W. H. VAN FOSSEN.

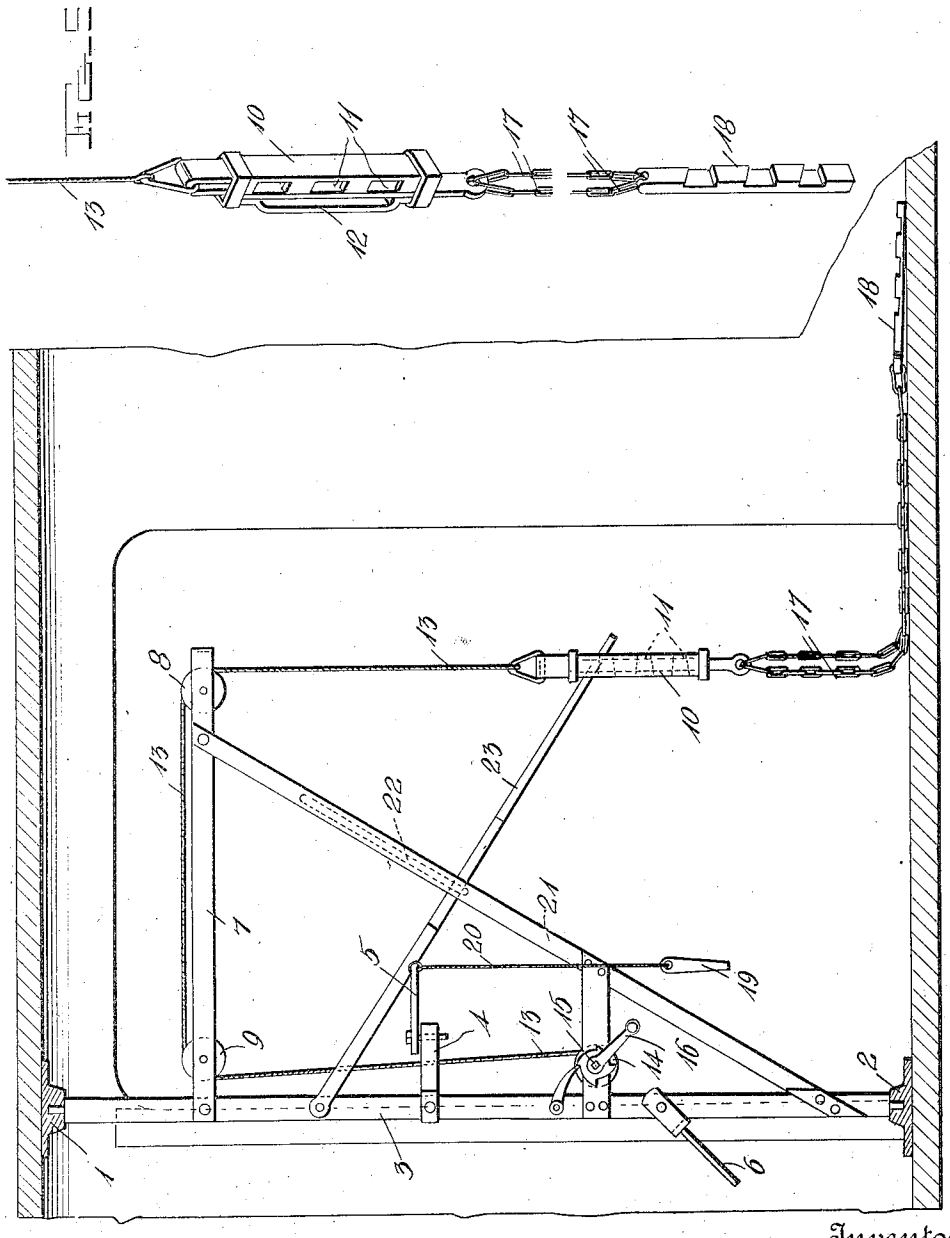
MAIL BAG DELIVERY APPARATUS.

APPLICATION FILED JAN. 20, 1908.

916,902.

