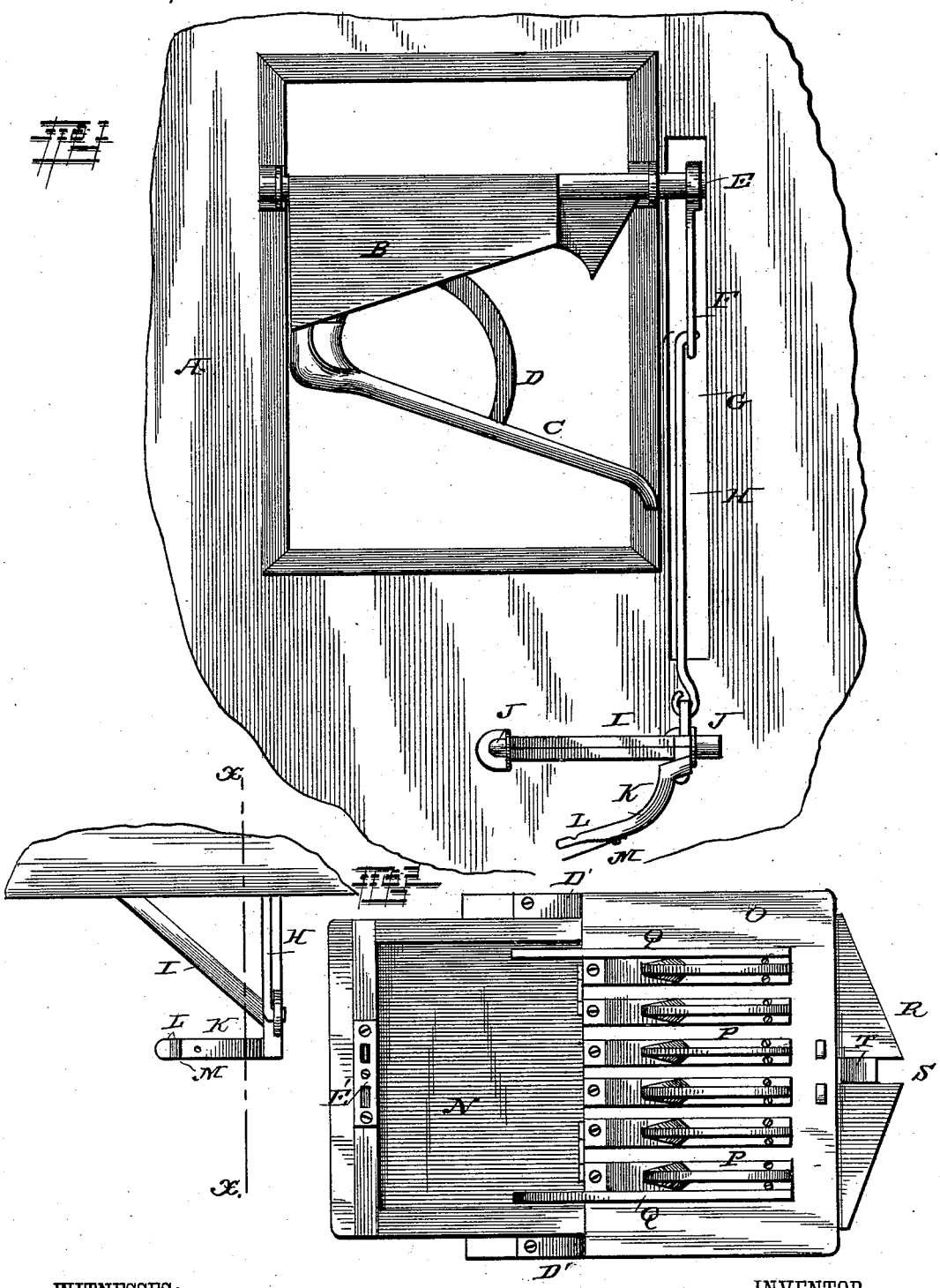
(No Model.) 2 Sheets—Sheet 1.

W. ANGLE.

MAIL BAG CATCHER.

No. 306,893. Patented Oct. 21, 1884.



WITNESSES:

Fred. L. Dieterich.

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INVENTOR.

