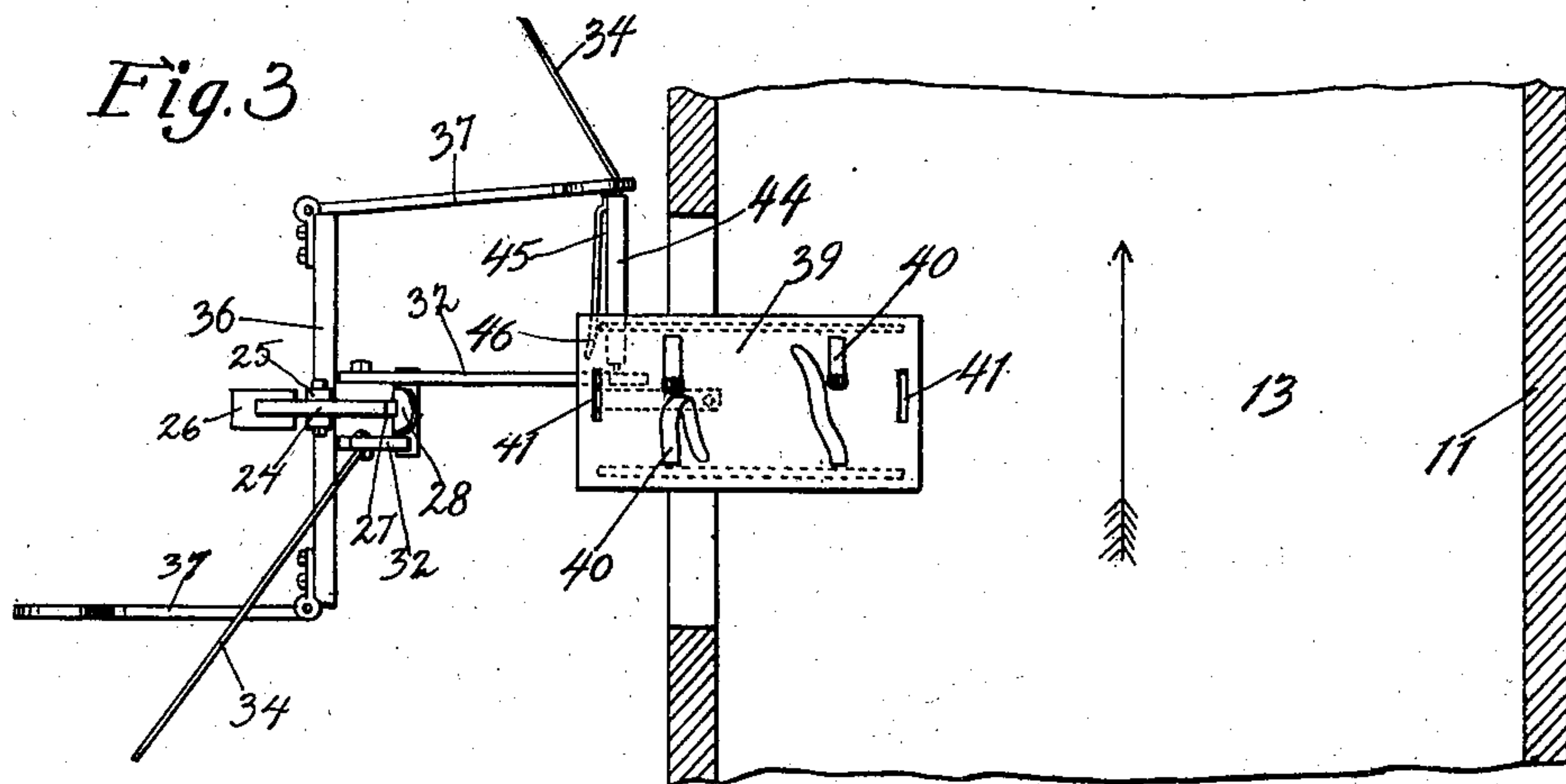
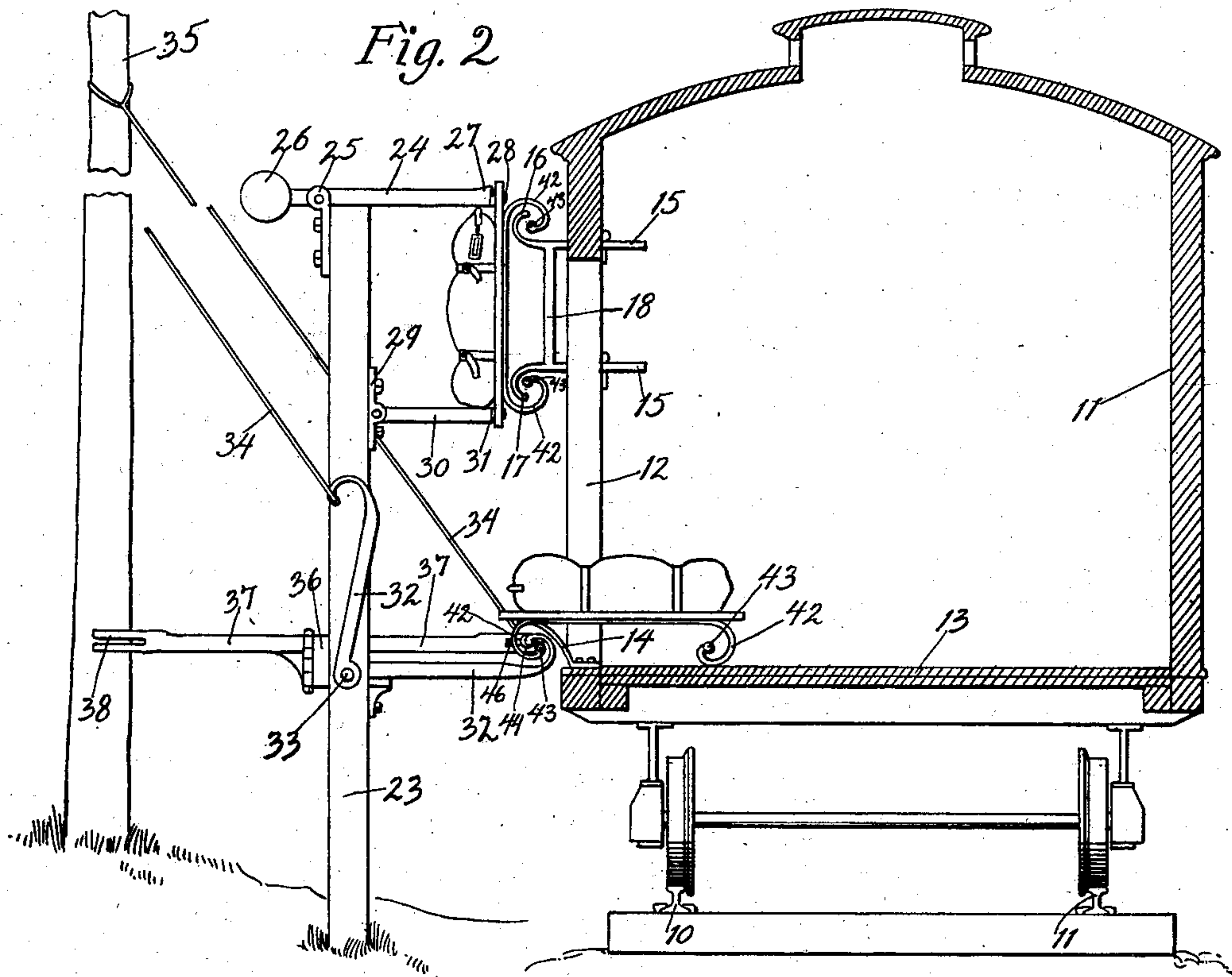
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UNITED STATES PATENT OFFICE.

