[91.]

George W. Hildreth's

Device for Delivering and Recieving Mail Bags

No. 118,937. Patented Sep. 12, 1871.

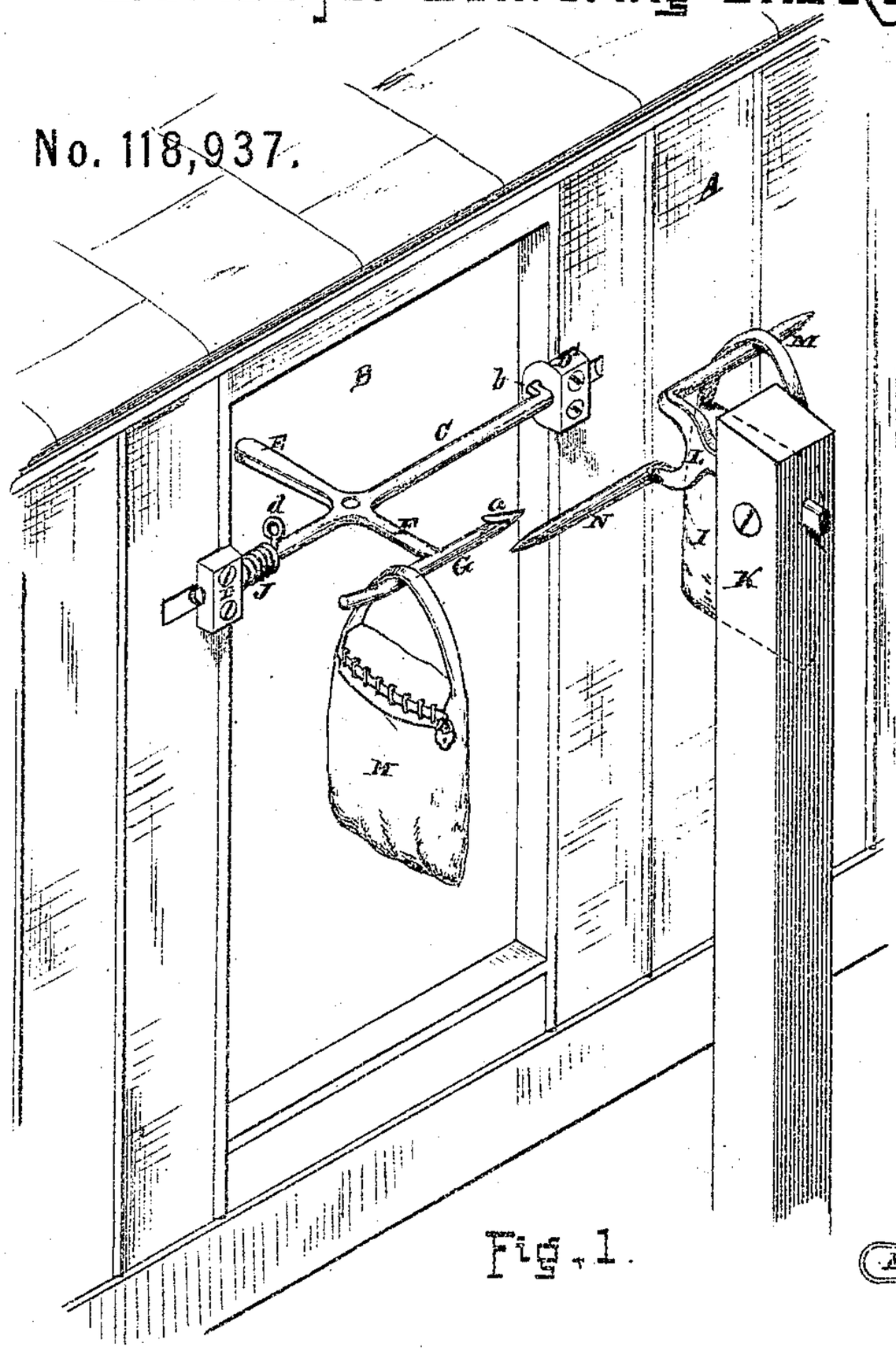

Fig. 1.

