

No. 707,696.

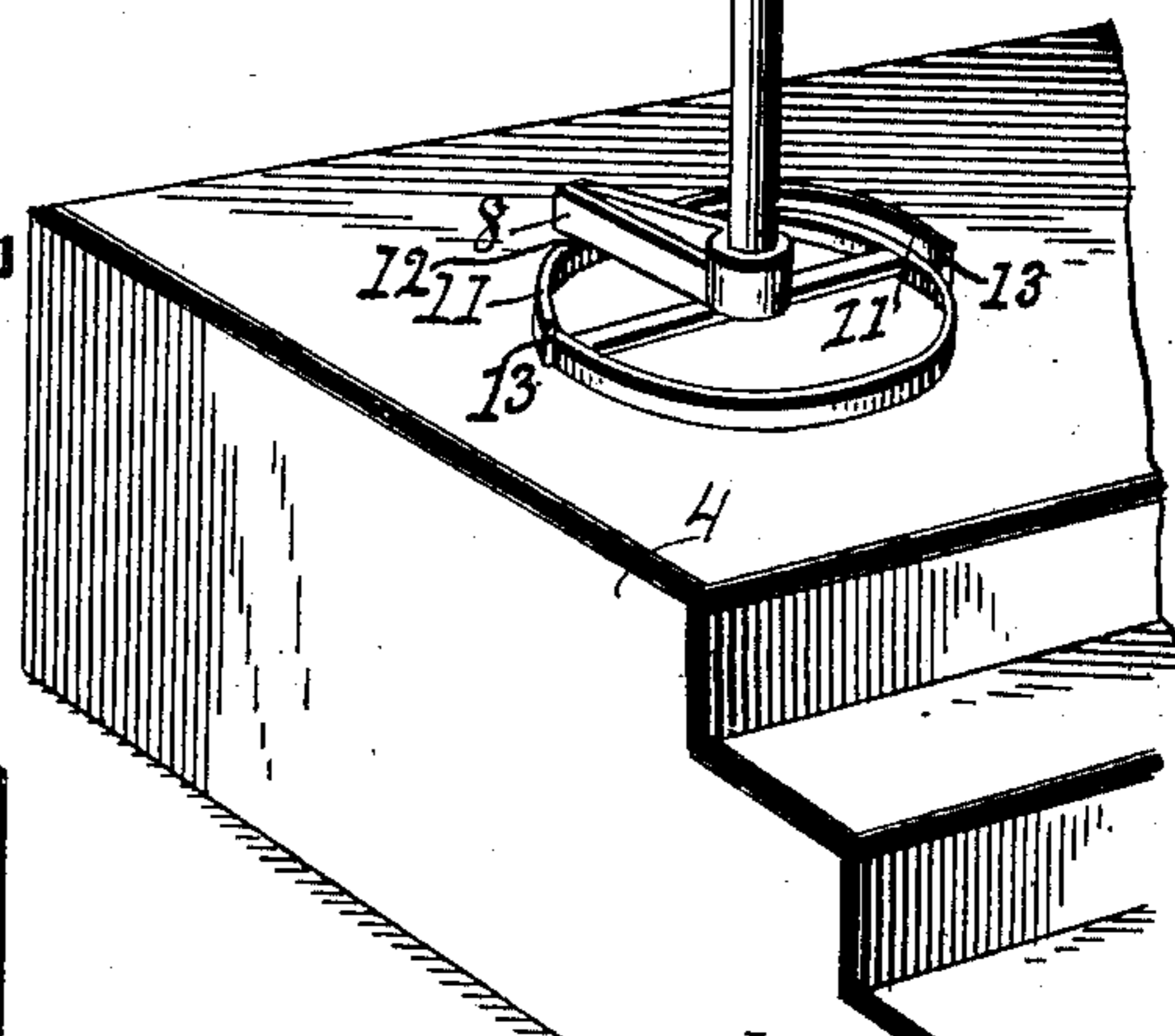
