

J. H. TUDOR.
MAIL DELIVERING APPARATUS.
APPLICATION FILED MAY 8, 1909.

929,348.

Patented July 27, 1909.

3 SHEETS—SHEET 1.

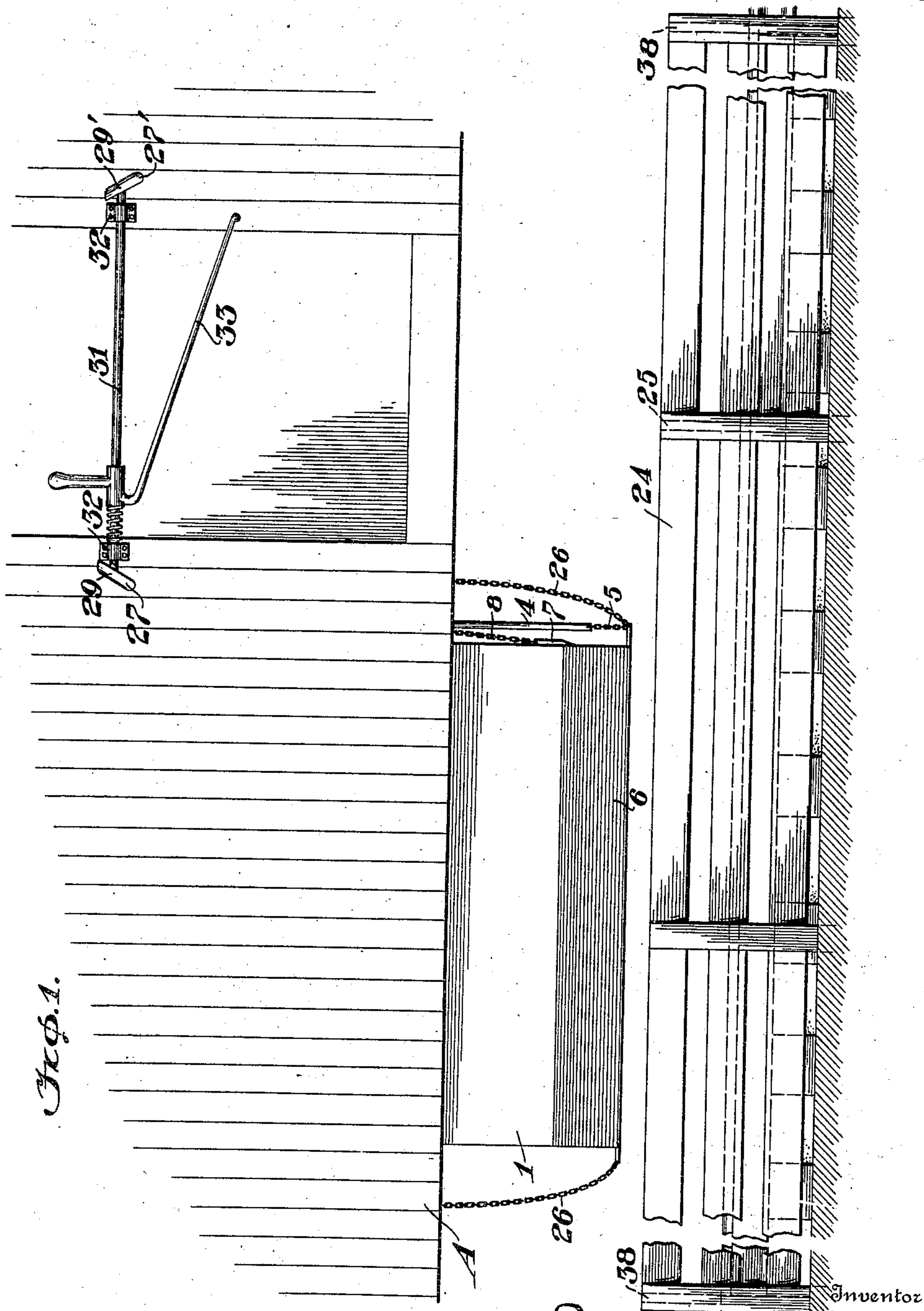


Fig. 1.

