(No Model.) 2 Sheets—Sheet 1.

J. BURNS.

CASH AND PARCEL CARRIER.

No. 305,735. Patented Sept. 30, 1884.

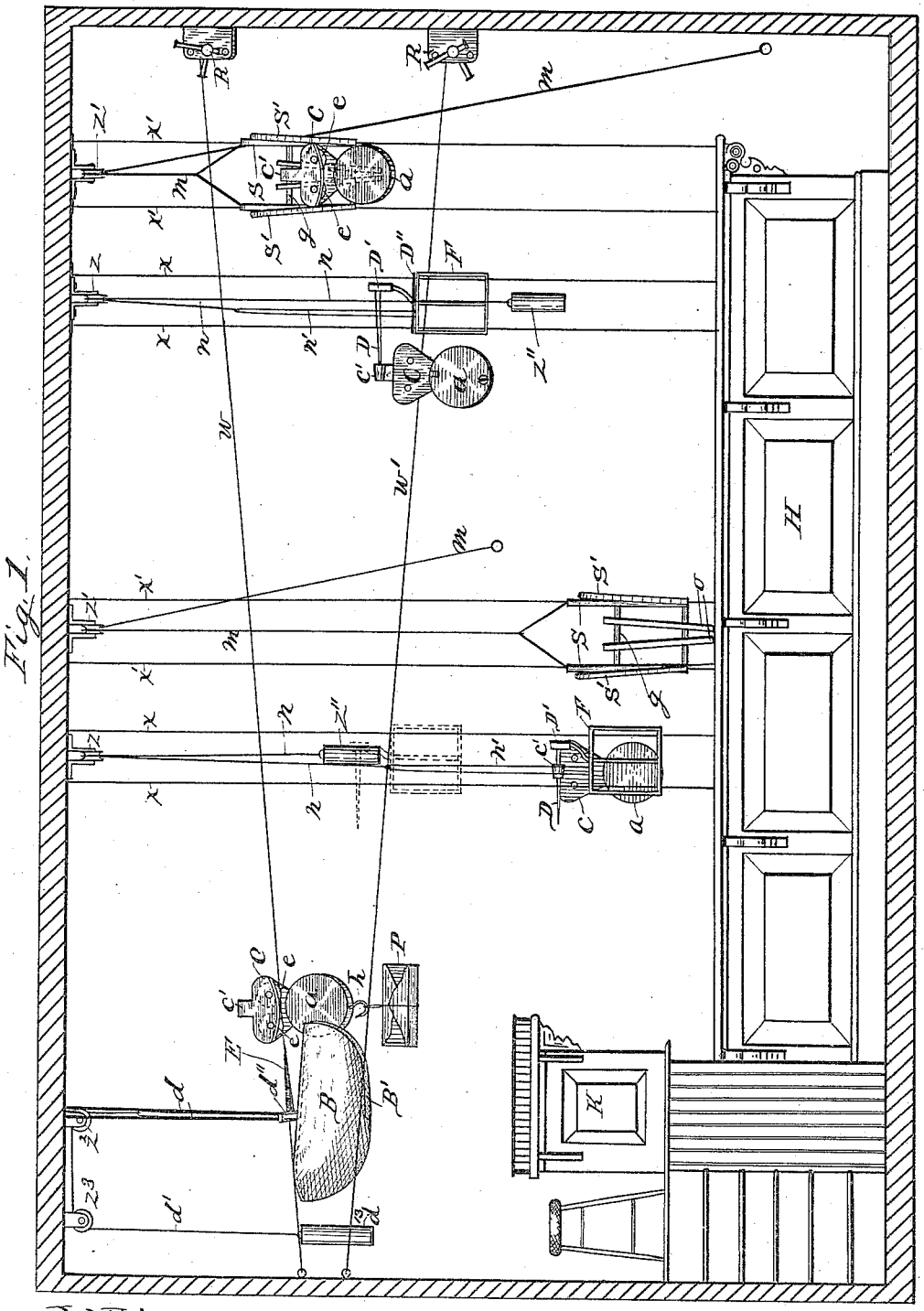

Fig. 1.

