

(No Model.)

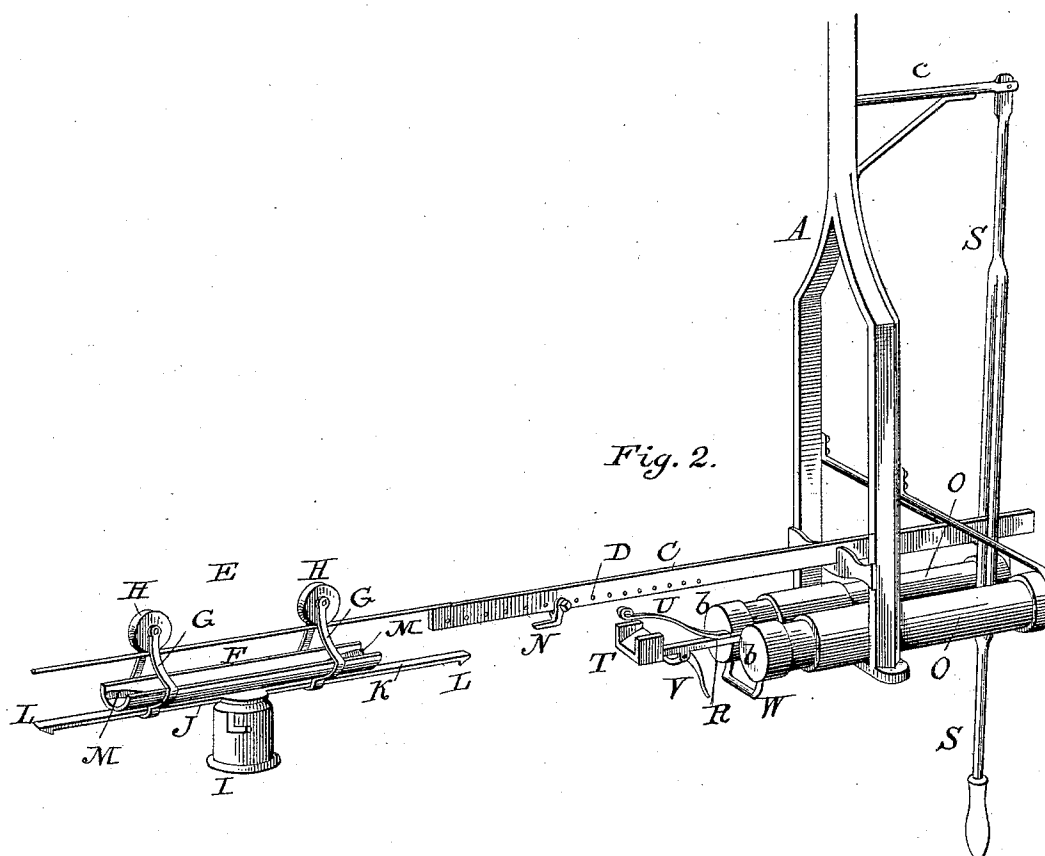
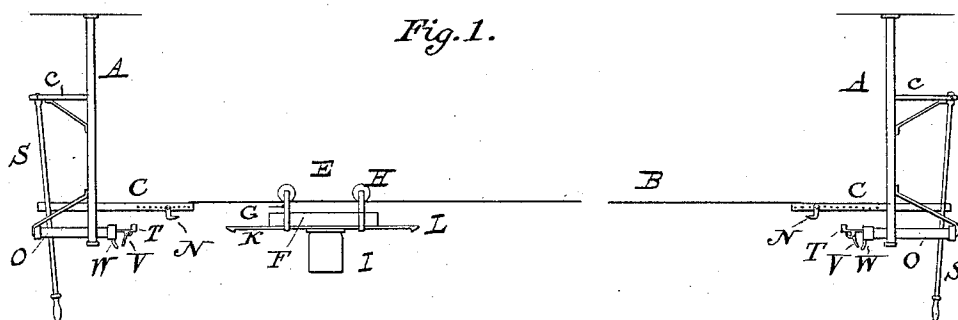
2 Sheets—Sheet 1.

A. B. BLACKBURN.

CASH CARRIER.

No. 391,577.

Patented Oct. 23, 1888.



Witnesses:

James F. O'Hamel

Arthur Ashley.

Inventor:

Albert B. Blackburn,

by Dodge & Sons,
his Attys.

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Fig. 3.

