W. B. DE WITT.

MAIL BAG DELIVERY APPARATUS.

APPLICATION FILED MAR. 4, 1908.

898,846.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.

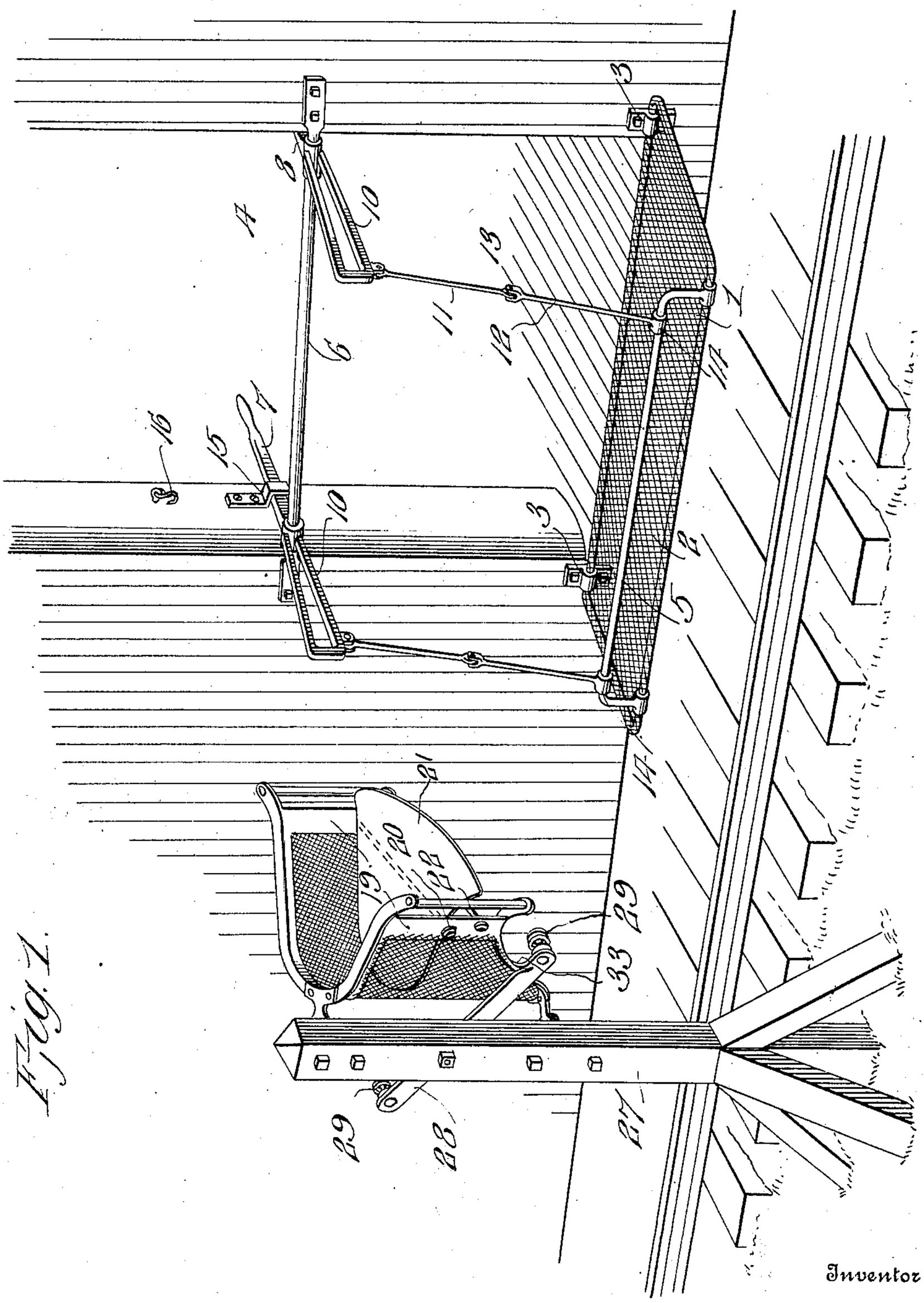

Fig. 1.

Witnesses

Frank Hough.

