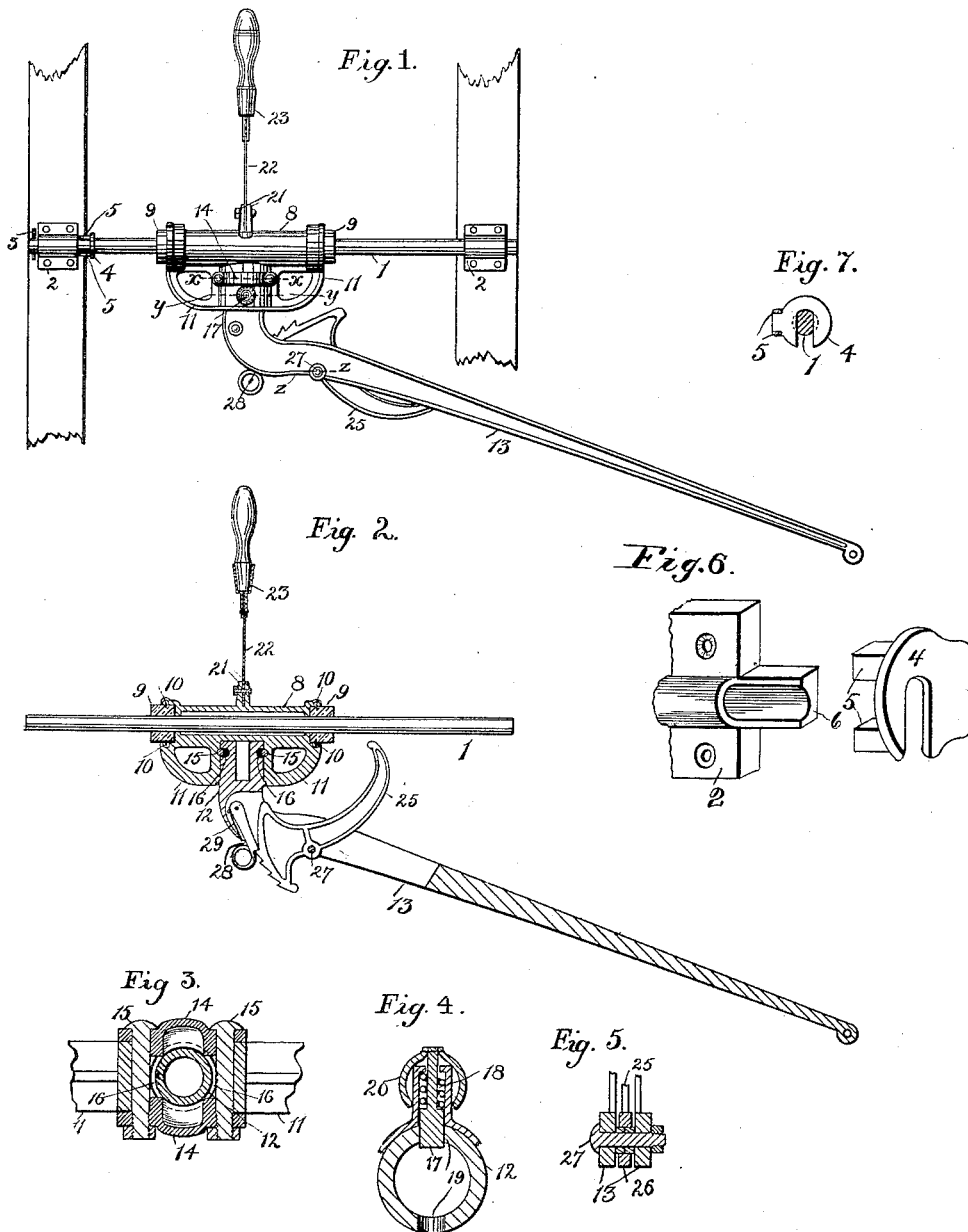


(No Model.)

G. W. SMITH.  
MAIL BAG CATCHER.

No. 458,960.

Patented Sept. 1, 1891.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE W. SMITH, OF ROCHESTER, NEW YORK.

## MAIL-BAG CATCHER.

SPECIFICATION forming part of Letters Patent No. 458,960, dated September 1, 1891.