Witnesses

Lloyd W. Patch

Helen E. Hodges

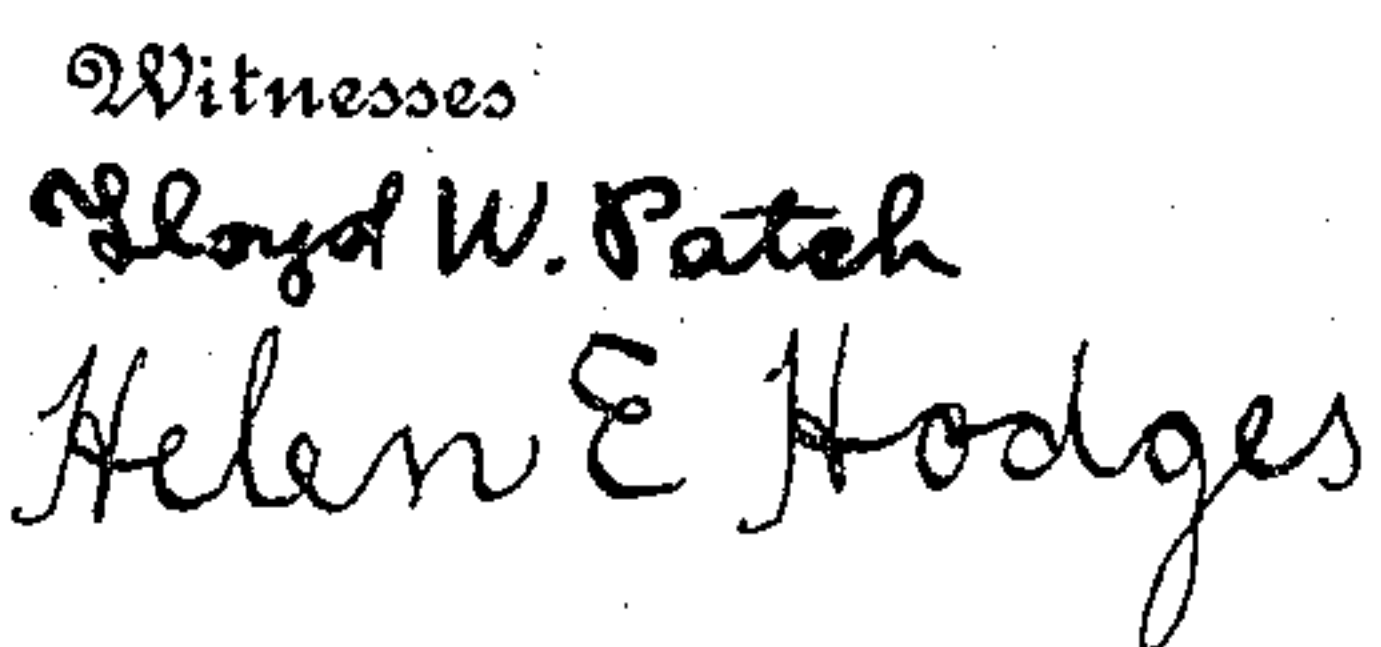
By

James H. Tudor

Vernon E. Hodges
his Attorney

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3 SHEETS—SHEET 2.