R. M. Smith.

Inventor

Walter B. De Witt,

By Victor J. Evans

Attorney

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2 SHEETS—SHEET 2.

Fig. 2.

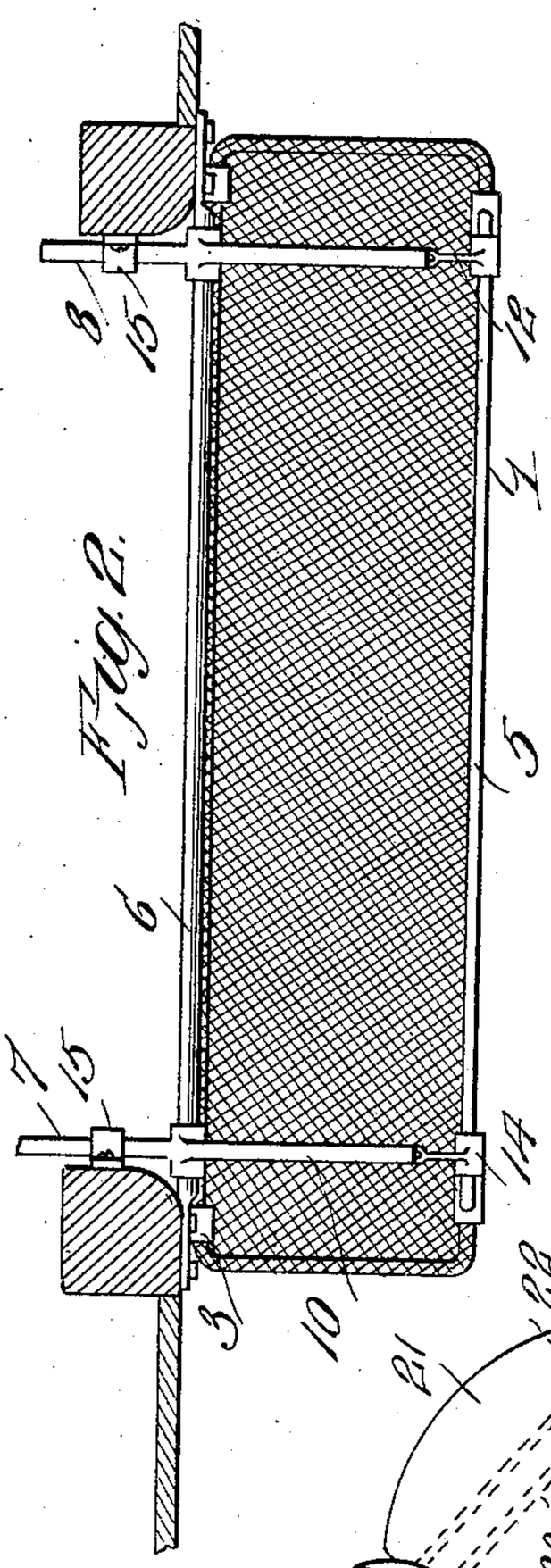


Fig. 1.

