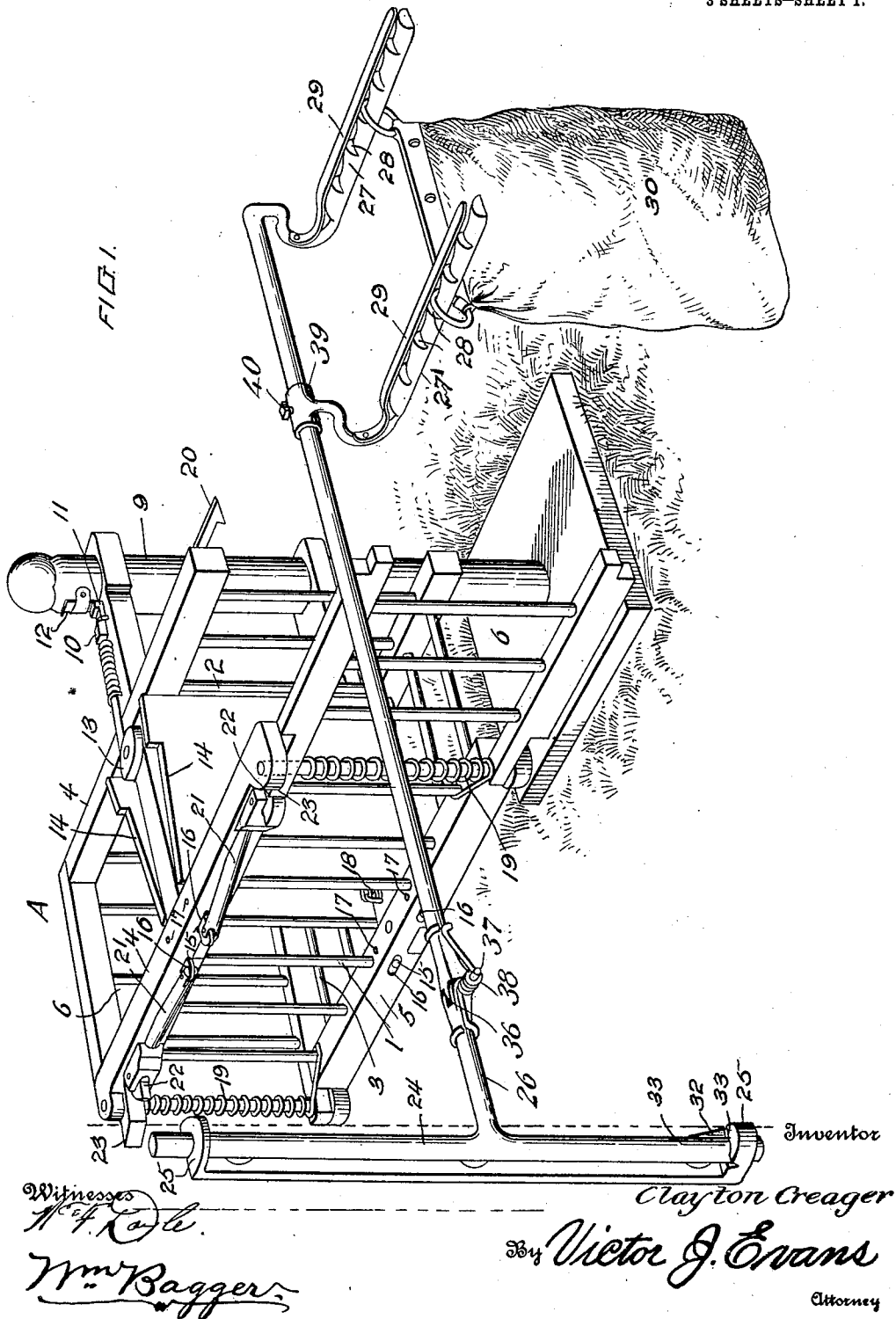


C. CREAGER.
MAIL TRANSFERRING DEVICE.
APPLICATION FILED JULY 19, 1911.

1,005,610.

Patented Oct. 10, 1911.

3 SHEETS—SHEET 1.



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3 SHEETS-SHEET 2.

