(No Model.)

F. SCHREIDT & T. E. BARROW.

CASH CARRIER.

No. 422,254. Patented Feb. 25, 1890.

FIG. 1.

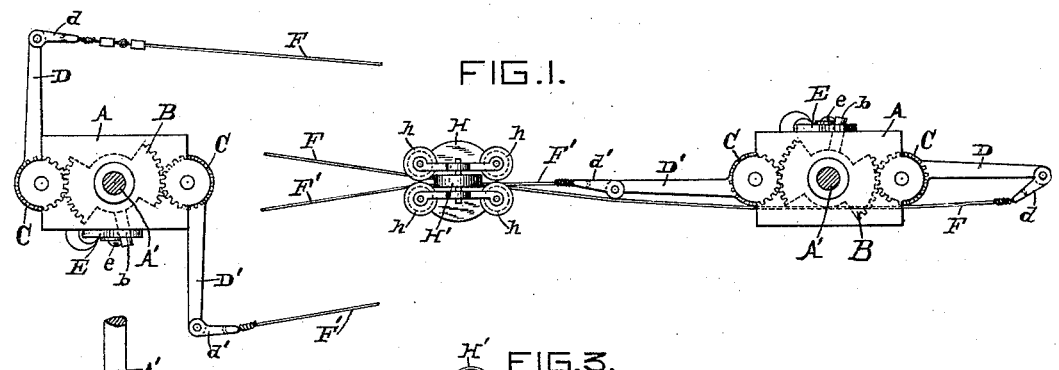


FIG. 3.

FIG. 2.

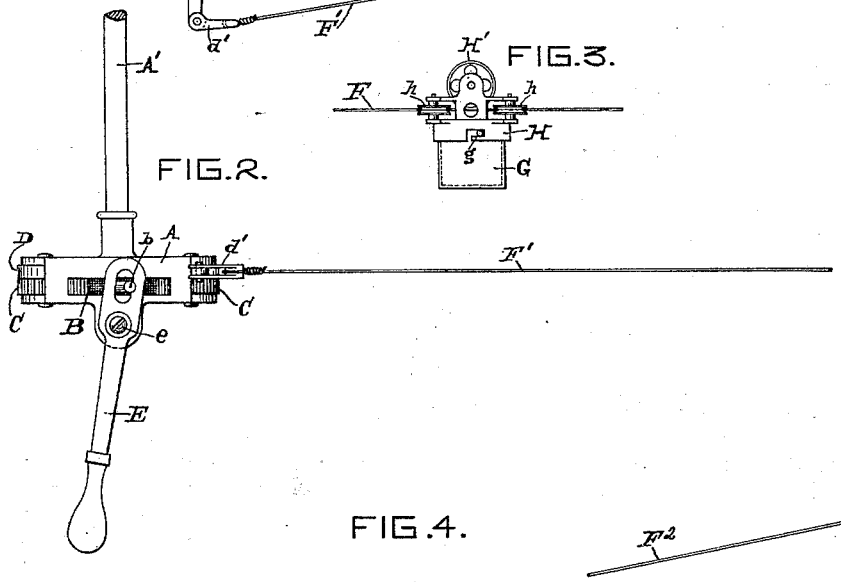


FIG. 4.

