

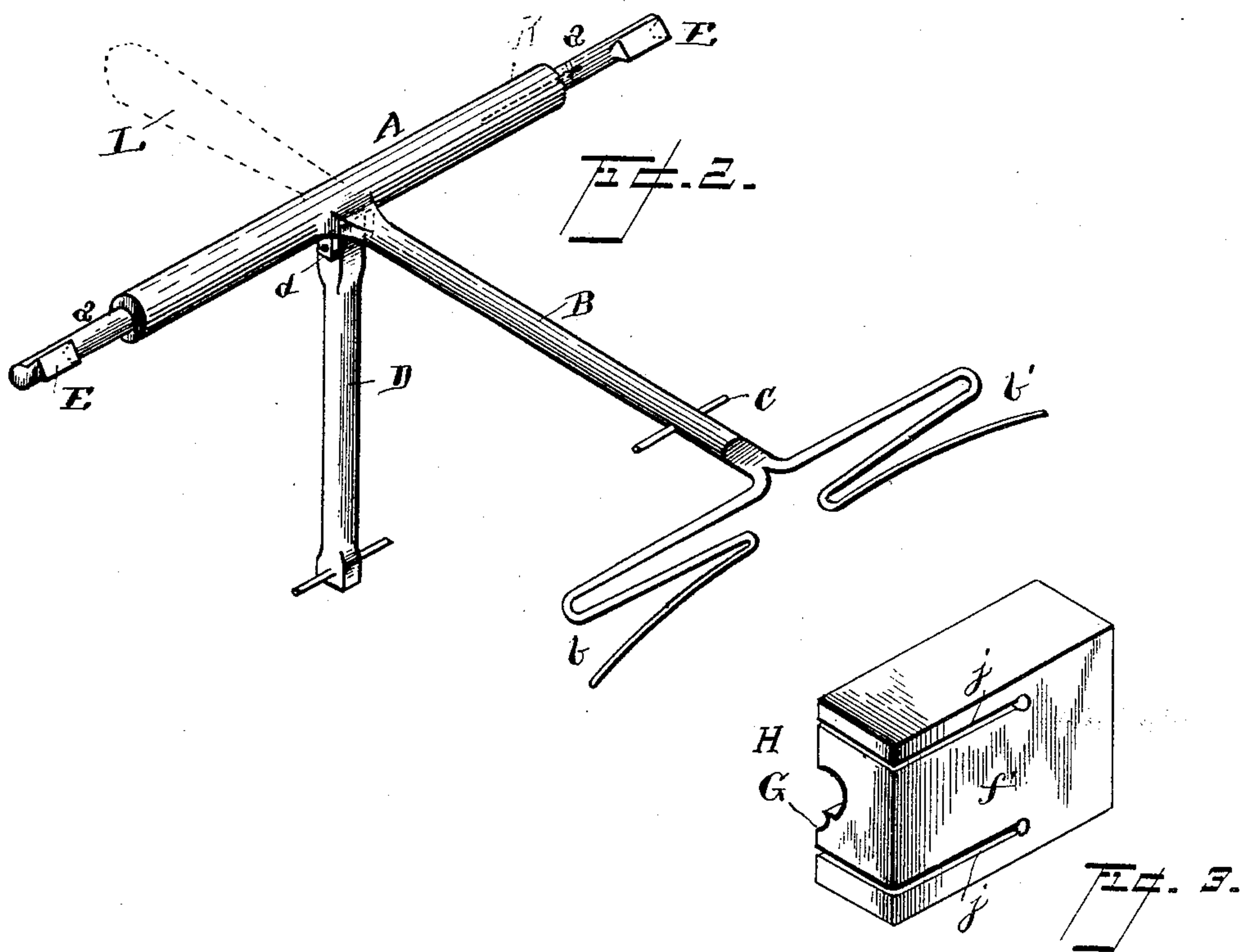