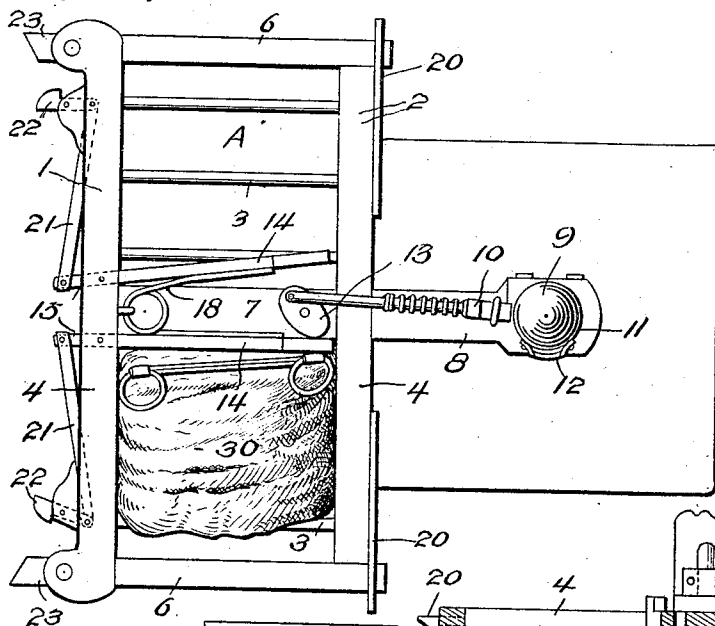


FIG. 2.

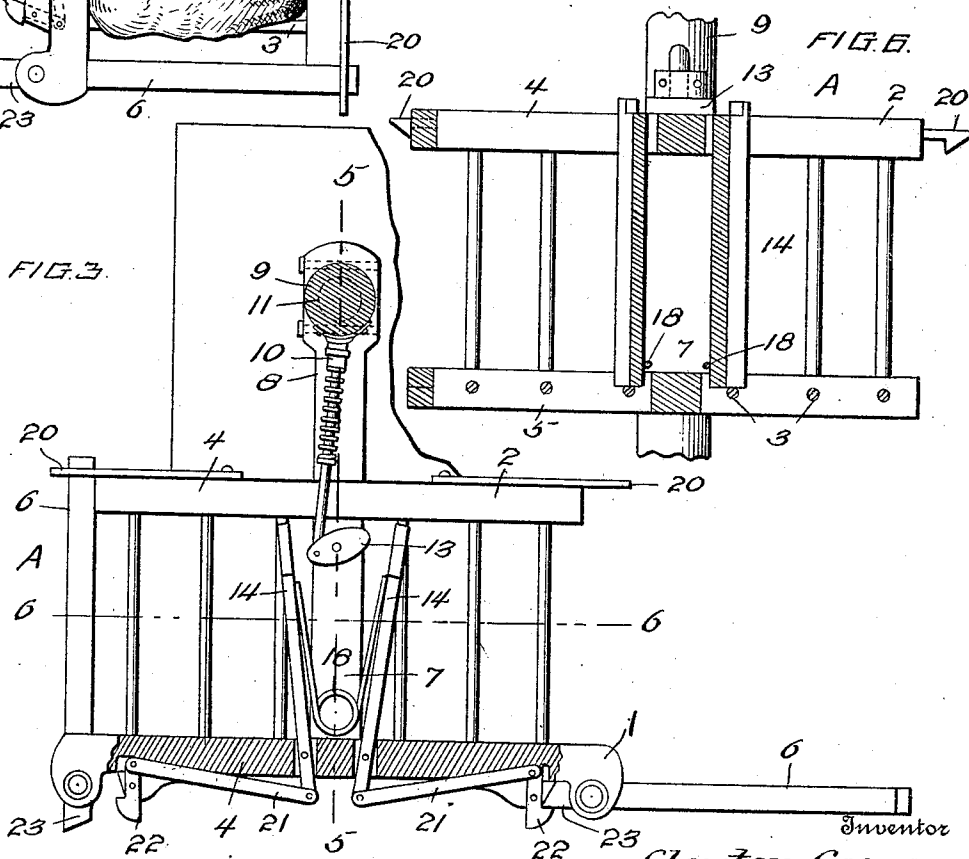


FIG. 3.

FIG. 4.

Witnesses
W. F. Rayle.
Mr. Bagger.