Application filed June 8, 1891. Serial No. 395,561. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. SMITH, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Mail-Bag 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, forming a part of this specification, and to the figures of reference marked thereon.

My present invention has for its object to provide an improved mail-bag catcher applicable to postal cars, which shall not only be simple and cheap in construction and readily applied to any car-door, but one also that will perform the functions of catching and holding the bag securely when the car is moving in either direction, and this without the necessity of removing and bodily reversing the whole device; and to these and other ends the invention consists in certain novelties of construction and combination of parts, all as will be hereinafter fully described, and the novel features pointed out particularly in the claims at the end of this specification.

In the drawings, Figure 1 is a side elevation of my catcher applied to a car-door; Fig. 2, a longitudinal sectional view of the same; Fig. 3, a sectional view on the line *xx* of Fig. 1; Fig. 4, a similar view on the line *yy* of Fig. 1; Fig. 5, a similar view on the line *zz* of Fig. 1. Fig. 6 is a perspective view of the end-bearing and retaining-collar separated. Fig. 7 is a sectional view looking at the side of the collar next the bearing.

Similar reference-numerals indicate similar parts.

In Fig. 1 the catcher is shown suspended on the shaft 1, extending across a car-door, though in a vertical position, such as it will occupy when not in use. This shaft 1 extends through bearings 2, secured to the side timbers of the door, and is preferably longer than the width of any door it is liable to be applied to, being prevented from longitudinal movement in the bearings in one direction by a pin 3, passed transversely through its end, and in the other direction by a slotted collar 4, engaging grooves in the sides of the shaft and provided with lugs 5 at its lower end, projecting at right angles to the plane of the

collar, engaging a projection 6 on the bearing 2, which prevent its turning and becoming disengaged. By thus providing means for securing the shaft at one end only the device can be attached to car-doors of any width without requiring a series of holes in the shaft or anything more than a simple bearing-block on one side. The shaft is applied by placing the collar on the shaft and then passing its end through the bearing 2, engaging the lugs 5 with it, and then passing the key-pin 3 through its end, as will be understood.

Upon the shaft 1 is the main body portion or sleeve 8, adapted to slide freely thereon and having at opposite ends sockets, in which are located rubber buffers 9, held in place by screws or pins 10, inserted in the buffers and engaging grooves in the sleeve and prevented from outward independent movement, said pins or screws being inserted through a suitable aperture in the sleeve ends, which may afterward be closed, if desired. Upon the outer sides of the sleeve are inclined shoulders 11, and between them a socket or recess for the accommodation of the pivotal stud 12 on the catcher-arm 13, said stud being permitted to turn freely in the socket, but held from outward movement by means of ribs formed on plate 14, bearing on the socket-piece and secured together and to the sleeve-casting by bolts 15, passing through apertures in the former, which ribs enter an annular groove 16, provided in the stud. Other means—such as a pin—could be provided for securing the catcher-arm, if desired; but I prefer the arrangement shown.

In the side of the socket for the stud is arranged a sliding pin 17, moved inward by a spring 18 and adapted to enter either of two recesses 19, provided on the sides of the stud when the catcher-arm is parallel with the sleeve in position to catch a mail-bag. The outer end of the pin 17 is provided with a knob 20, by which it may be withdrawn when desired to reverse the catcher-arm.

Upon the inner side of the sleeve or casting 8 are arranged two lugs 21, between which is arranged a bar 22 of spring metal provided with a handle 23, by which the sleeve is turned on its shaft, so that the catcher-arm

will project at right angles to the side of the car as usual, the spring serving to prevent the shock of impact when the bag strikes the arm from being communicated to the operator, as will be understood. The catcher-arm is slotted near its inner end, and in said slot is arranged an annular bag-retaining arm 25, pivoted upon a sleeve 26 on a bolt 27, passing through the sides of the arm, the object of this arrangement being to permit the free movement of the arm on its pivot, while the bolt may be tightened up to brace the thin sides of the catcher-arm. Instead of this arrangement the sleeve could be made integral with the bolt, if desired. The arm 25 is shaped substantially as shown in Fig. 2, and is so arranged relatively to the neck of the catcher-arm that in one position the shorter end back of the pivot projects into said neck, the longer one being within the slot, as in Fig. 1. When the bag is forced into the neck, it will strike the shorter end and turn the arm around to the position shown in Fig. 2, the longer arm then holding the bag and being prevented from outward movement by the ratchet-teeth on the rear segmental portion, with which engages a pivotal pawl or catch 28, actuated by a spring 29.

