S. A. SIMMONS.

MAIL BAG CATCHER.

APPLICATION FILED JUNE 10, 1910.

984,163. Patented Feb. 14, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

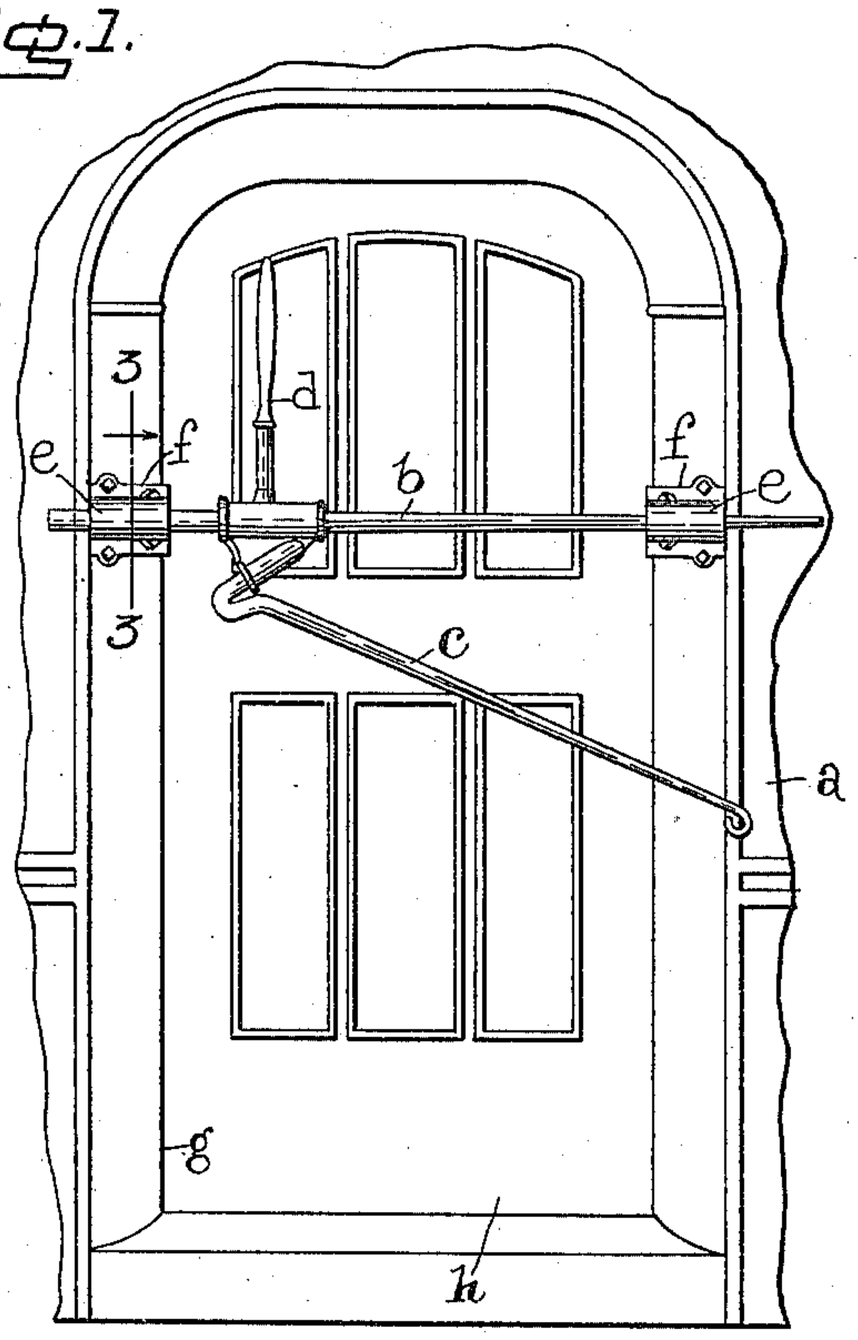


Fig. 2.

