(No Model.)

J. L. OLIVER.

MAIL BAG CATCHER.

No. 273,381. Patented Mar. 6, 1883.

FIG. 1.

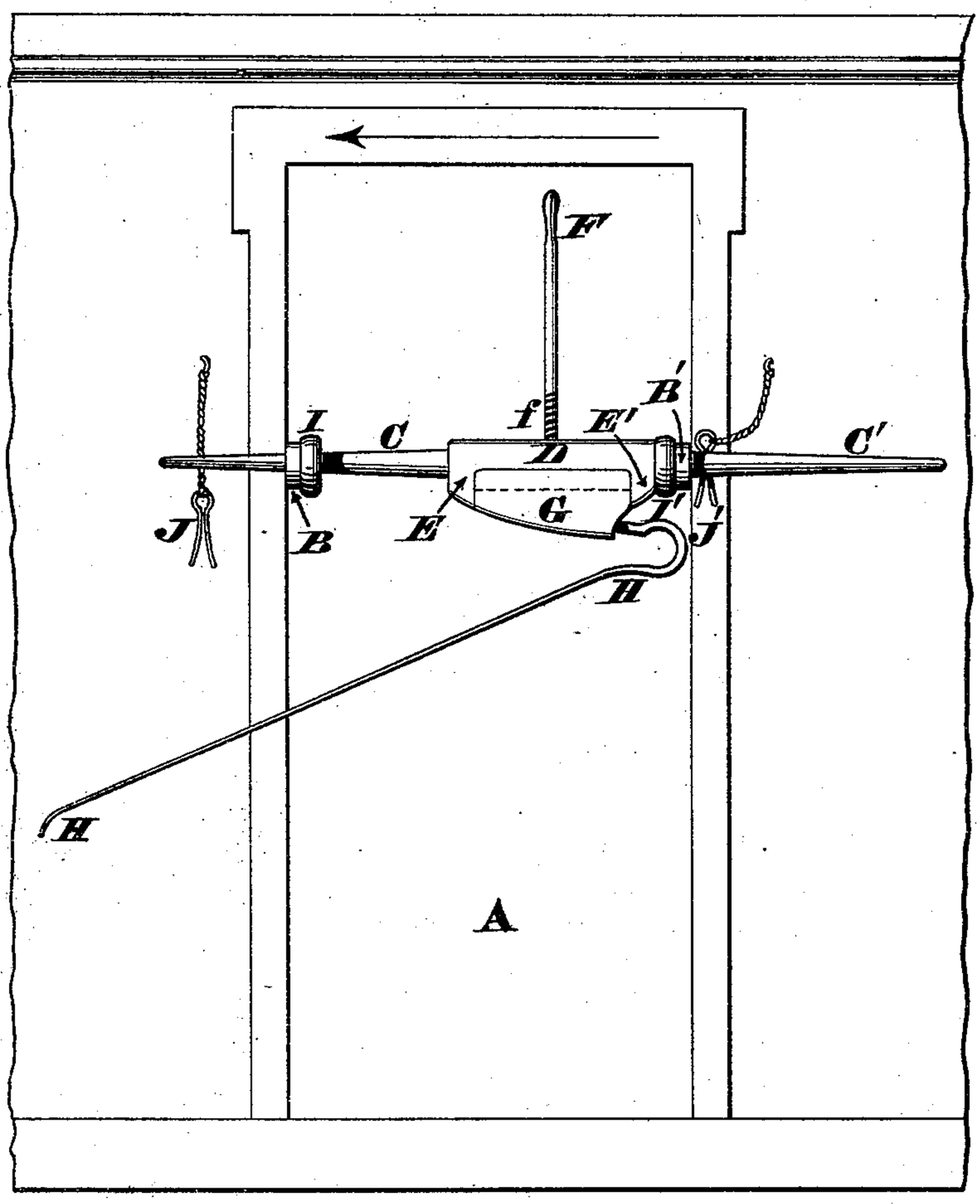


FIG. 4.

