

J. & B. FRANKFORT.
MAIL POUCH RECEIVING AND DELIVERING MECHANISM.
APPLICATION FILED APR. 6, 1909.

945,776.

Patented Jan. 11, 1910.

2 SHEETS—SHEET 1.

Fig. 1

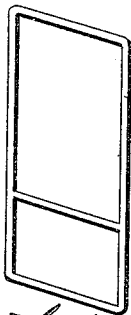
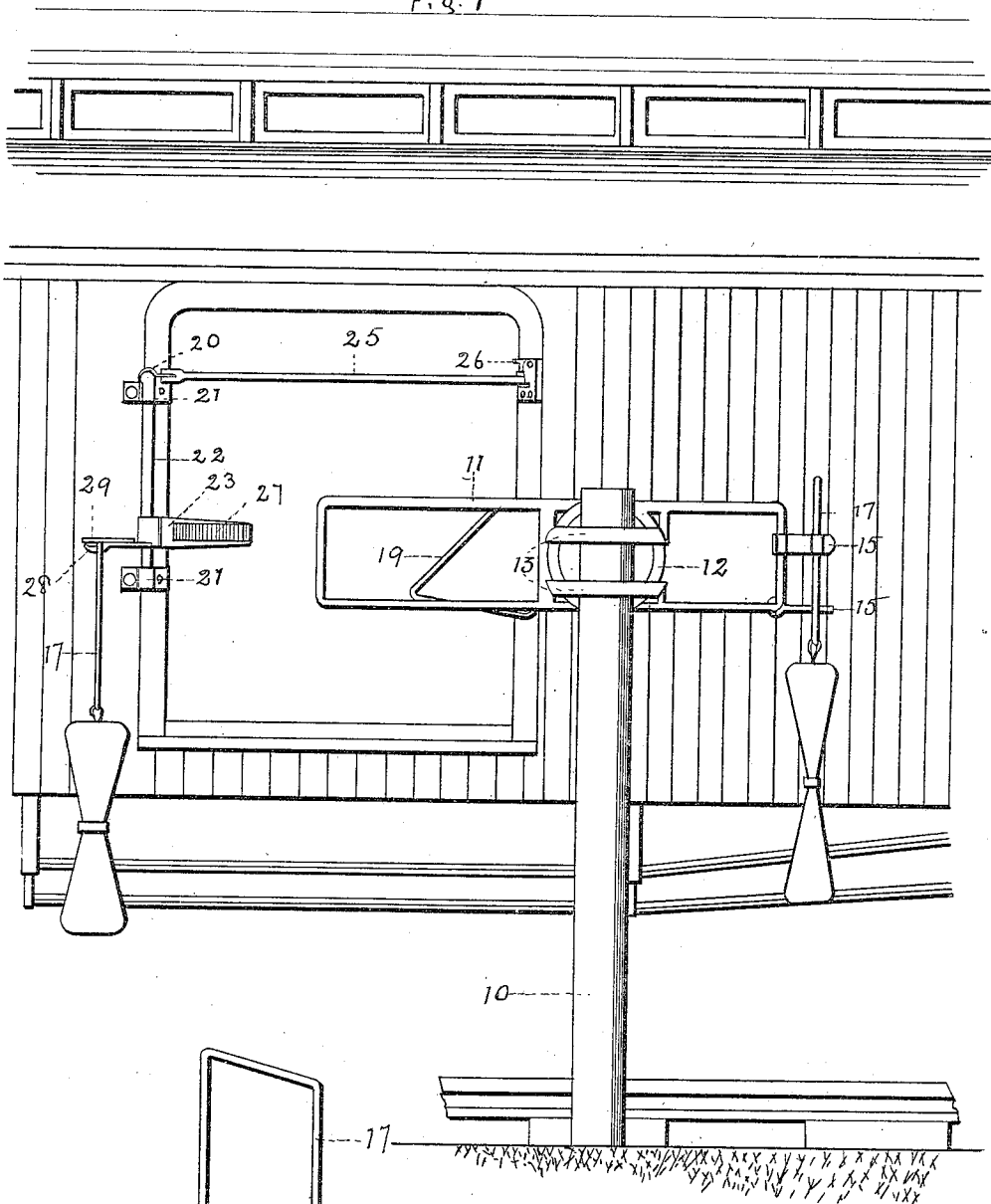


Fig. 6

WITNESSES:

E. H. Barth
Joseph Q. Keyrouse

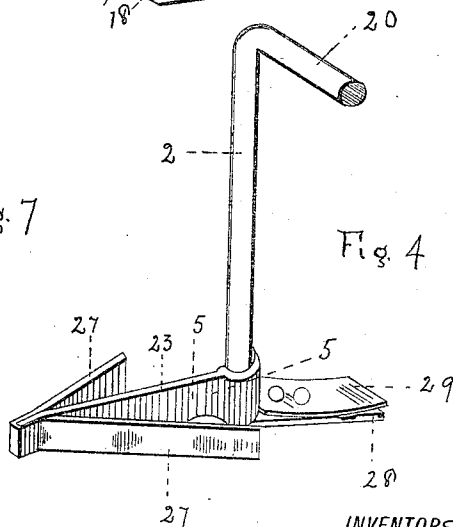
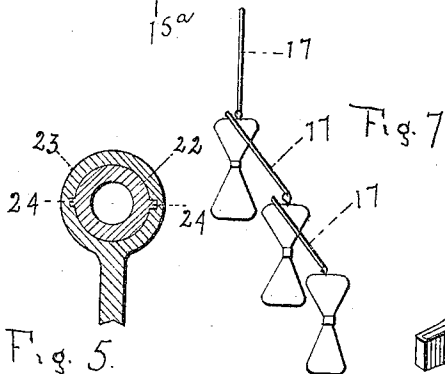
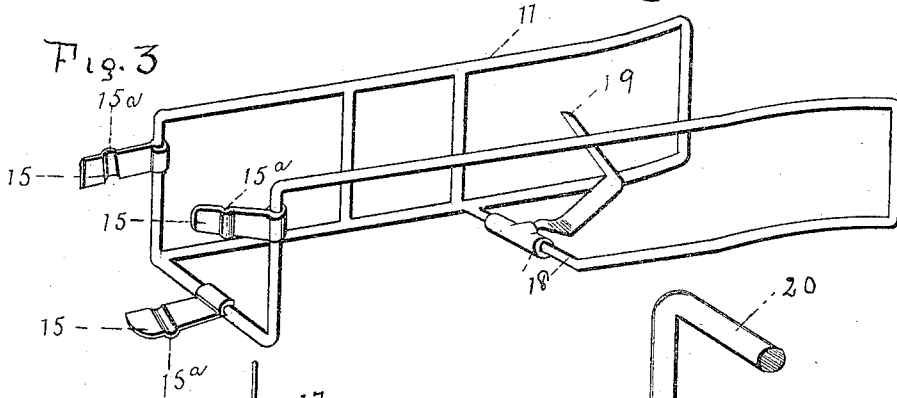
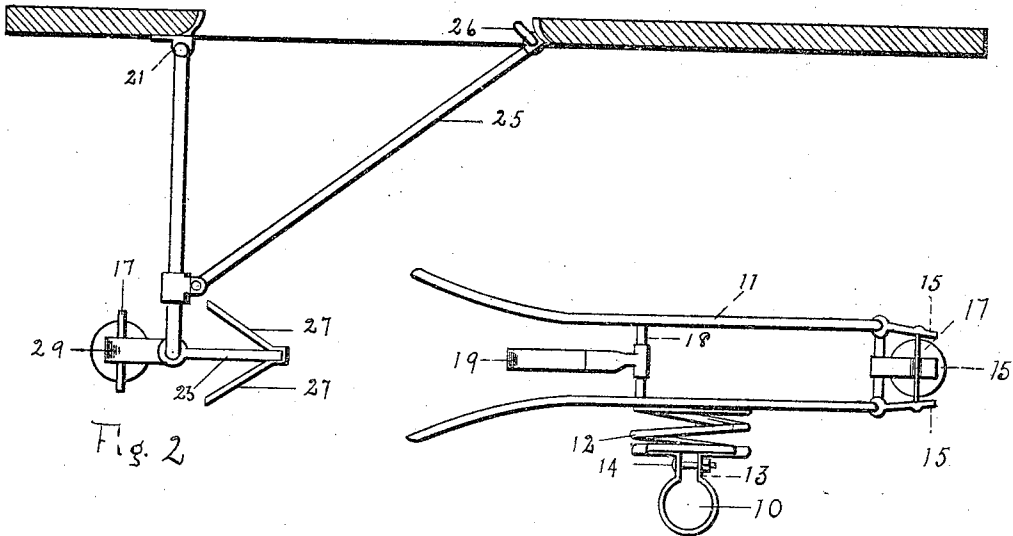
INVENTORS.

Joseph Frankfort
Benjamin Frankfort
BY
Sadwin Merritt
ATTORNEY

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WITNESSES:

E. H. Bartlett
Joseph V. Keyrouse

INVENTORS

Joseph Frankfort
Benjamin Frankfort
BY *Garner Merritt*
ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH FRANKFORT AND BENJAMIN FRANKFORT, OF NEW YORK, N. Y.

