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PATENTED NOV. 19, 1907.

P. A. POCHÉ.

MAIL BAG CATCHING AND DELIVERY MECHANISM.

APPLICATION FILED SEPT. 6, 1907.

3 SHEETS—SHEET 1.

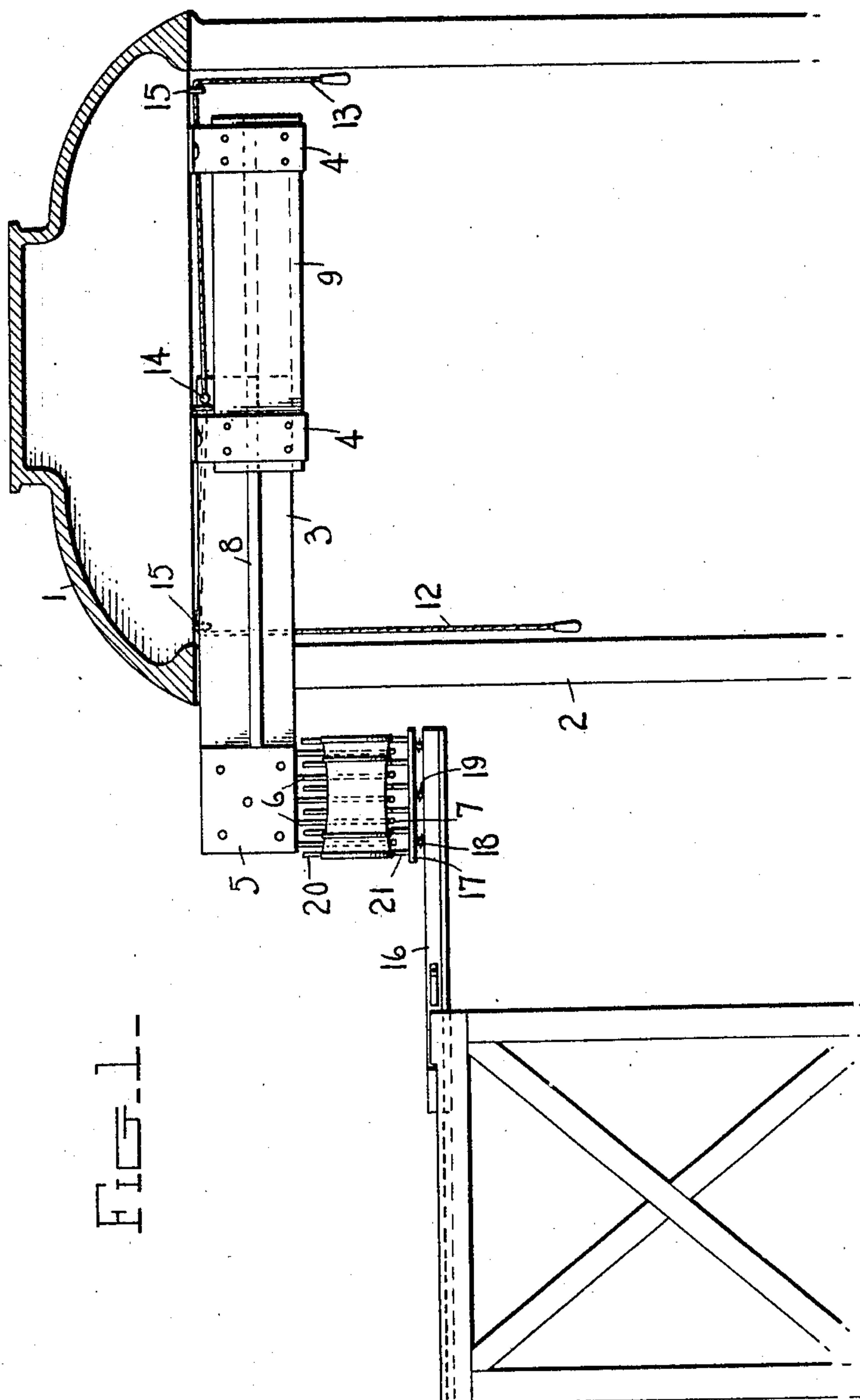


FIG. 1--

Witnesses