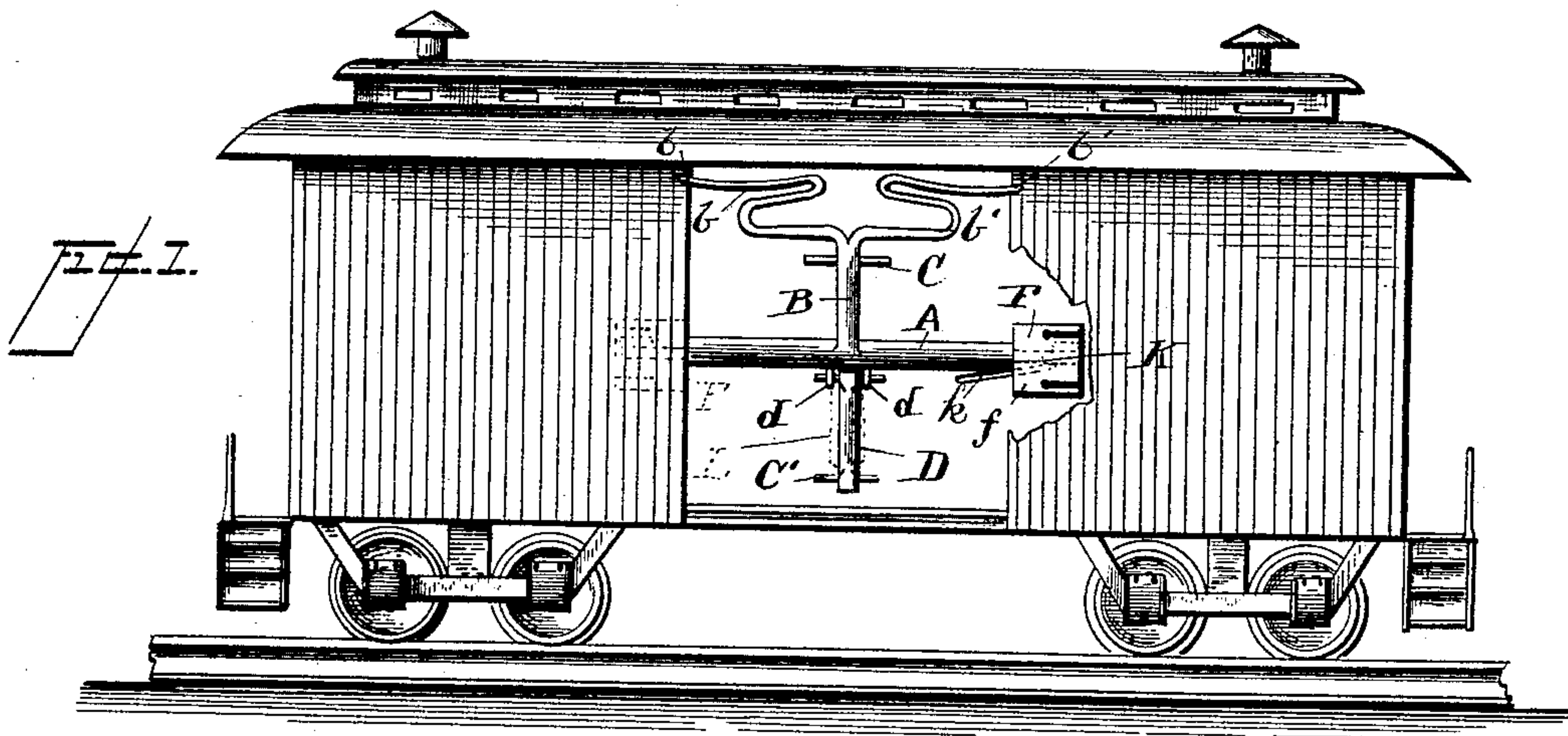
(No Model.)