MAIL-POUCH RECEIVING AND DELIVERING MECHANISM.

945,776.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed April 6, 1909. Serial No. 488,312.

To all whom it may concern:

Be it known that we, JOSEPH FRANKFORT and BENJAMIN FRANKFORT, citizens of the United States, and residents of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Mail-Pouch Receiving and Delivering Mechanism, of which the following is a full, clear, and exact description.

This invention has reference to improvements in mechanisms for receiving and delivering to and from stations and moving trains, mail in bulk, such as pouches, packages, etc., and is designed to be economically manufactured and maintained at small cost and to effectively perform its proper functions without injury to the pouches.

To this end our invention in a general way consists of a trough-shaped body resiliently supported along side the railway, as at a station, preferably in the nature of a tubular frame open at both ends and having means for supporting in a substantially upright position a loop or frame attached to the pouch, and also having an engaging member for removing the pouch suspended from the appliance carried by the train, the latter comprising an overhanging arm provided with what we preferably term a plow having means for removably supporting a like loop or frame attached to the second pouch, the said plow operating as it passes through the body to release the pouch loop over the engaging member and thereafter passing into and removing the pouch loop carried by the body.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an elevational view showing one embodiment of our improved receiving and delivering mechanism in a position preparatory to the exchange of the pouches; Fig. 2 is a plan of the same; Fig. 3 is a perspective view of the trough-shaped body or frame which forms a feature of the appliance, as fixed at the side of a railway; Fig. 4 is a perspective view of the appliance carried by the car; Fig. 5 is a cross-section on the line 5—5 of Fig. 4; Fig. 6 is a perspective view of the loop or frame which is applied to each of the pouches; and Fig. 7

illustrates a number of pouches strung together.

The appliance which is placed alongside the railway, from which point the pouches are to be received and delivered, usually at a station, embodies in its construction the usual post 10, supporting at its upper end on the side adjacent to the railway, a trough-shaped body 11, the body being connected with the post through the intermediary of a helical spring 12 and clamps 13, the latter embracing the post, with their free ends in engagement with the spring, and having adjusting screws 14 for simultaneously tightening them both upon the post and spring. The body 11 is supported in a substantially horizontal position parallel to the track, and is open at both ends, with the sides at its forward end curving outwardly in order that it may present a flaring entrance opening. The body is preferably constructed of tubing which permits of its being manufactured both light and strong, and has extending outwardly from its rear end, at opposite sides and at the bottom, spring-fingers 15, having grooves 15^a on their inner faces. These fingers are adapted to engage and support in a substantially upright position, a frame or loop 17, as best shown in Fig. 6, one of these loops being suitably attached to the end of each pouch or package. These loops are preferably of rectangular form such that one may be passed within the other, as illustrated in Fig. 7, which makes it possible to receive or deliver two or more pouches at one time. The bottom rail or pipe forming the lower edge of the trough-shaped body at the outside is turned inwardly at a point intermediate the length of the body, as indicated at 18, and is connected to the bottom rail at the opposite side. To this cross-piece 18 is secured a hook-shaped spring member 19, having its free end forwardly directed.

The receiving and delivering appliance carried by the car, which coöperates with the fixed appliance just described, comprises an arm 20, downwardly turned at its inner end where it is revolvably supported in bearings 21 attached at one edge of the car door, and has a downwardly-turned or depending portion 22 at its opposite and outer end, on which is slidably mounted what we term a plow 23. The lower end of the depending portion 22 of the arm has projections or keys 24, with which the sleeve of the plow

engages when occupying its lowest position, and is thereby held against rotation and in substantial alinement with the trough-shaped body when the arm is swung out of the car to an operative position. In this position the arm is retained by a connecting bar 25, the inner end of which is held at the opposite side of the car door, within a bracket, by a removable pin 26. The plow has spring-arms 27 at opposite sides, diverging from its point rearwardly, and are of such length that the distance between their extremities is greater than the width of the loop or frame 17, whereby when the plow strikes the loop displaceably held in the spring-fingers carried by the trough-shaped body, the action of the loop will be to press the spring-arms inwardly before passing thereover, which admits of the pouch being removed without substantial shock. The plow is also provided with a rearwardly-directed spring-finger 28 similar to the fingers 15 and which has a spring-plate 29 covering the groove in its top face. By this construction it is seen that the top cross-bar of the frame or loop may be displaceably engaged on this portion of the plow.