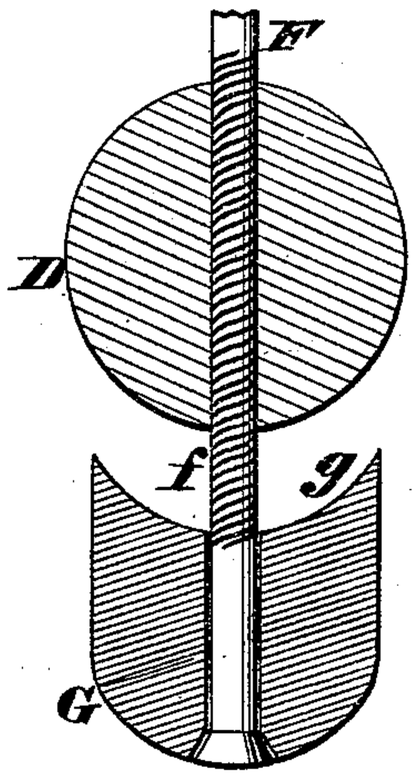


FIG. 5.

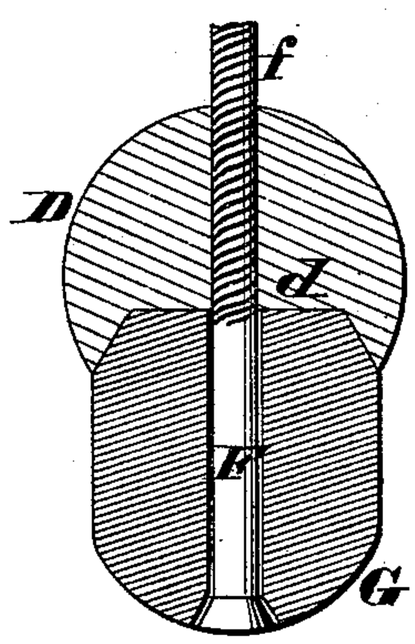


FIG. 2.

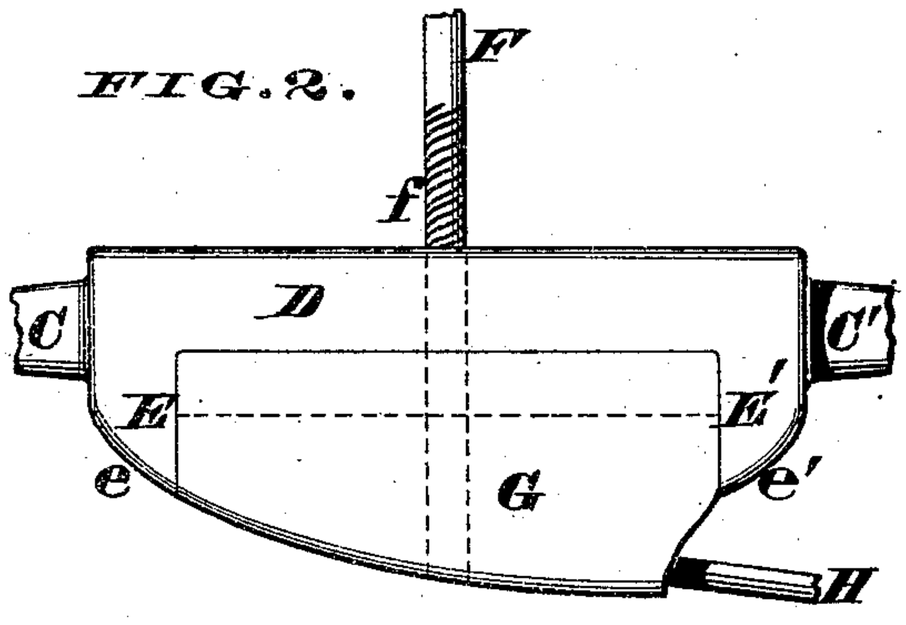


FIG. 3.