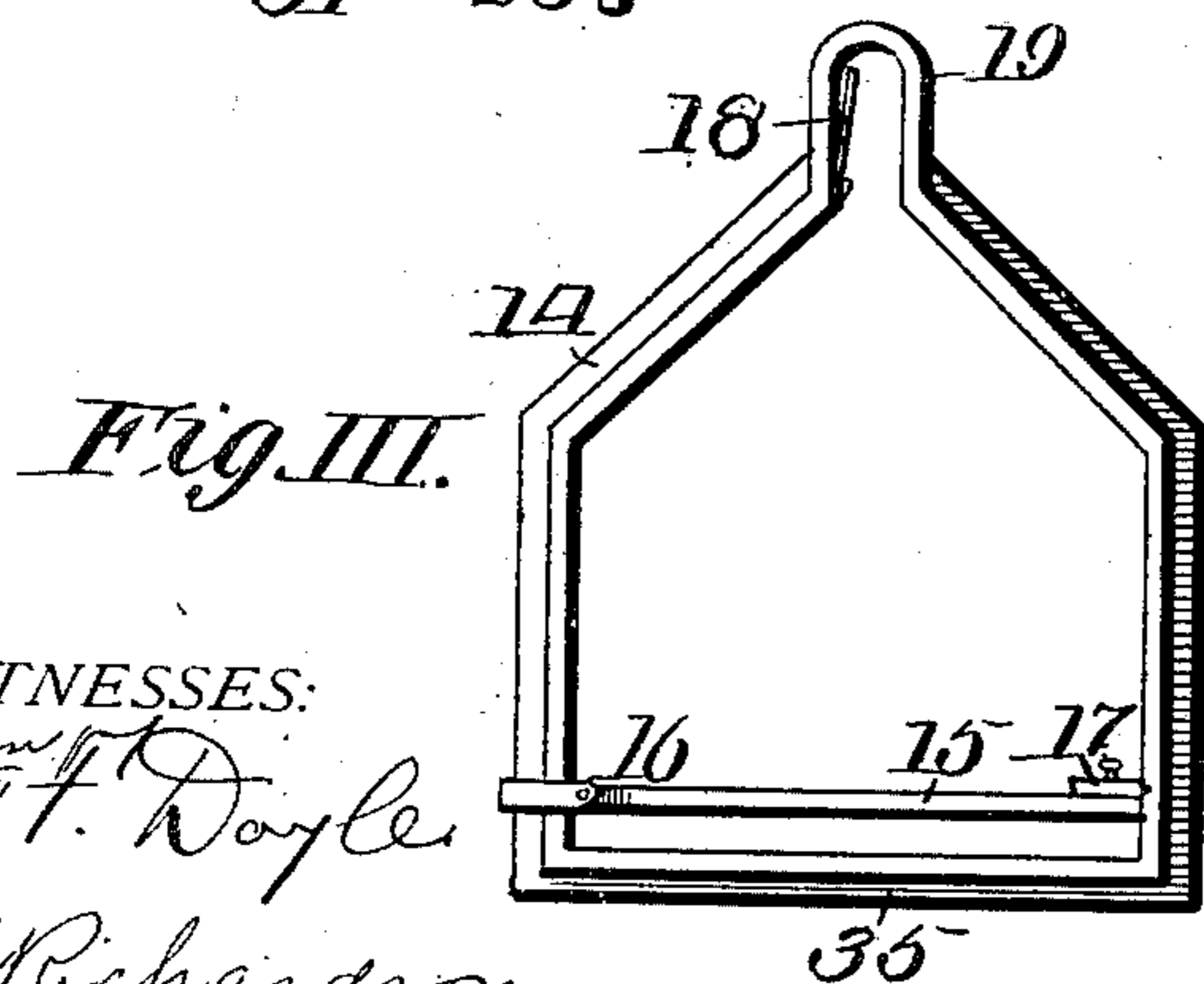