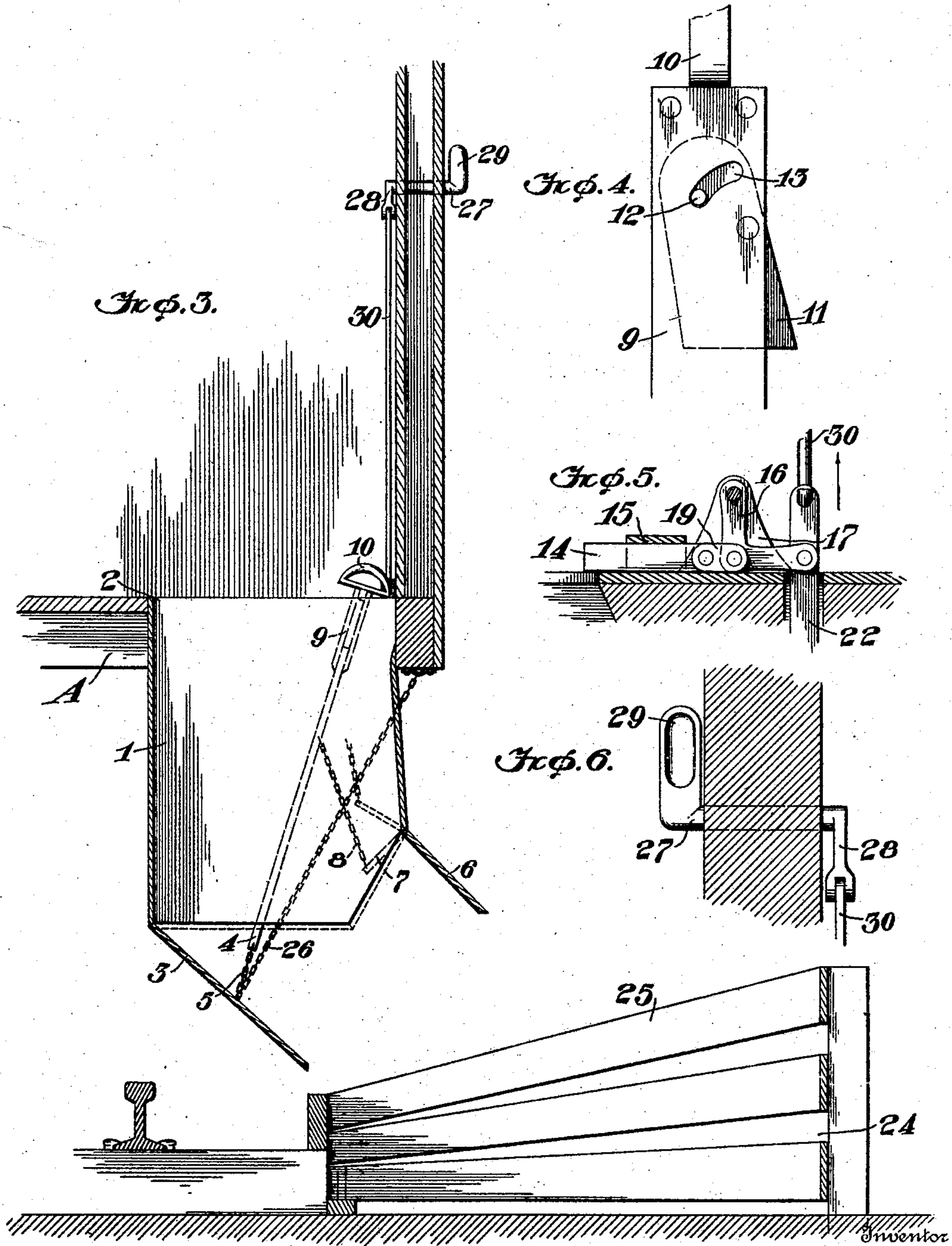
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UNITED STATES PATENT OFFICE.

JAMES HIRAM TUDOR, OF LEXINGTON, KENTUCKY, ASSIGNOR OF ONE-FOURTH TO L. M. MOORE, OF LEXINGTON, KENTUCKY.

MAIL-DELIVERING APPARATUS.

No. 929,348.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed May 8, 1909. Serial No. 494,811.

To all whom it may concern:

Be it known that I, JAMES H. TUDOR, a citizen of the United States, residing at Lexington, in the county of Fayette and State of Kentucky, have invented certain new and useful Improvements in Mail-Delivering Apparatus, of which the following is a specification.

