

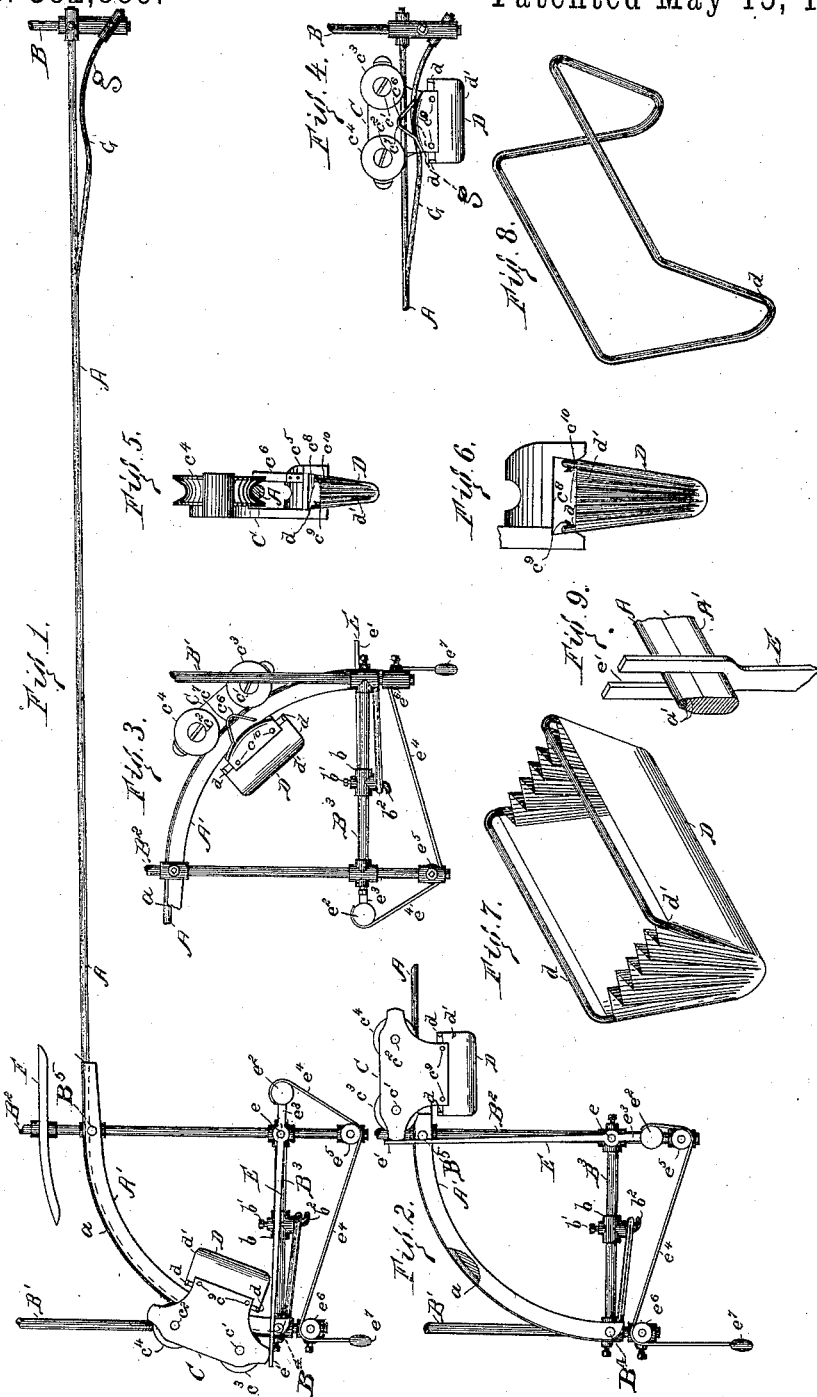
(No Model.)

H. L. LOVEJOY.

CASH AND PARCEL CARRYING APPARATUS.

No. 382,889.

Patented May 15, 1888.



Witnesses—  
Herkley Kayde.  
Alonzo C. Walsh.

INVENTOR—  
Henry L. Lovejoy,  
By Albert M. Moore,  
His Attorney.

# UNITED STATES PATENT OFFICE.

HENRY L. LOVEJOY, OF LOWELL, MASSACHUSETTS.

## CASH AND PARCEL CARRYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 382,889, dated May 15, 1888.

Application filed September 16, 1887. Serial No. 249,851. (No model.)