In the operation of the receiving and delivering mechanism, assuming the parts to be in the position shown in Fig. 1, with the loop or frame of each pouch supported as shown, the plow first strikes the spring-hook 19, depressing it sufficiently for the loop of the pouch which it carries to pass thereover. As this loop comes in contact with the cross-bar 18, it is pulled from the spring-finger 28 and remains engaged on the hook or member 19 of the trough body. On the continued movement of the plow it passes within the loop of the pouch retained by the spring-fingers 15. This loop is forced over and engaged behind the spring-arms 27, in which position it cannot be accidentally displaced, and may be removed by the mail clerk when the arm 20 is swung within the car. The pouch delivered on the member 19 may also be easily removed by the station agent or any one delegated to perform that service. When the arm 20 is swung within the car, the plow may be made to occupy very little room by withdrawing it from the lower end of the depending portion 22 of the arm, when it may be revolved to lie flat against the inside of the car.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. In a mail receiving and delivering mechanism, the combination of a trough-shaped body having a tubular frame and supported at the side of a railway, means for retaining a loop on said body, a member projecting within said body, and a device applied to a car, having means for carrying

a second loop and adapted when moved through said body to release its loop on the member and pass into and remove the loop from the body.

2. In a mail receiving and delivering mechanism, the combination of a supporting post, a trough-shaped body supported from the post, open at both ends, means for retaining a pouch loop on said body in a substantially upright position, a resilient member projecting within said body, and a device applied to a car, having means for carrying a second loop and adapted when moved through said body to release its loop on the resilient member and pass into and remove the loop from the body.

3. In a mail receiving and delivering mechanism, the combination of a trough-shaped body substantially horizontally and resiliently supported at the side of a railway, means carried by the body for supporting a mail pouch, a resilient member projecting within the body, and a device carried by a car, having means for supporting a second pouch adapted when moved through said body to engage its pouch with said member and remove the pouch from the body.

4. In a mail receiving and delivering mechanism, the combination of a trough-shaped framework adapted to be supported at the side of a railway in a substantially horizontal position, spring-fingers arranged at one end of said framework, and a resilient hook projecting within the framework at an intermediate point.

5. In a mail receiving and delivering mechanism, the combination of a post arranged at the side of a railway, a spring secured at the inside of the post, a trough-shaped framework substantially horizontally disposed, carried by the spring, and means for holding and receiving a pouch carried by the framework.

6. In a mail receiving and delivering mechanism, the combination of a post arranged at the side of a railway, a trough-shaped framework carried by the post and arranged in a substantially horizontal position, spring-fingers at one end of the framework for supporting a pouch, and a resilient hook at an intermediate point of the length of the framework and projecting therein for engaging a pouch.

7. In a mail receiving and delivering mechanism, the combination of a pouch having a loop secured thereto, spring-fingers for engaging the loop underneath and at opposite sides for holding it in a substantially upright position, a resilient hook arranged in advance of the loop, and a device adapted to be supported from the side of a car having means for retaining a similar pouch and adapted to engage the loop thereof from the spring-hook and thereafter pass into the

loop of the first mentioned pouch and remove it from the spring-fingers.

8. In a mail receiving and delivering mechanism, the combination of a pouch having a loop, spring-fingers arranged at the side of a railway for supporting the loop in a substantially upright position, a member arranged at the side of the railway in advance of the spring-fingers, and a plow carried by a car, having rearwardly-directed spring arms at opposite sides diverging from its point and provided with means for engaging the loop of a similar pouch, adapted to engage the loop of its pouch over said member and pass into and remove the loop of the pouch between the spring-fingers.

9. In a mail receiving and delivering mechanism, the combination of a plow adapted to be supported from the side of a car, having spring-arms arranged at opposite sides and diverging from its point, and provided with means in the rear of said arms for supporting a pouch.

10. In a mail receiving and delivering mechanism, the combination of an arm adapted to be revolubly supported from the side of a car and having a depending outer end, and a plow carried on the depending end of the arm, having spring-arms arranged at opposite sides diverging rearwardly from its point and provided with means in the rear of said arm for supporting a pouch.

11. In a mail receiving and delivering mechanism, the combination of an arm adapted to be revolubly supported at the side of a car, having a depending outer end, a plow slidable and revoluble on the depending portion of said arm, and means for holding the plow against relative rotation on the depending portion of the arm when it is slid to the lower end thereof.

12. In a mail receiving and delivering mechanism, the combination of a plow having a loop attached thereto, spring-fingers supported at the side of a railway, adapted to engage the loop of the pouch, a spring hook supported at the side of the railway at the rear of the fingers, and a device supported from the side of a car, having spring-arms at opposite sides and provided with means for supporting the loop of a similar pouch adapted to depress the spring hook and engage the loop of the pouch which it carries thereover and pass into and remove the loop of the pouch between the spring-fingers.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOSEPH FRANKFORT.
BENJAMIN FRANKFORT.

Witnesses:

CHAS. EPPNER,
THOMAS BURKE.