My invention relates to an improvement in mail bag delivering apparatus, and the object is to provide means whereby the bags may be discharged from a receptacle into a receptacle along the track at the will of the operator or mail clerk.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view in side elevation showing my invention applied to a car and certain parts of the car broken away; Fig. 2 is an enlarged side elevation partly in section of a portion of the car; Fig. 3 is a transverse section; Fig. 4 is a detail in section showing the manner of supporting the dog on the rod; and Fig. 5 is a detail in section of the tripping mechanism; Fig. 6 is a detail of the bell crank lever which is operated by the catcher arm.

A represents the car and 1 is the receptacle or box, which is connected to the bottom of the car. An opening 2 is formed in the car admitting the sacks from the car to the receptacle. A door 3 is hinged to one edge of the box and forms the bottom of the box. A rod 4 extends through the bottom of the car and connected thereto at its one end is a chain 5, which chain is connected to the door 3. Connected to the front side of the box or receptacle 1 is a door 6 which extends obliquely from the side of the box to the other door. An arm 7 is connected to the door and connecting the arm and rod 4 is a chain 8.

Connected to the upper end of the rod 4 is a casing 9 and connected to the top of the casing is a handle 10 which forms a means for raising the rod and for closing the doors and for limiting the downward movement of the rod when the sacks are discharged from

the receptacle. A dog 11 is pivotally mounted in the casing and a stud 12 is connected to the dog which works or slides in a slot 13 in the casing. The stud 12 is adapted to throw the dog 11 outwardly so as to engage a latch 14 for holding the rod after the doors have been closed and thereby prevent opening the doors until the dog is released from the latch. The latch 14 slides in a keeper 15 connected to the floor of the car.

A bell crank 16 is pivotally mounted in a bracket 17 and connected to the bell crank is a link 19, which is connected to the latch 14. A lever 20 is pivotally mounted on a bracket 21 beneath the floor of the car, and connecting the lever 20 to the bell crank is a link 22. A foot tread 23 is connected to the free end of the lever 20 and extends through the floor of the car. The tread is located near the door of the car so that it can be easily operated by the mail clerk when the mail sack is being caught by the catcher arm from the crane.

Chains 26 are connected to the car and to the door 3 of the receptacle 1, which limit the downward movement of the door thereby relieving a certain amount of the strain from the rod 4 when the door 3 is released for discharging the sacks. Crank arms 27, 27' are mounted in the side of the car on each side of the door. The crank 27 is provided with a downwardly extending arm 28 and an upwardly extending arm 29. The arm 28 is connected by a link 30 with a link 22 which is connected to the bell crank 16. The catcher arm 31, which is slidably mounted in brackets 32 on the car is spring controlled, and as the mail sack is caught on the hook 33 the impact will cause the catcher arm to be moved whereby the bar will strike the upper lever or arm 29 on the crank 27, causing it to move downwardly, raising the arm 28. This movement actuates the bell crank 16 causing the latch 14 to be withdrawn, thereby releasing the dog 11 permitting the rod 4 to move downwardly thereby releasing the doors for discharging the mail sacks from the receptacle 1.

The crank arm 27' is provided with a lower arm 28' and an upper arm 29'. The lower arm 28' is connected by a link 34 to a

bell crank 35. A bell crank 36 is pivotally mounted on the bracket 21 and engages the link 22. A link 37 connects the bell crank 36 with the bell crank 35 so that upon the actuation of the arm 29' of the crank 27' by the catcher arm 31 when the car is moving in an opposite direction to that indicated on the drawing, *i. e.* the catcher arm 31 will be shifted so that the hook 33 will project in an opposite direction from the position shown in the drawing so that the rear end of the catcher arm or bar will actuate the arm 29' when the mail sack is caught upon the hook 33, thereby causing the actuation of the latch 14 for releasing the dog 11.