### *To all whom it may concern:*

Be it known that I, HENRY L. LOVEJOY, a subject of Victoria, Queen of the United Kingdom of Great Britain and Ireland, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Cash and Parcel Carrying Apparatus, of which the following is a specification.

My invention relates to cash and parcel carrying apparatus; and it consists in the means hereinafter described of propelling the carrier upon the track or way, means of retaining the carrier upon the track, means of attaching the cash and parcel receptacle or pouch to and of readily detaching the same from the carrier proper, and in the devices and combinations hereinafter described and claimed.

The object of this improvement is to provide a cash and parcel carrying apparatus especially adapted to be used in long low-studded rooms where the track cannot well be inclined sufficiently to cause a rapid movement of the carrier to be effected by its own gravity, and also to enable the carrier to be impelled up an incline against the resistance of its own weight to a cashier's desk or central distributing-station, and to be returned from there by gravity.

In the accompanying drawings, Figure 1 is a front elevation of my invention, showing the carrier at rest; Fig. 2, a front elevation of the arc-shaped or curved portion of the track or way and the means of propelling the carrier, showing the carrier in the act of being thrown, a part of the arc being in section to show the groove which receives the wire which forms the way; Fig. 3, a rear elevation of the parts shown in Fig. 2, the carrier being out of contact with the lever, showing the means of retaining the carrier upon the track; Fig. 4, a rear elevation of the means of stopping the carrier at the end of the way and of preventing the same from rebounding; Fig. 5, a cross-section of the track, showing the end of the carrier, the means of retaining the carrier upon the arc, and means of securing the pouch of the carrier; Fig. 6, an end elevation of the lower part of the carrier and the cash and parcel pouch, showing the pins on the carrier which support the pouch; Fig. 7, an enlarged isometric view of said pouch, and Fig. 8 an enlarged isometric view of the spring-frame of said pouch; Fig. 9, an isometric view of part of the track and the upper end of the lever.

The means hereinafter described of propelling the car are applicable to a track consisting of a single wire, a double rail, or a trough; but the track herein shown is a single wire, A, one end of which is suitably secured to a hanger, B, depending from the ceiling, and the other end of which is carried over the curved surface of an arc, A', preferably of metal and provided with a groove, a, in its curved surface, (see Fig. 2,) in which groove the wire is laid, the wire being tightened by any usual means, as by a turn-buckle beyond the traveled part of the track.

The arc is supported by horizontal studs B<sup>1</sup>, B<sup>2</sup>, projecting from hangers B' B<sup>2</sup>, depending from the ceiling, the lower ends of these hangers being held apart by a stretcher, B<sup>3</sup>, which connects said hangers, on which stretcher is a sliding collar, b, provided with a radial set-screw, b', by means of which the collar is held at any desired place on said stretcher, and provided, also, with a finger, b<sup>2</sup>, around which the lower end of the wire is secured.

The depth or vertical thickness of the arc A' is greater than the thickness of the wire to secure sufficient strength in the arc, and the lower side and the upper end of the arc are beveled upward nearly to said wire at a', to allow the carrier to enter upon the arc from the wire more easily—that is, in order that the carrier may not strike against the upper end of the arc.

The carrier C consists of a suitable vertical frame, from which project horizontal studs c' c<sup>2</sup>, on which turn wheels c<sup>3</sup> c<sup>4</sup>, grooved to admit the track. The lower part, c<sup>5</sup>, of the frame C projects horizontally on the same side as the studs c' c<sup>2</sup>, and to the upper side of said part c<sup>5</sup> is secured one end of a leaf-spring, c<sup>6</sup>, the middle portion of which is arched upward at c', and the other end of which is free, the arched middle portion of said spring rising between the grooved wheels, to prevent the accidental lateral displacement of the carrier upon the wire and arc.

When it is desired to move the carrier from the track, the spring c<sup>6</sup> is pressed downward and the carrier is removed from the wire by moving the carrier sidewise. The under side of the carrier is provided with a longitudinal dovetailed groove, c<sup>7</sup>, the sides of which are inclined downward and inward or toward each other. Through the sides of the carrier into said groove are driven pins c<sup>8</sup> c<sup>10</sup>, the in-

ner ends or points of said pins being bent upward, preferably, as shown in Figs. 5 and 6, to support the pouch D.

The pouch D is represented as consisting of a spring wire frame, *d*, Fig. 8, covered on its sides nearly to the top of the same and on the bottom by a suitable covering, *d'*, of cloth, sheet metal, or, preferably, leather, while the ends are closed by any flexible material, *d''*, which allows the upper sides of the frame to be sprung toward each other by pressure, and when released to spring outward.

