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S. B. COLBERT.
MAIL BAG DELIVERER.
APPLICATION FILED OCT. 17, 1908.

Patented Nov. 9, 1909.
4 SHEETS—SHEET 1.

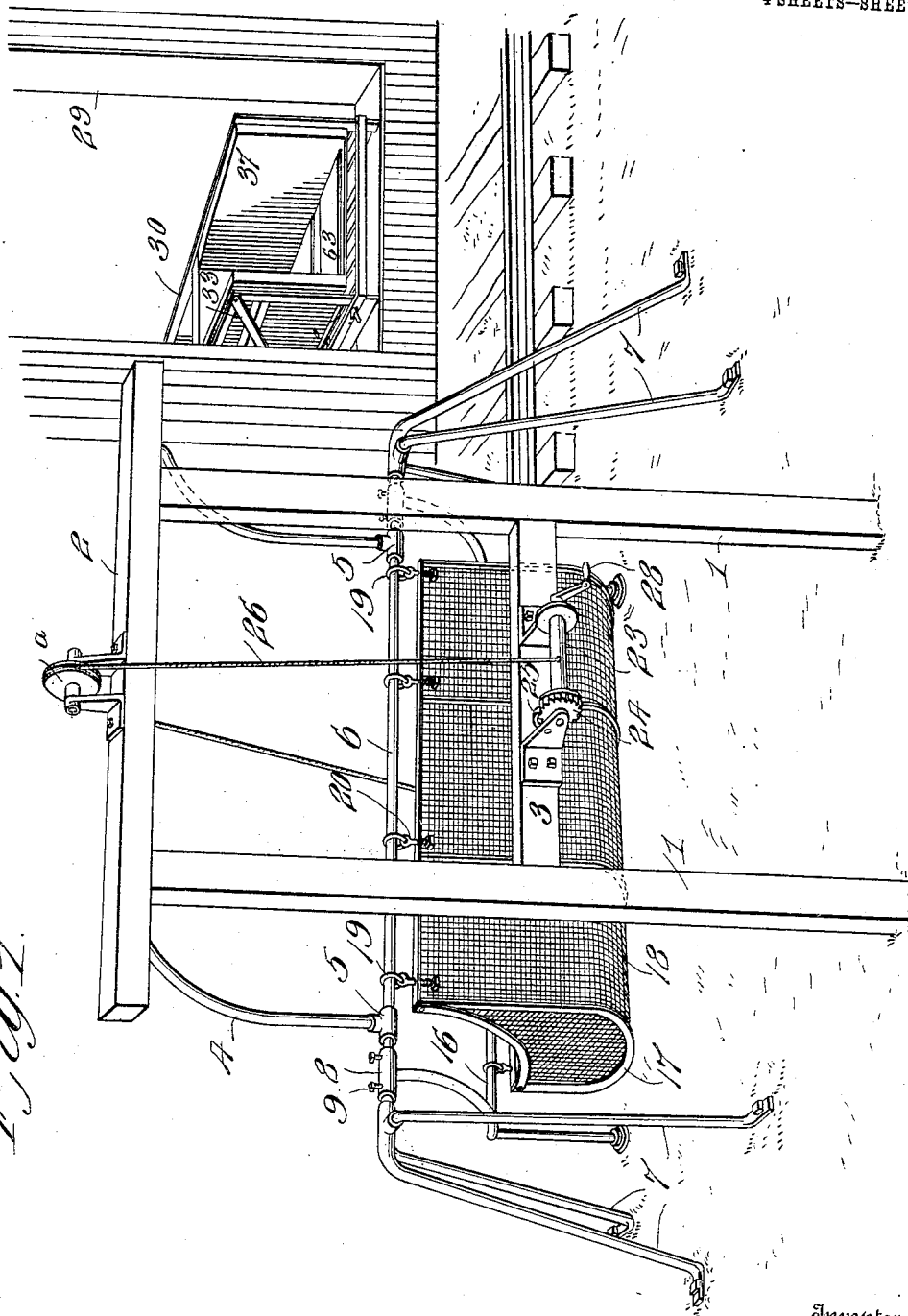


Fig. 1.