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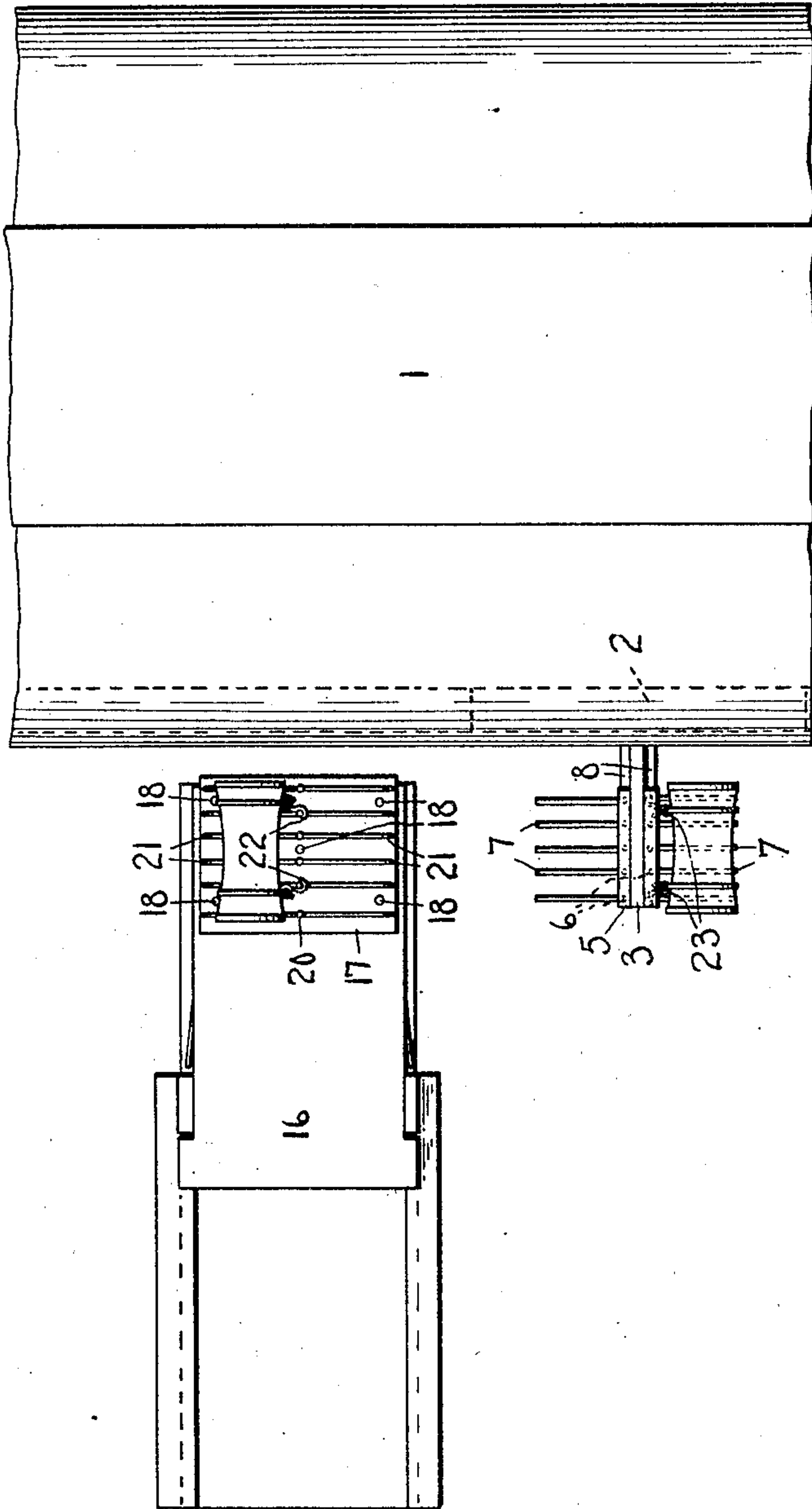
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3 SHEETS—SHEET 2.

FIG. 2—



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3 SHEETS—SHEET 3.

FIG. 3.