2 Sheets—Sheet 1.

G. W. MOORE, Jr.  
MAIL BAG CATCHER.

No. 481,654.

Patented Aug. 30, 1892.



WITNESSES

E. L. Wells,  
R. S. Campbell,

INVENTOR

Geo. W. Moore, Jr.  
per S. B. Cashears  
Attorney

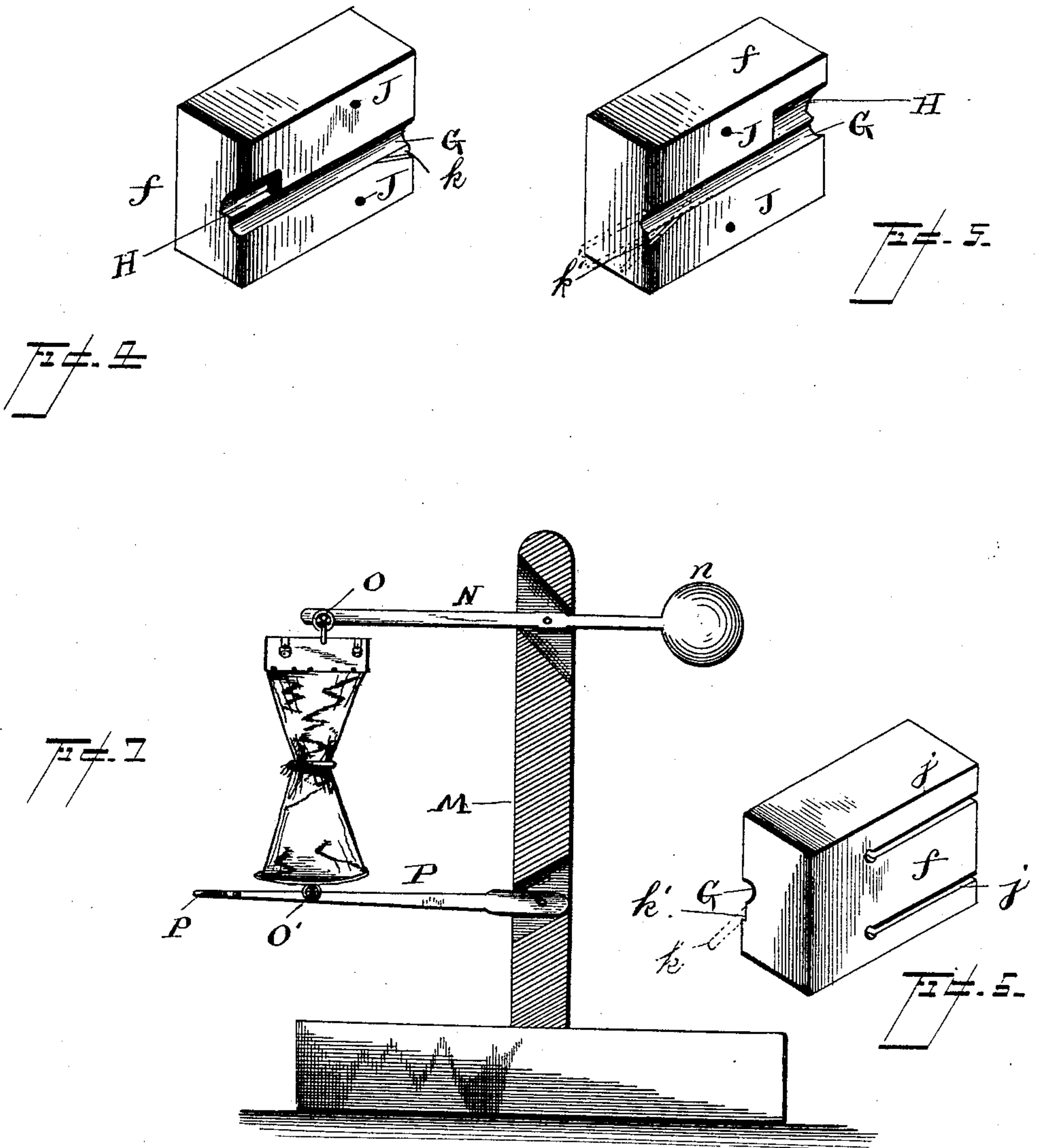
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Attorney



# UNITED STATES PATENT OFFICE.

GEORGE W. MOORE, JR., OF LYNCHBURG, VIRGINIA.

## MAIL-BAG CATCHER.

SPECIFICATION forming part of Letters Patent No. 481,654, dated August 30, 1892.

Application filed May 3, 1892. Serial No. 431,662. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. MOORE, Jr., a citizen of the United States, residing at Lynchburg, in the county of Campbell and State of Virginia, have invented certain new and useful Improvements in Mail-Bag Catchers; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a new and improved device designed to be used for automatically delivering to and receiving from a moving train mail-matter and ordinarily denominated "mail-bag catchers," and has for its object to provide such a device that will with certainty and automatically deliver mail from the car and simultaneously collect the mail from stations along the route, and that shall be capable of being thrown into a position to offer no obstruction when loading the car or that can be removed to one side of the car from the other without loss of time.

To these ends my invention consists in the novel construction and arrangements of parts hereinafter fully described, and afterward definitely pointed out in the claims, due reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a side elevation of a part of a car, showing my improved device applied thereto; Fig. 2, a detail view of the device removed, the bearing-blocks not being shown; Figs. 3, 4, 5, and 6, perspective views of the parts composing the bearing-blocks; and Fig. 7, a side elevation, partly in section, of the device designed to be used at the stations.