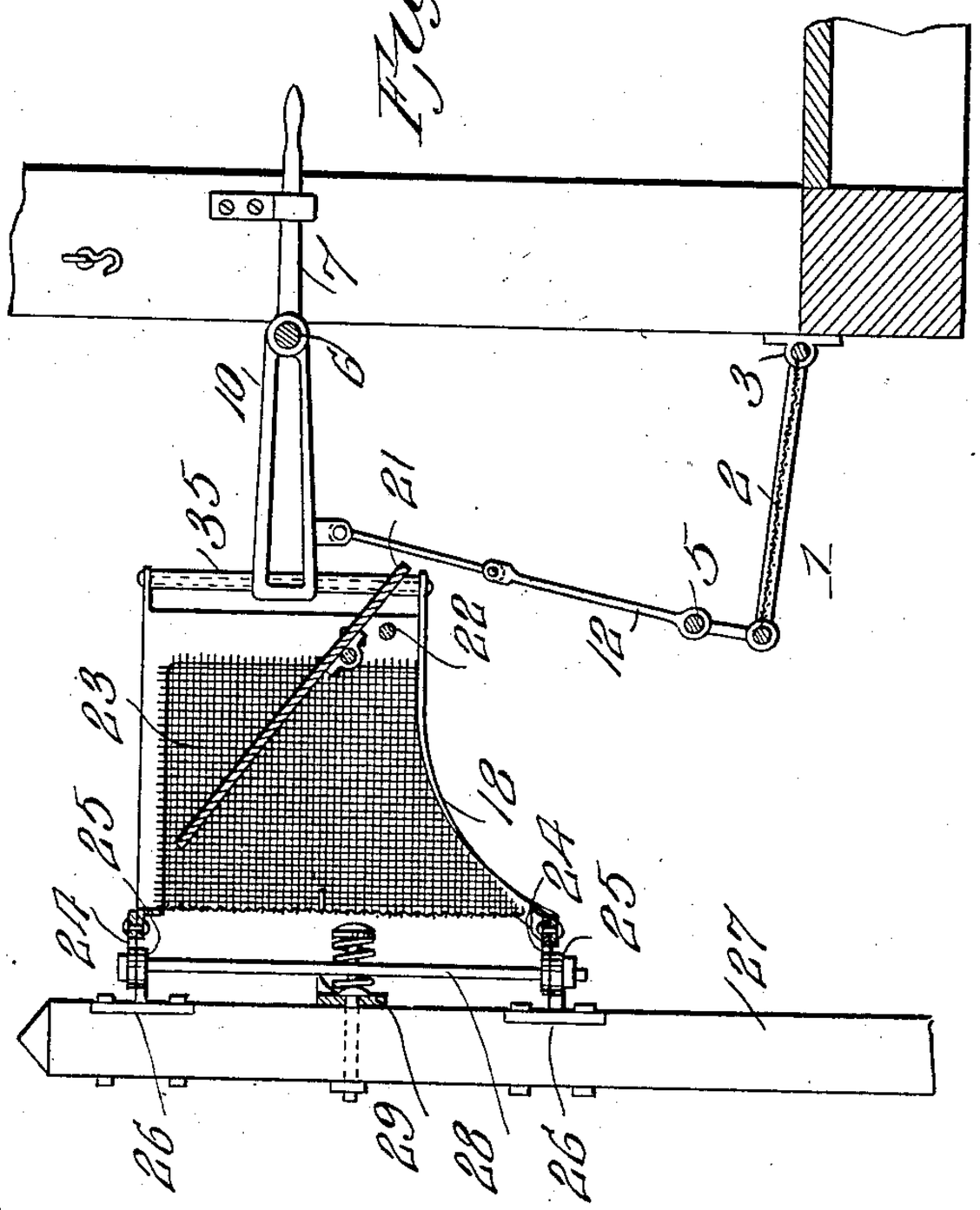
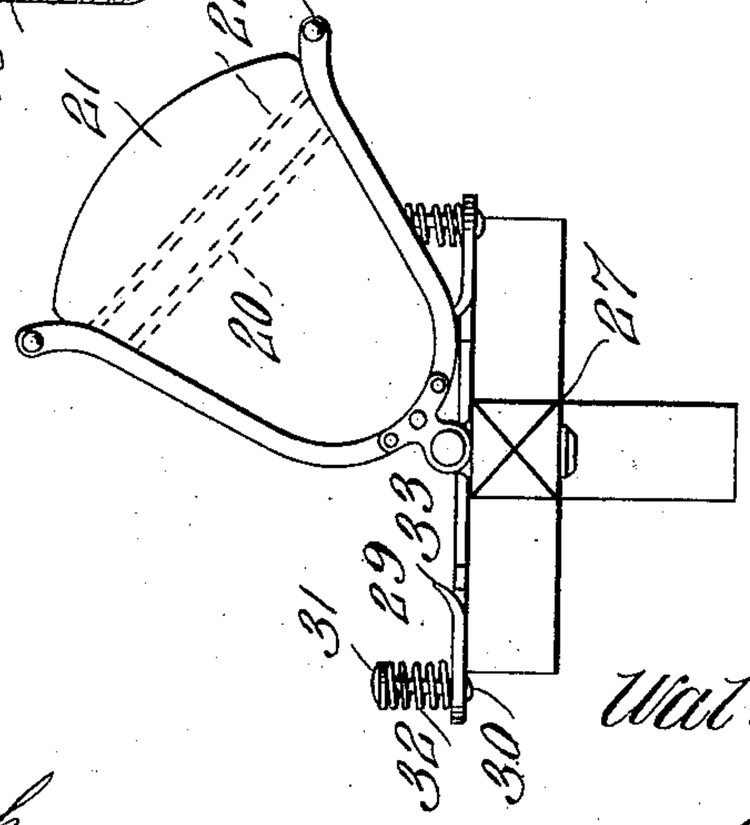


Fig. 4.