The operation of the device will now be apparent. The operator within the car grasps the spring-handle and holds the device with the catcher-arm projecting from the side in the direction the car is moving, the retaining-arm being as in Fig. 1, and when the bag is forced into the neck of the catcher the retaining-arm will be actuated to the position, Fig. 2, grasping the bag and preventing its being accidentally removed, said arm locked by the pawl, and the bag securely held. The bag may then be removed by swinging the catcher-arm within the car, the pawl disengaged, and the retaining-arm turned outward again.

When it is desired to operate the catcher with the car moving in the opposite direction, instead of bodily removing the device and shaft from the car, as ordinarily, the operator simply withdraws the spring-operated pin 17 and turns the catcher-arm on the pivotal stud until it projects in the opposite direction, the said pin locking it in this position, as before, when the operation before described will take place.

The buffers on the end of the sleeve engage the bearings on the car, as usual, and lessen the force of the blow, and the spring-handle is particularly advantageous, as it relieves the person holding the arm horizontal from the shock, to which he is at present subjected when a rigid arm is employed, and this I regard as one of the most advantageous features of my device.

When it is desired to remove the catcher from one car to another, this can be readily accomplished by disengaging the pin 3 and slotted plate 4, before described, and removing the shaft, which, being secured at one end

only, may, if longer than the distance between the bearings of the door to which it is applied, project through the one at the outer end loosely.

Numerous modifications will at once suggest themselves to those skilled in the art, and I do not therefore desire to be confined to precisely the construction shown, though I have practically operated such a one for a considerable period and find it admirably adapted for the purpose.

I claim as my invention—

1. In a bag-catcher, the combination, with the catcher adapted to move longitudinally, of an operating-handle connected therewith, said handle being elastic in the direction of the longitudinal movement of the arm, substantially as described.

2. The combination, with the supporting-shaft, of a sleeve adapted to slide longitudinally thereon, having a buffer, a bag-catcher pivoted on the sleeve, provided with a catcher-arm, and an operating-handle on the catcher elastic in the direction of the longitudinal movement of the sleeve and arm, substantially as described.

3. The combination, with the supporting-shaft, of a sleeve adapted to slide longitudinally thereon, having the buffer, a bag-catcher arm on the sleeve, and an operating-handle elastic in the direction of the longitudinal movement of the sleeve and arm, substantially as described.

4. In a bag-catcher, the combination, with the body having a socket and a handle, of a catcher-arm provided with a round stud having the annular groove and entering the socket, retaining devices on the body for engaging the groove in the stud and holding it within the socket, though permitting its rotation, and a catch for engaging the stud and locking it to the body with the arm projecting in either direction, substantially as described.

5. In a bag-catcher, the combination, with the catcher-arm, of the retainer pivoted on said catcher-arm and itself having two arms, one projecting normally in the path of the entering bag and the other adapted to project over and secure the bag when the retainer is operated on its pivot, substantially as described.

6. In a bag-catcher, the combination, with the body portion, of the reversible catcher-arm provided thereon, the pivoted retainer-arm moving with the catcher-arm and itself having two arms, one adapted to be struck by the bag and the other to hold the bag when the retainer is so operated, substantially as described.

7. In a bag-catcher, the combination, with the catcher-arm, of the pivoted bag-retainer having two arms and the notched rear side, one of said arms projecting in the path of the entering bag and the other adapted to project over and secure the bag when the retainer is

operated on its pivot, and the spring-operated catch engaging the notches on the bag-retaining arm, substantially as described.

8. In a bag-catcher, the combination, with  
5 the catcher proper, of the shaft on which it operates, having the notches, the supporting-bearings for the shaft, the removable collar engaging the notch in the shaft and one side

of one of the bearings and the pin on the shaft engaging the other side of said bearing, 10 substantially as described.

GEORGE W. SMITH.

Witnesses:

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