Inventor
Clayton Creager
By Victor J. Evans
Attorney

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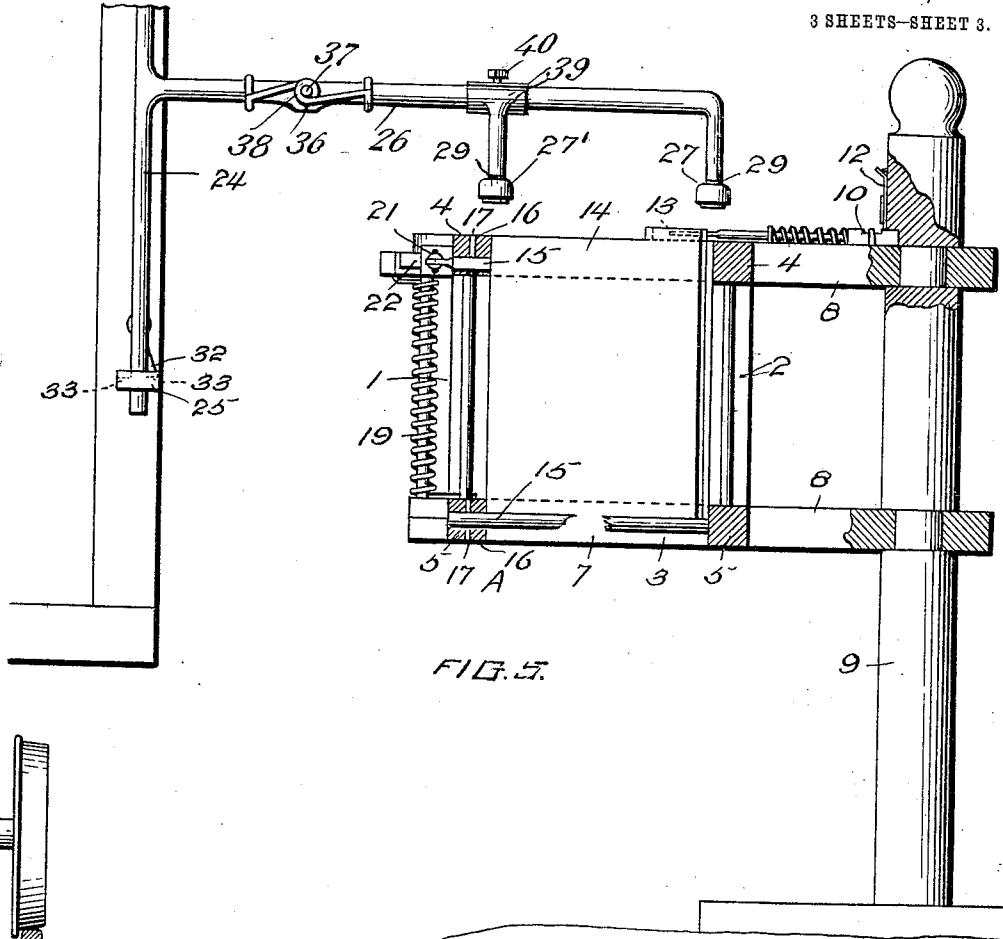


FIG. 5.