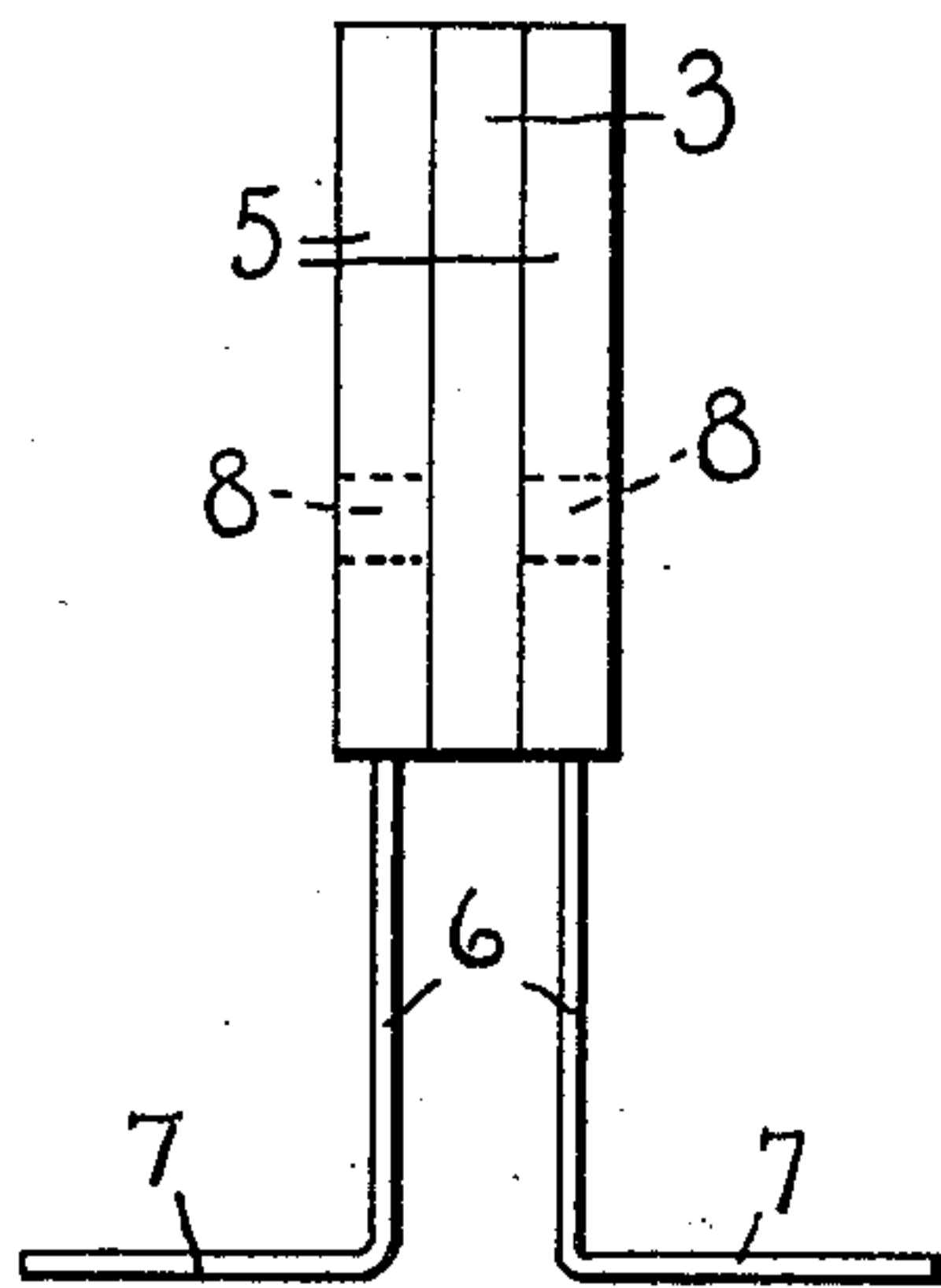


FIG. 4.