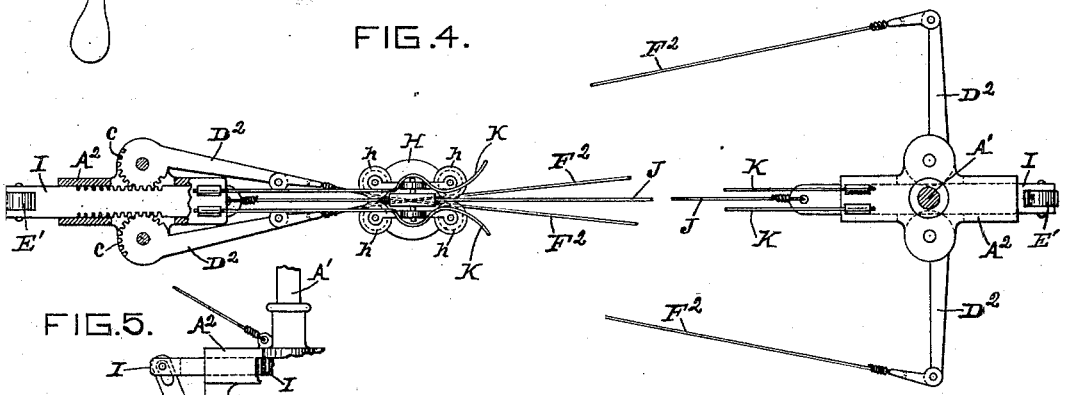
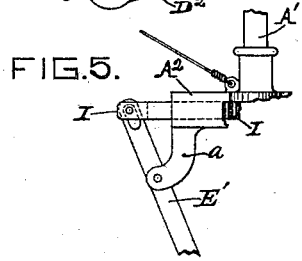


FIG. 5.



Witnesses
Frank L. Millward.
Wm S. Bates

Inventor
Frank Schreidt
Thomas E. Barrow
By their Attorney
Geo. J. Murray

UNITED STATES PATENT OFFICE.

FRANK. SCHREIDT AND THOMAS E. BARROW, OF MANSFIELD, OHIO.

CASH-CARRIER.

SPECIFICATION forming part of Letters Patent No. 422,254, dated February 25, 1890.

Application filed December 24, 1888. Serial No. 294,509. (No model.)

To all whom it may concern:

Be it known that we, FRANK. SCHREIDT and THOMAS E. BARROW, citizens of the United States, and residents of Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Cash-Carriers, of which the following is a specification.

This invention relates to that class of cash-carriers in which the carrier is propelled by track-wires which are arranged between wheels mounted upon the carrier-frame, the carrier being propelled in either direction by the spreading of the wires at one end and the simultaneous contraction of said wires at the opposite end. Its object is an improved means to rapidly spread the wires from either end and simultaneously bring them together at the opposite end, so that the carrier may be propelled either to or from the same station without liability of being thrown off the track-wire.

The invention will be first fully described in connection with the accompanying drawings, and will then be particularly referred to and pointed out in the claims.

Referring now to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a top or plan view of a cash-carrier apparatus embodying our improvements, the central position of the tracks being omitted and the ends brought together. Fig. 2 is a side elevation of one end of the apparatus, as shown in the left-hand end of Fig. 1. Fig. 3 is a side elevation of the carrier. Fig. 4 is a plan view of a modification in which three wires are used, the central wire being a link which compels the simultaneous action of the wire-spreading arms. Fig. 5 is a detail view in side elevation of part of the apparatus shown in Fig. 4.

Referring to the parts in Figs. 1 to 3, inclusive, A represents a cast-metal case in which the operating mechanism is mounted. This is suspended from the ceiling or other fixed support by a column A′. Within this case is centrally journaled a segmental cog-gear B, the opposite toothed segments of which engage with pinions C, which are pivoted in the case and secured upon the journal of the lever-arms D D′. A pin *b* projects from the gear B through a slot in the side of case A, and also through a slot in the end of the actuating-lever E, which has its fulcrum on a screw *e*, secured in a projection pending from the case A. Upon the outer ends of levers D and D′ are hinged arms *d d′*, to the ends of which the track-wires F F′ are connected.

It will be observed by referring to Fig. 1 that the wire spreading and converging devices at each end or station are the same, but that the arms D D′ at the opposite ends or stations must when the wires F F′ are properly tightened occupy a position substantially at right angles to each other, and the wires F F′, connecting the hinged arms *d d′*, cross each other, so that when either set of levers is spread, as are those shown at the left, of Fig. 1, the crossing-point of the wires will be at the opposite station, and the carrier will consequently be carried with a rapid movement from one end to the other of the line.