Supposing that the receptacle 1 is filled with sacks and it is desired to discharge the mail, the tread 23 is forced downward causing the lever 20 to be moved forcing the link 22 upward, or the arm 27 or 27' is operated by the catcher arm, for actuating the bell crank 16, causing the link 19 and latch 14 to be drawn rearward, thereby releasing the dog 11, permitting the rod 4 to move and releasing the doors 3 and 6 whereby the sacks are discharged from the receptacle 1 into a receptacle 24 along the track, which is provided with a partition 25 at its center to break the force of the sacks as they are discharged from the receptacle on the moving train. The door 3 will swing downward and remain at an angle of about forty-five degrees, forming a chute for the sacks. The door 6 will swing outwardly as a relief door thereby preventing all of the strain of the heavy sacks from coming on to the lower door. The end sections 38 of the receptacle and the partition 25 are hinged, and are held to the ties by any suitable means.

From the foregoing it will be seen that I have provided a very simple means for discharging mail sacks from a car while in motion and after the discharge of the sacks the receptacle can be closed by simply raising the rod until the dog on the rod is engaged by the latch which holds the rod against downward movement and retains the doors in closed position.

It is evident that more or less slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth, but:—

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

1. In a mail delivering apparatus the combination with a car, of a receptacle connected to the car, a door connected to the receptacle, means connected to the door and a reciprocating latch adapted to engage said means for holding the door in closed position.

2. In a mail delivering apparatus the com-

bination with a car, of a receptacle mounted on the car, doors on the receptacle, a rod connected to the doors for closing them and a reciprocating latch adapted to engage the rod for holding the doors in closed position.

3. In a delivering apparatus the combination with a car, of a receptacle mounted on the car, doors on the receptacle, a rod connected to the doors, a reciprocating latch engaging the rod, means for operating the latch whereby the rod is released and the doors allowed to open.

4. In a delivering apparatus the combination with a car, of a receptacle mounted on the car, doors on the receptacle, a rod connected to the doors, a dog on the rod, a latch adapted to engage the dog and means for operating the latch whereby the rod is released.

5. In a delivering apparatus the combination with a car, of a receptacle mounted on the car, doors on the receptacle, a rod connected to the doors, a dog pivotally mounted on the rod, a latch adapted to engage the dog, means for operating the latch whereby the rod is released and the doors allowed to open, and a receptacle along the tracks adapted to receive the contents of the receptacle on the car.

6. In a delivering apparatus the combination with a car, of a receptacle mounted on the car, doors connected to the receptacle, tripping mechanism connected to the doors and a catcher arm adapted to operate the tripping mechanism for releasing the doors when the catcher arm is moved by the impact caused in catching the sack.

7. In a delivering apparatus the combination with a car, of a receptacle mounted on the car, doors connected to the receptacle, a rod connected to the doors, a latch adapted to engage the rod for holding the doors in closed position, a tripping mechanism connected to the latch and a catcher arm adapted to operate the tripping mechanism for releasing the doors when the catcher arm is moved by the impact caused in catching the sack.

8. In a delivering apparatus the combination with a car, of a receptacle mounted on the car, doors hinged to the receptacle, a rod connected to the doors, a dog on the rod, a latch adapted to engage the dog for holding the rod and retaining the doors in closed position, a crank having two arms, one arm connected to the latch and a sliding catcher arm adapted to actuate the other arm of the crank for disengaging the latch from the dog when the catcher arm is moved by the impact caused in catching the sack.

9. In a mail delivering apparatus the combination with a car, of a receptacle mounted on the car, doors on the receptacle, a rod connected to the doors for closing them, a latch adapted to engage the rod for holding the

doors in closed position and means for limiting the downward movement of the rod.

10. In a delivering apparatus the combination with a car, of a receptacle mounted
5 on the car, doors connected to the receptacle, a rod connected to the doors, a latch adapted to engage the rod, a crank arm connected to the latch and a catcher arm adapted to operate the crank arm for releasing the

doors when the catcher arm is moved by the impact caused in catching the sack.

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

JAMES HIRAM TUDOR.

Witnesses:

A. H. RODES,
S. G. BAKER.