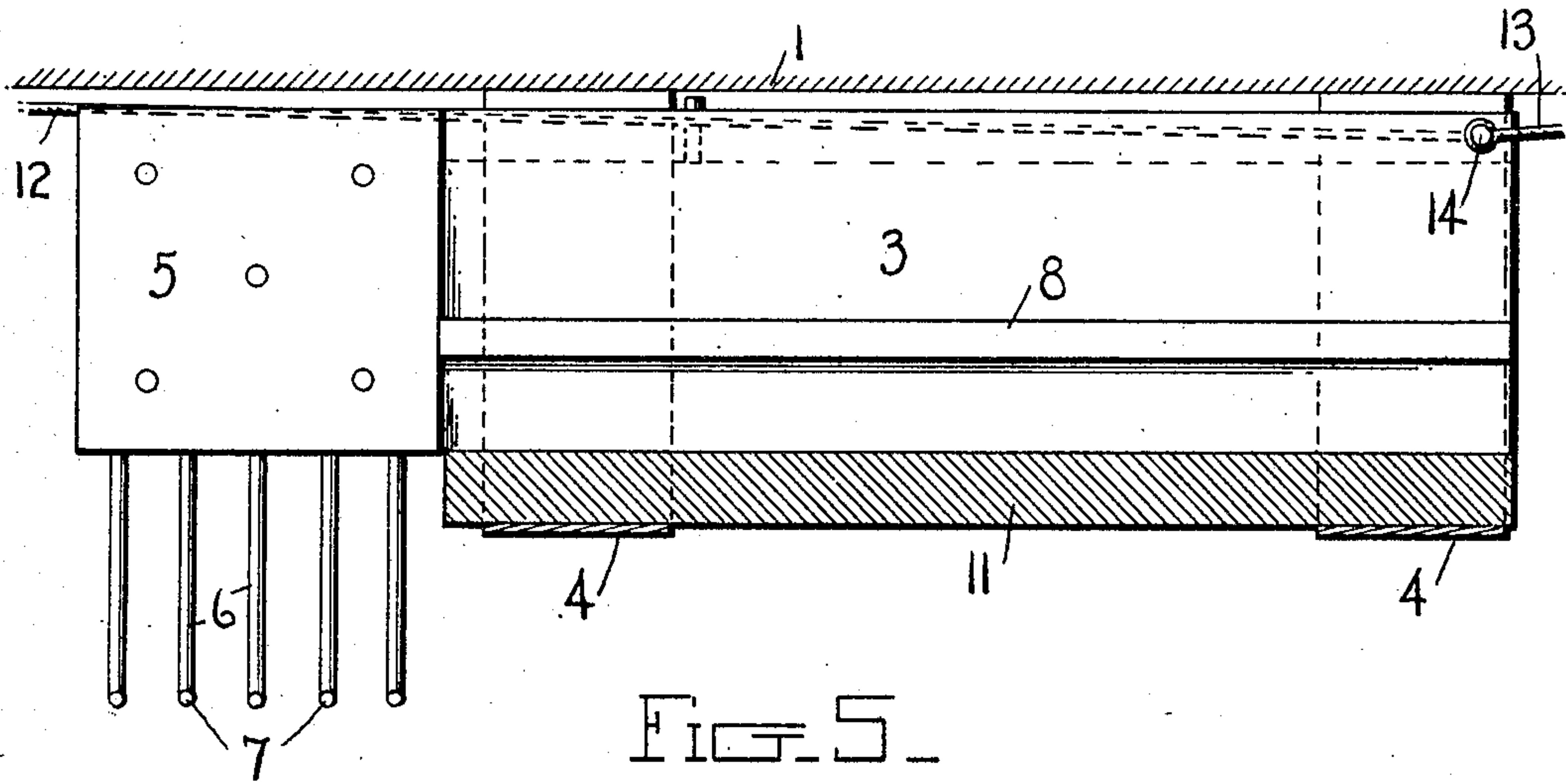
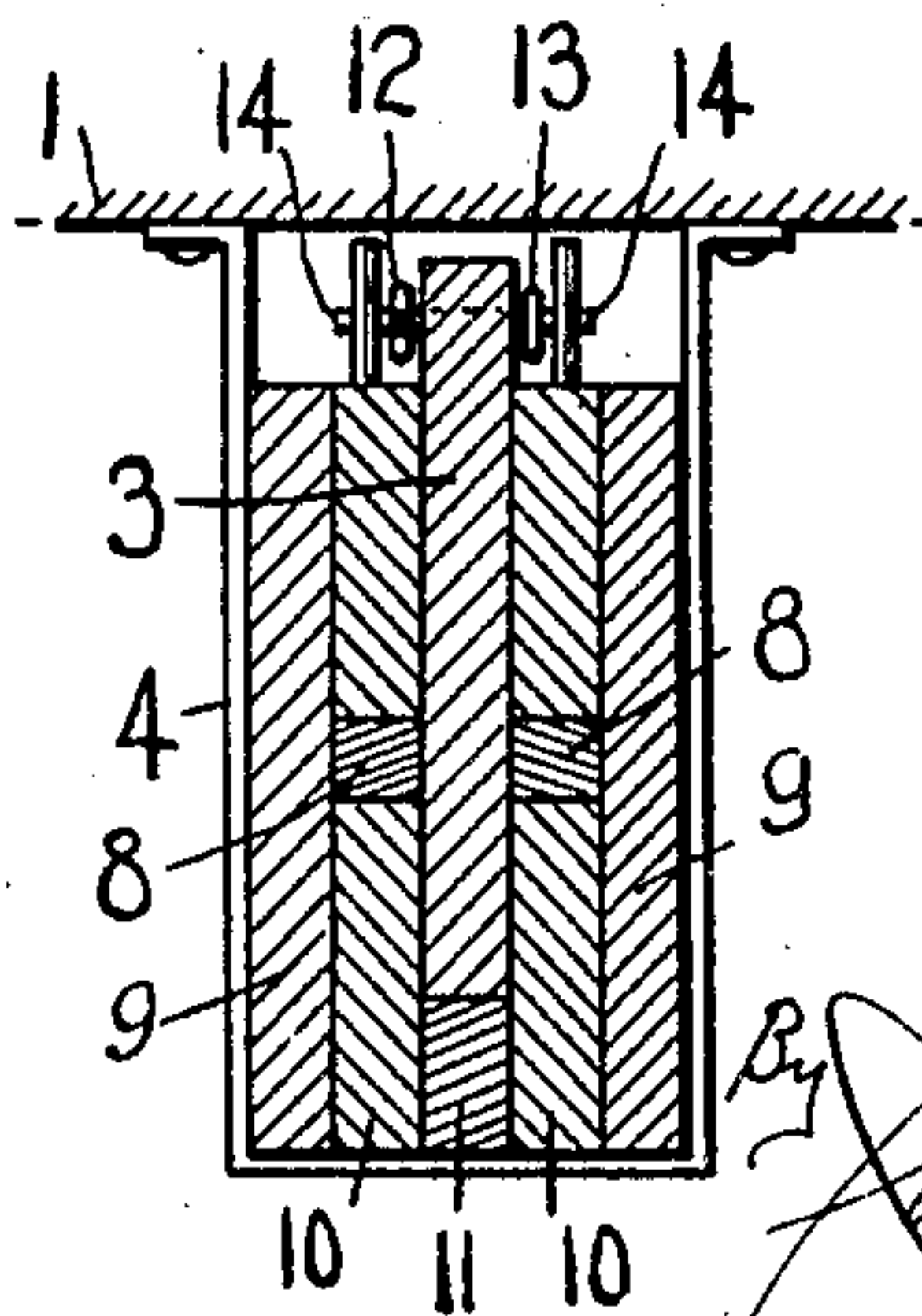


