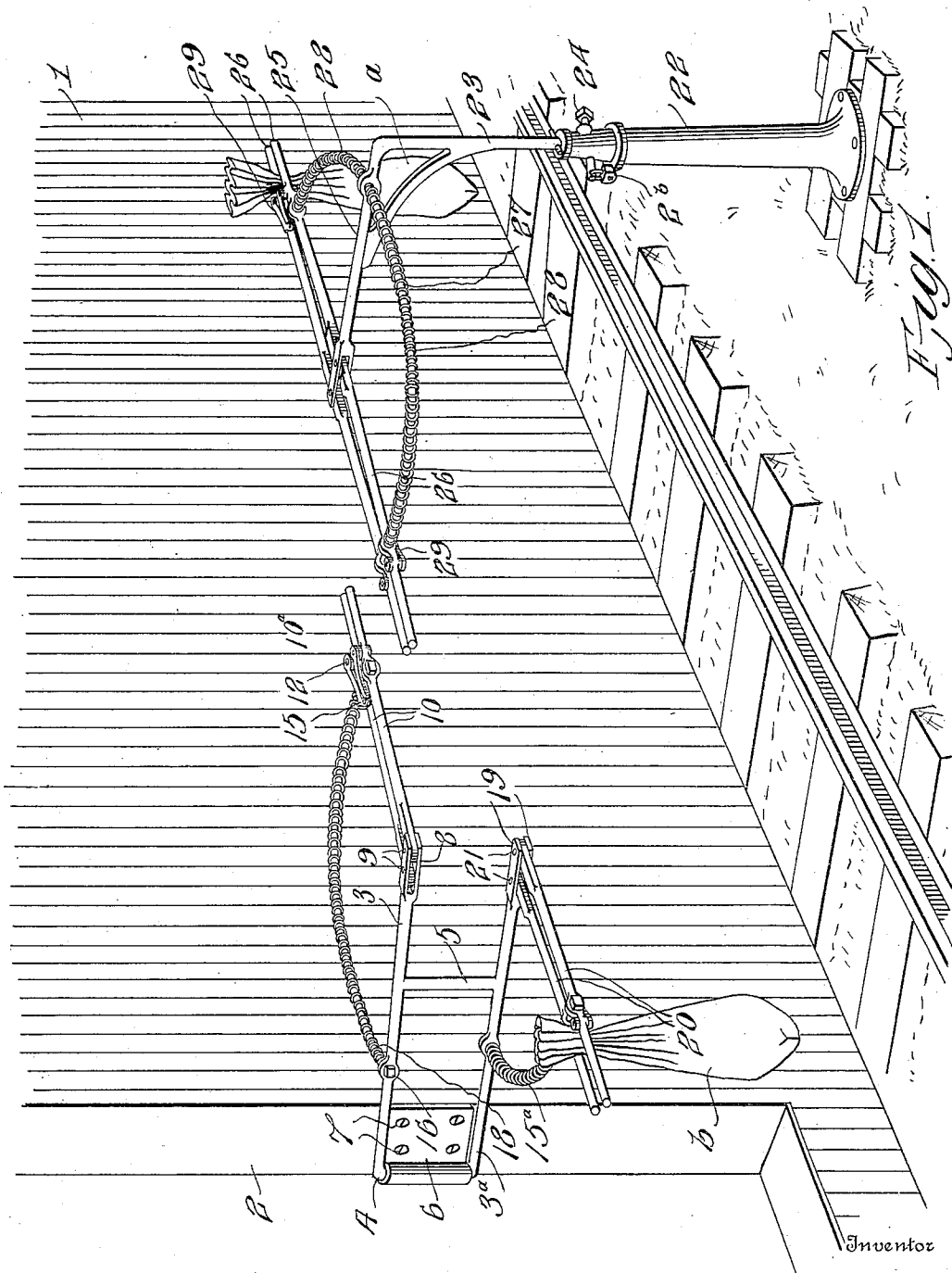


B. F. TROUP.
MAIL BAG DELIVERER.
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936,189.

Patented Oct. 5, 1909.

2 SHEETS—SHEET 1.



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UNITED STATES PATENT OFFICE,

BENJAMIN F. TROUP, OF MONROE, IOWA.

MAIL-BAG DELIVERER.

936,189.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BENJAMIN F. TROUP, a citizen of the United States of America, residing at Monroe, in the county of Jasper and State of Iowa, 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 simple and efficient means designed to be connected to a mail car and to be swung out of the door for delivering a mail bag at a station, means being also provided whereby a mail bag at the station may be caught and delivered to the mail car simultaneously with the delivery of a bag.

