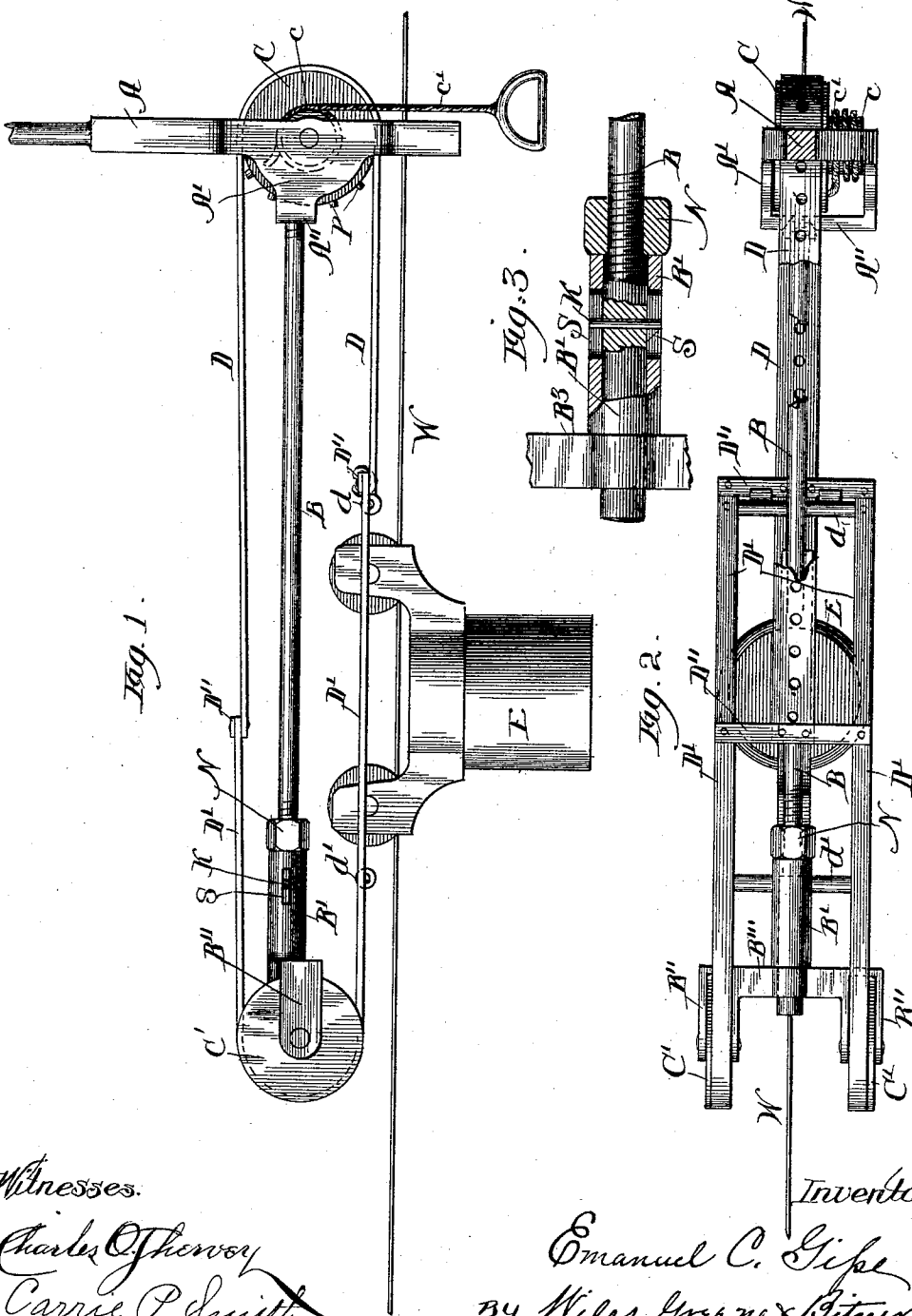


(No Model.)

E. C. GIPE.
CASH CARRIER.

No. 479,417.

Patented July 26, 1892.



Witnesses.

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UNITED STATES PATENT OFFICE.