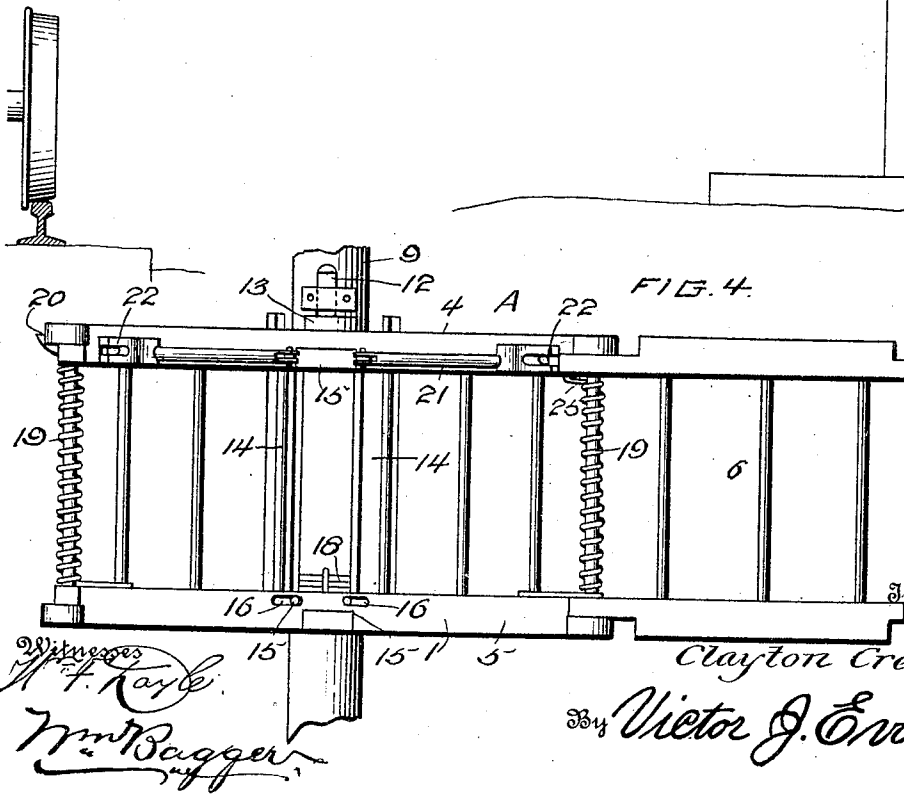


FIG. 4.

Inventor

Clayton Creager

By Victor J. Evans

Attorney

Witnesses
W. F. Kaye
Wm. Bagger

UNITED STATES PATENT OFFICE.

CLAYTON CREAGER, OF THURMONT, MARYLAND.

MAIL-TRANSFERRING DEVICE.

1,005,610.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed July 19, 1911. Serial No. 639,284.

To all whom it may concern:

Be it known that I, CLAYTON CREAGER, a citizen of the United States, residing at Thurmont, in the county of Frederick and State of Maryland, have invented new and useful Improvements in Mail-Transferring Devices, of which the following is a specification.

This invention relates to devices for transferring mail sacks from moving trains to a receiving station alongside the track, and it has particular reference to that class of devices in which the sack or bag containing the mail is delivered into a cage or crate supported by a post or upright alongside the track.

One object of the present invention is to simplify and improve the construction of the crate or receiving device and to so support the same that it will swing out of the way when it receives the impact of the bag delivered therein.

A further object of the invention is to so construct the receiving device that it will be automatically actuated by the impact of the mail bag.

A still further object of the invention is to provide simple and improved mechanism whereby the impact of the bag shall serve to release the inclosure of the crate, which latter is swung into position by the means of an actuating spring, and also to actuate the releasing means for the receiving crate, whereby the latter shall be free to swing axially about the post or supporting member.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings,—Figure 1 is a perspective view of the improved mail receiving device, showing also the train delivery apparatus in position to deliver a mail sack into the receiving device. Fig. 2 is a top

plan view showing the parts in the position assumed after the mail sack has been delivered into the receiving device. Fig. 3 is a horizontal sectional view of the receiving device arranged in receiving position. Fig. 4 is a front view of the device as seen in Fig. 3. Fig. 5 is a vertical transverse sectional view taken on the line 5—5 in Fig. 3. Fig. 6 is a vertical transverse sectional view on the line 6—6 in Fig. 3.

Corresponding parts in the several figures are denoted by like characters of reference.

The receiving device consists of a crate or casing A which has been shown as being composed of outer and inner side walls 1 and 2 which are connected together by bottom members such as slats 3. The outer and inner side walls may each be composed of longitudinal top members 4 and bottom members 5, but it is obvious that within the scope of the invention the said side members, as well as the bottom of the crate or receptacle, may be made solid. End doors or closures 6 are provided, the same being hingedly connected with the outer side member 1 of the casing. The side members of said casing are also connected intermediate their ends by cross bars 7 which are extended laterally to form brackets 8 which are pivotally associated with a supporting post or upright 9 about the axis of which the entire crate or casing may be rotated. Supported upon the upper cross bar 7 and bracket 8 is a spring actuated slide 10 adapted to engage a recess 11 in the front side of the post or upright, which latter is provided with a slide 12 whereby said recess may be obstructed when desired. The upper cross bar 7 also supports a pivoted cam or lever 13, one arm of which is pivotally connected with the outer end of the slide 10. Both arms of the cam or lever 13 extend beyond the cross piece 7 so as to lie in the path of shutters 14 which are hingedly supported adjacent to the outer extremities of the cross pieces 7, said shutters being preferably provided with arms 15 extending through slots 16 in the top and bottom members of the outer wall member 1 where they are supported by means of vertical pins or pivots 17. A suitable spring 18 is adapted to actuate the doors or shutters 14 to force the free ends of said shutters away from the cross pieces 7 of the casing or crate.