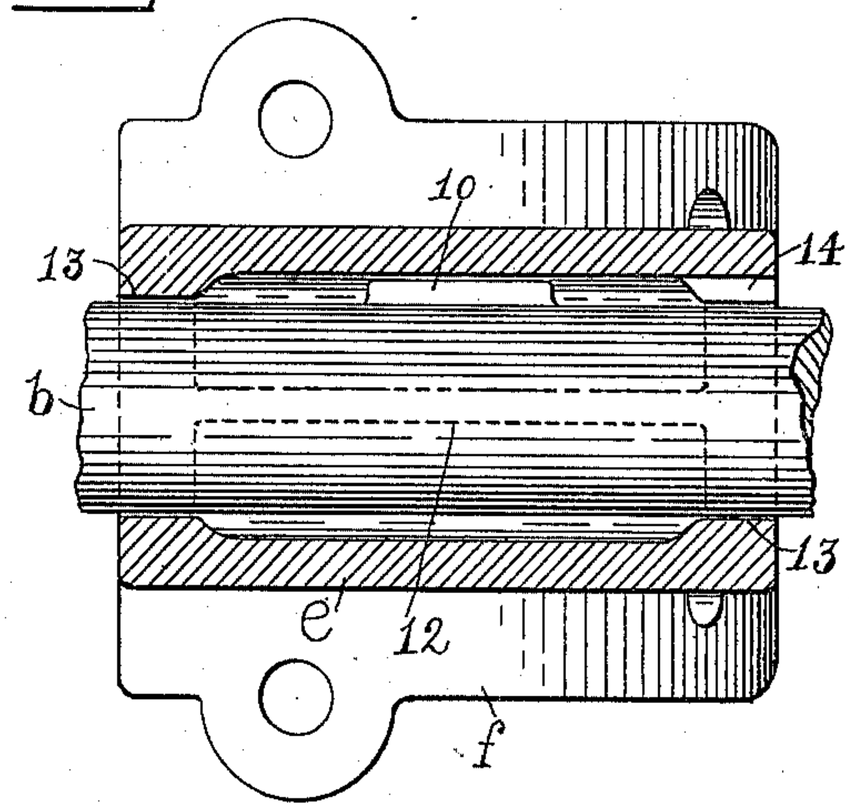
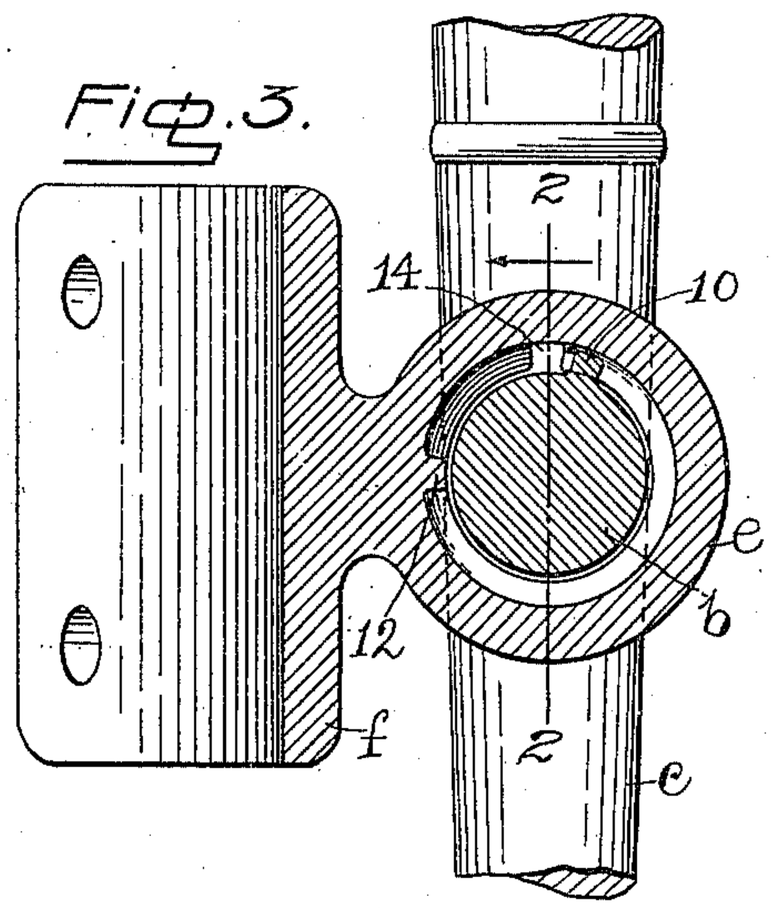


Fig. 3.