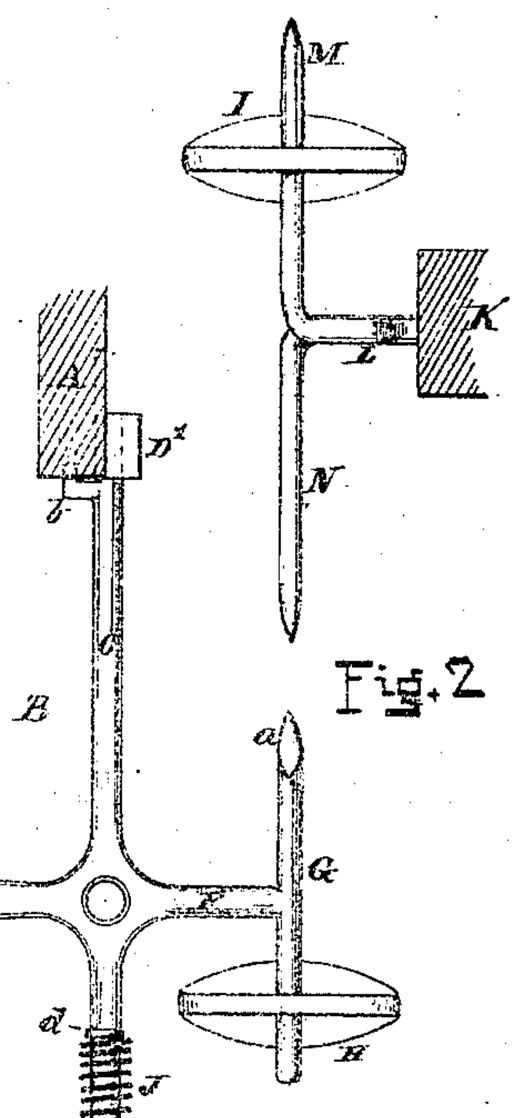

Fig. 2

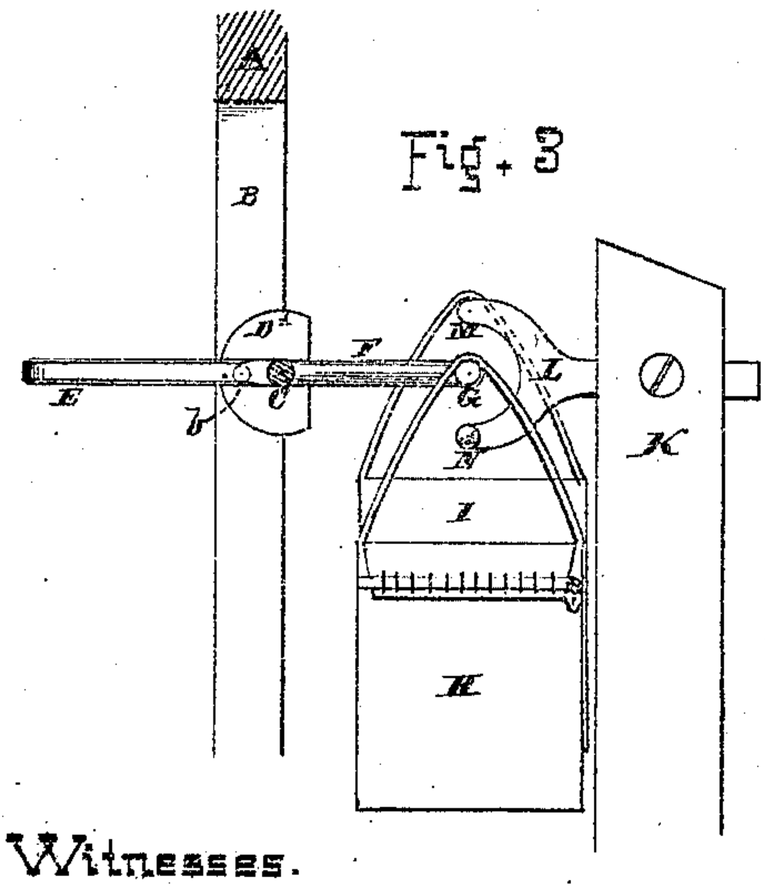

Fig. 3

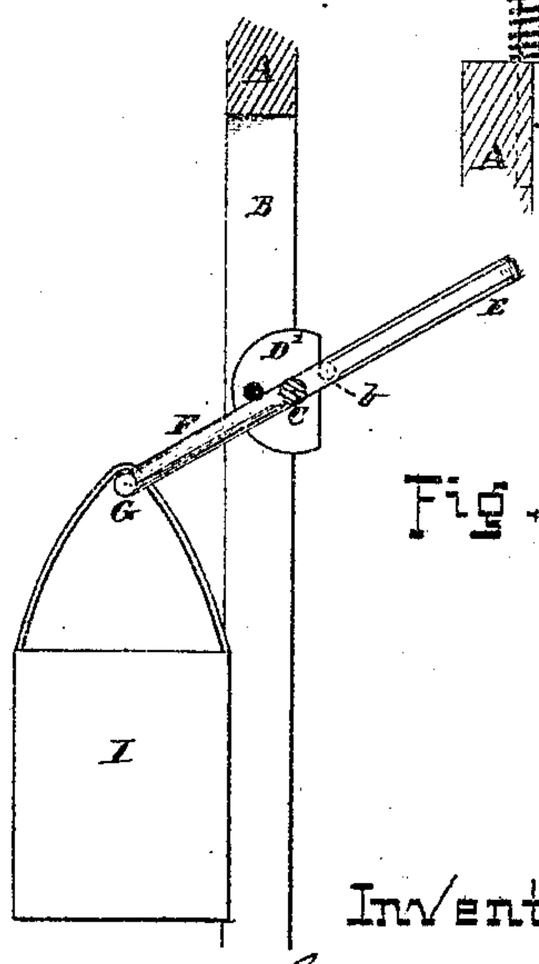

Fig. 4

Witnesses.

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GEORGE W. HILDRETH, OF LOCKPORT, NEW YORK.

IMPROVEMENT IN DEVICES FOR DELIVERING AND RECEIVING MAIL-BAGS.

Specification forming part of Letters Patent No. 118,937, dated September 12, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. HILDRETH, of Lockport, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Devices for Delivering and Receiving Mail-Bags upon Railway Cars when in motion; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing which forms a part of this specification, and in which—

Figure 1 represents an isometric view of my device. Fig. 2 represents a plan view of the same. Fig. 3 represents a transverse section of the car, showing a rear view of the device, and Fig. 4 represents a similar view with the supporting-arm reversed.

To enable those skilled in the art to which my invention belongs to make and use the same, I will describe it in detail.

The nature of my invention consists in certain improvements in mail-bag receiving and delivering devices, as hereafter explained.

In the drawing, the part marked A represents a portion of the mail-car, and B indicates the door or window through which the bags are passed in and out. A bar, C, is arranged across the upper part of the opening B, where it is supported in a horizontal position by suitable bearings, D D^1, that are fixed to the side of the car, and in which the ends of the bar C are fitted loosely, so that said bar can be revolved when desired. The bar C is provided with a handle, E, projecting from one of its sides, and also at its opposite side with an arm, F, the end of which is furnished with a cross-head, G, for supporting the bags during the operation of receiving and delivering them. The rear part of the cross-head G, upon which the bag H to be delivered