The carrier consists of the receptacle G and the frame H, to which the case is detachably secured by a bayonet-joint, as seen at *g*, Fig. 3, or other suitable connecting and disconnecting device. In the frame H are mounted four grooved wheels *h*, and above these is journaled another plain wheel H′.

The carrier is supported upon the wires by the wheel H′ and is driven in either direction by the wires when spread by the lever-arms pressing against the rear of the wheels *h*. Thus, as the wires, whatever may be the position of the arms D D′, are always in substantially the same horizontal plane, the movement of the carrier will be more regular and steady than if the wires which support it were made to diverge and converge alternately at opposite ends in a vertical plane.

It will be noticed from an examination of Fig. 1 that when one set of the arms D D′ are, as at the left-hand side, at substantially right angles to the track-wires, the opposite set are substantially parallel to them, and that any movement of the geared connection B at either end will be communicated through the wires to the opposite arms, so that the opposite arms will always maintain substantially the same angle to each other. For instance, the arms D being connected by the wires F, so

soon as the arm D on the left-hand side of Fig. 1 is turned back, so as to bring it in a parallel plane with the track-wires, the wire F will pull the opposite arm D out to a position at right angles to the track, and as the arms are all geared with the segmental cogs B they must all move the same distance. Now, when the lever E is moved in the opposite direction, the wire F′ will draw the arm D, to the position shown, and at the same time of course partially revolve the segmental cog on the right-hand side of Fig. 1, so that a single movement of the lever E in either direction operates all the arms D D′ to spread the wires alternately at one end and bring them together at the opposite end.

In the modification shown in Figs. 4 and 5 the geared connection is the rack-bar I, which is substituted for the segmental gear-connection B. (Shown in the preceding figures.) The teeth upon each edge of this rack engage toothed segments *c*, which are formed on the journal ends of the pivoted arms D^2. A tightly-stretched wire J connects the racks I at the opposite stations. These racks are fitted to slide in their boxes A^2.

E′ is a lever fulcrumed in a bracket *a*, extending from the box A^2. The short arm of this lever is slotted and connected by a pin passing through the slotted end to the rack I. By moving the lever E′ the rack I is moved back or forth to extend the arms D^2 or to bring them together, as the case may be, for the purpose of spreading the propelling-wires F^2 at one end and bringing them together by the same movement at the opposite end, because the opposite arms D^2 and the rack I are coupled together by wires F^2 and J, and the rack and arms are geared together. In this modification it will be seen that the wires F^2 are of equal length and are crossed, as are the propelling-wires F and F′. (Shown in the preceding figures.)

K, Fig. 4, represents spring-fingers extending from the case A^2 to clasp the carrier at the end of its journey, and hold it until it is to be again sent upon another trip.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a cash-carrier apparatus, the track-wires, a carrier having suitable wheels mounted to move thereon and be propelled in either direction by said wires, in combination with the arms D D′, pinions C, segmental gear-wheel B, and lever E, coupled to said wheel B, for the purpose of alternately spreading the said arms and wires at one end and simultaneously bringing their outer ends together at the opposite end, substantially as hereinbefore set forth.

2. In a cash-carrier apparatus of the character described, the combination of the case A, the cogged segment centrally mounted therein, the track-wire-actuating arms pivoted in said case and geared to said segment, and the lever E, coupled to said segment to partially rotate the same in either direction, substantially as specified.

3. In a cash-carrier, the combination of the track-wires, a carrier having wheels *h*, against which said wires press obliquely to propel the carrier in either direction, the wheel H′, journaled in the carrier from above, said wires and wheels *h*, to support the carrier upon the wires, two pairs of pivoted arms having the opposite ends of each pair connected by said wires and having their pivoted ends provided with gear-teeth, a geared connection having teeth upon opposite sides to mesh with the teeth of the pivoted arms, and a lever to move said intermediate geared connection for the purpose of alternately spreading and contracting said arms, substantially as and for the purpose set forth.

FRANK. SCHREIDT.
THOMAS E. BARROW.

Witnesses:
G. WONSETLER,
JESSE E. LADOW.