Patented Mar. 30, 1909.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

FIG. 3

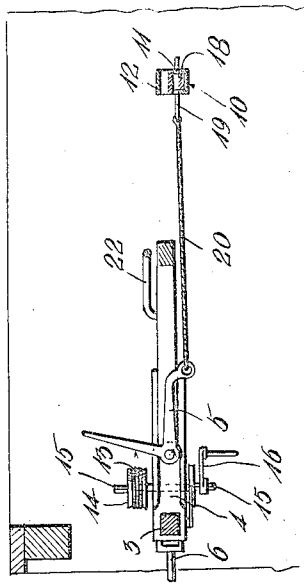
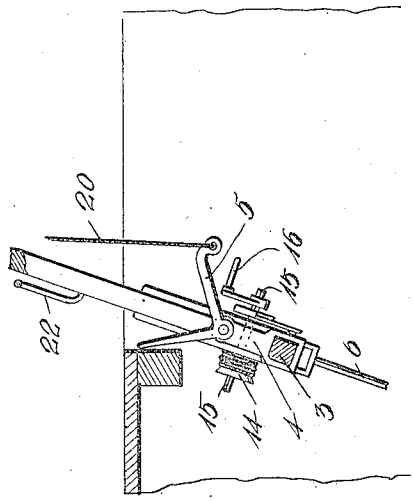
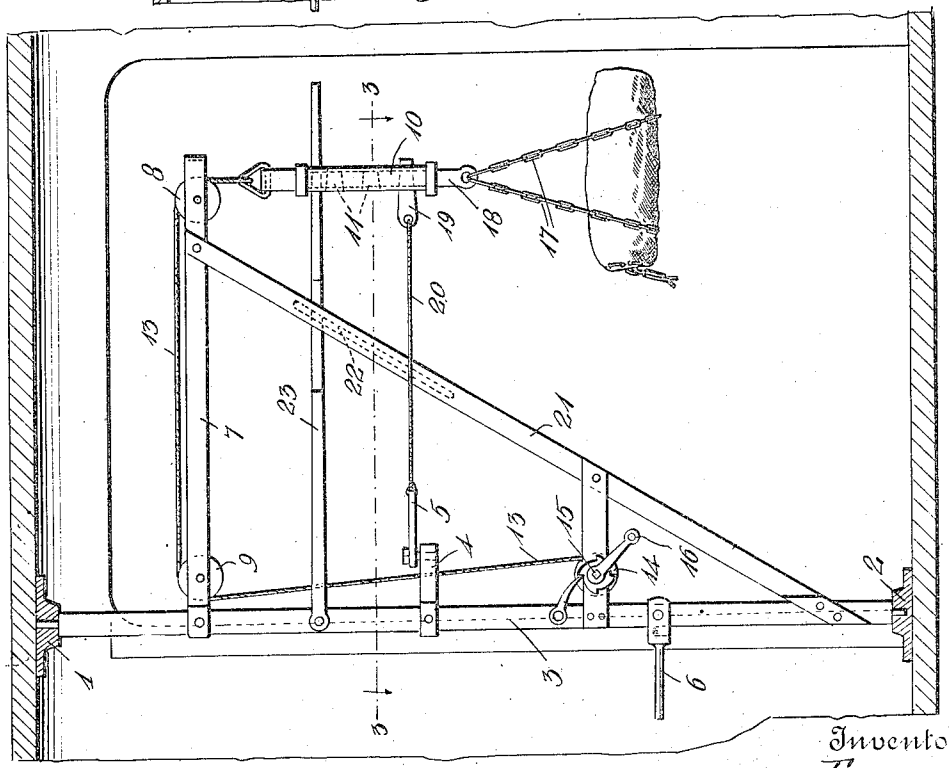


FIG. 4





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UNITED STATES PATENT OFFICE.

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MAIL-BAG-DELIVERY APPARATUS.

No. 916,902. Specification of Letters Patent. Patented March 30, 1909.

Application filed January 20, 1902. Serial No. 411,696.

To all whom it may concern:

Be it known that I, W. H. VAN FOSSEN, a citizen of the United States, residing at Eureka, in the county of Woodford and State of Illinois, have invented certain new and useful Improvements in Mail-Bag-Delivery Apparatus; and I do 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 relates to an improved mail bag delivery apparatus especially adapted for use on fast trains.

The object of the invention is to provide a mail bag deliverer which is simple in construction, cheap to manufacture and easy and reliable in its operation.

Another object is to provide an apparatus of this character which operates automatically to release the bag on its being swung outward at right angles to the car.

In the accompanying drawings, Figure 1 represents a side elevation of a portion of a car equipped with this improved delivery apparatus which is shown in position ready to receive the bag, and taken from within the car. Fig. 2 is a similar view with the deliverer shown in position ready to be swung out. Fig. 3 shows a horizontal section taken on line 3—3 of Fig. 2. Fig. 4 is a similar view showing the arm swung out. Fig. 5 is a perspective view of the bag engaging member detached.

In the embodiment illustrated, two bearing or socket members 1 and 2 are shown adapted to be secured to the top and floor of the car respectively at the inside thereof about six inches more or less from the door. A rotatable upright or shaft 3 is mounted in these sockets and has its upper reduced end made longer than the lower end to provide for the lifting out of the said shaft from said sockets to transfer it from one side of the car door to the other. Fixed to this shaft is a coupling member 4 in which is pivotally mounted to swing laterally an approximately U-shaped member 5 for a purpose to be described. A handle member 6 is pivoted to said shaft 3 and adapted to be used in swinging or turning the shaft to swing the delivery apparatus outside the car door and to return it to normal position when desired.