ROBERT SHEDENHELM, OF DES MOINES, IOWA.

MAIL DELIVERING AND RECEIVING APPARATUS FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 721,332, dated February 24, 1903.

Application filed June 30, 1902. Serial No. 113,765. (No model.)

To all whom it may concern:

Be it known that I, ROBERT SHEDENHELM, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Mail Delivering and Receiving Apparatus for Railway-Cars, of which the following is a specification.

My object is broadly to provide an apparatus of this class whereby pouches of mail may be transferred to and from a moving car without excessive shocks or jars to the mail-pouch, so that fragile articles in the mail-pouches will not be broken when the mail-sacks are being transferred.

More specifically, it is my object to provide a rigid back to which the mail-pouch may be detachably connected, which back is provided with means for engaging suitable catching and holding devices, whereby the mail-pouch may be delivered from or received upon a moving car without having the pouch proper strike upon any of the receiving and holding devices, thus preventing wear upon the pouch and securely holding the pouch in position so that the contents of the pouch are not disturbed.

A further object is to provide a delivering apparatus of simple, durable, and inexpensive construction, whereby the rigid backs having mail-pouches attached thereto may be caught from a moving train and supported in such a manner that the contents of the pouch are not broken or disturbed, and, further, it is my object to provide a delivering mechanism of this class so arranged that after it has received a mail-pouch it will be withdrawn automatically from proximity to the railway-car, so as to avoid danger of passengers on the car being struck by the said delivering devices.

A further object is to provide an improved receiving device of simple, durable, and inexpensive construction, whereby one of the solid backs having a mail-pouch strapped thereto may be supported adjacent to a railway-track, and when a car having my improvements applied thereto passes the supported back and pouch the same will be engaged by the receiving devices at the front end of the car and the inertia of the back and pouch will cause it to slide upon the receiv-

ing device against yielding resistance, where it may be removed from the car-receiving device by the operator, thus preventing wear upon the mail-pouches and the breaking or disturbing of articles within the pouches.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows in perspective a portion of a railway-track and a mail-car on the track with my improved receiving and delivering apparatus in position adjacent to the track and on the car and showing a solid back with a mail-pouch attached thereto resting on the car-floor and partly in engagement with the stationary delivering device, and also showing a solid back having a mail-pouch thereon in position on the receiving device of the car ready to be removed by the operator. Fig. 2 shows a transverse sectional view through the mail-car having my improvements applied thereto and also showing the stationary part of my apparatus adjacent to the track-rails, together with a solid back and a mail-pouch resting on the floor of the car ready to be delivered to the stationary delivering apparatus, and also a solid back and mail-pouch on the stationary receiving apparatus ready to be engaged by the receiving apparatus on the car; and Fig. 3 shows a top or plan view of the stationary portion of my apparatus and a horizontal sectional view of a part of a car having a solid back resting on its floor and in position to be engaged by the wire of the stationary delivering device.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the track-rails, and 11 the car-body.

The numeral 12 indicates the car-door opening, and 13 the floor of the car. Mounted upon the car-floor within the door-opening is a bracket 14 to project upwardly and outwardly therefrom for purposes hereinafter made clear, and fixed to one end portion of the car at the side of the car near its top are two arms 15, extended at right angles to the longitudinal center of the car, the upper one

having its end beyond the side of the car curved outwardly and upwardly at 16, and the lower one, which is directly beneath the upper one, has its outer end curved outwardly and downwardly at 17. These arms are preferably connected by means of a cross-piece 18.

Attached to the side of the car at some distance from the upper arm 15 and in horizontal alinement therewith is a contractile coil-spring 19, and a wire 20 is attached to the end of the spring and to the end of the upper arm 15. At some distance beneath the spring 19 is a hook 21, attached to the side of the car, and the distance between the spring and the hook 21 is materially greater than the distance between the ends of the arms 15, and a wire 22 is attached at one end to the lower arm 15 and is detachably connected at its other end to the hook 21.

The parts hereinbefore described constitute all of my apparatus that is borne by the car and is obviously very simple and inexpensive and so arranged as not to interfere with any of the ordinary uses for which the car is maintained.

The stationary part of my apparatus comprises a post 23, placed in the ground-surface adjacent to the track-rails, but removed from them so far that the post will not in any way interfere with passengers on the car. At the top of the post 23 is a pivoted arm 24, mounted in the bracket 25 and having a weight 26 at its end that is farthest from the track. Its other end is provided with a shoulder 27 and a projection 28, extending horizontally and then upwardly and having its sides rounded, as clearly illustrated in Fig. 3, the weight being sufficient to throw this arm to an upright position when its outer end is not held downwardly. Some distance beneath the arm 24 is a bracket 29 on the face of the post nearest the track, and this bracket supports a pivoted arm 30, which arm will swing down by gravity when its outer end is released. Near the outer end of the arm 30 is a shoulder 31, for purposes hereinafter made clear. These arms 24 and 30 comprise all of the receiving apparatus that is connected with the stationary post.

The mail-delivering apparatus that is connected with the stationary post comprises two arms 32, pivoted at 33 to swing in a vertical plane at the opposite sides of the post 23, their outer ends being curved outwardly, upwardly, and then inwardly when the arms are in a horizontal position. Attached to the outer end of each of the arms 32 is a delivering-wire 34, which wire extends in a direction upwardly and diagonally outwardly from the track-rails to a post 35, situated some distance from the post 35 and farther from the track-rails than is the post 23. In use I generally attach the wire 34 to a telegraph-pole or other convenient support located in convenient proximity to the post 23, the two wires 34 being extended in opposite directions from the post 23. It is obvious that from the loca-

tion of the posts 35 relative to the arms 32 the said arms will be drawn upwardly to a substantially vertical position by the said wires unless some means are provided for holding them to their horizontal position. I have therefore provided means whereby the arms 32 may be held downwardly, as follows: Fixed to the outer face of the upright 23 is a cross-piece 36, and hinged to each end of said cross-piece 36, to swing in a horizontal plane, is an arm 37, having a forked end 38. When it is desired to hold one of the arms 32 downwardly, the arm 37 is swung to position with its free end toward the track and the wire 34 is placed in the forked end thereof. Obviously by this means the arm 32 is held downwardly. However, as soon as the arm 37 is swung outwardly from the post 23 the wire will pull the arm 32 to its upright position.