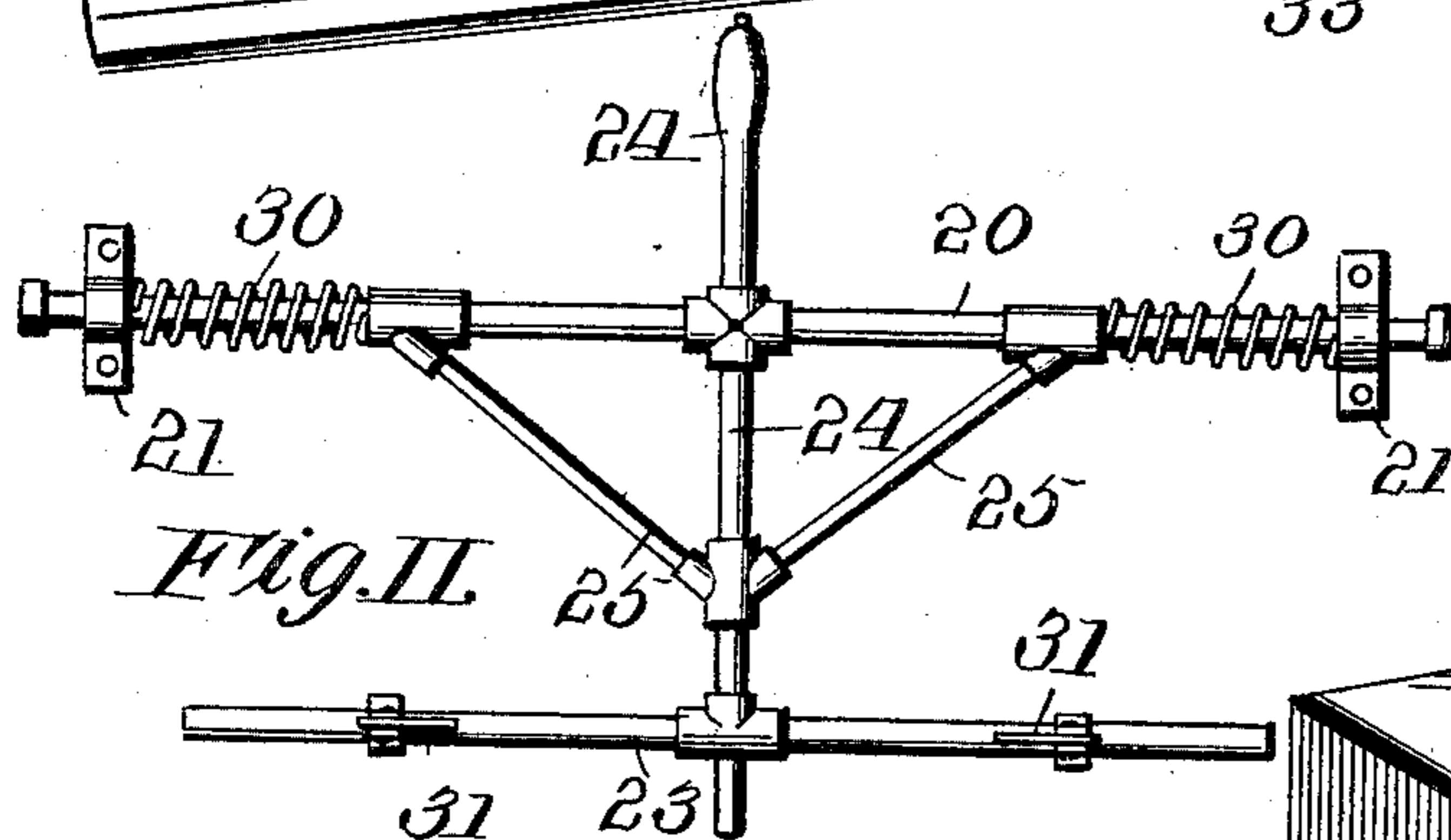