Witnesses:
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2 SHEETS—SHEET 2.

Fig. 5.

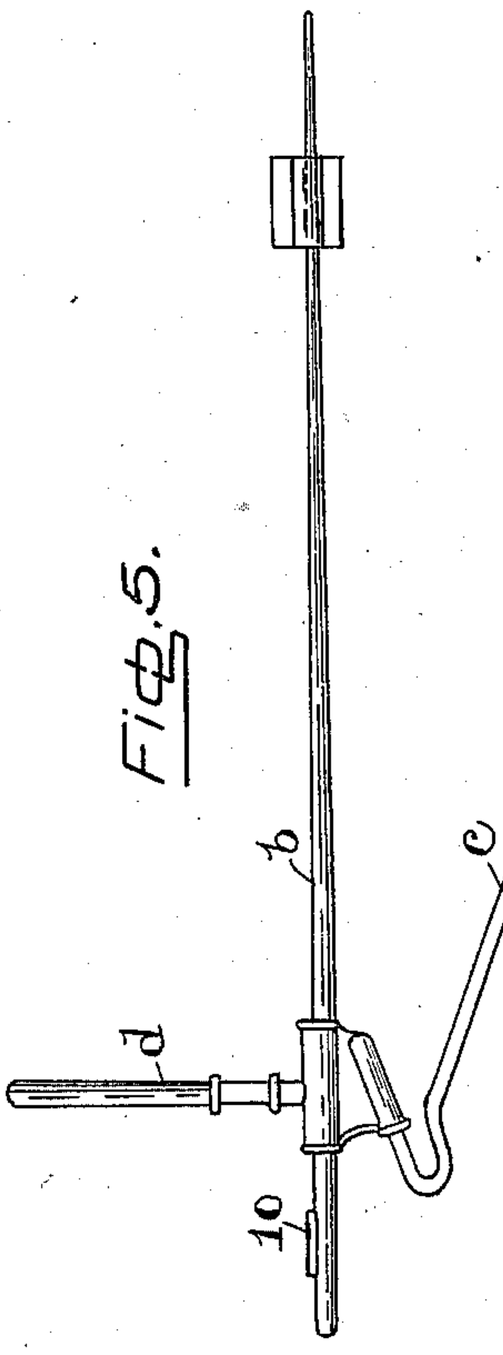
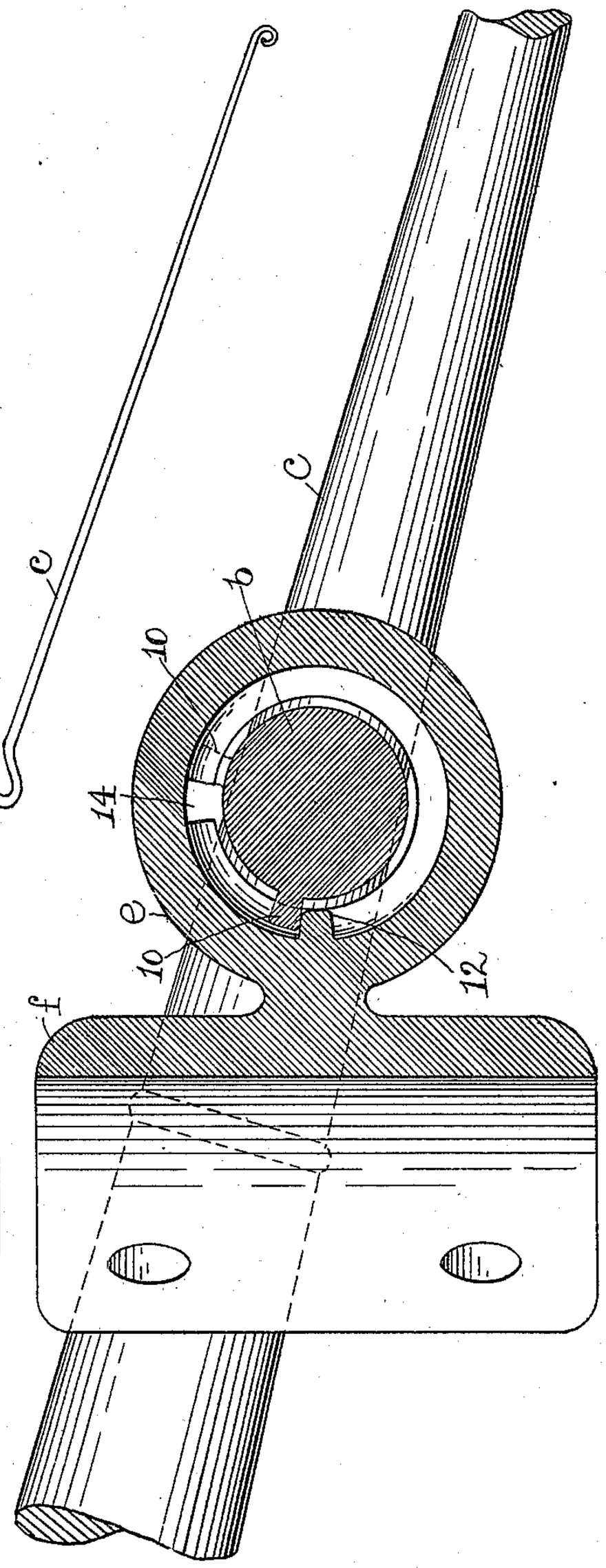