The reference-numeral 39 is used to indicate the solid back of a length and width sufficient to receive an ordinary mail-pouch, and secured to one face of the solid back 39 are the straps 40, by which a mail-sack may be firmly connected with the solid back. At the end portions of the solid back are two slots 41, and on the surface of the solid back opposite from the straps are the curved arms 42, which arms project downwardly, then inwardly, and finally upwardly and have the enlarged rounded ends 43.

In practical use and assuming that it is desired to deliver a pouch of mail from the car the operator in the car straps a pouch to one of the solid backs 39 and then places the solid back on the front of the car, its inner end resting upon the curved arms 42 and its outer end being supported by the bracket 14, which bracket projects upwardly through one of the slots 41, thereby firmly holding the solid back and mail-pouch in its proper position relative to the car. The stationary delivering apparatus is set, as shown in Figs. 2 and 3, with one of the arms 32 in its horizontal position and the corresponding arm 37 in engagement with the wire 34. Then as the car approaches the wire 34 the outer ones of the arms 42 will encircle the upper end of the arm 32 and will also encircle the wire attached to said upper end. As the car progresses farther one of the arms 42 will strike upon the arm 37, thus forcing it outwardly, so that the solid back, with its attached mail-pouch, may slide upwardly on the wire 34 until it loses its momentum, after which it will return by gravity to a starting-point. As soon, however, as the arm 37 is pushed outwardly the wire 34 will elevate the arm 32 and draw it up to position where it will not be likely to strike passengers on the following coaches. In this connection I have provided means whereby the curved arms 42 may be securely held to the wire 34, as follows:

The numeral 44 indicates a tube slidingly mounted upon the wire 34 and having a spring 45, attached at one end to the tube 44,

extended for some distance substantially parallel with the tube and having its end portion 46 curved outwardly from the tube 46. The space between the spring 45 and the tube 44 is less than the diameter of the rounded ends 43, so that when the arms 42 pass between the spring 45 and the tube 44 they will be securely held between the said tube and spring. This tube and spring move bodily with the solid back upon the wire 34, and the solid back and mail-pouch may be easily released from the tube and spring by the operator.

In practical use, assuming that it is desired to deliver a mail-pouch to a moving train, either simultaneously with the delivery of a pouch from the train or by itself, the operator secures a mail-pouch to one of the solid backs and suspends it on the arms 24 and 30 by forcing said arms through the openings 41 in the solid back. As hereinbefore stated, the end 28 of arm 24 is curved upwardly slightly and its sides are rounded, and as the outer end of the arm 24 is constantly drawn upwardly by the weight 26 it is obvious that the solid back will be securely supported in its suspended position. Then when a car having curved arms 15 approaches the solid back thus supported the curved arms 42 will inclose the wires 20 and 22, and, as before stated, these wires operate toward the center of the car, and hence as soon as the arms 42 tightly engage the wires 20 and 22 the solid back will be forced from the arms 24 and 30, and these arms will swing by gravity to position parallel with the post 23. The inertia of the solid back and the mail-pouch will be gradually overcome as the rails separate more widely toward the center of the car, and the said wires will readily yield toward each other on account of the spring 19, so that the solid back and mail-pouch will come to a position of rest on the wires directly in front of the car-door opening, from which opening it may readily be detached by an operator by simply drawing the upper wire downward by detachably connecting the wire 22 at one end, which may when not in use be supported in position where it will not interfere with the passage-way through the car-door opening.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In an apparatus of the class described, the combination of a mail-pouch holder, curved arms attached to said holder, a wire rigidly secured at one end, a curved arm attached to the other end of said wire, said curved arms being so shaped and arranged relative to each other that when passing the curved arms on the mail-pouch the holder will hook over the end of the curved arm having the wire attached to it.

2. In an apparatus of the class described, the combination of a back, means for securing a mail-pouch to the back, a number of curved arms connected with the back, a wire

rigidly secured at one end, a curved arm having the other end of said wire attached thereto, said curved arms being so shaped and arranged relative to each other that, when passing, the curved arms on the back will hook over the end of the wire supported by the other curved arm, for the purposes stated.