is supported, is made round and smooth with its extremity slightly turned up, just sufficient to prevent the bag H from sliding off by the action of the wind, while the front end of the cross-head G, on which the bags I are received, is furnished with a barb or hook, *a*, to retain the bags thereon. The bar C is provided at its front end with an angular finger, *b*, which catches into suitable notches or openings formed in the side of the bearing D^1, and thereby retains the bar C and arm F in the desired positions. A coil-wire spring, J, is arranged around the rear end of the bar C, between a stop-pin *d*, set through the bar and the side of the bearing D, at the rear end thereof. The spring J presses forward the bar C, and this holds the finger *b* up to the bearing D^1 and into the openings formed for its reception, excepting when the spring J is compressed by the application of some counteracting force. By removing the stop-pin *d* the bar C can be slipped back and freed from the bearings D D^1, so as to reverse its position or exchange it to the opposite side of the car. K indicates a post or standard set up near the railway-track at the station where the mail-bags are to be delivered and received. At the upper end of the post K, upon the side nearest to the track, there is a crescent-shaped metallic supporting-piece, L, arranged in a vertical position, with its shank fixed in the post K, and having projecting from its upper horn an arm, M, and from its lower horn an arm, N. These arms are arranged in horizontal positions parallel with the railway, the upper arm M extending in the direction in which the train is moving, and the lower arm N in the opposite direction, as shown. The relative positions of the moving and stationary devices are such that the cross-head G of the arm F will pass through the opening between the horns of the crescent L, directly over the arm N and beneath the arm M, when the mail-car A passes the delivering station.