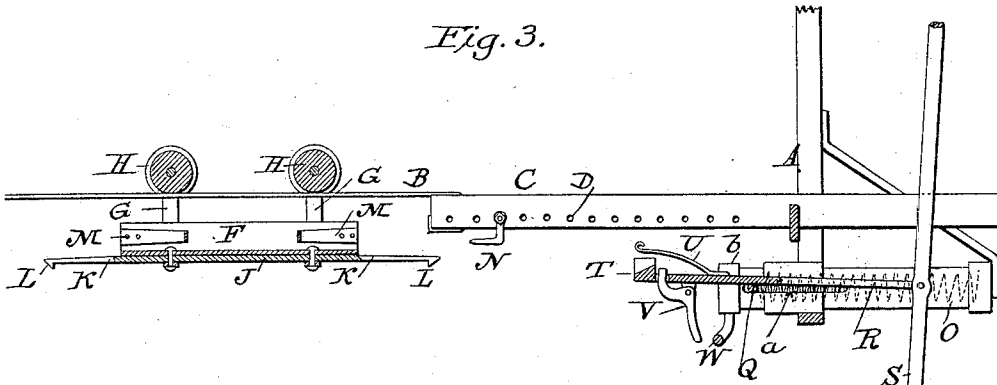


Fig. 4.

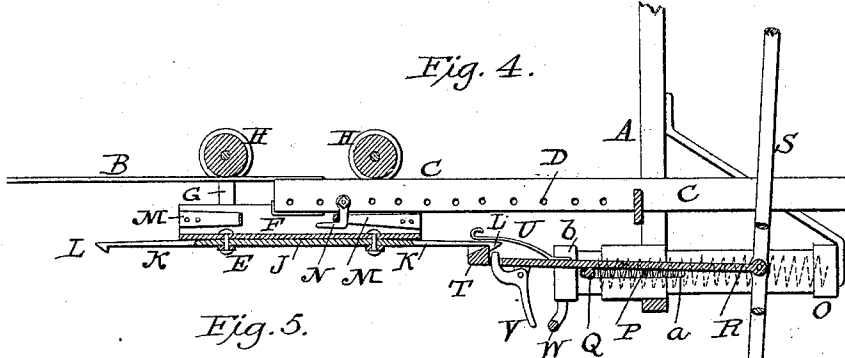


Fig. 5.

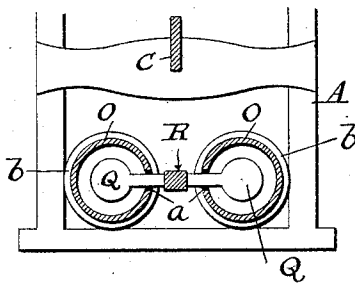


Fig. 7.

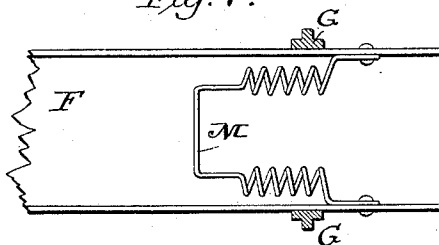
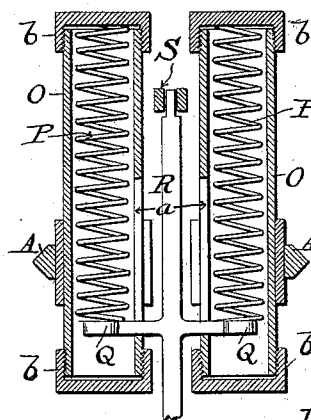


Fig. 6.



Witnesses:

James F. Duffnell,
Arthur Ashley.

Inventor;

Albert B. Blackburn,

by

Dodges Lane,

his Attys.

UNITED STATES PATENT OFFICE.

ALBERT B. BLACKBURN, OF SPRINGFIELD, OHIO, ASSIGNOR OF ONE-HALF
TO ELIJAH F. DARBY, OF SAME PLACE.

CASH-CARRIER.

SPECIFICATION forming part of Letters Patent No. 391,577, dated October 23, 1888.

Application filed October 19, 1887. Serial No. 252,539. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. BLACKBURN, of Springfield, in the county of Clark and State of Ohio, have invented certain new and
5 useful Improvements in Cash-Carriers, of which the following is a specification.

My invention relates to cash-carrier apparatus, and has reference more particularly to that class in which the traveling carriage
10 moves upon a fixed rail or track.

In the drawings, Figure 1 represents my improved apparatus when in use; Fig. 2, a perspective view of the device at one end of the line or rail; Figs. 3 and 4, enlarged sectional
15 views of the same; Figs. 5 and 6, detail views, and Fig. 7 a view illustrating a slight modification of the invention.

Referring again to the drawings, A A indicate brackets or hangers secured to the ceiling or to the wall, or at any other suitable
20 point; and B indicates the rail or track upon which the carriage runs or travels, and which extends from one bracket or hanger A to the other, as clearly shown in Fig. 1.

