





# UNITED STATES PATENT OFFICE.

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## CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 640,103, dated December 26, 1899.

Application filed October 10, 1898. Serial No. 693,142. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES T. COWLEY, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Conveying Apparatus, of which the following is a specification.

My invention relates to improvements in conveying apparatus for transmitting letters or small packages from a receiving-point to a place of deposit, where they are automatically discharged from the carrier.

In carrying out my invention I provide a continuously-running endless cable and permanently grip thereto a carrier of suitable material and made of several sections. The carrier as constructed travels around the room and receives at a certain point letters and packages from one or more drops and conveys them to a place of deposit, where they are automatically discharged, and at this point, if the apparatus be used in a post-office, the letters or packages are sorted for the different addresses.

My invention consists of certain novel features hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a side view of three sections of a conveying apparatus. Fig. 2 is a similar view showing the position of one section of the carrier when discharging its contents. Fig. 3 is a cross-sectional view on the line 3 3, Fig. 1, and showing the drop through which letters or packages fall into the carrier. Fig. 4 is a cross-sectional view on the line 4 4, Fig. 2, and showing the position of the carrier in the act of discharging letters or packages.

Like letters of reference refer to like parts throughout the several views.

The carrier consists of a continuous strip of canvas or other suitable material A and is constructed of several sections B. Each section is constructed of a skeleton metal frame composed of an upper strip C of thin metal, to which are connected three strips of thin metal D, which extend downwardly and are pivoted at E to a front metal strip F, which is in turn connected to the metal strip F'

along the front upper edge of each section. Along the bottom of each section extends the rod G, which forms the pivots E for the strips D and F. Around the opposite ends of each rod is a spring H, secured at one end to the sleeve I, fast on the rod G, and the other end H' extends upwardly and bears against the front strip F and holds the front of the carrier upwardly in the position shown in Fig. 3 to receive the letters or packages. Secured to the upper metal strip C is a frame C', provided at its upper end with the forked grip C<sup>2</sup>, which grips the carrier to the cable A<sup>1</sup>, and is thereby propelled. The frame C' carries the supporting-wheels C<sup>3</sup> and also the guiding-wheel C<sup>4</sup>, which travel, respectively, on the upper and lower edges of the track C<sup>5</sup>, which is supported by suitable brackets J. As shown in Fig. 1, the sections of the carrier are joined together, and at the junction of each section the cloth or other material of which the carrier is made is gathered full, as shown at A<sup>2</sup>, so that there may be sufficient material to allow the sections of the carrier to turn the corners freely and also to allow the front hinged portion B' of each section B of the carrier to tilt downwardly to discharge its contents. Near the center of each rod G is a guide-pin and antifriction-roller K, which projects downwardly in position to engage the guide-rail L as each section approaches the point where the contents of the carrier are discharged. This guide-rail prevents each section of the carrier from swinging in out of line when the hinged portion B' is pulled down by the pin M, with its antifriction-roller coming under the cam-shaped rod N, supported by the guide-rail L, or in any other suitable manner. This rod N is so formed that as each section of the carrier reaches said rod the pin M passes under said rod and said front hinged portion B' is pulled down, as shown in Fig. 4, and the contents discharged, and as the travel of the carrier continues said rod N inclines upwardly and allows the hinged portion B' to resume its normal position, as shown in Fig. 1. In this manner as the carrier continues to travel the front hinged portion B' of each section B is automatically moved downwardly to permit the discharge of its contents, and after said



discharge said hinged portion moves upwardly by reason of the springs H into its normal or receiving position.

In practice, when used in a post-office, the carrier passes under the receiving-drops O, secured to suitable framework P, and allows the letters or packages to drop into the carrier as it travels along to a common place of deposit, where they are sorted. As the apparatus is continually running the letters or packages are immediately transferred from the receiving-drops to a place of deposit, so that no delay occurs in the transmission of the letters or packages.

I do not limit myself to the arrangement and construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus ascertained the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a conveying apparatus, a way, a carrier adapted to travel on said way and having a movable portion, means with which said movable portion directly engages adapted to move said portion from its normal position to permit the discharge of articles from the carrier during its travel, and automatic means on said carrier for returning said portion to its normal position after said discharge and during the travel of the carrier.

2. In a conveying apparatus, a way, a carrier adapted to travel on said way and consisting of a series of sections each provided with a front pivoted portion, means on each section for holding said pivoted portion in its upper position, and a cam-rod with which each section engages and adapted to pull down the front pivoted portion to permit the discharge of the articles from each section.

3. In a conveying apparatus, a way, a carrier adapted to travel on said way and consisting of a series of sections each provided

with a front pivoted portion, means on each section for holding said pivoted portion in its upper position, a cam-rod with which each section engages and adapted to pull down the front pivoted portion to permit the discharge of the articles from each section, and a guide-rail with which the lower portion of each section engages for steadying each section as the front pivoted portion thereof is pulled down by said cam-rod.

4. In a conveying apparatus, a way, a propelling-cable, a carrier adapted to permanently engage with said cable and to travel on said way and consisting of a series of connected sections each provided with a front pivoted portion, means on each section for holding said pivoted portion in its upper position, a cam-rod with which each section engages and adapted to pull down the front pivoted portion to permit the discharge of the articles from each section, and a guide-rail with which the lower portion of each section engages for steadying each section as the front pivoted portion thereof is pulled down by said cam-rod.

5. In a conveying apparatus, a way, a propelling-cable, a carrier adapted to permanently engage with said cable and to travel on said way and provided with a movable portion, means with which said movable portion engages adapted to move said portion from its normal position to permit the discharge of the articles from the carrier during its travel, and automatic means on said carrier for returning said portion to its normal position after said discharge and during the travel of the carrier.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 8th day of October, A. D. 1898.

JAMES T. COWLEY.

Witnesses:

C. A. STEWART,  
A. L. MESSER.