(No Model.)

H. B. HEWITT.

MAIL POUCH RELEASING DEVICE.

No. 484,499. Patented Oct. 18, 1892.

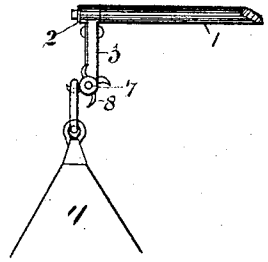
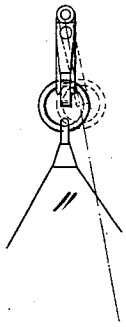


Fig 1



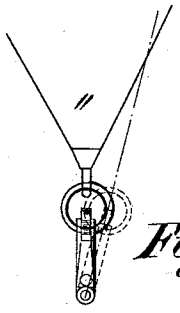


Fig 2

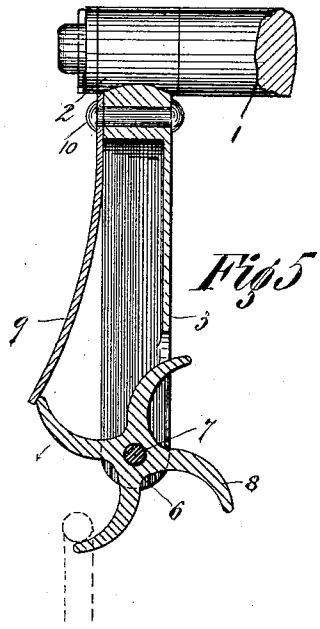


Fig 5

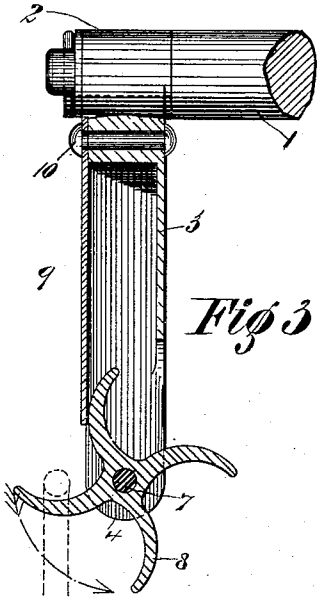


Fig 3

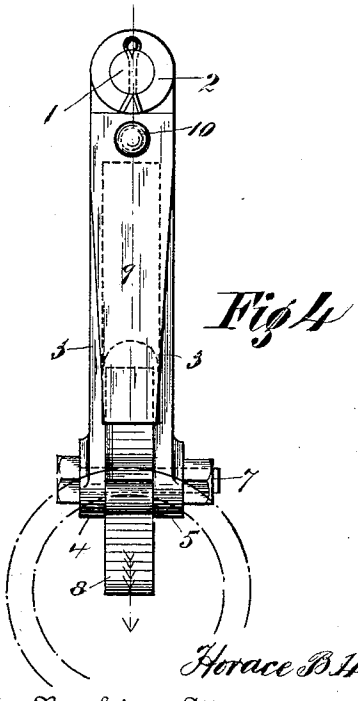


Fig 4

Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HORACE B. HEWITT, OF INDIANAPOLIS, INDIANA.

MAIL-POUCH-RELEASING DEVICE.

SPECIFICATION forming part of Letters Patent No. 484,499, dated October 18, 1892.

Application filed November 20, 1891. Serial No. 412,543. (No model.)

To all whom it may concern:

Be it known that I, HORACE B. HEWITT, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Mail-Pouch-Releasing Devices, of which the following is a specification.

My invention relates to a new and improved device for automatically releasing mail-pouches to transfer them to a moving train; and it consists in a simple device of novel construction, hereinafter more fully set forth.

The object of my invention is to provide means whereby the mail sack or pouch will be instantaneously released when gripped or engaged by the pouch-catcher of the moving train; also, to provide a catch or hook that will automatically adjust or reset itself to engage or release the pouch when required; also, to provide means whereby the sustaining-link will partially rotate or swing in line with the direction of the force due to the inertia of the moving train and that of the pouch sustained on said catch, and thereby relieve the sustaining rings and straps attached thereto and to the mail-pouch of any undue stress. I attain these objects by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the sustaining-arms of a mail-catcher, showing a mail-pouch suspended thereon. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged sectional elevation of the sustaining-link, showing the automatically-adjusting hook pivotally secured on the bifurcated end thereof. Fig. 4 is a front elevation of the same, and Fig. 5 is a side elevation of the sustaining-link and releasing and retaining hook in position when about to release the mail-pouch and to disengage its next consecutive curved engaging-arm from its retaining-spring.

Similar numbers of reference designate like parts throughout the several views.