Fig. 4.



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UNITED STATES PATENT OFFICE.

SIDNEY A. SIMMONS, OF WALTHAM, MASSACHUSETTS.

MAIL-BAG CATCHER.

984,163. Specification of Letters Patent. Patented Feb. 14, 1911.

Application filed June 10, 1910. Serial No. 566,203.

To all whom it may concern:

Be it known that I, SIDNEY A. SIMMONS, a citizen of the United States, residing in Waltham, county of Middlesex, and State of Massachusetts, have invented an Improvement in Mail-Bag Catchers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a mail bag catcher such as now commonly used on railway mail cars. Catchers of the class described as now commonly made and known to me, are provided with a rock-shaft extended across the doorway of the mail car, and provided with an arm which extends at an angle to the rock-shaft and is designed to be moved into a substantially horizontal position so as to catch the mail bag, which is suspended in a vertical position alongside of the railway track. The rock-shaft referred to is journaled in suitable hubs forming part of castings, which are secured to the opposite walls of the door-opening in the car, and said rock-shaft is provided with a crank or arm which forms a handle, by which the mail clerk or other operator turns the rock-shaft so as to project the catcher arm outwardly into its operative position. In practice, it frequently happens, that the catcher arm is elevated too high and strikes the mail bag near its top, or too low and strikes the mail bag near its bottom, with the result that, in either case, the mail bag is torn from its suspending device and is not caught by the catcher arm, but either falls alongside of the track, which results in loss of time in the transmission of the mail, or the bag is knocked under the rapidly moving train and is torn to pieces, with consequent loss of mail.

The present invention has for its object to provide a catcher of the class described, with means for insuring the correct positioning of the catcher arm, so as to engage the mail bag substantially at its center and catch the same, and thus avoid the destruction of the mail and the loss of time above noted.

Figure 1 represents in elevation a sufficient portion of a railway car provided with a mail bag catcher embodying this invention. Fig. 2, a detail in longitudinal section taken on the line 2—2, Fig. 3. Fig. 3, a cross-section on the line 3—3, Fig. 1. Fig. 4, a detail in section and elevation to be referred to showing the rock-shaft in its operative position and Fig. 5, a detail of the catcher.

Referring to the drawings, *a* represents a railway car provided with a mail bag catcher comprising a rock-shaft *b*, an inclined arm *c* extended therefrom and a handle *d*, by which the rock-shaft is turned in its bearing hubs *e* forming part of castings *f*, which are bolted or otherwise secured to the opposite side walls of the doorway *g* in the car, which is normally closed by the door *h*. The catcher as thus far described is and may be of any suitable construction, such as now commonly used on the mail cars of railway trains.