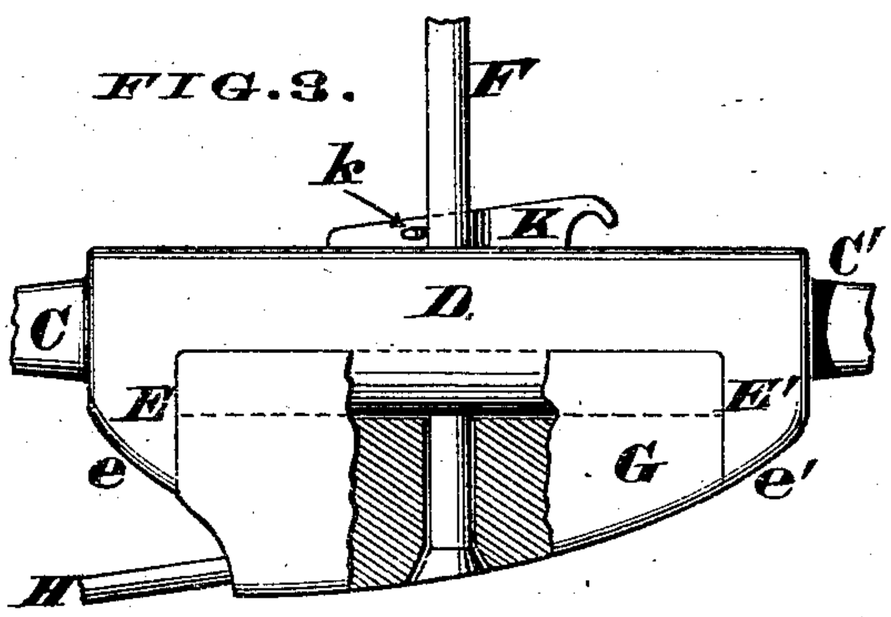
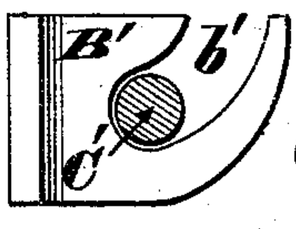


FIG. 6.

FIG. 7.



Attest.
Philip Mossinger.
D. Sanford

Inventor.
John L. Oliver
by James N. Layman
Atty.

UNITED STATES PATENT OFFICE.

JOHN L. OLIVER, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO PHILIP MOESSINGER, OF SAME PLACE.

MAIL-BAG CATCHER.

SPECIFICATION forming part of Letters Patent No. 273,381, dated March 6, 1883.

Application filed December 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. OLIVER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Mail-Bag Catchers, of which the following is a specification.

This is an improvement on those mail-bag catchers whose arms or cranes are capable of being turned completely around, so as to avoid the necessity of detaching the entire apparatus from the car-door, and then reversing said apparatus, so as to dispose the arm in the proper position for the return-trip; and my invention consists in attaching the crane to a vertically shiftable and reversible block or keeper, which latter bears against either one of a pair of shoulders on the barrel of the device, whereby the severe shock incidental to the sudden arrest of the bag in the bend of the arm or crane is transferred to the effective shoulder, as hereinafter more fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is an elevation showing my mail-bag catcher applied to the door of a postal-car, the arrow on the latter showing the direction of progress. Fig. 2 is an enlarged elevation of the central part of the apparatus, the keeper being in the same position as seen in the preceding illustration. Fig. 3 is a sectional elevation of the central part of a modified form of the device, the keeper being reversed. Fig. 4 is a transverse section of the apparatus, taken in the plane of the lever, the keeper being shown uncoupled from the shaft, preparatory to being reversed. Fig. 5 is a transverse section of a modification of the device, the keeper being shown locked to the shaft. Figs. 6 and 7 represent two different forms of brackets wherewith the apparatus is applied to the door-frame of the car.

A represents the doorway of a postal-car, the frame of said door having fastened to it brackets B B′, that support the tapering terminations or spindles C C′ of a barrel or shaft, D, which latter is preferably cylindrical, and is provided at its opposite ends with bearings or shoulders E E′, whose lower edges are chamfered and inclined or rounded off, as shown at *e e′* in Figs. 2 and 3. Fitted transversely in this shaft is the operating-lever F, that carries a keeper, G, of such length as to fit in snugly within the shoulders E E′. Furthermore, the upper surface of this keeper is concaved, as shown at *g* in Fig. 4, in order that said keeper may fit up closely against the under side of barrel D. Keeper G is capable of turning freely on lever or handle F, the latter being screw-threaded at *f* to engage with the barrel D, by which arrangement the turning of said handle will cause said keeper to advance or recede.

The bag-catching arm H, which is of the usual shape, is attached at one end to the keeper.

I I′ are elastic or compressible cushions interposed between the opposite ends of barrel D and the brackets B B′.

J J′ are spring-keys capable of being passed through suitable holes in the spindles C C′, so as to prevent accidental shifting of the apparatus.