FIG. 5.



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# UNITED STATES PATENT OFFICE.

PIERRE A. POCHÉ, OF PONCHATOU LA, LOUISIANA.

## MAIL-BAG CATCHING AND DELIVERY MECHANISM.

No. 871,625.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed September 6, 1907. Serial No. 391,738.

*To all whom it may concern:*

Be it known that I, PIERRE A. POCHÉ, a citizen of the United States, residing at Ponchatoula, in the parish of Tangipahoa, State of Louisiana, have invented certain new and useful Improvements in Mail-Bag Catching and Delivery Mechanisms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in catching and delivering apparatus such as is employed where mail is received by and delivered from a moving train, it being the general object of the invention to provide an exceedingly simple and effective apparatus of this class.

More especially, however the invention resides in the particular construction of the sliding member carried by the mail car, in the manner of projecting and retracting the same, and in the particular means employed for supporting the mail bag which is to be caught by said member and withdrawn into the car.

With the above and other ends in view the invention consists in the particular construction, combination, and arrangement of parts, all as hereinafter fully described, specifically claimed, and illustrated in the accompanying drawings, in which like parts are designated by corresponding reference characters throughout the several views.

Of the said drawings, Figure 1 is an end elevation of the apparatus forming the subject of the present invention, the car being shown in transverse section, the several parts of the apparatus being in their operative position. Fig. 2 is a top plan view of Fig. 1. Fig. 3 is an end view of the sliding member carried by the car. Fig. 4 is a longitudinal section through said member in its retracted position, showing the operating cables. Fig. 5 is a transverse section through the housing of said member.

