

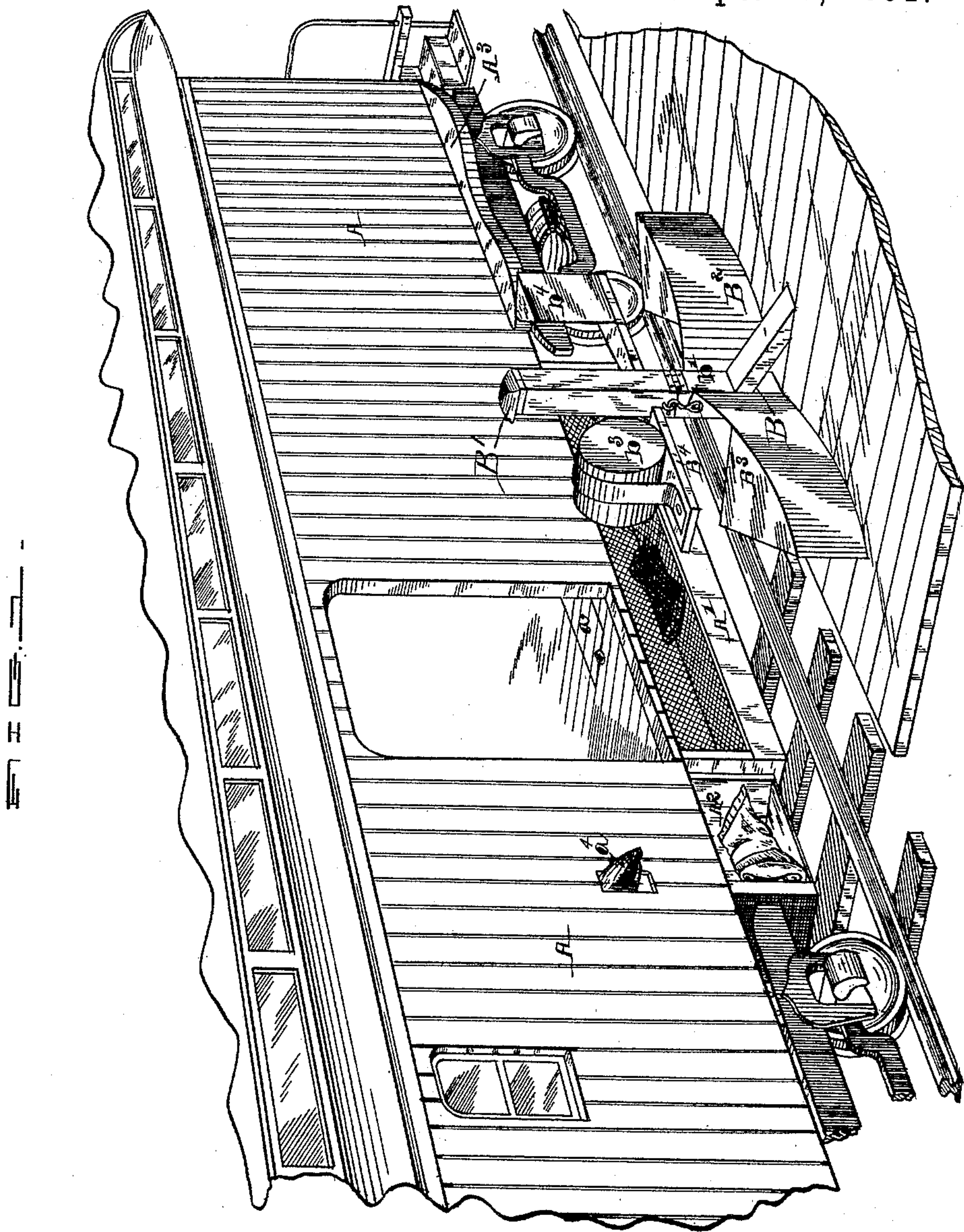
(No Model.)

2 Sheets—Sheet 1.

A. KIMBER.  
MAIL POUCH DELIVERER.

No. 460,057.

Patented Sept. 22, 1891.



WITNESSES.

*F. W. Warner.*  
*J. Walsh.*

INVENTOR.

*Abraham Kimber,*  
*per C. E. W. Bradford,*  
ATTORNEYS.