Witnesses.
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

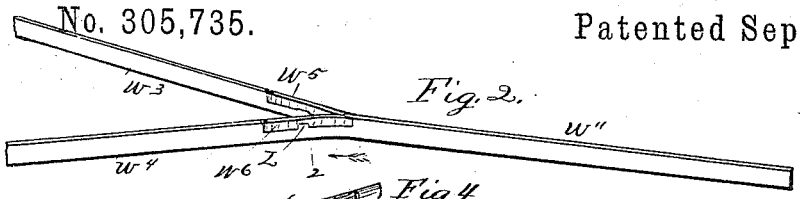


Fig. 3.

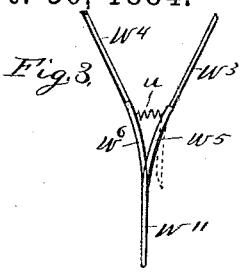


Fig. 4.

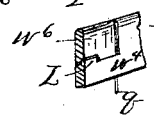


Fig. 5.

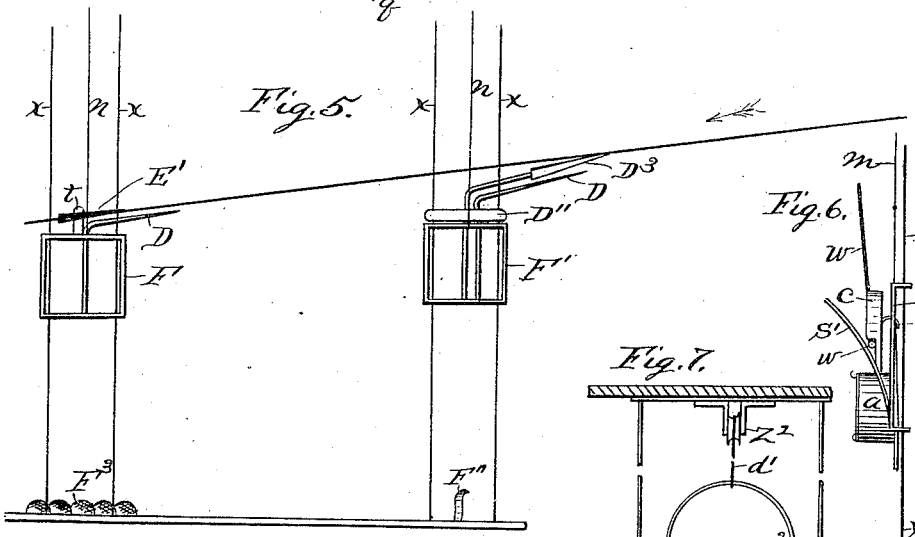


Fig. 6.

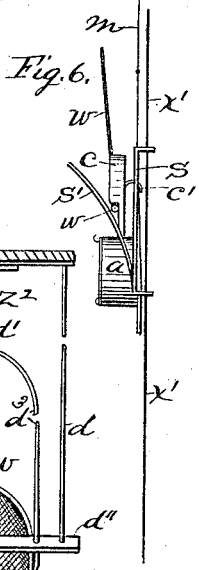


Fig. 7.

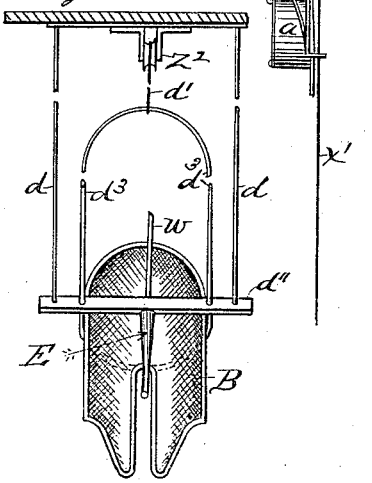


Fig. 8.

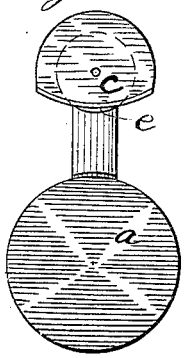


Fig. 9.