Referring to the drawings, the letter A indicates a shaft mounted in bearings secured to each side of the door-frame of a car in the manner hereinafter described and capable of being rotated therein. Rigidly secured to said shaft is an arm B, whose outer end is forked and provided with two laterally-projecting hooks *b b'*, extending in opposite directions. Near its outer end said arm B is provided with a cross bar or rod C, which pro-

jects laterally upon both sides of said arm, for the purpose to be presently described.

To the shaft A are secured lugs or ears *dd*, within which is pivoted a lever D, provided near its outer end with a cross bar or rod C', which projects laterally upon both sides of said arm.

The mail-bag to be delivered from the car is provided at top and bottom with loops, as usual, which are hooked over the cross bars or rods C C', as will presently appear.

The opposite ends of the shaft A are reduced, as at *a a*, and at each extremity is provided with a spline E, preferably dovetailed in cross-section. The reduced portions *a a* of the shaft A are mounted in bearing-blocks F, secured to each side of the car-door frame and constructed as follows: Each bearing block F consists of an inner and an outer block, lettered *f* and *f'*, respectively. The adjoining faces of said blocks are each provided with a semicircular groove G, which, when the blocks are secured together in place, forms a bearing for the reduced ends *a* of the shaft A. The grooves G terminate in double recesses H, as shown in Figs. 3, 4, and 5, and of such shape that when the two blocks *f* and *f'* are brought face to face and the end *a* of the shaft journaled therein the lower half of the shaft will be supported in a semicircular bearing, while its upper half and the spline E will lie in a semicircular recess of considerably-greater diameter, thus permitting the shaft to have a substantially half-rotation in the bearing-blocks.

The blocks *f* and *f'* are secured to the door-frame and detachably to each other in the following manner: The inner block *f* is provided with bolt-holes J J and the outer block *f'* with two slots *j j*. Threaded bolts are passed through the door-frame and through the bolt-holes J J of the block *f*. The block *f'* is then slipped over the bolts by means of the slots *j j*, and the ends *a* of the shaft A having first been secured between the grooved and recessed faces of the blocks nuts are applied to the threaded ends of the bolts, and by tightening them up the blocks *f* and *f'*, to all practical purposes, form solid bearings for the ends of the shaft. The ends of the bolts are preferably split, and after the nuts have been applied thereto are spread to prevent



the nuts from becoming lost. Sufficient room is left, however, to permit the plates  $f'$  being lifted from the plates  $f$ , after the nuts have been partially unscrewed, sufficiently to dis-engage the splines E, when said plates, by means of the slots  $j j$ , can be slipped off the bolts to remove the shaft from without its bearings. By this means the device can be removed from the doorway on one side of the car and slipped within similar bearings upon the doorway upon the other side of the car; but this will only be necessary on double-track railways, as on single-track roads the device will always be upon the outside of the track.

The shaft A near one end is grooved longitudinally, as at K, within which groove is pivoted one end of a locking-lever  $k$ , adapted to lie in said groove, and one of the bearing-plates, as  $f$ , is provided with a recess  $k'$ , said locking-lever and recess being so arranged with relation to each other that the lever  $k$  is adapted to drop by gravity into said recess when the shaft A is in a certain position and lock said shaft against rotation. The free end of the locking-lever  $k$  projects beyond the inner edge of the bearing-block within easy reach of the operator.

If desired, a handle L may be secured to the shaft A for operating the same.

At the stations along the line where mail is to be delivered and collected by the train a device constructed as follows will be erected:

M indicates a post, to the upper part of which is pivoted a lever N, weighted at one end, as  $n$ , and provided at its other end with a cross bar or rod O, projecting laterally upon both sides of said lever. To the lower part of the post is pivoted an arm P, forked at its free end and provided with two laterally-projecting hooks  $p p$ , extending in opposite directions, and near its end said arm P is provided with a cross bar or rod O', similar to that secured to the lever N.

From the foregoing description the operation of my improved device will be readily understood.