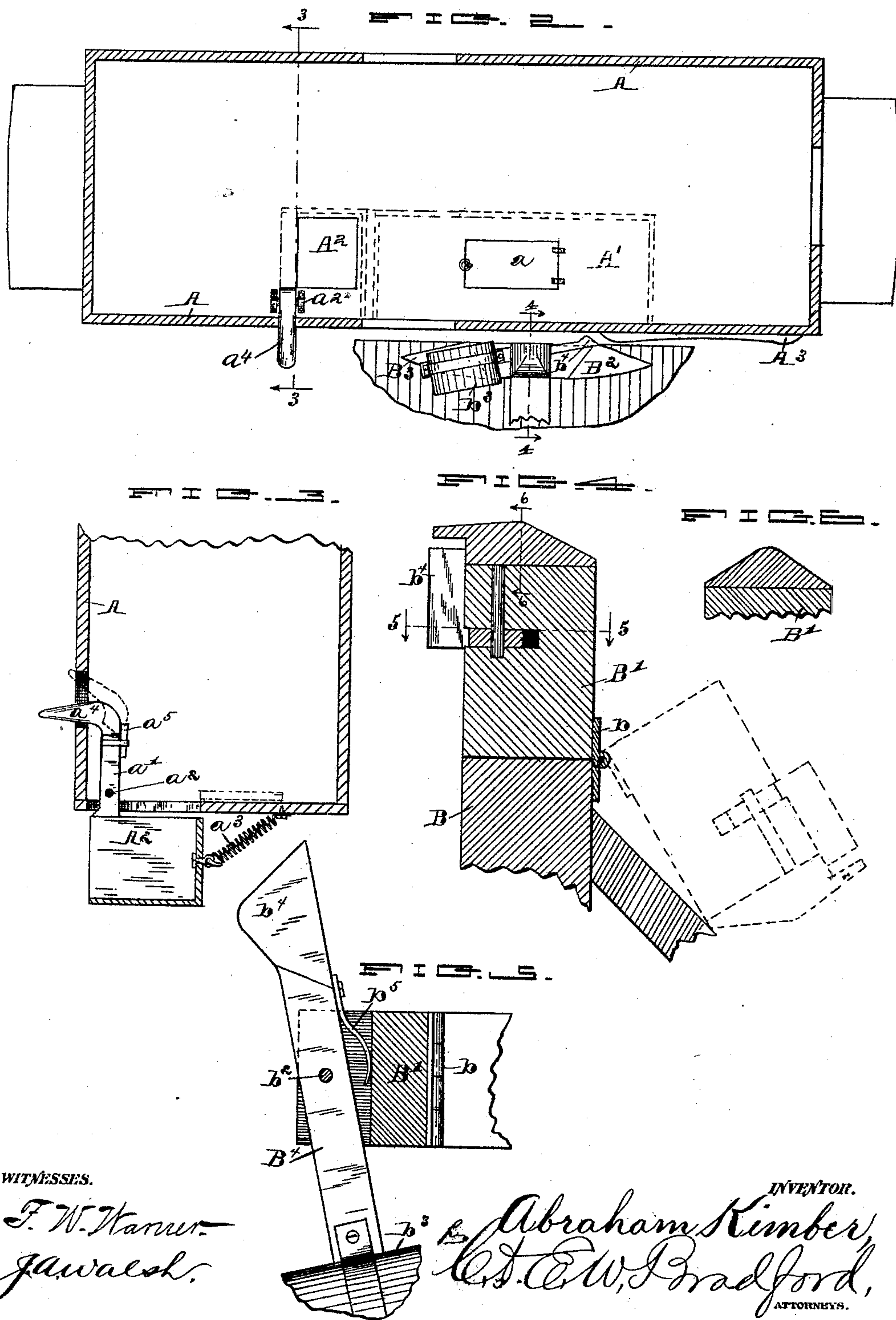
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# UNITED STATES PATENT OFFICE.

ABRAHAM KIMBER, OF INDIANAPOLIS, INDIANA.

## MAIL-POUCH DELIVERER.

SPECIFICATION forming part of Letters Patent No. 460,057, dated September 22, 1891.

Application filed July 29, 1891. Serial No. 401,041. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM KIMBER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Mail-Pouch Deliverers, of which the following is a specification.

The object of my said invention is to provide an improved apparatus for delivering mail-pouches from postal cars in motion which will obviate the use of catching-hooks and overcome the disadvantage of their use; and it consists in the particular construction and arrangement of apparatus, as will be hereinafter more fully described and claimed; and it further consists in so equipping the car with the device that it will not be necessary to open the outer door of the car unless desired, and so that no outdoor work will be required in the use of the apparatus, thus also obviating a disadvantage of the old apparatus in necessitating the exposure of the postal clerk in cold and stormy weather. This advantage is one of great importance, inasmuch as the work of said clerks is such as requires considerable exertion and rapidity of movement, causing them to become heated and to work lightly clothed, in which condition the several moments' exposure in severe weather while fixing each pouch to be delivered and taking in the one received is very dangerous to their health, the requirements of the work not permitting the use of time for properly clothing themselves for such work and the removal of such additional clothing when returning to the inside work of sorting and distributing the mail.