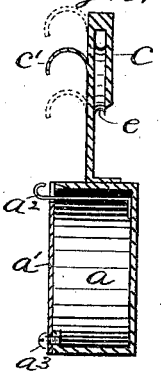
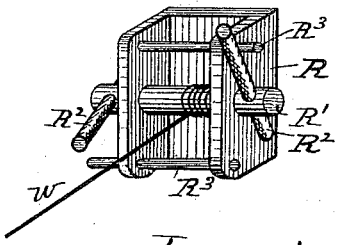


Fig. 10.



Witnesses.

Thos. H. Hutchins.

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Inventor.

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UNITED STATES PATENT OFFICE.

JAMES BURNS, OF CHICAGO, ILLINOIS.

CASH AND PARCEL CARRIER.

SPECIFICATION forming part of Letters Patent No. 305,735, dated September 30, 1884.

Application filed May 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES BURNS, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cash and Parcel Carriers, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation of the device put up in a store-room ready for use, illustrating the construction and general plan of operation; Fig. 2, a perspective view of a flat wire track, showing how its two converging branches may unite in a single main track, and showing the means for permitting the wheels of the carrier to pass from the branch track on the main track without being thrown from the track; Fig. 3, a plan view on the top of the same; Fig. 4, a perspective view of a section of said track, showing the construction of the switches on line 2 of Fig. 2; Fig. 5, a side elevation of a pair of the arresting and delivering slides that arrest and descend with the cash and parcel carrier to the counter; Fig. 6, a side view of one of the elevating-slides, by means of which the cash and parcel carrier is placed on the wire track above to be sent to the cash-desk; Fig. 7, a front view of the catch-basket for catching the cash and parcel carriers as they reach the cash-desk; Fig. 8, a side elevation of one of the parcel and cash carriers; Fig. 9, a central vertical cross-sectional view of the same, and Fig. 10 a perspective view of one of the windlasses for holding the track-wires taut.

This invention relates to certain improvements in cash and parcel carriers for use in stores, and is designed to be certain improvements on the cash and parcel carrier for which Letters Patent of the United States were granted to me on the 1st day of January, A. D. 1884, No. 291,028, which improvements are fully set forth in the following specification and claims.

Referring to the drawings, especially to Fig. 1, a room of a store is represented having a pair of track-wires, *w w'*, stretched taut from one side or end of the room to the other, the upper wire, *w*, descending toward the cash-desk K, to deliver the cash and parcel carrier *a* to the cash-desk, and the lower wire, *w'*, descending from the cash-desk to return the cash and parcel carrier *a* to the sender. These wires are intended to run in a line parallel with and directly over the counter H below. The figure represents two stations—one for each clerk—each station being provided with a pair of vertical guide-wires, *x' x'*, for guiding the elevating-slides S, and a pair of vertical guide-wires, *x x*, for guiding the delivery-slides F, and one or more cash and parcel carriers, *a*. These wires *x x x' x'* are attached to the ceiling above and to the counter H below, and are intended to be taut.

The slides S are elevated by means of a cord, *m*, attached to its upper end, and passing over a pulley, *z'*, above, while the delivery-slide F is elevated by means of the cord *n*, that passes over the pulley *z* above, and is counterbalanced by a weight, *z''*, attached to the end of said cord.

The cash and parcel carrier *a* is delivered to and placed on the track-wire *w* by means of the slide S in the following manner: Each cash-carrier *a* is provided with a hook, *c'*, on its side opposite the grooved wheel *c*, as is shown more clearly in Figs. 6 and 9. This hook is hooked over the cross-bar *g* of the slide S, as shown in Figs. 1 and 6. The slide S is then elevated by means of the cord *m* until the wheel *e* is placed on the wire *w*, as shown in Fig. 6. The fingers S', attached to the slide S, serve to bring the wire W under the said wheel, as shown in said figure, after which the slide is lowered, and the carrier *a* starts down the track-wire *w* to the cash-desk K. When it arrives at that end of the track, an enlargement, E, on the wire *w* causes the wheel *e* to leave the track, and the carrier *a* falls into the catch-basket B, which descends with it to the cash-desk below. This catch-basket B is shown more clearly in Fig. 7, which is a front view, looking at it in the direction from which the carrier approaches it. It is suspended by a bail, d^3, which passes through holes in the cross-bar d^4, suspended by the rods *d*. The basket B is counterbalanced by means of the weight d^{13} and cord *d'*, connecting said basket and weight and passing over the pulleys z^2 z^3. When the carrier *a* falls into the basket B, it will add sufficient weight to overbalance the

weight d^{13}, so that it will descend to the cash-desk. The carrier *a* may then be removed for the change to be made, and the basket B will immediately ascend to its normal position, ready to catch the next incoming carrier.