When not in use the arm B is swung up into a vertical position, the ends of the hooks  $b b'$  resting against the frame of the car, in which position the arm is held by the locking-lever  $k$ , resting in the recess  $k'$ , formed in the bearing-block. Upon approaching a station the mail agent selects the proper pouch or bag and slips one of the loops secured to its top and bottom over the end of the cross bar or rod C that projects toward the rear of the car. The lever D is then swung up upon its pivot and the loop on the opposite end of the bag slipped over the cross bar or rod C' in the manner above described. The locking-lever  $k$  is then released from the recess  $k'$  in the bearing-block by pressing it in the groove K and the shaft A partially rotated, so as to swing the arm B to a horizontal position, in which position it is held by the spline E upon the ends of the shaft. In the meanwhile the

postmaster at the station (or other mail agent) has hung a bag containing the mail to be delivered to the car upon the lever N and arm P upon the post M. As the train approaches said post the hook upon the arm B catches the center of the bag suspended from the post M and lifts it from off the rods O and O', and at the same time the hook upon the arm P of the post M catches the center of the bag suspended from the arm B and lever D and lifts it from off the pins C and C'. As soon as the bag is released from the lever N and arm P of the post M the weighted end of the lever N swings said lever up into a nearly perpendicular position out of the way and the arm P drops down by gravity. The mail agent upon the car then throws the arm B back to its perpendicular position, where it is locked by the locking-lever  $k$ , as before described, and removes the bag.

When loading the mail-car the pivoted lever D may be turned up to a vertical position, its upper end resting against the arm B, in which position it is out of the way and the entire lower half of the doorway unobstructed for the passage of the mail bags or pouches.

Having thus fully described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a mail-bag catcher, the combination, with a shaft mounted in suitable bearings, of an arm secured thereto and provided with a double hook and a lever pivoted directly to said shaft, said arm and lever being provided with rods projecting laterally upon both sides of the same, substantially as set forth.

2. In a mail-bag catcher, the combination, with a shaft mounted in suitable bearings, of an arm secured thereto and provided with a double hook, a lever pivoted directly to said shaft, said arm and lever being each provided with a rod projecting laterally on both sides of the same, the said shaft being capable of a partial rotation in its bearings, whereby the said arm may be adjusted to a horizontal or vertical position, and means for holding said arm in either of its adjusted positions, substantially as set forth.

3. In a mail-bag catcher, the combination, with a shaft detachably mounted in suitable bearings, of an arm secured thereto and provided with two hooks extending in opposite directions, a lever pivoted to said shaft, said arm and lever being each provided with a rod projecting laterally upon both sides of the same, said shaft having a partial rotation in its bearings to swing said lever from a vertical to a horizontal position, shoulders upon the end of the shaft engaging recesses in the bearings for holding the arm in a horizontal position, and a locking-lever for holding the arm in a perpendicular position, as set forth.

4. In a mail-bag catcher, the combination of the shaft A, carrying a fixed hooked arm B and a pivoted lever D, said arm and lever being respectively provided with laterally-pro-



jecting rods C C' for holding a mail-bag, and separable bearing-blocks F, one member of which is detachable from the other, in which the ends of the shaft are journaled, whereby the device can be removed from its bearings on one door-frame and journaled in the opposite door-frame, substantially as set forth.

5 5. In a mail-bag catcher, the combination, with the shaft A, carrying the fixed hooked arm B, having rod C, and pivoted lever D, having rod C', splines E, arranged upon each end of the shaft, and the bearing-blocks F, provided with bearings for the ends of the shaft and with double recesses H, within which  
10 said splines lie and serve to hold the shaft in a position to support the arm B in a horizontal position, substantially as set forth.

6. In a mail-bag catcher, the combination, with the shaft A, carrying the fixed hooked  
20 arm B, having rod C, and pivoted lever D, having rod C', the bearing-blocks F, in which the ends of said shaft are journaled, the locking-lever *k*, pivoted within a groove formed in one end of the shaft, and a recess *k'* in one of

said bearing-blocks for the reception of said locking-lever, whereby the shaft is locked in position to support the arm B in a vertical position, substantially as set forth. 25

7. In combination with the shaft A, arm B, having rod C, and lever D, having rods C', the bearing-blocks F, each consisting of the blocks *f f'*, provided upon their adjacent faces with half-bearings for the ends of the shaft, the block *f* being provided with two bolt-holes and the block *f'* with two open slots in alignment with said bolt-holes, and bolts passing through the said bolt-holes and slots, secured therein by nuts, all constructed and arranged whereby the block *f'* may be detached from the block *f* without removing the bolts, for  
30 the purpose specified. 35 40

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

GEORGE W. MOORE, JR.

Witnesses:

J. F. GORDON,

FRANK STEVENS.