Referring to the drawings, the upper and the lower sustaining-arms 1 are pivotally secured to a rigidly-held vertical mast in direct vertical alignment and at a suitable distance apart to permit a mail-pouch to be suspended and retained between them. The ends of the arms 1 are reduced to receive and to accurately fit the eyes 2 of the sustaining-link 3 and to pivot thereon. The sustaining-link 3 is preferably made or cast with a hollow or rectangular section to secure lightness, and has its catch-supporting end bifurcated, between which bifurcations or jaws 4 and 5 the automatic engaging and releasing catch or hook 6 is pivotally secured by the bolt 7. The catch or hook 6 I designate as a continuous engaging and releasing hook for the reason that one of the series of its radially-curved arms is at all times in position to engage the sustaining-ring of the mail-pouch and to release the same when the requisite amount of force of concussion is applied thereto when engaged by the grip of the moving train. The arms 8 are preferably formed integral on the catch 6, with the concavity of their curves in the same direction to contact with the free end of the retaining-spring 9 and to be gradually released therefrom. The spring 9 is preferably made of spring-steel or other equally-resilient material and has its fixed end rigidly secured to the face of the sustaining-link 3 by the rivet 10 or other suitable securing device.

Referring particularly to Figs. 1 and 2, it will be seen that the top and bottom ends of the mail-pouch 11 are held in position by the hook or catch 6, which retains the pouch in position till caught by the catching device on the moving train.

The operation of my device is as follows: The top and bottom arms of the mail-catcher are first placed in their relative positions, as shown in Figs. 1 and 2, with the top sustaining-link projecting downwardly and the bottom or under one projecting upwardly, the catch or hook 6 being in the position shown in Fig. 3, with its curved or hooked arm 8 projecting outwardly and whereon the top and bottom suspending and retaining rings of the mail-pouch are hooked. The elastic and retaining spring 9 must be sufficiently strong or stiff to retain the catch or hook 6 in its engaging position, as shown in Fig. 3, when the weight of the pouch and the attachments thereof are being sustained; but when a slightly-additional force is applied to the pouch the spring must permit the said catch to rotate freely and to release said pouch, as shown in Fig. 5. It is obvious that the in-

stant the pouch is released a rotative motion in the direction of the arrow (see Figs. 3 and 5) is transmitted to the catch 6, which movement alternately presents one of the series of the engaging-arms 8 into engaging position, as shown particularly in Fig. 3.

It is clear that any number of arms or hooks may be applied to a rotative hook of the character described; but I prefer to use four such radial arms or hooks, as shown in the drawings, for the reason that this number produces much better results in actual practice. It will also be observed that the sustaining-links 3, owing to the fact of their being pivotally secured on the ends of their sustaining-arms, are permitted to readily adjust themselves or to swing with their centers in line with the natural lines of the component forces of the resultant force applied to and concentrated in the mail-pouch, and thereby reduce the stress on the mail-pouch attachments to a minimum.

Having thus fully described the construction and operation of my invention, what I claim as new and useful, and desire to cover by Letters Patent of the United States therefor, is—

1. In an automatic mail-pouch-releasing device, the combination, with a sustaining-link having a bifurcated end and a suitable spring secured on the face thereof, of a rotative releasing-hook pivoted in said bifurcated end of the link and in the rear of said spring, substantially as set forth.

2. In an automatic mail-pouch-releasing device, the combination, with a sustaining-link having a bifurcated end and a suitable spring secured on the face thereof, of a suitable releasing rotative hook pivoted in said bifurcated end of said link and in the rear of said spring, said hook being provided with a series of curved radial arms, substantially as set forth.

3. In an automatic mail-pouch-releasing device, the combination, with a suitable sustaining-link having a pivotal and a bifurcated end, of a rotative retaining and releasing hook pivoted in said link and having its axis transverse to the axis of said link, substantially as set forth.

4. In an automatic mail-pouch-releasing device, the combination, with a sustaining-link having a pivotal and a bifurcated end and a suitable spring secured on the face of said link, of a rotative retaining and releasing hook pivoted in said bifurcated end of the link in the rear of said end of spring, said hook having its axis transverse to the axis of said sustaining hook-link, substantially as set forth.

5. In an automatic mail-pouch-releasing device, the combination, with a sustaining-link having a pivotal and a bifurcated end, of a spring secured on the face of said link, a rotative releasing and engaging hook having a series of curved radial arms pivoted in said bifurcated end of the link and in the rear of said spring with its axis transverse to the pivotal axis of said link, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HORACE B. HEWITT.

Witnesses:
THOMPSON R. BELL,
JOHN ST. GEO. THURTLE.