Referring more particularly to the drawings, 1 designates the mail car within the interior of which directly opposite the door 2, the delivering and receiving mechanism is disposed, which, mechanism consists primarily of a projectable member 3 slidable within a housing carried by a pair of U-shaped brackets 4 secured to the car roof. This member as shown in Figs. 4 and 5 is in the

form of a metallic rail disposed transversely of the car and provided at its forward end with a pair of plates 5 bolted or otherwise removably secured to the opposite sides thereof, the width of said plates being approximately one third of that of said rail. Each plate carries a series of depending rods 6 whose upper ends are set into sockets formed in the bottom face of the plate, the free lower end of each rod being bent laterally to form a finger 7 extending towards one end of the car, the disposition of the rods being such that the fingers of one set aline with those of the other set and project in the opposite direction.

The rail is further provided at each side with a longitudinal rib 8 which extends from the rear vertical edge of the corresponding plate 5 to that of the rail, said ribs fitting in guide grooves formed in the rail housing, which, as shown in Fig. 5, consists of a pair of outer plates 9 having a height approximately equal to that of the rail 3, a pair of plates 10 disposed against the inner face of each plate 9, with their mutually-adjacent longitudinal edges spaced apart a distance equal to the height of the ribs 8, and a bottom plate 11 interposed between the bottom plates 10 and having a height likewise equal to that of the ribs, the spaced plates 10 upon each side of the rail being connected to the corresponding outer plate 9 and bracket arm. The space between the two upper plates 10 and that between the two lower plates is equal to the thickness of the rail, while the thickness of said plates 10 is equal to that of the rib 8, thus effecting the formation of what may be regarded as a guide groove in which the rail is slidably engaged and retained in proper position. The housing, as above stated, is supported by the U-shaped brackets 4 whose arms fit against the outer faces of the plates 9, while their out turned free ends are bolted to the car roof.

The rail is moved in one direction or the other by a pair of cables 12 and 13 which are secured to pins 14 set transversely in the rear upper corner of the rail, said cables passing through guide loops 15 carried by the car roof, the cable 12 used in projecting the rail being connected to the one pin and passed forwardly over the front end of the housing, while the retracting cable 13 is secured to the other pin and is led rearwardly over the corresponding end of the housing, both cables terminating within reach of the mail clerk



within the car. The outward movement of the rail is checked by the contact of the pins with the loop.

From the foregoing description it will be apparent that the rail can be projected forwardly as the train approaches the station at which the mail-bag is to be delivered to the complementary mechanism, and can be retracted into the interior of the car after the train has passed the station. This complementary mechanism which, as above stated, is located at the station at which the mail-bag from the train is delivered, comprises a sliding truck 16 which is movable towards and from the track rails, the truck being mounted upon a grooved platform. At its forward end the truck carries a plate 17 yieldingly supported there above by means of a series of bolts 18, each bolt being provided with a coil-spring 19 which embraces the same and bears at opposite ends against the upper face of the truck and the under face of the plate. This plate carries a longitudinal series of upstanding fingers 20 arranged in spaced relation to each other, the disposition of said fingers with respect to the rail plate rods 6 being such that when said truck and rail are in projected position the rods will pass between the upstanding fingers, as herein fully described. Each finger 20 has disposed upon opposite sides thereof a pair of transversely arranged bowed straps 21 formed of spring wire, the straps on one side of the fingers being parallel with each other and in alinement with those on the opposite thereof. The straps serve as supports for the mail-bags which rest thereupon and are held above the face of the plate 17, the mail-bag to be received by the rail being disposed upon one set of straps, while the other set receives the mail-bag removed from the rail by the action of the fingers 20, the bag to be received by the rail being connected with the straps by spring clips 22 of any preferred type which are carried by the bag rings, while the bag to be delivered is likewise attached to the rod fingers 7 by similar clips 23.

The operation of the mechanism may be described as follows: When the train approaches the receiving station the mail-bag to be delivered thereto is attached by the mail-clerk to the proper set of rods by its clips, and the rail then projected outwardly into operative position by means of the cable 12, the bag to be transferred to the car having, in the meantime, been placed upon the corresponding set of straps 21 by the clerk at the station. As the train passes the station, the plate rods 6 will pass between the fingers 20, whereupon the rail carried bag will be transferred to the truck straps, and the truck-carried bag to the rail-rods, resting upon the fingers 7 formed thereon, as will be apparent.

Any preferred fastening means may be

employed for securing the truck in its forward position to the stop-block at the end of the platform.

When a delivery only from the train to the truck or the truck to the train is to be effected, one of the plates carried by the rail is omitted.