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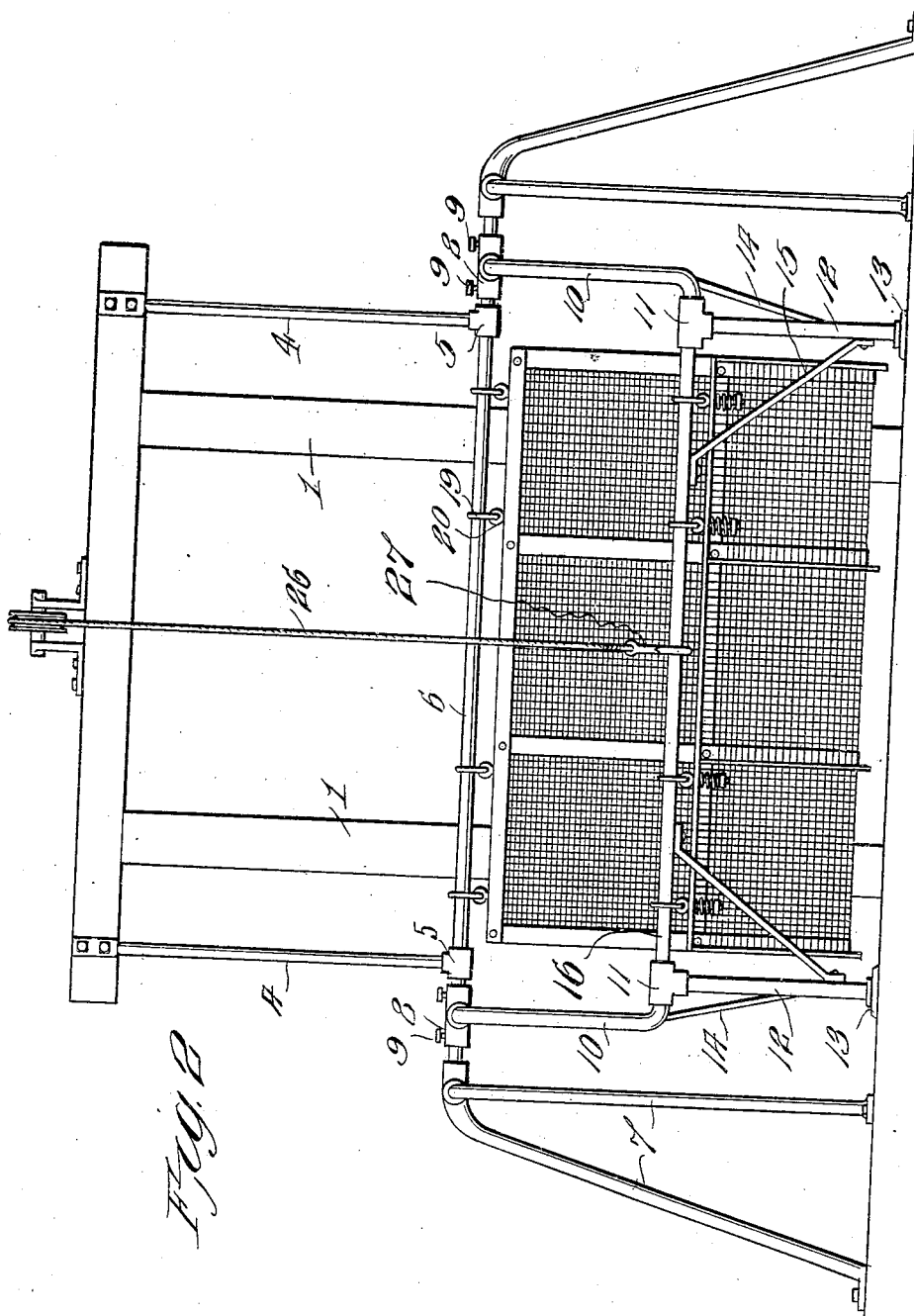