In Fig. 2 the bracket or hanger A is shown as comprising an open frame, in which is mounted a flat bar or rod, C, provided with a series of holes or perforations, D, the said bar C being secured to the end of the bracket or
25 rail B in any suitable manner. The top of the bar C should be on a line with the upper edge of the track or rail B, so as to form a continuation of the same. In order to secure this result, the top of the bar C may be grooved or recessed to receive the track or rail and provided with a vertical hole near its end, through
30 which the end of the track or rail (which latter will preferably be a wire) passes, as shown in Fig. 3. It is apparent, however, that any other equivalent means may be employed for
35 securing the wire or track to the hangers.

E indicates the car or carriage as a whole, and upon reference to Figs. 3 and 4 it will be seen to comprise a semi-cylindrical body, F,
45 provided with upwardly-extending arms G, carrying wheels or rollers H to run upon the wire B, and also a separable change or package holder, I, the latter being made in two parts and connected by means of a bayonet-
50 joint, as is common in this class of devices.

It is obvious that any other form of pack-

age-holder I may be substituted for that shown, as the said package-holder *per se* forms no part of the present invention.

Secured to the under side of the main body 55 F is a thin metallic plate, J, which will preferably possess slight elasticity or spring action, the ends of the plate J being extended at each end beyond the main body F to form arms K K, having at their outer ends hooks L, as
60 shown in Figs. 1, 2, 3, and 4.

Within the main body F and secured to opposite ends thereof are elastic loops M, as shown in Figs. 3, 4, and 7. These loops may be composed of a flat piece of rubber secured
65 at its ends to opposite walls of the body F, which latter is U-shaped in cross-section; but said loops M may be made wholly of wire, as represented in Fig. 7. These loops are so arranged as to engage with or be engaged al-
70 ternately by a hook, N, depending from the under side of the bar C, as clearly shown in Figs. 1, 2, 3, and 4, the latter figure showing the hook in engagement with the elastic loop.

Mounted within the lower end of the bracket 75 or hanger A is a pair of cylinders, O O, (shown clearly in Figs. 1, 2, 3, 4, 5, and 6,) said cylinders being separated from each other a slight distance and provided in their opposing faces each with a horizontal slot, a, as clearly shown
80 in Figs. 5 and 6. The cylinders will preferably be constructed with removable end caps, b b, and within each of the cylinders is a spiral spring, P, the said springs bearing upon arms Q, which project through the slots of the cyl-
85 inders, from a horizontal plate, R, as shown in Figs. 5 and 6. The plate R works between the inner faces of the two cylinders, and is pivotally connected at its rear end to an upright hand-lever, S, which in turn is pivoted at its
90 upper end to an arm or bracket, c, projecting from the bracket or hanger, A, as shown in Figs. 1, 2, and 3. At its forward end the plate R is provided with a hook, T, with which the hook L on one end of the carriage E is adapted
95 to engage, as clearly shown in Fig. 4; and in order to prevent the carriage being raised up off the track, I provide the bar R with a light arm or guide, U, which projects over the top of the hook T.

Pivoted to the under side of the bar R is an elbow-lever, V, one arm of which projects up
100

through the bar R directly behind the hook T, so that when the hook L is in engagement with the hook T the former will rest upon or directly over the upper arm of the elbow-lever V.

5 Projecting from the under side of the hanger or bracket A or from the ends of the cylinders O is a depending bar or stop, W, as shown in Figs. 1, 2, 3, and 4, with which the lower arm of the elbow-lever V is adapted to come into
10 contact at certain times.

The device, being thus constructed, operates as follows: When the car or carriage moves toward the bracket or hanger A, the hook N upon the under side of bar C will engage the
15 elastic loop M, and the momentum of the carriage will be found to be such as to distend or stretch the loop M sufficiently to allow the carriage to proceed so far as to permit its hook L to engage with the hook T. As soon as the
20 hook L comes into contact with the inclined face of the hook T, the concussion or jar is taken up by the coiled springs P, which are within the cylinders O and which bear upon the arms Q of the plate R, thereby forming a
25 buffer to prevent injury and unnecessary noise in the operation of the device.

Care should be taken in first adjusting the device so that, in thus moving inward, the elbow-lever V, carried by the bar R, will not
30 come into contact with the stop or cross-bar W, depending from the cylinders. When it is desired to release the car or carriage, it is only necessary to throw the lower end of the hand-lever S rearwardly, thereby drawing the plate
35 R with it, so that the lower arm of the elbow-lever V shall strike against the stop or bar W in such manner as to cause its upper arm to bear against and raise the hook L from engagement with the hook T. As soon as this is done,
40 the elasticity of the loop M, which has been under tension, throws or starts the carriage toward the opposite station with considerable force or speed.