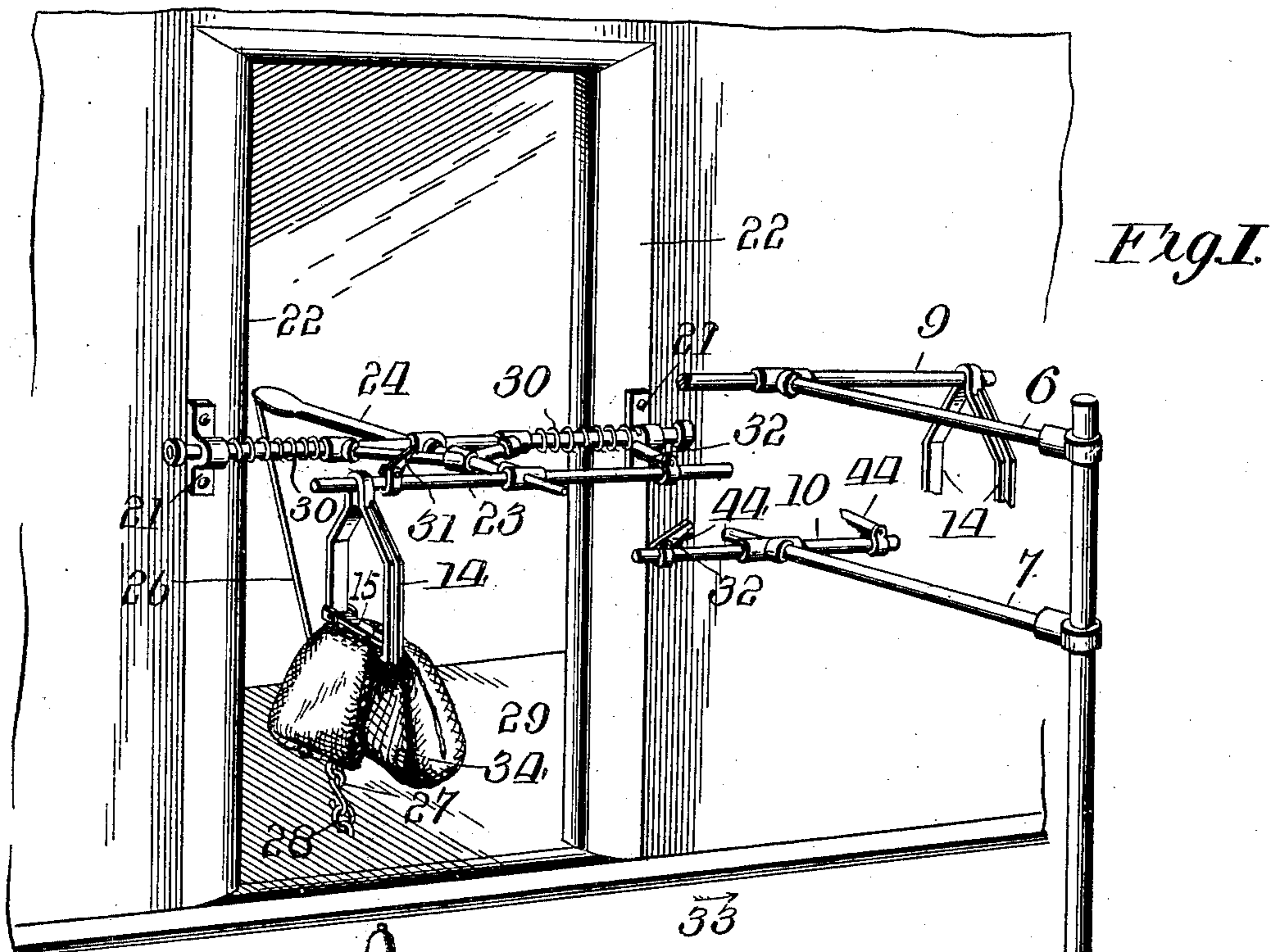
Patented Aug. 26, 1902.