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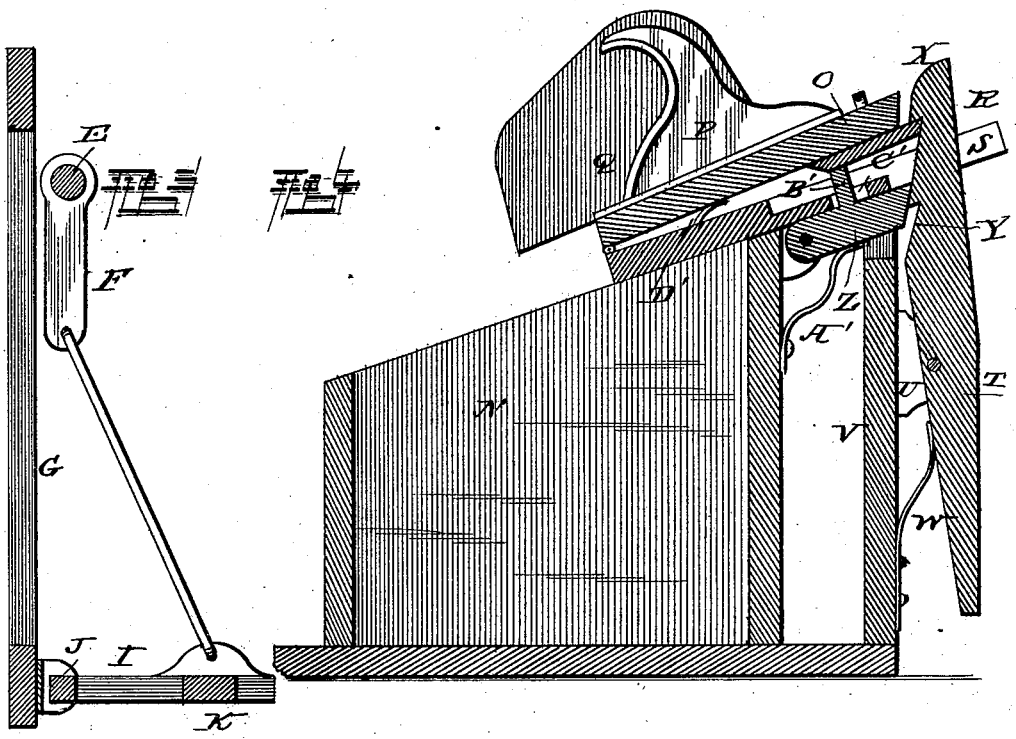

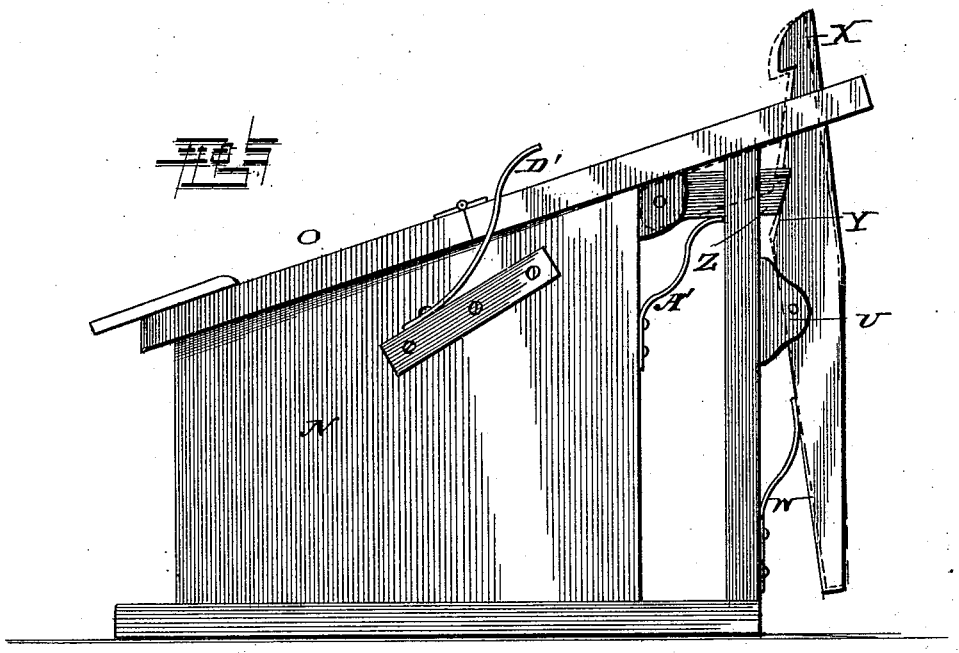

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UNITED STATES PATENT OFFICE.