Fixed at one end to the shaft 3 and extending at right angles therefrom is an arm 7 having skive pulleys 8 and 9 arranged at opposite ends thereof, the pulley 9 being located at the inner side or face of the shaft 3. A bag engaging member is carried by this arm 7 and comprises a bar or hollow block 10 having longitudinally spaced apertures as 11 with a guide 12 arranged longitudinally at one side thereof. This block 10 is attached to one end of the cable 13 which passes over the pulleys 8 and 9 on the arm 7 and is secured at its other end to a ratchet drum 14 having square ends 15 to receive a handle 16 which is reversible for use on either of said square ends and adapted to wind and unwind the cable for raising and lowering the block 10. A flexible element 17 preferably in the form of a chain is secured at its opposite ends to the free end of said block 10 and has a notched bar 18 secured thereto which is adapted to extend into the hollow block and be secured therein by means of a wedge shaped key 19 which passes through one of the apertures in the block and through one of the notches in said bar 18 which are arranged to register with the apertures in the block. The key 19 is attached to one end of a flexible element 20 which is secured at its other end to one arm of the U-shaped member 5 which is pivoted to swing laterally on the shaft 3 as heretofore described.

The arm 7 is preferably braced by a bar 21 connected at one end to the lower end of the shaft 3 and at its other end to the outer end of said arm 7. A slotted guide 22 is carried by the arm 21 through which extends an arm 23 pivoted at one end to the shaft 3 and having its free end operable in the guide 12 of the block 10 to prevent said block from revolving when the device is swung outward.

In the use of this apparatus the operator first unwinds the cable 13 from the drum 14 into the position shown in Fig. 2. The mail bag or bags are then placed on the flexible element 17 which is wound tightly thereabout and the bar 18 is inserted within the hollow block 10 and the wedge shaped key 19 is passed through one of the apertures in the block 10 and the notch in the bar 18, the bag being thereby securely held in position ready to be swung outward. The handle 6 is then raised in position at right angles to the shaft 3 and said shaft is rotated to swing the arm 7 outward at right angles to the car door. This swinging of the shaft 3 causes the free end of the arm of the U-

shaped member 5 to strike against the jamb of the car door which swings the other arm thereof connected with the flexible element 20 inward and withdraws the key 19 from the block 10 whereby the weight of the mail causes the bar 18 to be immediately released from said block 10 and the mail dropped on to the platform of the station. The handle 6 is then turned to swing the apparatus within the car ready for the next operation.

I claim as my invention:

1. In a mail bag delivery apparatus, the combination of a revoluble upright having an arm extending laterally therefrom, bag engaging means carried by said arm, means for locking said bag engaging means and means operable on the outward turning of said upright to release said bag locking means.

2. In a mail bag delivery apparatus, the combination of a revoluble upright having an arm extending laterally therefrom, bag engaging means carried by said arm, means for locking said bag engaging means, an approximately U-shaped member pivotally mounted on said upright to swing laterally and having one arm thereof connected with a locking means for said bag engaging means and with its other arm adapted to engage a stationary member to release the locking means for the bag engaging means.

3. In a mail delivery apparatus, the combination of a revoluble upright having an arm extending laterally therefrom and provided with skive pulleys, a ratchet drum secured to said upright, a cable connected at one end to said drum and passing over said pulleys, a hollow block carried by said cable and having apertures extending transversely therethrough, a flexible element connected at one end to said block and a bar connected with said element slidable within said block and having recesses adapted to register with the apertures in said block, a key adapted to engage said bar and block and hold them in connected position and means operable by the outward swinging of said laterally extending arm to disengage said key and release the bar from the block.

4. In a mail delivery apparatus, the combination of a revoluble upright having an arm extending laterally from the upper end thereof, a brace bar connected at one end with said upright and at its other end with said arm and having a slotted guide arranged thereon, an arm pivoted at one end to said upright and extending through the slotted guide of said brace bar, a hollow block carried by said laterally extending arm and having apertures extending transversely therethrough, a bag engaging element mounted on said block and having a notched bar adapted for insertion within said block, a guide carried by said block adapted to be engaged by the free end of said pivoted arm to prevent turning of the block and means for locking the member carried by the flexible element within said hollow block said means being operable on the outward swinging of the lateral arm to release said flexible element from the block.

5. In a mail bag deliverer, means for suspending a bag from a crane, and means whereby said bag is automatically released when the crane has been swung outward to its fullest extent.

6. A mail bag deliverer, comprising a pivoted crane, means connected to said crane for suspending a mail bag, and means for automatically releasing the mail bag from the suspension when the crane has been swung outward to its fullest extent.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. VAN FOSSEN

Witnesses:
D. G. PUTERBAUGH,
ED E. ROBESON.