3. In an apparatus of the class described, the combination of a solid back, means for securing a mail-pouch to one side of the back, a number of curved arms on the opposite side of the back, a car, a bracket secured to the car and extending outwardly and upwardly therefrom with its end capable of projecting through one of the slots in the back to support the back in position within the car, a wire having one end secured to a post, and a curved arm having the other end of said wire attached thereto, said latter curved arm being arranged in such position that the curved arms on the solid back will hook over the end of the wire supported upon the other curved arm when the car bearing the solid back passes the latter curved arm.

4. In an apparatus of the class described, the combination with a car, of a bracket secured to the car and projecting upwardly and outwardly from the floor of the car in the car-door opening, and a solid back having an opening near one end designed to receive the bracket whereby the outer end of the solid back may be supported on the bracket and the end of the bracket that projects through the slot will hold the solid back in position, a number of hooks on the solid back, means for securing a mail-pouch to the solid back, and a stationary wire to be engaged by said hooks, for the purposes stated.

5. In an apparatus of the class described, the combination with a stationary post, an arm pivoted at one end to the post and having its other end curved outwardly and upwardly, a wire attached at one end to the free end of the arm and at its other end to a stationary support in such position that the tension of the wire will tend to draw the arm to position parallel with the post, and a forked arm hinged to a stationary support to swing in a plane at right angles to the path of movement of the other arm, and so positioned relative to the other arm that its forked end may in one position admit the wire and thereby hold the other arm in a substantially horizontal position against the tension of the wire.

6. In an apparatus of the class described, the combination of a stationary post, an arm pivoted at one end to the stationary post to swing in a vertical plane and having its free end curved outwardly and upwardly, a wire attached to said free end extended upwardly and rearwardly and attached at its other end to a stationary support, and a forked arm hinged to a stationary support to swing in a horizontal plane and to admit one wire into its forked end at a point a short distance from its point of attachment to the other arm.

7. In an apparatus of the class described,

the combination of a post, a weighted arm pivoted to the post, a second arm pivoted to the post below the first, a solid back, means for detachably connecting the solid back to the said arm, means for securing a mail-pouch to the solid back, curved arms on said solid back, a car, and means carried by the car for engaging the curved arms and removing the solid back from its supporting-arms.

10 8. In an apparatus of the class described, the combination of a stationary post, a pivoted weighted lever on the post, having a shoulder 27 near its outer end, and a rounded head 28 at its outer end, a second arm 30 pivoted to the post beneath the first arm, and having a shoulder 31 and a rounded end, means for securing the mail-pouch to the solid back, curved arms connected with the solid back, a car, and means carried by the car for engaging the curved arm and thereby removing the solid back from its supporting arm.

20 9. In an apparatus of the class described, the combination of a mail-pouch holder, means for supporting the mail-pouch holder in an upright position adjacent to a railway-track, curved arms connected with the mail-pouch holder, a car, two curved arms attached to the car, and wires attached to the curved arms on the car at one end, said wires diverging slightly from each other and attached to the car at their other ends, said curved arms on the mail-pouch holder and car being so arranged relative to each other that the curved arms on the mail-pouch holder will hook around the wires on the car as the car passes the mail-pouch holder.

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10. In an apparatus of the class described, the combination of a solid back, curved arms attached to the solid back means for supporting the solid back adjacent to a railway-track, a car, two curved arms carried by the car, two wires attached to the curved arms on the car, the upper one extending lengthwise of the car, in a horizontal plane, a contractile spring attached to the other end of the upper wire and also attached to the car, and means for supporting the other end of the lower wire, said wire diverging slightly from the ends that are attached to the arms on the car, said arms on the solid back and car being so shaped and arranged relative to each other that as the car passes the solid back the curved arms on the back will hook around the wires, for the purposes stated.

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11. In an apparatus of the class described, the combination of a mail-pouch holder, curved arms on the holder, each arm having an enlarged ball at its end, a stationary wire, a sleeve 44 slidably mounted on the wire, and a spring 45 fixed to the sleeve 44 and having an outwardly-curved end 46, said parts being so arranged that as the curved arms hook over the sleeve 44 they will pass between the sleeve and the spring, and the balls on the ends of the arm will prevent the arms from passing through between the sleeve and spring, for the purposes stated.

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Des Moines, Iowa, June 11, 1902.

ROBERT SHEDENHELM.

Witnesses:

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