The cash or parcel is placed in the pouch D, which is then secured to the carrier by crowding the sides of the frame together and allowing the horizontal upper parts of the frame to spring outward over the pins *c'* *c''*, above mentioned. The pouch is removed from the carrier by springing the sides of the pouch together and drawing it downward or endwise out of the groove *c*.

To the center of the arc A' on the hanger B<sup>2</sup> is pivoted at *e* the lever E, one arm of the lever being long enough to reach beyond the arc, and being forked at its outer end, as shown at *e'* in Fig. 9, the other arm of said lever being enlarged or weighted at *e''*, to assist in holding the lever in a nearly vertical position, as shown in Fig. 2, when the carrier is not resting upon said lever, the motion of said lever being limited by the horizontal studs B<sup>4</sup> B<sup>5</sup>, which support the arc A' on the hangers B<sup>1</sup> B<sup>2</sup>, as above described. The fork *e'* of the lever E extends on each side of the arc, so as to bear equally against the end of the carrier on each side of said arc. (See Fig. 9.) To the end of the short arm *e''* of said lever is attached a cord, *e'*, which passes down under the pulley *e'* and over the pulley *e''*, (these pulleys being journaled on short horizontal studs projecting from the hangers B<sup>1</sup> B<sup>2</sup>, respectively,) and terminates in a pull, *e'*, adapted to be grasped by the hand. The pull may also be weighted to assist in retaining the lever in an upright position. When the carrier rests against the lever E, as shown in Fig. 1, if the pull *e'* be drawn steadily downward, the lever will be turned on its pivot, and the long arm will move rapidly over the arc and impart a rapid motion to the carrier, which will be discharged from the arc onto the straight portion of the track, and by its momentum will travel along said track.

The pull *e'* might be used without the pulleys *e'* *e''*, and might even be dispensed with, the lever in that case being moved by applying the hand directly to the short arm of the lever; but the construction shown is much more convenient in use.

To prevent the carrier from rocking as it leaves the arc for the straight part of the track I use a guard-rail, F, secured to the hanger B<sup>2</sup> above the track, one end of said guard-rail reaching over the upper end of the arc, and the other end thereof reaching over the wire A beyond the upper end of said arc and in the same vertical plane with said arc, the guard-rail being

near enough to the track to enter the groove of the grooved wheel, but not near enough to touch the bottom of said groove when the carrier is running steadily.

Where a level wire is used, each end of the track is provided with an arc and lever, as above described. When the line is inclined upward from the arc, I use a spring-stop, G, (shown in Figs. 1 and 4,) the same being a leaf-spring or spring-wire, one end of which is secured to the hanger B and the other end of which is inclined upward toward or against the under side of the track A, the middle portion of said stop being upwardly arched at *g*, so that when the carrier is driven rapidly over the stop G said stop and the track above it are wedged between the grooved wheels of said carrier and the top of the lower part or projection, *c'*, of said carrier, and gradually stop said carrier, and the arch *g*, reaching over said projection, prevents the carrier from rebounding or returning over the line until the carrier is pushed off from said stop by hand.

The lever and arc above described serve also as a means of elevating the carrier to the straight portion of the track, or track proper, and allow of the track proper being at any elevation above the head of the salesman, provided the radius of the arc be sufficiently increased and the angular length of the arc remain the same; or the length of the arc may be increased to a half-circle, or both these expedients may be resorted to.

I claim as my invention—

1. The combination of a track or way having a straight section and an arc-shaped end section, a carrier adapted to travel on said way, and a lever having its fulcrum at the center of said arc, and adapted, when turned upon its fulcrum, to propel said carrier along said arc and from said arc onto said straight section, as and for the purpose specified.

2. The combination of the track and a carrier adapted to travel thereon, said track having an arc-shaped end section, a lever having its fulcrum at the center of said arc, and stops to limit the motion of said lever, as and for the purpose specified.

3. A carrier adapted to be hung upon a suspended track and to travel thereon, having a frame extending below said track, provided with a groove in its under side, pins or projections extending into said groove from the sides thereof, and a pouch of flexible material having a spring-frame adapted to be compressed at the top to pass said pins, and to spring outward over said pins and to be retained thereby, as and for the purpose specified.

In witness whereof I have signed this specification, in the presence of two attesting witnesses, this 2d day of September, A. D. 1887.

HENRY L. LOVEJOY.

Witnesses:

ALBERT M. MOORE,  
GERTRUDE M. DAY.