In addition to the delivering device on the car and herein claimed, I have also shown and described a delivering device at the station adapted to deliver the mail-pouch to the car while in motion, which device is made the subject-matter of an application filed August 3, 1891.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of one side of a railway postal car equipped with the portion of my apparatus belonging thereto, the other portion thereof being also shown in

perspective alongside the track in proper position for use therewith; Fig. 2, a horizontal sectional view through the postal car, showing the apparatus alongside the track in top plan; Fig. 3, a detail transverse section through said car, looking in the direction indicated by the arrows from the dotted line 3 3 in Fig. 2; Fig. 4, a detail vertical section through the upper portion of the post to which the mechanism alongside the track is attached, looking in the direction indicated by the arrows from the dotted line 4 4 in Fig. 2; Fig. 5, a horizontal section looking in the direction indicated by the arrows from the dotted line 5 5 in Fig. 4; and Fig. 6, a detail transverse section through the top of the post, looking in the direction indicated by the arrows from the dotted line 6 6 in Fig. 4.

In said drawings, the portions marked A represent the postal car, and B the post supporting the portion of the apparatus alongside the track.

The postal car is in itself of any usual or desired construction. Extending longitudinally of the car beneath its floor and for a considerable portion of its length is arranged a receptacle A' for receiving the pouches. The front of said receptacle is open, its lower edge being preferably provided with a rail extending up a short distance from the bottom. Said bottom and the rear sides of the receptacle are preferably formed of some flexible or springy material, such as woven-wire cloth, as shown, which will be found very suitable, being open to permit dirt and cinders to drop through and at the same time possessing sufficient elasticity for the purpose. Any other flexible material may be substituted, however, if preferred, or, if desired, a solid board construction may be used. The flexible material, however, allows the pouch to settle into it when received and avoids any danger of its rebounding, as might be the case with a board bottom. A trap-door  $\alpha$  is provided in the floor of the car, through which access is had to said receptacle for taking the pouches therefrom. A receptacle A<sup>2</sup>, hung upon an upright  $\alpha'$ , is also mounted beneath the floor of the car, said upright extending up through the floor and being hinged on a pivot or shaft  $\alpha^2$ , which extends up



through said upright just above the floor and has its ends journaled in suitable bearings secured thereto. Said upright  $a'$  is preferably located at one of the front corners of said receptacle and may be an extension of one of its side pieces. A spring  $a^3$  is connected to the rear side of said receptacle and to the under side of the car a short distance behind it, which thus operates to hold said receptacle normally in an upright position. The top end of said upright  $a'$  is provided with a horizontal arm  $a^4$ , which extends out through a slot in the side of the car and is formed with a rounded under face which is adapted to strike and ride over the operating-cam on the top of the post and be operated thereby, as will be presently described. Said arm  $a^4$  is preferably hinged to the part  $a'$ , being held rigidly therewith when in use by means of a block  $a^5$ , inserted against its rear face behind a clip secured to the said part  $a'$ , as shown. By this arrangement, when the apparatus is not in use and it is desired to do so, said block  $a^5$  may be withdrawn and the horizontal arm  $a^4$  swung up and back into the position shown in dotted lines in Fig. 3, thus substantially (or entirely, if preferred) withdrawing the projecting point from outside the car. An opening is also formed in the floor of the car above this receptacle, as shown in Fig. 2, through which mail-pouches to be delivered to a station are deposited therein. As will be readily understood, said opening may also be provided with a trap-door similar to the trap-door  $a$ , if desired. Such a door is indicated by dotted lines in Fig. 3. Near the opposite end of the car is secured a double-cam-faced strip  $A^3$ , having two cam projections, one at each end, and being hollowed out between said projections. The post  $B$  is set and braced suitably in proper position alongside the track. It is preferably formed in two parts, the top portion  $B'$  of which is hinged thereto by a hinge  $b$  on its rear side, which thus permits said top portion to be tipped back out of the way when not in use, as indicated in the dotted lines in Fig. 4. A hasp  $b'$  or other suitable means is provided for locking said hinged top in an upright position when in use. The top of said post is formed with a cam-surface, being high in its center and tapered each way therefrom. Receptacles  $B^2$  and  $B^3$  are arranged on each side of the post  $B$ , extending out a short distance therefrom, the open side thereof being adjacent to said post and formed tapered from its rear side forward in a direction away from said post, thus forming a wider opening to more readily receive the pouches. Said receptacles also preferably converge from the opening toward their outer ends, the back and front sides being tapered or curved toward each other. Thus as the pouch is caught therein its speed and force are gradually overcome as it slides into the narrowing receptacle, and it is also guided into and retained within said receptacle with

greater certainty. Near the top of the upper portion  $B'$  is formed a transverse notch in which is mounted a horizontal arm  $B^4$  on a vertical pivot  $b^2$ , which arm extends out each way therefrom and has a pocket or receptacle  $b^3$  secured to one end and a cam  $b^4$  formed on its other end, the cam-faced end being normally held forward at all times by means of a spring  $b^5$ , interposed between its rear edge and the back of said notch. Said pocket or receptacle  $b^3$  is of a form to receive the mail-pouch to be thrown onto the postal car, its front being open and its rear side closed.