The operation of this form of my bag-catcher is as follows: When the postal-car is to run in the direction indicated by the arrow in Fig. 1 the apparatus is so fitted in the bearings B B′ as to dispose the bend of arm H near the bearing B′, the spring-pin or its equivalent retainer J′ being passed through the hole in spindle C′, so as to preserve barrel D in its proper place. Furthermore, the screw-handle F is so turned as to cause the keeper G to be clamped closely up against said barrel. These precautions having been adopted, the apparatus is then used for catching mail-bags in precisely the same manner as ordinary devices of a similar character, the cushion I′ serving to deaden the shock occasioned by the mail-bag being suddenly arrested in the bend of the arm. When the train arrives at the end of the route and the return-trip is to be made the handle F is revolved so as to depress the keeper G, as seen in Fig. 4, which act causes it to clear the shoulders E E′. The keeper is now reversed or swung around, end for end, and lever F is turned so as to again screw said keeper firmly to the barrel D, when the apparatus is operated as above described, the pin J′ having been previously withdrawn, the

catcher shifted to the other side of the doorway and retained there by the other pin, J. In this changed position of the apparatus the cushion I sustains the impact occasioned by the bag being caught in the arm H.

From this description it is evident that the simple turning of the keeper G is sufficient to dispose the arm in either of its effective positions, thereby obviating the necessity of removing the entire apparatus bodily and again securing it in place on the car.

It is also apparent that as the chamfered edges *e e'* of shoulders E E' are of the same degree of inclination or curvature as the under side of keeper G the bag cannot catch on the end of the latter, no matter how the apparatus is set.

As the principal feature of my invention consists in securing the catching-arm H to a keeper, block, or equivalent device, G, capable of being readily reversed and locked to the shaft or barrel D, it is evident the locking device may be changed to suit special requirements.

One modification of the locking device is seen in Fig. 3, where a wedge, K, is driven into a slot in handle F, and is secured in position by a spring-pin, *k*, or otherwise. The withdrawal of this wedge allows the keeper to drop far enough to swing clear of shoulders E E'; or the same result may be accomplished by fastening a screw rigidly in the keeper and causing said screw to engage with a tubular handle, in order that the rotation of the latter may compel the keeper to advance or retract.

In the modification seen in Fig. 5 the barrel D is grooved longitudinally on its under side, as at *d*, to admit the upper edge of keeper G.

As the bag-catching apparatus must occasionally be changed from one side of the car to the other side of the same, some provision must be made for the ready disengagement of spindles C C' from the brackets or boxes B B'. This can be done by providing one of the brackets with a pivoted latch-cap, L, closed with a spring, *l*, as seen in Fig. 6; or the spindle can rest in an undercut slot, *b'*, of the bracket, as represented in Fig. 7. Finally, the heads of the spring-pins J J' may be arranged to enter suitable notches in the door-frame, thereby serving as stops to limit the rotation of the spindles C C' in their bearings for the purpose of arresting arm H at the proper level.

I am aware it is not new to apply a reversible crane or arm to a mail-bag catcher, and therefore my claims are not to be construed as an attempt to cover any and every construction of such cranes, but are limited to a crane when fastened to a vertically shiftable and reversible block or keeper that bears against one of a pair of shoulders on the barrel of the apparatus, as herein described.

I claim as my invention—

1. The bag-catching arm H, projecting from a keeper, G, which latter is clamped in a socket formed by the shoulders E E' of shaft D, and is capable of being disengaged from said socket and then reversed, for the purpose described.

2. The bag-catching arm H, projecting from a keeper, G, which latter is clamped in a socket formed by the shoulders E E' of shaft D, said shoulders being provided at bottom with chamfered edges *e e'*, for the purpose described.

3. The combination of barrel D, shoulders E E', keeper G, and bag-catching arm H, said keeper being concaved on its upper side at *g*, so as to be clamped snugly to the barrel by the operating-lever F, as herein described.

4. The combination of barrel D, shoulders E E', screw-threaded shaft F *f*, keeper G, and bag-catching arm H, substantially as herein described, and for the purpose set forth.

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

JOHN L. OLIVER.

Witnesses:

JAMES H. LAYMAN,

SAML. S. CARPENTER.