Further description of the mechanism and its operation is deemed unnecessary in view of the foregoing.

What is claimed, is,

1. In a mail-bag catching and delivering mechanism, the combination, of a housing disposed within the interior of the mail-car directly opposite the door; a rail slidably carried by the housing; bag-supporting means carried by said rail at its forward end; and separate means for projecting said rail outwardly through the car door, and for retracting it into the interior of the car.

2. In a mail-bag catching and delivering mechanism, the combination, of a grooved housing disposed within the interior of the mail-car directly opposite the car door; a rail slidable in the grooves in said housing; bag-supporting means carried by said rail at its forward end; and separate operating cables connected with said rail for projecting the same outwardly through the car door, and for retracting it into the interior of the car.

3. In a mail-bag catching and delivering mechanism, the combination of a projectable rail carried by the car and movable backwards and forwards through the car door; a plate secured to said rail at its forward end; and a series of spaced depending rods secured at their upper ends to said plate, the lower end of each rod being bent laterally to form a finger.

4. In a mail-bag catching and delivering mechanism, the combination of a projectable rail carried by the mail-car and movable backwards and forwards through the car door; a pair of plates secured to opposite sides of said rail at the forward end thereof; and a series of spaced depending rods secured at their upper ends to each plate, and having their lower ends bent laterally to form fingers, the corresponding rods of said plates alining with each other and having their fingers projecting in opposite directions towards the ends of the car.

5. The combination, in a mail-bag catching and delivering mechanism, of a projectable rail carried by the mail-car and movable backwards and forwards through the car door; bag-supporting means carried by said rail; a truck disposed at the receiving station and movable into and out of operative position; and means carried by said truck for removing a bag from said supporting means.

6. The combination, in a mail-bag catching and delivering mechanism, of a pro-



jectable rail carried by the mail-car and movable forwards and backwards through the car door; bag-supporting means carried by said rail; a truck disposed at the receiving station and movable towards and from the tracks upon which the car travels; a series of vertical fingers carried by said truck, for removing a bag from said supporting means; and means mounted upon said truck and disposed adjacent said fingers, for receiving a bag removed from the rail by the latter.

7. The combination, in a mail-bag catching and delivering mechanism, of a projectable rail carried by the mail-car and movable backwards and forwards through the car door; bag-supporting means carried by said rail; a truck disposed at the receiving station and movable towards and from the tracks upon which the car travels; a yieldingly supported plate carried by said truck; a series of spaced upwardly-extending fingers secured to said plate, for removing a bag from said supporting means; and a series of bowed springs disposed transversely of said truck and in alinement with said fingers, for receiving a bag removed from the rail by the latter.

8. The combination, in a mail-bag catching and delivering mechanism, of a projectable rail carried by the mail-car and movable backwards and forwards through the car door; separate means for moving said rail in each direction; a plate secured to one side of said rail at the forward end thereof; a series of spaced depending rods secured at their upper ends to said plate, and having their lower ends bent laterally to form fingers for supporting a bag; a slidable truck disposed at the receiving station, and adapted for movement towards and from the tracks upon which the car travels; a yieldingly supported plate carried by said truck;

a series of spaced vertical fingers carried by said plate, and adapted to pass between said rods during the movement of the car past the station, to remove the bag carried by said rail; and a series of transversely disposed members carried by said plate for receiving the bag removed by said vertical fingers.

9. The combination, in a mail-bag catching and delivering mechanism, of a projectable rail carried by the mail-car and movable backwards and forwards through the car door; separate means for moving said rail in each direction; a pair of plates secured to opposite sides of said rail at the forward end thereof; a series of spaced depending rods secured at their upper ends to each plate, and having their lower ends bent laterally to form fingers for supporting the bag, the corresponding rods of said plates alining with each other and having their fingers extending in opposite directions towards the ends of the car; a slidable truck disposed at the receiving station and adapted for movement towards and from the tracks upon which the car travels; a yieldingly supported plate carried by said truck; a longitudinal series of spaced vertical fingers carried by said plate and adapted to pass between the rods of both of the first-mentioned plates during the movement of the car past the station, to remove one bag from the rail while another is delivered thereto; and a series of transversely-disposed bowed straps disposed upon opposite sides of said vertical fingers.

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

PIERRE A. POCHÉ.

Witnesses:

JOHN ROBERT POCHÉ,  
ELMER D. PARKER.