EMANUEL C. GIPE, OF FREEPORT, ILLINOIS, ASSIGNOR OF ONE-HALF TO
OSCAR J. ZIEGLER, OF SAME PLACE.

CASH-CARRIER.

SPECIFICATION forming part of Letters Patent No. 479,417, dated July 26, 1892.

Application filed August 13, 1891. Serial No. 402,523. (No model.)

To all whom it may concern:

Be it known that I, EMANUEL C. GIPE, a citizen of the United States of America, residing at Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Cash-Carriers, of which the following is a specification.

My invention relates to improvements in cash-carriers, and is fully described and explained in this specification and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a carrier embodying my invention. Fig. 2 is a top plan of the same, certain parts being broken away to show construction; and Fig. 3 is a view, partly in top plan and partly in horizontal section, illustrating the means of adjustment of the pulleys C'.

In the views, A is a bracket adapted to be fastened at its upper end to a suitable overhead support, and A' A' are two bearing-plates formed integrally with the standard and united at their front edges by a transverse web A''. From the web A'' a rigidly-secured arm B extends forward a suitable distance and is provided at its front end with a transverse web B'', on which are formed bearing-plates B'' B'' for the support of a pair of similar pulleys C' C'.

The web B'' may be formed upon the rod B or permanently fastened to it; but I prefer to make it longitudinally adjustable upon the rod, and for that purpose I have shown in the drawings a simple adjusting device consisting of a sleeve B', formed integrally with the web B'' and sliding upon the rod, the sleeve being adjusted by means of a nut N, engaging a screw-threaded portion of the rod B. Rotation of the sleeve upon the rod B may be prevented by any suitable means—as, for instance, by forming the sleeve with a slot S, inclosing a key or pin K upon the rod, the pin being so placed as to permit sliding of the sleeve upon the rod, but to prevent rotation thereof.

About the pulleys C' C' extends an endless belt made up of two parts D D', whose ends are joined substantially as shown in the drawings. The rear part D of this endless

belt is a single strap formed with perforations at suitable intervals and embracing the pulley C, which is provided with a series of pins p, adapted to enter the perforations in the strap D, and thereby secure positive movement of the strap with the pulleys. The front part D' of the endless belt is composed of two parallel straps connected at their ends by cross-bars D'' D'', to which the ends of the single strap D are fastened. The two parts D D', when connected as described, form an endless band, whose rear portion, working upon the pulley C, is a single strap, while its front portion, working upon the pulleys C' C', is made up of two parallel straps separated by a space of such width as to permit the passage between them of a carrier E, of ordinary construction, moving upon a wire W, which passes through the lower end of the standard and may be supported in any suitable and well-known manner.

Upon the parallel straps D' D', and preferably close to the cross-bar D'' in the lower fold of the endless belt, is fastened a transverse stop d, which I prefer to make up of a metal rod and a rubber tube inclosing the same, and in front of this stop d and separated from it by a space somewhat greater than the length of the carrier is a second and similar stop d', also fastened to the straps D' D'. The pulley C may be provided with any suitable means whereby an operator may conveniently rotate it; but I prefer the means shown in the drawings, in which c is a hub or small pulley formed integrally with the pulley C, and c' is a cord fastened to the pulley C, wrapped a suitable number of times about the hub c and provided at its lower end with a suitable handle. A downward pull upon the handle must evidently unwind the cord from the hub c and rotate the pulley C in the direction indicated by the arrow in Fig. 1, thereby moving forward the lower fold of the endless belt D D' and the stops d d', fastened thereto.

If the parts, including the carrier E, be in the position illustrated in Fig. 1, it is evident that a movement of the carrier toward the standard A must correspondingly move the stops d d' and the endless belt D D' and wind