Fig. 2

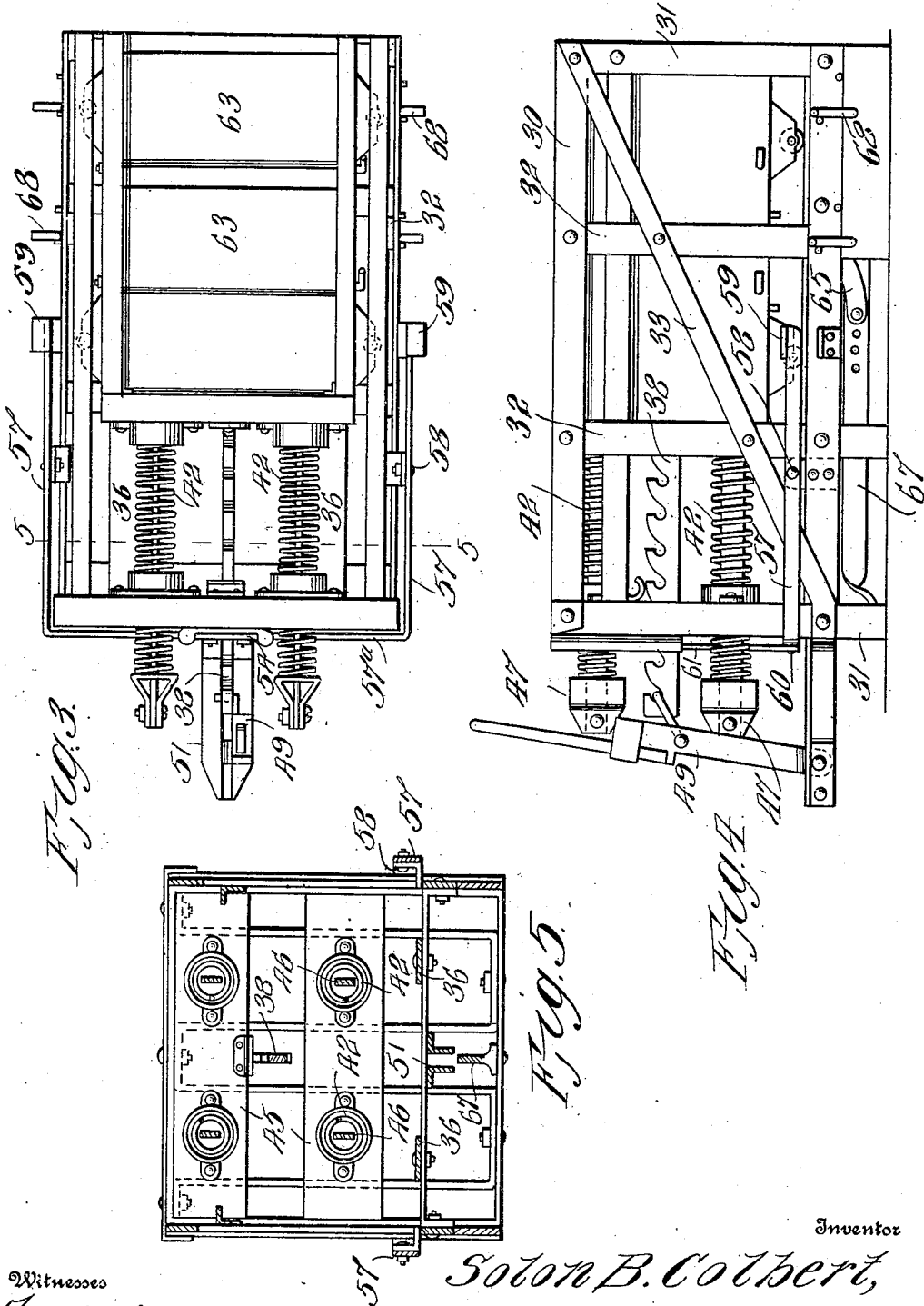
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