C. E. P. HOBART.

MAIL CATCHER.

(Application filed Mar. 1, 1902.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

CALEB ELIPHALET PACKARD HOBART, OF MERIDEN, IOWA.

MAIL-CATCHER.

SPECIFICATION forming part of Letters Patent No. 707,696, dated August 26, 1902.

Application filed March 1, 1902. Serial No. 96,274. (No model.)

To all whom it may concern:

Be it known that I, CALEB ELIPHALET PACKARD HOBART, a citizen of the United States, residing at Meriden, in the county of Cherokee and State of Iowa, have invented a new and useful Improvement in Mail-Catchers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

This invention relates to that class of devices whereby mail-bags are caught onto, and caught off from, rapidly-passing trains of cars; and its objects are, first, to provide means whereby the mail-bag may be caught without striking the bag with the catcher; secondly, to provide means whereby the shock of catching the bag will be taken up on the car without injury to the contents of the bag and without injury to the catcher mechanism; thirdly, to provide means whereby the shock of catching the bag from a train will be taken up and the bag be carried out of possible contact with later passing trains, and other objects, as will be evident from the following description.

To this end my invention consists in the construction and combination of parts forming a mail-bag catcher hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure I represents the door of a railway-car with parts of my mail-bag catcher and a bag carried thereby to be delivered; also, the local crane for catching a bag from the train. Fig. II represents that portion of the catcher which is attached to the car. Fig. III represents the bail by which the bag is hung upon one catcher and is caught by the other catcher.

This invention necessarily involves two distinct catchers, one upon the car and the other upon a local crane, but they coact in operation.

Numeral 4 represents a platform which is located at a station beside the railway.

5 is the vertical shaft of the crane, journaled to revolve in the platform 4 and supporting two arms 6 and 7 and provided with a foot 8. The arm 6 is provided with a delivery-rod 9, and the arm 7 is provided with a receiving-rod 10, having collars 44 near its ends, the arm

extending beyond the receiving-rod a sufficient distance to aid in removing the mail from the catcher.

11 represents a semicircular wedge or incline, the lowest point of which is at 12, and at the higher two points it terminates in shoulders 13.

14 is a bail, which I provide with a clamping-bar 15, that is hinged at one end 16 to swing up and is provided at the other end with a catch-bolt 17, which engages the side of the bail. The upper portion of the bail is narrowed into a loop 19 to fit closely enough upon the delivery-rod 9 to prevent the bail from swinging sidewise thereon.

18 is a spring in one side of the loop 19 to press against the delivery-rod. The catcher upon the car is provided with a shaft 20, which is journaled to rotate and to slide in bearings 21, which are fixed to the sides of the doorway. Upon this shaft 20 is mounted the catching and delivering rod 23 by means of a cross-bar 24 and braces 25. The cross-bar 24 extends beyond rod 23 a sufficient distance to aid in removing the mail from the delivery-rod 9. The cross-bar 24 extends beyond the shaft 20 as a handle for the operator and is provided with a connecting-rod 26, and hook 27, to removably engage a link 28 that is fastened to the car-floor 29, and beyond the bars 10 and 23, to stop the flying mail.

30 represents springs located between the bearings 21 and the shoulders upon the shaft 20. The rod 23 is provided with collars 31, corresponding to the collars 44 on the rod 10. In either case these collars may be made rigid fixtures to the rod.

The operation is as follows: Let us suppose the car to be moving in the direction of the arrow 33. A mail-bag 34 having been placed midway through the bail 14 and hung upon its lower cross-bar 35, the clamping-bar 15 is to be closed down upon the bag until the catch 17 engages the side of the bail and holds thereto, thus firmly securing the bag from being lost or forced out of the bail by any movement of the latter. One bag may be hung, by means of the said bail, upon the rod 9 of a crane, to be caught by a passing car, and another bag may be hung by its bail upon the rod 23 upon the car, to be delivered at a station. It will be seen that the arm 6