The operation of my improved device is as follows: The mail-agent upon the car hangs the bag H, containing the mail to be delivered, upon the rear end of the cross-head G, and by means of the handle E swings the arm F outward and arranges the parts connected therewith in the positions indicated in Figs. 1 2 and 3 of the drawing, where they are retained by the finger *b* which catches into the proper notch or opening formed in the bearing D^1, as before stated. The agent at the station hangs the bag I, which is to be received by the route-agent, upon the upper arm M of the crescent-support L. Then as the mail-car passes the standard K, the cross-head G passes through the opening of the crescent L and carries the handle of the bag H over the end of the lower arm N, which latter draws the bag H from the rear end of the cross-head G, while at the same time the forward end of the cross-head G passes through the handle of the bag I and draws it off from the arm M and carries it along with the car, the bag H being retained by the arm N. The inertia of the bag I, as the arm F comes in contact with its handle, causes the spring J to be

compressed and the bar C to be moved back sufficiently to free the finger *b* from the opening wherein it is held, and the weight of the bag I, dropping from the arm M upon the head G, causes the arm F to immediately swing downward into the car, as shown in Fig. 4. The finger *b* catches upon the outer corner of the bearing D^1 when the arm F swings down, or into a notch or opening formed for its reception, and thus retains the bar C and arm F in position within the car until the bag is removed from the head G and the bar replaced. The metallic support L M N at the top of the standard K, should be made of such strength that it will properly support the mail-bags, but at the same time be weak enough to break before any other part of the device, in case any person should through malice or accident place anything upon the arms M N thereof which would be liable to injure the mechanism attached to the car. It will be understood that separate standards K and arms M N should be set up at the stations to accomodate trains moving in opposite directions. The arms M N may be made and supported independent of each other if preferred, the only requirement being to preserve their relative positions as regards each other and the cross-head on arm F.

By the foregoing description it will be seen that with my device the mail-bags can be both delivered and received without injury to the bags or to the mail matter contained therein, and that too when the train is moving at its highest speed; whereas with the ordinary devices for the purpose, the bags to be delivered are thrown out upon the ground, which operation is liable to greatly injure the bags and their contents, besides covering the outside of the bags with mud and dirt. With my improved device there is no violent jerking of the bags in stopping them upon and starting them from the arms M N when the train is moving at a high speed, inasmuch as the bags are brought in contact with each other at the moment of delivery, and the momentum of the moving bag H is imparted to the stationary bag I, thereby causing the latter to move forward, and the former to remain comparatively motionless.

Having described my improved devices for delivering and receiving mail-bags, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination, with a railway car, of a partially automatic swinging mail-bag delivering and receiving device, substantially as described, whereby the receiving mechanism is loosened by the operation of exchanging the bags, and permitted to swing by its own gravity to deliver the bag within the car, substantially as set forth.

2. The peculiarly constructed holder L, M, and N, as shown and described.

3. The combination, with the partially automatic swinging mail-bag delivering and receiving device upon the car, of the stationary receiving and delivering device at the station of delivery, constructed and arranged substantially as set forth.

4. The combination, with the bar C and bearings D D^1, of the catch-finger *b*, and spring J, substantially as and for the purposes set forth.

GEORGE W. HILDRETH.

Witnesses:
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