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UNITED STATES PATENT OFFICE.

WALTER B. DE WITT, OF JACKSONVILLE, FLORIDA.

MAIL-BAG-DELIVERY APPARATUS.

No. 898,846. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed March 4, 1908. Serial No. 419,217.

To all whom it may concern:

Be it known that I, WALTER B. DE WITT, a citizen of the United States of America, residing at Jacksonville, in the county of Duval and State of Florida, have invented new and useful Improvements in Mail-Bag-Delivery Apparatus, of which the following is a specification.

This invention relates to mail bag delivery apparatus, the object of the invention being to provide means operated automatically to deliver a mail bag to a rapidly moving car in a reliable and effective manner without any attention whatever on the part of the operator on the car or at the station, the apparatus being entirely automatic after the members thereof are once set in proper coöperative relation.

With the above general object in view, the invention consists in the novel construction, combination and arrangement of parts herein fully described, illustrated and claimed.

In the accompanying drawings,—Figure 1 is a perspective view, showing the delivering or throwing element, and also showing the receiving element carried by a car. Fig. 2 is a plan view of the receiving element. Fig. 3 is a vertical sectional view of the delivering and receiving elements in their operative positions. Fig. 4 is a plan view of the delivering or throwing element.

The portion of the apparatus which receives the mail bag is shown as mounted on the car and comprising a shelf 1, preferably in the form of a rectangular iron frame covered with meshed wire fabric, as shown at 2, and hingedly connected at 3 to the car body at opposite sides of the door opening 4.

The shelf 1 is provided along its outer edge with an elevated guard or rail 5 to prevent the bag from sliding off the outer edge of the shelf, and the said guard rail also forms a portion of the supporting or suspending means, as seen in Figs. 1 and 3. The supporting means also comprises a rock shaft 6 extending across the car door opening and having mounted thereon a pair of levers 7 and 8 which extend in an approximately horizontal plane when the shelf 1 is in its operative or receiving position. The inwardly extending portions of the levers are provided with handles 9 within reach of the operator standing inside of the door opening, and each of said levers is also provided with an outwardly extending arm 10 to which is connected the upper end of a jointed and folding suspension bar or link comprising upper and lower sections 11 and 12 respectively connected together by a pivot joint, as seen at 13. At their lower ends the sections 12 are provided with sleeves 14 which embrace the guard rail 5.

The levers 7 are held in an operative position by means of suitable keepers 15 secured to the door frame, and when the receiving apparatus as a whole is folded upward against the side of the car, the lever arms 10 are engaged with hooks 16 at each side of the door to hold such portion of the apparatus folded in an out-of-the-way position so as to afford no projection beyond the side of the car.

The delivering or throwing element which holds the bag in readiness to be projected in the direction of the receiving portion of the apparatus is illustrated in Figs. 1, 3 and 4, wherein it is seen to embody upper and lower substantially U-shaped frame pieces 17 and 18 secured together by vertical connecting bars 19 and further braced by means of a rod 20 which forms the pivot of a tilting bag supporting shelf 21, the inner portion of which conforms to the general shape of the holder, as seen in Figs. 1 and 4. The upright portions 19 are further connected by a stop 22 in the form of a second rod extending below the pivot rod 20, as best seen in Fig. 3, said stop rod 22 serving to limit the tilting movement of the shelf in the act of delivering the bag.

Extending between the upper and lower frame pieces 17 and 18 is a backing of meshed wire fabric, as shown at 23, the frame pieces 17 and 18 and the fabric 23 thus forming a basket-like holder substantially U-shaped in horizontal section in which the bag is placed prior to the arrival of the car carrying the receiving part of the apparatus.