up the cord c' upon the hub c , and, on the contrary, a downward movement of the cord c' and its handle must unwind the cord from the hub c , rotate the pulley C in the direction indicated by the arrow in Fig. 1, and move the lower fold of the belt and its stops $d d'$ away from the standard, the carrier E being carried with the stops. So long as the stop d' remains between the lowest points of the pulleys C C' the carrier must be held between the two stops $d d'$ and its escape must be thereby prevented; but as soon as the stop d' reaches the pulleys C' C' any further movement of the belt in the same direction carries the stop upward about the peripheries of the pulleys and presently raises it above the highest point of the carrier, thereby permitting the carrier to escape entirely from the propelling device and to move away from it upon the wire W. This is, in fact, what takes place each time that an impulse is given to the carrier by the propelling device, and the speed of movement of the endless belt, in consequence of the difference in diameter of the pulley C and hub c , is such as to give the carrier an initial movement sufficient to carry it over a track of any desired length. After the impulse has been given to the carrier the propelling device remains in the same position in which it is left by the carrier, and when the carrier returns, the stop d' being in its raised position, the carrier strikes the stop d and forces it toward the standard, thereby bringing the parts again into substantially the position shown in the drawings. In this return movement, as the stop d and the carrier move toward the standard the stop d' moves downward about the edge of the pulleys C' C' until it comes into the plane of the lower fold of the endless belt, when it follows up the carrier and forms a stop to prevent escape thereof through any rebound or other accidental movement.

By means of the device already described for adjusting the front pulleys C' C' the belt may be so tightened as to offer any desired resistance to the movement of the carrier as it returns to the propeller, and the stops may be made to act with any desired force upon the carrier and to stop it at any desired point.

This device, while being extremely simple and therefore cheap and free from liability to disrepair, meets all the requirements of a device of this class. It is quick, noiseless, and absolutely positive in its operation, and may be readily and easily adjusted, in the manner hereinbefore described, for the purpose of varying its tension and consequent resistance. In some of its details it may be changed without affecting its principle of construction or operation, and I desire, therefore, not to limit my invention to the exact details set forth herein, although these details taken together form a complete structure, which satisfactorily embodies and illustrates the invention. For example, the two pulleys C' C' may be

rigidly fastened to a common axle, or they may be formed together in a single pulley, having in its face an annular groove sufficient to permit the passage of the carrier beneath it. The two straps D' D' might be formed in a single piece slotted longitudinally to permit the passage of the carrier. The adjusting device for varying the space between the pulley C and the pulleys C' C' might be at the end of the rod B nearest the standard instead of at the free end, as shown, and various other modifications may be made without changing the operation or the principle of my device. If the entire belt be made in a single piece slotted longitudinally, as suggested, the stops $d d'$ may not be separate pieces, but may be simply transverse webs left in the material of the belt itself.

Having now described and explained my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a suitable bracket or standard and a suitably-supported track, of an arm supported by the standard above the track, pulleys supported above the track at opposite ends of said arm, an endless belt extending about said pulleys, and two transverse stops fastened to the endless belt and separated by a space sufficient to receive a carrier moving on the track, that part of the belt to which the stops are fastened being made up of two parallel straps separated by a space for the passage of a carrier on the track, substantially as shown and described.

2. The combination, with the bracket or standard A, of the pulley C, journaled therein, the arm B, supported thereby, the pulleys C' C', journaled at the free end of the arm, the endless belt extending about the pulleys C C' and made up of the single strap D and the parallel straps D', and the stops $d d'$, fastened transversely upon the straps D', substantially as shown and described.

3. The combination, with the bracket or standard A, having the integrally-formed plates A' and web A², of the pulley C, journaled between said plates, the arm B, fastened to and supported by the web A², the transverse web B³, supported at the free end of the arm B and longitudinally adjustable thereon, the plates B² B², supported by the web B³, and the pulleys C' C', journaled therein, the endless belt D D', extending about said pulleys C C', and the stops $d d'$, fastened to the part D' of the belt, substantially as shown and described.

4. The combination, with the standard or bracket A, arm B, and pulleys C C', of the endless belt extending about said pulleys and made up of the single strap D and the parallel straps D', said single strap being perforated and said pulley C being furnished with pins p , adapted to enter the perforations in the belt D, substantially as shown and described.

5. The combination, with the bracket or

standard A, plates A', and web A², of the arm B, fastened to the plate, the sleeve B', adjustable on the end of said rod and formed with a slot S, the pin K, permitting longitudinal movement of the sleeve upon the rod, but preventing rotation of the sleeve, the nut N, adapted to adjust the sleeve upon the rod, the plates B², supported by the sleeve, and the pulleys C' C', journaled in said plates, substantially as shown and described.

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