In operation with the catcher as thus far described, the mail clerk or other operator opens the door *h* and turns the handle *d* down within the car, thereby rocking the shaft *b* so as to raise the arm *c* into position to engage the mail bag, (not shown,) but which is vertically suspended or held alongside of the track on a suitable support (not shown). The position of the catcher arm depends upon the judgment of the operator, and it frequently occurs that he turns the rock-shaft too far and elevates the catcher arm to such extent as to strike the top or upper end of the mail bag, or that he does not turn the rock shaft far enough and elevates the catcher arm only sufficiently to strike the bottom of the bag, with the result in either case, that the bag is torn from its fastenings and either knocked under the train or alongside of the track. When the bag is knocked under the train, it is invariably cut or ground to pieces and some or all of the mail lost, and when it is knocked alongside of the track valuable time is lost as the bag has to be replaced and picked up by the next mail train.

The above defects are avoided by providing the catcher with means for insuring the proper positioning of the catcher arm in all cases, so that said arm will engage the mail bag at or about its middle. In the present instance, I have shown one construction for this purpose, which I may prefer and which consists of a lug, pin, or other projection 10 on the rock-shaft *b*, which coöperates with a stop within the hub *e* of the casting *f*, said stop being shown as a longitudinally extended rib 12 on an enlarged portion of the inner circumference of the hub *e* (see Figs. 2 and 3), the said hub being provided at its

ends with portions 13 of smaller diameter to form bearings for the rock-shaft, one of the said bearings having a slot 14 through it for the passage of the lug or projection 10 on the rock-shaft.

In Figs. 1 and 3, the rock-shaft *b* is in its normal or inoperative position, with the catcher arm lowered substantially parallel with the side of the car *a*.

When it is desired to use the catcher, the operator merely lowers the handle *d* and rocks the shaft *b* until the projection 10 engages the stop 12 (see Fig. 4) and holds the handle in this lowered position until the bag has been caught by the arm *c*, which has been properly positioned to engage the bag at or near its longitudinal center. After the bag has been caught and removed from the arm *c*, the operator releases the handle and the catcher assumes its normal position shown in Fig. 1.

The stop rib 12 preferably extends substantially the length of the enlarged portion of the hub *e* as represented in Fig. 2, and the lug or projection 10 on the rock-shaft is made of less length so as to allow of a limited longitudinal movement of the rock-shaft.

In practice, the hubs *e* of both castings *f* on opposite sides of the doorway may and preferably will be provided with the stop 12, so that the rock-shaft may be reversed and the lug or projection 10 may coöperate with the stop on either casting, which enables the car to be run in either direction, as, for instance, on single track roads.

When it is desired to reverse the catcher, it is only necessary to turn the rock-shaft *b* until the lug 10 registers with the slot 14 in the hub *e* and then move the rock-shaft longitudinally so as to remove the end carrying the lug from its hub *e* and then withdraw the other end of the shaft from the hub of the casting attached to the opposite side of the doorway.

I have herein shown one construction of device for insuring the proper positioning of the catcher arm *c*, which I may prefer, but it is not desired to limit the invention to the particular construction shown.

Claims.

1. The combination with a mail bag catcher comprising a rock-shaft having a catcher arm extended therefrom at an angle thereto, of bearing hubs for said rock-shaft, one of said hubs being provided with end portions of substantially the diameter of said rock-shaft to support the latter and an intermediate portion of larger diameter, a stop attached to the wall of the portion of larger diameter within the same, and a projection on the rock-shaft coöperating with the said stop, substantially as described.

2. The combination with a mail bag catcher comprising a rock-shaft having a catcher arm extended therefrom at an angle thereto, of bearing hubs for said rock-shaft, one of said hubs being provided with end portions of substantially the diameter of said rock-shaft to support the latter and an intermediate portion of larger diameter having a longitudinally extended rib, and a projection on the rock-shaft coöperating with said rib, one of the end portions of said hub having a slot for the passage through it of said projection, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

SIDNEY A. SIMMONS.

Witnesses:
JAS. H. CHURCHILL,
J. M. MURPHY.