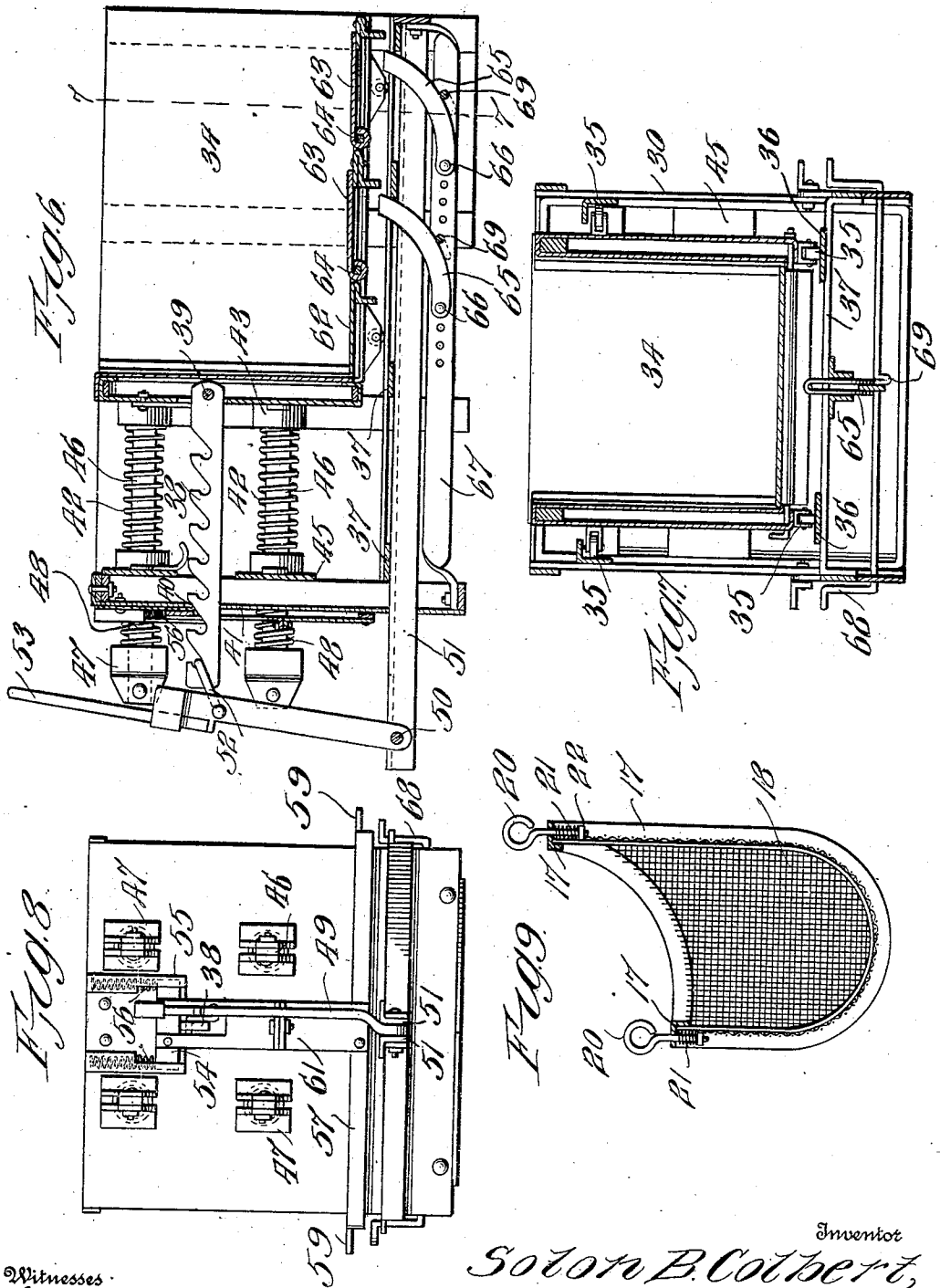
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UNITED STATES PATENT OFFICE.