Springs 19 are provided to actuate the

5 closures 6 for the purpose of maintaining said closures normally in obstructing position at the ends of the receptacle where said closures are retained by means of catches or hook members 20 which are pivotally associated with the inner wall member of the casing.

10 The arms 15 at the upper edge of the shutters 14 are connected by links 21 with pivotally supported latch members 22 which are adapted to engage arms 23 at the upper front corners of the closure members 6, which latter may thus be retained in an open or non-obstructing position with reference

15 to the ends of the crate or casing. The delivery apparatus comprises a rock shaft 24 which is supported in suitable brackets or bearings 25 adjacent to the door opening of the mail car upon which the device is used, said rock shaft having a radial arm 26 provided with one or more brackets 27, 27', the latter being provided with beveled teeth or ratchets 28 and with springs 29 lying adjacent to the ratchet bars or arms. 25 The arm 26 is preferably formed with a knuckle joint 36, the pintle of which, 37, is equipped with a spring 38 that engages the outer end of said arm 26, the tension of said spring being exerted to force the arm normally in an upward direction when it is relieved of the weight of the mail sack. By this simple contrivance the outer end of the arm will be swung upward and out of the way of any obstructions alongside the track 30 as soon as it becomes relieved of the weight of the bag, as will be readily understood. The actuating spring 38 is not necessarily mounted upon the pintle of the knuckle joint, but it may be arranged to operate in 35 any suitable and convenient manner.

40 One of the brackets, 27, has been shown as being integral with the arm 26. The other bracket, 27', is equipped with a sleeve or collar 39 slidably engaging the arm 26, 45 and having a set screw 40 whereby it may be secured in adjusted position, thus enabling the device to be readily used in connection with mail bags of different sizes.

50 A mail bag 30 may be supported by means of one or more links or hoops upon the ratchet bars or arms 27, 27' where it will be held against accidental displacement by the springs 29. It is obvious that the free ends of the ratchet bars 27, 27' must face 55 the direction from which the train approaches the receiving device. The rock shaft 24 has been shown as being provided adjacent to its lower end with a lug or projection 32 adapted to engage a V-shaped recess 33 in the lower bearing or supporting member 25 for the purpose of sustaining the rock shaft in a relatively stationary position with its arm 26 extending outwardly from the car or within the body of the latter, as 60 the case may be.

It will be understood that the mail receiving device consisting of the casing A is adapted to receive a mail sack from a train approaching in either direction on the track alongside which the device is supported, and that the delivery device must be provided with ratchet arms facing in the proper direction according to the direction in which the train is moving. 70

75 To place the device in condition for operation, the casing A is sustained in a position approximately parallel to the track by means of the latching device including the spring actuated slide 10 which engages the recess 11 in the front side or face of the post or upright 9. The door or closure 6 at the end of the casing facing the direction from which the train is approaching is now moved to an open or non-obstructing position by first releasing said closure from the latch 20 and 80 then swinging it open against the tension of the spring 19 until the arm 23 is engaged by the latch member 22. The mail sack which is to be delivered from the train is supported upon one or more of the ratchet bars 27, 27' associated with the arm 26 which is permitted to project laterally from the mail car adjacent to the door opening, the position being retained by the weight of the rock shaft and associated parts holding the 85 lug or stop member 32 in engagement with the V-shaped recess 33. The parts are obviously free to be so arranged and proportioned that the mail bag supported by the delivery device will enter the open end of the casing and strike against the shutter member 14, causing the latter to engage the cam lever 13 and to rock the latter, thereby pulling the spring actuated rod or slide 10, releasing the latter from the 90 notch 11 in the face of the post or upright 9. At the same time, the shutter member, through the arm 16 and link 21, actuates the trigger or latch member 22 to release the arm 23 of the closure 6 which 95 instantly swings shut under the tension of the spring 17, thus confining the mail sack in the end compartment of the casing, while the latter, under the impact of the sack, and being released from its fixed position with relation to the post 9, will swing axially about the latter to an out of the way position. The blow received by the mail sack at the moment when it contacts with the shutter member 14 will be sufficient to detach it from the ratchet bar or bars upon which it is supported and where it is loosely retained by means of the spring or springs 29. After the delivery of the mail sack, the 100 outer extremity of the arm 26 will swing upward under the tension of the spring 38, and the rock shaft 24 may then be oscillated to swing the arm 26 to an out of the way position within the car where, as will be readily understood, it will be retained in ad- 105 110 115 120 125 130

justed position by the lug 32 which is held in engagement with the recess or notch 33 by the gravity of the rock shaft and associated parts.