The apparatus at opposite ends of the wire
45 B are duplicates of each other, so that the carriage or car E may be used either end foremost.

By adjusting the hook N upon the bar C provision can be made for the stretching by continued use of the elastic loops M, and by
50 adjusting the bar C relatively to the bracket or hanger A the cable may at all times be kept taut.

The hook N is shown as secured to a plate or bar, C, which is in turn secured rigidly in
55 position upon the bracket, the bracket thus in effect being provided with or supporting the hook N. The same is true with regard to the hook T, which, while it is not rigidly and directly secured to the bracket, is nevertheless
60 supported by said bracket.

I am aware of the patent to Muir, No. 373,997, and I make no claim to anything therein shown.

Having thus described my invention, what I
65 claim is—

1. In a cash-carrier apparatus, the combina-

tion, with a suitable track or support, of a carriage provided at each end with an elastic loop and a hook, fixed hooks N, adapted to en-
70 gage the elastic loops, and hooks T, adapted to be engaged by the carriage-hooks, the said hooks T adapted to be engaged after the carriage-loop shall have been engaged by the hook N.

2. In a cash-carrier apparatus, the combina-
75 tion, with a suitable track, of a carriage provided at each end with a hook and an elastic loop, a fixed hook at each end of the track to engage the elastic loops, a hook also located at
80 each end of the track to engage the carriage-hooks, independent carriage-releasing devices at each end of the track connected with the carriage-holding hooks, and a spring arranged to return the latter to their normal po-
85 sitions.

3. In a cash-carrier apparatus, the combina-
tion, with a track, of a carriage provided at each end with an elastic loop and a hook, a fixed hook at each end of the track to engage
90 the elastic carriage-loops, a hook at each end of the track to engage the carriage-hooks, and located in rear of the fixed hooks, so as to first permit the engagement of the elastic loop with the fixed hook, and devices, substantially such
95 as shown and described, for moving the carriage-holding hook, putting the loop under tension, and releasing the carriage.

4. In combination with the brackets A A and wire B, a car, E, provided with a hook, L, a cylinder, O, mounted upon the bracket A,
100 a spring, P, within said cylinder, and a plate, R, provided with a hook, T, and with an arm, Q, to bear upon the spring.

5. In combination with a track, B, and a carriage, E, provided with a hook, L, a cylinder, O, a spring, P, within the cylinder, a plate,
105 R, provided with a hook, T, lateral arm Q, and an elbow-lever, V, and a fixed stop or bar, W, all arranged for operation substantially as shown.
110

6. In a cash-carrier apparatus, the combina-
tion, with a track, of a hook at each end thereof, a movable hook, also at each end of
115 the track, a carriage provided at each end with an elastic loop and a hook, and a device, substantially such as shown and described, for releasing the carriage.

7. In a cash-carrier apparatus, the combina-
tion, with a track, of a hook fixed at each end thereof, a carriage provided at each end with
120 an elastic loop to engage the fixed hooks, and also provided at each end with hooks, a hook, as T, located at each end of the track and adapted to engage the carriage-hooks, and springs serving to return the hooks T to their
125 normal positions after the carriage has been released, and to act also as buffers.

8. In combination with brackets or hangers A A and wire or track B, a carriage, E, provided at opposite ends with elastic loops M M
130 and with hooks L L, a fixed hook, N, at each end of the wire to engage either of the loops M,

and a plate provided with a hook, T, to engage the carriage, and with an elbow-lever, V, to release the carriage.

9. In a cash-carrier apparatus, the combination, with a track, of suitable brackets at opposite ends thereof, a car provided with a hook, as L, a sliding plate, R, provided with a hook, T, to be engaged by the hook L, and provided, also, with a hand-lever, as S, a pivoted lever, V, directly in rear of the hook T, and a fixed stop, W, arranged directly behind the lever V, whereby after the carriage-hook L engages with the hook T it may be released therefrom by moving the plate R so that the elbow-lever shall strike the stop W.

10. In combination with bracket A, a wire or track, B, a car or carriage, E, provided

with an elastic loop, M, and with a hook, L, a hook, N, supported by the bracket or hanger, cylinders O O, provided with springs P P and slotted on their contiguous faces, a plate, R, provided with arms Q Q projecting through the slots, and provided at its front end with a hook, T, and an elbow-lever, V, a cross-bar or stop, W, arranged behind the elbow-lever V, and a hand-lever, S, pivotally connected with the end of the plate R, all substantially as shown.

In witness whereof I hereunto set my hand in the presence of two witnesses.

ALBERT B. BLACKBURN.

Witnesses:

H. S. SHOWERS,
E. M. BRADFORD.