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MAIL-BAG DELIVERER.

939,806.

Specification of Letters Patent.

Patented Nov. 9, 1909.

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To all whom it may concern:

Be it known that I, SOLON B. COLBERT, a citizen of the United States, residing at Pierce City, in the county of Lawrence and State of Missouri, have invented new and useful Improvements in Mail-Bag Deliverers, of which the following is a specification.

This invention relates to mail bag deliverers, and one of the principal objects of the same is to provide efficient means for discharging a mail bag from a mail car into a receiver which can be raised for discharging into a mail wagon for delivering the bags to a post office.

Another object of the invention is to provide a delivering device for location upon the mail car, said delivering device being provided with a receptacle mounted upon rollers and adapted to be projected suddenly by springs to throw a mail bag into the receptacle at the side of the track.

Another object of the invention is to provide a mail bag deliverer which will throw a bag out of a car by the action of springs and which is provided with a trigger for holding the springs retracted and a foot lever for releasing said trigger.

The objects and advantages above referred to may be attained by means of the construction illustrated in the accompanying drawings, in which,

Figure 1 is a perspective view illustrating a mail bag deliverer made in accordance with my invention. Fig. 2 is a front elevation of the mail bag receiver. Fig. 3 is a top plan view of the mail bag deliverer designed to be located upon the mail car. Fig. 4 is a side elevation of the same. Fig. 5 is a vertical sectional view on the line 5—5 of Fig. 3. Fig. 6 is a longitudinal sectional view of the deliverer. Fig. 7 is a vertical sectional view taken on the line 7—7 of Fig. 6. Fig. 8 is a rear end elevation of the delivering mechanism, the operating lever being omitted. Fig. 9 is a transverse vertical section of the mail bag receiver.

Referring to the drawings, the numerals 1 designate a pair of posts or uprights provided with a cross bar 2 at their upper ends and a cross bar 3 intermediate the ends. The posts 1 are driven into the ground at

some distance from the side of the track. Connected to the cross bar 2 are the oppositely disposed curved braces 4, the upper ends of said braces being connected to the cross bar 2, while their lower ends are provided with T-couplings 5 through which extends a horizontal bar or pipe 6. The bar or pipe 6 is supported at its ends by means of suitable legs 7 firmly secured at their lower ends to suitable blocks or wooden bosses driven into the ground.

Pivotally mounted upon the bar 6 are the fittings 8 provided with suitable set screws 9 for holding the fittings rigidly to the bar 6 whenever required, said fittings, however, being normally designed to swing freely upon the bar 6. Connected to the fittings 8 are the supporting rods or pipes 10, the lower ends of which are connected to T-couplings 11 which carry suitable legs or supports 12, said legs 12 having feet 13 designed to rest upon the ground. Braces 14 extend from the legs 12 to the supporting pipes 10, while braces 15 are secured to the legs 12 at their lower ends, and their upper ends are connected to a cross bar or pipe 16 attached at its ends to the T-couplings 11.

Supported upon the rods or pipes 6 and 16 is the mail bag receiver comprising a frame made up of angle irons 17 to which is secured a reticulated or wire cloth receiver 18. This receiver is suspended by means of rings 19 upon the pipe or rod 6, said rings being connected to eye-bolts 20 which extend through the bars 17 at the top of the receiver, said eye-bolts being provided with springs 21 underneath said bars and fitted with a nut 22 to hold the spring 21 in place, as shown more particularly in Fig. 9. By this means the receiver is yieldingly supported. It is to be noted that the rear portion of the receiver extends upward somewhat above the front edge thereof, and said front edge is also provided with a similar supporting means connected to the cross rod or pipe 16.

Supported upon the cross bar 3 is a winding drum or windlass 23 provided with a ratchet wheel 24 and a pawl 25 to engage the same. A rope or cable 26 is secured at one end to the windlass 23, and the opposite end

thereof is provided with a hook 27 adapted to engage the cross bar 16. By turning the crank 28 of the windlass the receiver 18, together with the rod 16 and the legs 12, is raised to a position near the top of the post 1 for discharging its contents into a mail wagon which may be driven between the post 1 and the legs 7. It will be obvious that this mail bag receiver may be stationary when used in small towns and cities not receiving sufficient mail to be carried from the mail car to the post office by a mail wagon. The mail bag receiver 18 will descend to the normal position shown in Fig. 1 by gravity, when the pawl 25 is released from the ratchet wheel 24.