Each of the carriers *a* may be furnished with a hook, *h*, or some other suitable means for securing to it a parcel, P. The basket B is slotted at the bottom, as shown in Figs. 1 and 7, so that the carrier may enter the basket, while the parcel may hang below from the hook *h*, that runs into said slot. After the change is made and the parcel inspected, the carrier *a* is then placed upon the return-track *w'*, to return it to the person who sent it at its proper station.

In order to cause the carrier to stop at its proper station, the delivering and arresting slides F are provided at their upper end with an extending arm, D, that points toward the approaching carrier *a*, so that the hook *c'* of the carrier will slide up on said arm D and lift the wheel *e* of the carrier off the track, when the slide F will descend to the counter with the carrier hooked on said arm. The weight of the carrier, added to that of the slide, will overbalance the weight *z''*, so that the carrier and slide may descend. When the carrier is removed, the weight *z''* will return the slide to its normal position, to catch the next approaching carrier intended for that station.

The hooks *c'* on the carriers are placed at different distances from the upper end, as shown in Fig. 9 by the dotted lines. The arms D on the slides F are placed at corresponding distances above the wire *w'*, so that a carrier will not be caught by any other arm D than the one intended, because of its proper position to catch the hook *c'* intended for it. The height of the hooks *c'* and arms D above the wire *w'* determines the station at which the carrier shall stop, so that it is not possible for a carrier to stop at any other station than the one from which it was sent. The carrier having the highest hook *c'* above the wire *w'* should travel to the extreme end of the track to the last station, as its hook would be high enough to pass over all the other arms D along the line. The carrier having the lowest hook *c'* would of course be caught by the first arm D from the cash-desk K. The vertical wires or rods *x x x' x'* are provided with cross-bars D'', permanently fixed thereto, for the purpose of arresting the slide F and holding it at the proper place. Should the weight of the carriers deflect the wire *w'* to such degree as to cause the hook *c'* to miss the arm D at its proper station, means for connecting said wire to slide F may be used, so as to maintain said arm at the proper distance from said wire to always catch said hook.

The carrier *a* is constructed as shown in Figs. 8 and 9 more clearly. The lower end is the cash-box, and is closed by the cover *a'*, hinged or pivoted at a^3, and held closed by the spring-catch a^2. The upper end is provided with the grooved wheels *e* to run on the tracks. One or more wheels may be used, if desired, to prevent swinging of the carrier on the track. When desired, the hooks *c'* may be omitted from the carrier, and the wheel may be derailed by means of a switch, D^3, attached to the slide F', as shown in Fig. 5. This switch D^3 is placed against the wire *w'*, so that the wheel will run off the wire *w'* onto said switch, and the carrier be caught between it and arm D, and descend with the slide F, as in the other case. In such case the slide F is held down on the counter by means of a hook or catch, F'', so as to not catch a carrier intended for some other station. Where only one station is used the carrier may be derailed by means of the enlargement E' on the wire, (shown in said figure,) and be caught by its hook *c'* on the arm D and descend with the slide F to the cushion F^3.

The return-track may be made of flat wire, *w''*, as shown in Fig. 2, which is necessary where there are curves to be made and where several branch wires unite into a single main-track wire. When a carrier comes along down a branch wire, w^3 or w^4, it would be derailed at the Y were it not for the yielding switches w^5 w^6, which yield or spread apart, as shown by the dotted lines shown in Fig. 3, to permit the flange of the wheel to pass. These switches w^5 w^6 are pivoted at their rear ends to the top of the branch wires or tracks w^3 w^4, in the manner shown in Fig. 4.