At its top and bottom the delivering element is provided with hinge lugs 24 which overlap other hinge lugs 25 on brackets 26 secured to a support 27 which may be in the form of a post, as illustrated in Figs. 1 and 3. 28 designates a hinge pin or bolt which passes through the overlapping lugs 24 and 25, thereby forming a hinged connection between the holder and the supporting post, permitting said holder to swing through a limited arc.

Pivotally mounted on the supporting post 27 and located between said post and the

holder is a latch bar 28 carrying at its opposite ends spring bumpers 29 adapted to receive and cushion the impact of the holder when it is forcibly thrown from one limit of its movement to the other limit. Each of said bumpers is shown as comprising a pin 30 having an impact head 31 which is normally held outward away from the body of the latch bar by a coiled spring 32 interposed between the latch bar and the impact head, as clearly shown in Fig. 4. At opposite sides of the central fulcrum point of said latch bar the latter is provided with inclined lips 33 which are adapted to engage the lower frame piece of the delivering element, as clearly shown in Fig. 1, to hold said element at one or the other limit of its movement to prevent the same being moved out of its proper position in windy weather. The extremities of the top and bottom frame pieces 17 and 18 are connected by vertical bars or rods 34 which are preferably covered with rubber casings 35 to cushion the impact of the blow imparted thereto by the projecting ends of the arms 10 of the levers which hold the receiving shelf in readiness to receive the delivered bag.

From the foregoing description it will be understood that preparatory to the arrival of a train, the mail bag is placed on the shelf 21, the weight being distributed thereon so that the shelf will maintain a horizontal position and at the same time readily tilt when the holder or delivering element is struck. The holder is then swung to the proper side and engaged by the latch bar 28. When the train reaches the station, the advance lever arm 10 strikes against the rod or bar 34 lying in the path thereof and imparts a quick movement to the holder, which thereupon acts to throw or project the bag therefrom toward the car door opening. At the same time the shelf 21 tilts automatically, thereby facilitating delivery of the bag to the receiving element of the apparatus.

Having thus described the invention, what is claimed as new, is:—

1. In mail delivery apparatus, the combination with a receiver, of a delivering element comprising a pivoted and swinging mail bag holder, a tilting shelf on which the bag is supported, and means located within the path of the receiver and adapted to be struck thereby for imparting a swinging movement to the delivering element, the latter acting to project the bag toward the receiver.

2. In mail bag delivering apparatus, the combination with a receiver mounted on the car, of a delivering element mounted adjacent to the railway and comprising a pivoted and swinging mail bag holder, a tilting shelf on which the bag is supported, and means located within the path of the receiver and adapted to be struck thereby for imparting a swinging movement to the delivering element, the latter acting to project the bag toward the receiver.

3. In mail bag delivery apparatus, the combination of a bag receiving element, and a bag delivering element substantially U-shaped in horizontal section and mounted to swing horizontally, said delivering element comprising a bag supporting shelf, and means adapted to be arranged in the path of a part of the receiver.

4. In mail bag delivery apparatus, the combination with a receiving device carried by the car, of a swinging bag supporting and throwing element mounted adjacent to the railway and comprising a bag supporting shelf, means arranged to be struck by the receiving device on the car, a latch for retaining the throwing element in a predetermined position, and a bumper carried by said latch.

5. In mail bag delivery apparatus, the combination with a receiving device carried by the car, of a bag holding and throwing device mounted adjacent to the railway and adapted to swing horizontally, a tilting bag supporting shelf connected with said holder, means for limiting the tilting movement of the shelf, means for holding the throwing element in a predetermined position, and means on said throwing element adapted to be struck by the receiving device on the car, substantially as and for the purpose specified.

6. In mail bag delivery apparatus, the combination with a swinging bag holding and delivering element located adjacent to the railway, of a receiver carried by the car and embodying a folding bag receiving shelf, a lever for tilting and supporting said shelf, and a connection between said lever and the shelf, said lever being adapted to strike against the mail bag delivering element to impart a quick movement thereto, substantially as and for the purpose described.

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

WALTER B. DE WITT.

Witnesses:

RICHARD WILLIS,

SAML. W. FOX.