Another object of the invention is to provide a mail bag deliverer of simple construction which will deliver a mail bag when the car is moving at full speed in either direction.

Still another object of the invention is to provide an automatic spring actuated mail bag deliverer and catcher which can be quickly adjusted in position for use and which will operate with equal efficiency whether the train is moving in one direction or the other.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which,—

Figure 1 is a perspective view of a mail bag deliverer connected to the door frame of a car, and showing a mail bag catcher permanently located at the side of the track. Fig. 2 is a top plan view of the same, the side of the car being shown in section. Fig. 3 is a detail sectional view illustrating the upper end of the supporting post and the manner of connecting the crane thereto.

Referring to Fig. 1 of the drawing, the numeral 1 designates the side of the mail car, and 2 is the door frame of said car. The mail bag deliverer consists of the parallel arms 3 and 3^a connected together by an end bar 4 and by a cross bar 5. The end bar 4 is hinged at the side of the door frame 2 upon a strap hinge 6 secured in place by means of screws 7. The upper arm 3 is bifurcated at its front end, as at 8, and pivoted at 9 in the bifurcation are the delivering members 10 and 10^a, said members being connected together by means of the links 11, said links being pivoted at 12 to the arms 10 and 10^a, and said links being pivotally con-

nected together at 13 by a ruled joint provided with a shoulder stop 14. A curved rod 15 is connected at one end 16 to the arm 3, and the opposite end of said rod extends freely through the member 10^a and secured to the member 10, as at 17. A spiral spring 18 encircles the rod 15, one end of said spring bearing against the member 10^a and the other end against the arm 3. The arm 3^a is also bifurcated, as at 19, and the catching members 20 are pivoted at 21 in the bifurcation, said members being also provided with pivoted links of identical construction with the links 11. A curved rod is connected at one end to the arm 3^a, its opposite end extending through the members 20. A spiral spring 15^a encircles said curved rod, the construction of these parts being substantially identical with those already described and connected to the arm 3.

Located at the side of the track is a post 22, and adjustably mounted in the upper end of said post is a crane 23 secured in vertical adjustment by means of the pin 24 which extends through the post 22 and engages a groove 2^a in the crane 23. The pin 24 is secured to the post 22 by means of a padlock 2^b. The crane 23 is provided with a horizontal arm 25, and pivoted to the bifurcated end of said arm are the catcher arms 26. Connected to the arms 26 are the curved rods 27 encircled by the springs 28. The arms 26 are provided with the ruled-joint links 29, and the various parts of the catcher are substantially identical with similar parts upon the deliverer, as will be obvious from the drawings.

The operation of my invention may be briefly described as follows: Referring to Fig. 1 in which the train is moving in the direction indicated by the arrow upon the side of the car, the mail bag *a* has been caught and detached from the members 10 and 10^a by the catchers 26 at the right hand end thereof. The mail bag *b* has been delivered to the member 20 from the members 26 at the left hand side of the crane. In other words, Fig. 1 illustrates the position of the deliverer and catcher immediately after the train has passed the crane.

From the foregoing it will be obvious that my invention is of simple construction, will operate efficiently to deliver and catch a mail bag automatically and that the device will not be liable to get out of order.

I claim:—

1. A mail bag deliverer comprising parallel spaced arms adapted to be hinged to the door frame of a car, oppositely disposed
 5 curved rods connected to said arms, oppositely extending catching members pivoted to said arms, springs encircling said curved rods and bearing at one end against said arms and at the opposite end against said
 10 catching members, and links pivotally connected to said catching members and pivotally connected together, said links being provided with rule joints.
2. A mail bag deliverer comprising parallel arms connected together by an end bar,
 15 said end bar being hinged to the door frame of a car, catching members pivotally connected to said arms and extending in opposite directions, a curved rod connected to
 20 each arm, catching members pivotally con-

nected to said arms, said curved rod extending through said catching members, spiral springs surrounding said curved rod; and means for holding said catching members separated.

3. A mail bag deliverer comprising parallel arms, one disposed above the other and hinged to the door of a car, catcher members pivoted to said arms and provided with connecting pivoted links, a spring adapted
 30 to normally close said members upon a mail bag, and links for holding said members separated.

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

BENJAMIN F. TROUP.

Witnesses:

CHAS. T. SCHENCK,
 F. B. KINGDON.