5 It is obvious that only one end compartment of the mail receiving casing or crate is utilized at any one time, and that in double tracked roads where the device is to be utilized only in connection with trains coming
10 in one direction, one of the end compartments may be dispensed with.

The device as shown in the accompanying drawings is adapted for use in connection with single tracked roads, and is adapted to
15 operate for the purpose of receiving mail from trains operating in either direction.

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

1. In a device of the character described, a receiving device consisting of a casing supported for swinging movement in an approximately horizontal plane, said casing having a spring actuated closure at one end and a latch to retain such closure in closed
25 position, a shutter member pivotally supported within the casing and having an arm, a latch member adapted to retain the spring actuated closure in an open position, and a link connecting said latch member
30 with the arm of the shutter member.

2. In a device of the class described, a receiving device consisting of a casing supported for swinging movement in an approximately horizontal plane, a spring actuated closure at one end of the casing, a trigger to retain the closure in open position against the tension of the spring, a spring actuated shutter member within the casing, means connecting the shutter member with
40 the trigger, a spring actuated latch member to retain the receiving member in position against swinging movement, and a cam lever associated with the spring actuated latch member and extending in the path of
45 the shutter member to be actuated by impact of said shutter member to release the latch.

3. In a device of the character described, a receiving member consisting of a casing supported for swinging movement in an approximately horizontal plane, latch means to retain the casing against swinging movement, a spring actuated shutter member within the casing, a cam lever associated with the latch and lying in the path of the shutter member to be actuated by impact of the latter to release the latch, a spring actuated closure at the end of the casing, means for retaining said closure in a non-obstructing position with reference to the casing, said means being connected with and actuated by the shutter member, and means for delivering a mail sack into the casing from a moving train to impact upon the shutter
65 member.

4. In a device of the character described, an upright post, a receiving member consisting of a casing having laterally extending arms engaging the post and supporting the casing for swinging movement about the axis of the post, a spring actuated latch member to retain the casing against swinging movement, said latch member being supported upon one of the supporting arms and adapted to engage the post, which latter is provided with a notch, spring actuated closures at the ends of the casing, spring actuated shutter members within the casing, a cam lever associated with the latch member and extending in the path of the shutter members to be actuated by either shutter member to release the latch, trigger means to retain the spring actuated closures in non-obstructing position with reference to the ends of the casing, trigger actuating means connected with the shutter members and actuated thereby, and means for delivering a mail sack from a moving train to either end of the casing to impact upon one of the shutter members.

5. In a mail receiving device, a casing supported for swinging movement in an approximately horizontal plane, a spring actuated closure at one end of the casing, a spring actuated latch member to sustain the casing in position against swinging movement, trigger means for retaining the spring actuated closure in a non-obstructing position, and means adapted to be actuated by impact of a mail sack for simultaneously releasing the trigger means and the latch means causing the spring actuated closure to swing shut and the receptacle to swing to an out of the way position under the force of such impact.

6. In a device of the character described, the combination with a receptacle supported for swinging movement and having a spring actuated closure, trigger means to retain such closure in open position, and impact actuated means to release the trigger, of a delivery device comprising a rock shaft having a laterally extending arm, a ratchet bar associated with such arm, and a spring associated with the ratchet bar and extending longitudinally of the latter.

7. In a device of the character described, a delivery device comprising a rock shaft having a lug adjacent to its lower end and a laterally extending arm, bearing members for said rock shaft, one of which is provided with a V-shaped notch to be engaged by the lug upon the rock shaft, ratchet bars associated with and extending from the arm, and springs connected with the ratchet bars and extending longitudinally of the latter.

8. In a device of the character described, the combination with a receptacle supported for swinging movement and having a spring

actuated closure, trigger means to retain
such closure in open position, and impact
actuated means to release the trigger, of a
delivery device comprising a rock shaft
5 having a laterally extending arm including
a knuckle joint, a ratchet bar associated
with such arm, a spring associated with the
ratchet bar and extending longitudinally of
the latter, and spring means operating to

force that portion of the arm beyond the 10
knuckle joint in an upward direction.

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

CLAYTON CREAGER.

Witnesses:

E. B. SEFTON,

HARRY W. SHAEFFER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