WILLIAM ANGLE, OF WELSH RUN, PENNSYLVANIA.

MAIL-BAG CATCHER.

SPECIFICATION forming part of Letters Patent No. 306,893, dated October 21, 1884.

Application filed August 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ANGLE, of Welsh Run, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Mail-Bag Catchers and Deliverers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of a railway-car equipped with my improved mail-bag catcher and delivering apparatus. Fig. 2 is a plan view showing the same and the mail-receiving box in position for operation. Fig. 3 is a transverse sectional view taken on the line *x x* in Fig. 2. Fig. 4 is a longitudinal vertical sectional view of the mail-receiving box, showing the same open and in position for operation; and Fig. 5 is a side view showing the receiving-box closed.

The same letters refer to the same parts in all the figures.

This invention relates to mail-bag catching and delivering apparatus for the railway mail service; and it has for its object to provide a device which shall possess superior advantages in point of simplicity, durability, and general efficiency, which shall catch and deliver the mail-bags safely and without injury, and in which a closed and self-locking receptacle shall be provided for the reception of the mail-matter.

With these ends in view the invention consists in the improved construction and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A designates a railroad-car, to which my improved mail-bag catcher and delivering apparatus has been attached.

As much of the device as is comprised by the mail-bag catcher has, with certain exceptions, to be presently described, been patented to myself under date of February 5, 1884, No. 292,975; and it consists, essentially, of a vertically-swinging casing mounted by means of trunnions in suitable bearings upon the side of the car, and provided with a catching-arm and with a clasping or detaining arm operated by means of a suitable trigger. These features have been shown in the patent above referred to, and are not herein particularly claimed. The front end of the casing, however—in this case designated by letter B—is provided with an angular guide or guard, C, serving to guide the mail-bag from the holder into the catching-arm, where it is detained by the clasping-arm, D, shown and claimed in my previous patent. One of the trunnions, E, of the casing B is provided with an inwardly-extending arm or crank, F, extending through a slot, G, in the side of the car. The inner end of the said arm is connected by a pivoted rod, H, with the outer end of the delivering-frame I. The latter consists of a triangular or other suitably-constructed frame, provided at its inner or lower end with trunnions J, by which it is mounted, so as to swing vertically in suitable bearings upon the side of the car. The outer end of the said frame is provided with an outwardly-extending curved arm, K, one side of which is provided with a notch, L, while its other side has a spring, M, serving to hold the ring of the mail-bag in the said notch with a degree of tension sufficient for security, but not so great as to prevent the mail-bag from being easily slipped off by the receiving device, which will be hereinafter more fully described. It is obvious that this delivering-frame, as well as the catcher and its attachments, may be constructed of iron or of any other suitable material. I would also have it understood that with regard to details I do not limit myself to the exact construction herein shown and described, but reserve to myself the right to any such modifications as may be resorted to without departing from the spirit of my invention.

N designates the mail-bag-receiving device, which consists of a box of suitable construction mounted or arranged securely alongside the track, and having a hinged and preferably inclined cover, O. The under side of the latter is provided with a series of curved or hook-shaped catches, P P, adjoining which a pair of guard-plates, Q Q, are secured, as clearly shown in the drawings. The top of the box has a rearward-extending flange, R, having a slot, S, through which extends the

upper end of a catch, T, which is pivoted between two lugs or ears, U U, of an upright, V; or the said lugs may, by making them of suitable length, be secured directly to the rear side of the box. The upper end of the said catch is forced in a forward direction by a suitably-arranged spring, W, bearing against its lower end at any point below its fulcrum or pivoting point, and the said upper end is provided with a beveled hook, X, adapted to engage and retain the cover in an open position, as will be presently described, and with a notch, Y, adapted to engage a trigger, Z, which is pivoted to the rear side of the box, and forced automatically in an upward direction by the action of a suitably-arranged spring, A'. The said trigger is provided with a stud, B', that extends upwardly through a slot or opening, C', in the flange R at the rear of the box.

D' D' designate springs arranged to bear against the cover when the latter is open, for the purpose of forcing it automatically into a shut position when it is released from the catch or holding device, and a spring-lock, E', of any desired construction is provided, by which the cover shall be securely fastened when it flies shut, so as to prevent the removal of the contents of the box by any but the person who holds the key.