and its delivery-rod 9 are located above the level of the rod 23, and the arm 7 and its receiving-rod 10 are located below the level of the rod 23, so that the rod 23 passes midway between the delivery-rod 9 and the receiving-rod 10. The arm 9 is long enough to hold the mail beyond rod 10. It will also be understood that the mail-bail is always to be hung on the rear end of the delivery-rod, so that it will be drawn off therefrom when caught. Thus the rod 23 in passing between the rods 9 and 10 catches a bail 14 from the rear or farther end of that rod and leaves upon the near end of rod 10 the mail that it (the rod 23) carried upon its near end. The great speed at which trains travel would necessarily strike a mail-bag with a great shock; but this is very materially reduced by the interposition of a bail 14, upon which the catcher actually strikes and which, being already in firm contact with the bag, merely pulls the bag along, but does not strike it. The shock upon the catcher 20 23 is relieved by means of one of the springs 30, which receives the endwise thrust of the rod 20 and all its attachments with a yielding resistance. This rod is retained in a horizontal position to support the outgoing mail by means of the rod 26, and as soon as the delivery is made and another mail is caught this rod 26 may be disengaged from link 28 and permit the incoming mail to swing into the doorway. Upon the crane it will be understood that the bail 14 is caught by the passing rod 23 an instant earlier than the bail of the bag 34 is caught by the rod 10, and the instant the said bag is caught its passing force, acting against the arm 7, swings the crane around upon its vertical axis 5 against the frictional resistance of the foot 8, bearing upon the wedge 11. This rotating is always great enough to carry the foot 8 over past the shoulder 13, yet in extreme cases it cannot go far enough around to bring the crane or the mail-bag thereon into line of another train, because the foot would be stopped by the opposite shoulder 13. Again, the velocity of the bag caught from a train is so great that in rotating the crane the bag is flung out nearly level and would be thrown off from the receiving-bar 10 were it not held by a collar 44. It will be understood that the two ends of the bars 9, 10, and 23 and the appurtenances thereof are duplicates of each other, respectively, so that the device is adapted to work in the manner above described whether the car is traveling to the right or to the left, consideration being had to the direction of travel of each train when the mail-bags are hung up to be caught or delivered thereby. The bail 14 serves as a medium for catching the mail-bag without striking any direct blow upon the bag, thus not only saving wear upon the bag but more effectually guarding the mail-matter contained in it, from injury. The bail by its narrow loop 19 is kept at right angles to the line of travel of the catch-rod

23, thereby presenting its opening in the broadest and most advantageous position to be caught when the swaying and bouncing of the train varies the line of travel of the catcher and makes mail-catching uncertain. And the spring 18 further tends to that end, by holding the bail yet more closely to the delivery-rod, while not interfering with delivery. The collars 44 31 on the catching-rods prevent the caught bail, with the mail attached, from being lost off either by rebound on the car or by centrifugal flinging around the crane. The foot 8, to the crane, and the semi-circular wedge 11 on which it rests when set for service, hold the crane with sufficient resistance to keep its arms in position for service, and they resist the revolution of the crane enough to completely stop the mail-bag without any material shock, and the shoulders 13 or butts to the wedge stop the rotation of the crane while the bag is held safely out of line of following trains, or of following cars of the catching train. The rod 26 serves to hold down the handle end of the arm 24, thereby the catching and delivering rod 23 in a horizontal position, while the mail-bag is hung thereon, so that it would be possible for the operator to set the catcher when approaching a station-crane and leave it to do the catching and delivering of the mail-bags automatically.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

1. In a mail-bag catcher, a bail in loop shape provided with a clamping-bar for holding the mail-bag.
2. In a mail-bag catcher, a loop-shaped bail fitted to hold a mail-bag and narrowed at its upper end and a spring projecting within the narrowed portion.
3. In a mail catcher and deliverer for exchanging mails at a railway-station through the medium of postal cars in transit the combination with a mail-bag holder or bail 33, loop-shaped and narrowed at the top, provided with a clamp for holding a mail-bag within, and having a protecting-spring in the narrow upper end for the purpose of engaging it with the catching and delivering rods when placed on them for use, of a shaft 20 journaled to rotate and to slide in bearings fixed to the postal-car doorway, a cross-bar 24 fixed to shaft 20 and to shaft 23 at its middle point, the cross-bar extending beyond rod 23 to aid in removing the mail from the crane, the other end of the cross-bar extending beyond shaft 20 for a handle for the use of the operator, and fixed or anchored to the floor or preferably to the ceiling over the door when in use, shaft 20 being provided also with protecting-springs at its ends to overcome the shock when removing the mail from the crane, and the catching-rod 23 being provided with protecting-collars on its ends for the purpose of holding the mail secure when deposited within the postal car.

4. In a vertical crane made to revolve in a platform, two arms and a locking-bar in line above each other, the locking-bar being just above the platform; arm 7 being provided
5 with a receiving-rod 10, having protecting-collars at its ends, the arm extending beyond the receiving-rod a sufficient distance to aid in removing the mail from the catcher, provided with resisting cushions or springs, an arm 6 being located near the top of the vertical shaft having a delivering-rod 9, provided with regulating-collars near its ends.

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

CALEB ELIPHALET PACKARD HOBART.

Witnesses:

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JAMES E. JONES.