Looking at Fig. 3, if a carrier were coming down branch w^4 its wheel would crowd over switch w^5, as shown by the dotted lines, so that branch w^4 and main wire *w''* would form a continuous uninterrupted track for the wheel of the carrier, and so if the carrier were coming down branch w^3 the switches are caused to return after the wheel passes either by means of the coil-spring *u* or by means of their own gravity through the medium of the incline L, Fig. 4, against the sides of which the switch impinges. Any suitable means may be used to open and close these switches to permit the wheel of the carrier to pass, as stated.

The windlass for producing and retaining tension on the track-wires *w w'* is shown in perspective in Fig. 10, and consists of the frame R, that may be attached in any manner to the side wall of the room. A roller-shaft, R', passes loosely through said frame, as shown in said figure, upon which the track-wire is wound. The roller-shaft R' is rotated to wind up the wire *w* by means of the levers R^2, which pass loosely through said shaft R'; or they may be rigidly fixed therein. Movable bars R^3 pass through said frame for the purpose of arresting the backward turn of said roller-shaft by means of sliding said bars R^3 behind said levers R^2, thus forming a very secure fastening for preventing the unwinding of the windlass, and for winding up the track-wire as much or little as may be desired.

The cross-bars D'' may be dispensed with, if

desired, and the slide F may be provided with an extending arm, *t*, as shown at Fig. 5, for preventing the said slide from passing above the wire.

The carrier *a* may be arrested when it runs onto arm D, as shown in Fig. 1, by coming in contact with the stop D′ of the slide.

The slide S may be provided with a series of cross-bars, *g*, to accommodate various kinds of carriers, having hooks *c*′ at different heights, to facilitate placing the carrier on the track-wire.

The slide F (shown in Fig. 1) is provided with a wire bail, *n*′, to connect it with the cord *n* above, to prevent side motion and binding of the slide on the guide-wires *x x*.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. The combination of the track-wires *w w*′, windlass consisting of the frame R, shaft R′, levers R^2, and sliding bars R^3, elevating-slide S, having the fingers S′ S′, guide-wires *x*′ *x*′, cord *m*, and pulley *z*′, carrier *a*, having a cash-receptacle, wheels *e* and hook *c*′, arresting and delivery slide F, having the arm D, cord *n*, weight *z*″, and pulley *z*, all adapted to operate as and for the purpose set forth.

2. In the cash and parcel carrier described, the combination of the track-wire *w*′, slide F, having the arm D, guide-wires *x x*, cord *n*, weight *z*″, and carrier *a*, having the wheel *e* and hook *c*′, all adapted to operate as and for the purpose set forth.

3. In the cash and parcel carrier described, the combination of the wire *w*, slide S, having the fingers S′, guide-wires *x*′ *x*′, cord *m*, and carrier *a*, having the wheel *e* and hook *c*′, all adapted to operate as and for the purpose set forth.

4. In the cash and parcel carrier described, the combination of the track-wire *w*, having the enlarged portion E, carrier *a*, having the parcel-hook *h*, catch-basket B, having the slotted bottom B′, bail d^3, guide-bars *d d*, cross-bar *d*″, cord *d*′, pulleys z^2 z^3, and weight d^{13}, all adapted to operate as and for the purpose set forth.

5. In the cash and parcel carrier described, the combination of the track-wires *w w*′, roller-shaft R′, levers R^2, frame R, and sliding bars R^3, all adapted to operate as and for the purpose set forth.

6. In the cash and parcel carrier described, the combination of the track-wire *w*, arresting and delivery slide F′, having the switch-arm D^3 and arm D, guide-wires *x x*, cord *n*, weight *z*″, and cross-bar D″, all adapted to operate as and for the purpose set forth.

7. In the cash and parcel carrier described, the flat track-wire having the branches w^3 and w^4, and switches w^5 w^6, as and for the purpose set forth.

8. In the cash and parcel carrier described, the basket B, having the slot B′, as and for the purpose set forth.

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BARENT VAN BUREN,
JABEZ B. BURNS.