The catch T and trigger Z are relatively so constructed and arranged that when the cover is opened it will engage and be held by the hook X at the upper end of the catch without disturbing the trigger, or at all events without forcing it in a downward direction sufficiently far to engage the notch Y of the catch; in other words, the cover will be placed in contact with the stud B' of the trigger without operating the latter. In this position it will be retained by the action of the springs D', which tend to force the cover shut, and which, while it is open, form cushions upon which it is supported.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood. The receiving-box, having been opened and its cover secured by means of the catch in the position shown in Figs. 2 and 4 of the drawings, is ready for operating automatically for receiving the mail. The bag to be delivered from the mail-car is hung upon the arm K of the delivering-frame, and the mail-bag catcher is then swung outward by means of its operating-handle. The connecting-rod H, by the same action, serves to swing the delivering-frame outward to the position shown in Fig. 2, when the bag which it supports will be in proper position to be seized by the hooks upon the cover of the receiving apparatus.

The mail-bag catcher operates in the usual manner to seize the bag from the holder, which latter is of ordinary construction, and as the car passes the receiving-box the bag held by the delivering-frame will be intercepted by the hooks P P and slid off the arm K. The shock or impetus of the mail-bag against the hooks P P will force the cover slightly downward against the stud B', thus lowering the trigger Z and throwing it into engagement with the notch Y of catch T. The hook X at the upper end of the latter is thus disengaged from the cover, which latter, by the action of the springs D', is instantly forced shut, thus throwing the mail-bag into the box, the cover of which is at the same time automatically secured by the spring-lock E'.

In order to reset the receiving apparatus, it is only necessary to force the lower end of the catch T slightly against the tension of the spring W, so as to release the trigger Z from the notch Y. The cover may then again be opened and placed in engagement with the beveled hook at the upper end of the catch.

This device, as will be seen, is exceedingly simple in construction; hence it is inexpensive, durable, and not liable to get out of order. It should be understood that with regard to the construction of the details of the operating mechanism I do not limit myself to that herein shown and described, but reserve to myself the right to such modifications as will readily suggest themselves, and which may be resorted to without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a mail-bag catcher comprising a vertically-swinging frame one of the trunnions of which is provided with an arm extending in an inward direction, a vertically-swinging delivering-frame, and a pivoted rod connecting the outer end of the latter with the arm extending inwardly from the catcher-frame, substantially as and for the purpose set forth.

2. A mail-bag receiver comprising a box having a hinged cover, curved hooks or catchers upon the under side of the latter, a spring-catch arranged to retain the said cover in an open position, springs arranged to force the said cover shut, and mechanism whereby the said cover shall be automatically released from its holding-catch when it receives the shock or impetus of the mail-bag against its curved catchers, substantially as and for the purpose herein set forth.

3. In a mail-bag receiver, a box provided with an inclined hinged cover, in combination with the curved hooks or catchers secured upon the under side of the latter, and the guard-plates arranged adjoining the said catchers, substantially as and for the purpose set forth.

4. In a mail-bag receiver, the combination of a box having a hinged cover provided with hooks or catchers, springs arranged to force the said cover automatically shut, a spring-catch arranged to retain the said cover in its open position, mechanism for releasing the cover from the said catch when it receives the shock or impetus of the bag being delivered,

and a spring-lock arranged to lock the cover automatically when it flies shut, substantially as and for the purpose set forth.

5. In a mail-bag receiver, the combination of a box having a hinged cover, springs arranged to force the said cover automatically shut, a spring-catch pivoted at the rear of the box adapted to retain the cover in an open position, and having a notch near its upper end, and a trigger adapted to engage the said notch, and having an upwardly-projecting stud adapted to receive the impetus and weight of the cover when the latter comes in contact with the mail-bag being delivered, so as to throw the trigger into engagement with the notch of the catch and release the latter from its hold upon the cover, substantially as and for the purpose set forth.

6. As an improvement in mail-bag receiving and delivering apparatus, the combination of a delivering-frame hinged to the side of a car and adapted to be operated by means of a pivoted rod which connects it with an arm extending inward from the catcher-frame, with a receiving-box arranged alongside the track, and having a hinged cover provided on its under side with hooks or catchers and guard-plates, a spring-lock for the said cover, springs arranged to force it automatically shut, a spring-catch arranged to retain it in an open position, and mechanism for releasing the cover from the said spring-catch when it receives the shock or impetus of the bag being delivered, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM ANGLE.

Witnesses:
WM. BAGGER,
BENNETT S. JONES.