The mail bag deliverer is designed to be placed in the doorway 29 of the mail car in position to throw a bag out into the receiver 18 while the car is in motion. This mail bag deliverer comprises a framework consisting of the metal bar 30 resting upon suitable upright corner braces 31 and intermediate braces 32. Suitable diagonal braces 33 may be provided for giving the required stability to the frame. The mail bag projector 34 comprises a rectangular frame mounted upon rollers 35 supported upon strap rails 36 secured near the bottom of the frame upon cross bars 37. The projector 34 is open at its front end, while at its rear end a hook bar 38 is pivoted at 39, said hook bar extending through an aperture 40 in the rear end 41 of the frame. A series of springs 42 are connected to rings 43 secured to the projector 44, while the opposite ends of said springs bear against cross bars 45 supported at the rear of the frame. Extending through the springs 42 are the bars 46, said bars extending through the cross bars 45 and provided upon their ends with stops 47 and buffer or recoil springs 48. A lever 49 is pivoted at 50 between extending angle iron bars 51, said lever carrying a loop or clevis 52 designed to engage the hooks of the bar 38. Said lever 49 is provided with a removable hand lever 53 for operating the lever 49. A sliding plate 54 mounted in guides 55 is normally held in its lowermost position by means of springs 56, said sliding plate being adapted to engage any one of the hooks of the bar 38 and to thus hold the springs 42 under tension. A trigger comprising a foot lever 57 pivoted at 58 and provided with a foot rest 59 is pivotally connected at its rear end at 60 to a bar 61, the upper end of which is connected to the sliding plate 54. Upon reference to Fig. 3 it will be seen that there is a foot lever 57 at each side of the frame, said levers extending inward at the rear, as at 57^a, and connected centrally to the bar 61.

The bottom of the projector 34 comprises a stationary plate 62 and two pivoted plates

63, said plates 63 being pivoted upon the cross rods 64. The object of the pivoted plates 63 is to incline the bottom of the projector so that bags thrown therefrom may be thrown in a slightly upwardly inclined direction to insure safe delivery of the bags. In order to hold the pivoted plates 63 at any desired inclination curved cam levers 65 are pivotally connected at 66 to supporting bars 67 connected to the frame. For operating the curved cams 65 for raising and holding the plates 63 at any required inclination crank rods 68 are pivoted in the frame, said crank rods each having a projection 69 which bears underneath the curved cam 65 for raising the same.

The operation of my invention may be briefly described as follows:—A mail bag or bags may be placed in the projector, and the plate 63 may be inclined if found desirable. The hand lever 53 is drawn backward, and the sliding plate 54 engages one of the hooks of the bar 38. As the car arrives at the station the foot lever 57 is operated to release the sliding plate 54 from the hook bar 38, the springs 42 then exerting their stress to throw the projector 34 toward the door opening in the car and sliding the bags out into the receiver 18. The recoil springs 48 serve to absorb the shock in operating the projector.

From the foregoing it will be obvious that a mail bag deliverer made in accordance with my invention is strong, durable and efficient, can be installed upon any mail car and at any station at the side of the track, cannot readily get out of order and can be produced at comparatively low price.

I claim:—

1. A mail bag deliverer comprising a projector, springs secured to said projector, means for holding said springs in retracted condition, means for releasing said holding means, plates pivoted within the bottom of said projector, and means for holding said plates in inclined position.

2. In a mail bag deliverer, a projector, a frame within which said projector is mounted, springs connected to said projector and frame, a hook bar connected to said projector and extending through said frame, a lever for operating said hook bar, a sliding plate for engaging said hook bar, and a foot lever for disengaging said sliding plate.

3. In a mail bag deliverer, a frame, a projector mounted to slide in said frame, springs connected to said projector and frame, means for retracting said springs, recoil springs, a hook bar, means for actuating said bar, means for holding said bar in adjusted position, and means for releasing said holding means.

4. A mail bag deliverer comprising a frame, a bar pivoted to said frame, a re-

ceiver consisting of a reticulated container
suspended from said bar at one edge of said
receiver by means of rings, a rope or cable
connected to the other edge of said receiver,
5 a pulley on the frame over which said cable
passes, and a windlass for raising or swing-
ing said receiver around said bar.

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

SOLON B. COLBERT.

Witnesses:

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CHAS. W. RIDPATH.