As will be readily understood, the openings into the car—such as the slot through which the arm  $a^4$  extends—might be closed with flexible material and many other obvious modifications in the form or arrangement of parts might be made without departing from my invention.

The operation of this apparatus is as follows: Suppose the car shown in Fig. 1 to be going in the direction to the left of the figure at a considerable rate of speed. The horizontal arm  $a^4$  being fastened rigidly in a horizontal position on the top of the upright  $a'$ , on which the receptacle  $A^2$  is suspended, and the mail-pouch being in said receptacle, as the point of said arm  $a^4$  passes the post  $B$ , which is of just the required height, its point strikes and rides over the cam-shaped top part  $B'$ , which throws said arm upward slightly, which, by reason of the speed of the train, is a quick and sudden movement and operates to throw the receptacle  $A^2$  forward slightly but suddenly and with sufficient force to throw the pouch therefrom into the receptacle  $B^3$  on the side of the post in the direction which the car is traveling. Then the first cam on the strip  $A^3$  strikes the cam  $b^4$ , throwing that end of the pivoted arm  $B^4$  back and the opposite end carrying the receptacle  $b^3$  forward with a sudden motion. The mail-pouch, being in said receptacle  $b^3$ , is by said motion quickly tossed or thrown therefrom into the receptacle  $A'$  under the floor of the car. When the car is going in the opposite direction, Fig. 1 illustrates the position of the parts just after the cam  $A^3$  has operated the pivoted arm  $B^4$  and thrown the pouch from the receptacle  $b^3$  thereon into the receptacle  $A'$  on the postal car. The car proceeding, the projecting end of the arm  $a^4$  will strike the side of the cam-faced top of the post and be thrown upward, which will operate to throw the receptacle  $A^2$  outward on its pivot by a sudden movement and toss the pouch therein into the receptacle  $B^2$  on the opposite side of the post. The train having passed, the top of the post carrying the pivoted arm  $B^4$  may be turned back, as before described, to be entirely out of the way of any other passing trains.

By the use of this device all obstructions to the car-door are obviated, and also all necessity of suspending pouches in an exposed position, as all receptacles herein are so formed



as to protect said pouches from wind and stormy weather, thus materially preserving them.

5 It will be understood that, if preferred, the device on the post may be arranged to throw directly into the car-door; but I prefer the receptacle A', as shown, for the reason that the car-door can then be kept closed, as before stated. It will also be understood that in use  
10 the car will preferably be equipped with the apparatus on both its sides to accommodate stations located on either side of the track.

15 Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a mail-pouch-delivering apparatus, the combination, with the postal-car, of a receptacle, an upright within said car structure pivoted on suitable bearings and having said  
20 receptacle rigidly secured to its lower end, and a horizontal arm projecting out through the side of said car from the upper end of said upright and adapted to strike an operating device alongside the track, substantially  
25 as set forth.

2. In a mail-pouch deliverer, the combination of a receptacle, an upright for supporting said receptacle, which upright is pivoted to the car, a horizontal arm connected to said  
30 upright by a hinge, means, substantially as described, for holding said hinged part rigidly

therewith when desired, and a cam supported alongside said track in position to strike and operate said arm, substantially as set forth.

3. The combination, with a postal car, of a  
35 device for discharging pouches therefrom, consisting of a receptacle located beneath the floor of the car, an upright for supporting same, said upright being pivoted to the car, said car-floor having an opening into said re-  
40 ceptacle, and a horizontal arm projecting from said upright and adapted to strike an operating device alongside the track, substantially as set forth.

4. In a mail-pouch-delivering apparatus, 45 the combination, with the postal car, of the receptacle having an upright at one of its front corners for supporting the same, which upright is pivoted to the car, a horizontal  
50 arm projecting out from said upright in position to strike an operating device alongside the track, and a spring arranged to normally hold said upright in a vertical position, substantially as set forth.

In witness whereof I have hereunto set my  
55 hand and seal, at Indianapolis, Indiana, this 25th day of July, A. D. 1891.

ABRAHAM KIMBER. [L. S.]

Witnesses:

E. W. BRADFORD,  
J. A. WALSH.