

(No Model.)

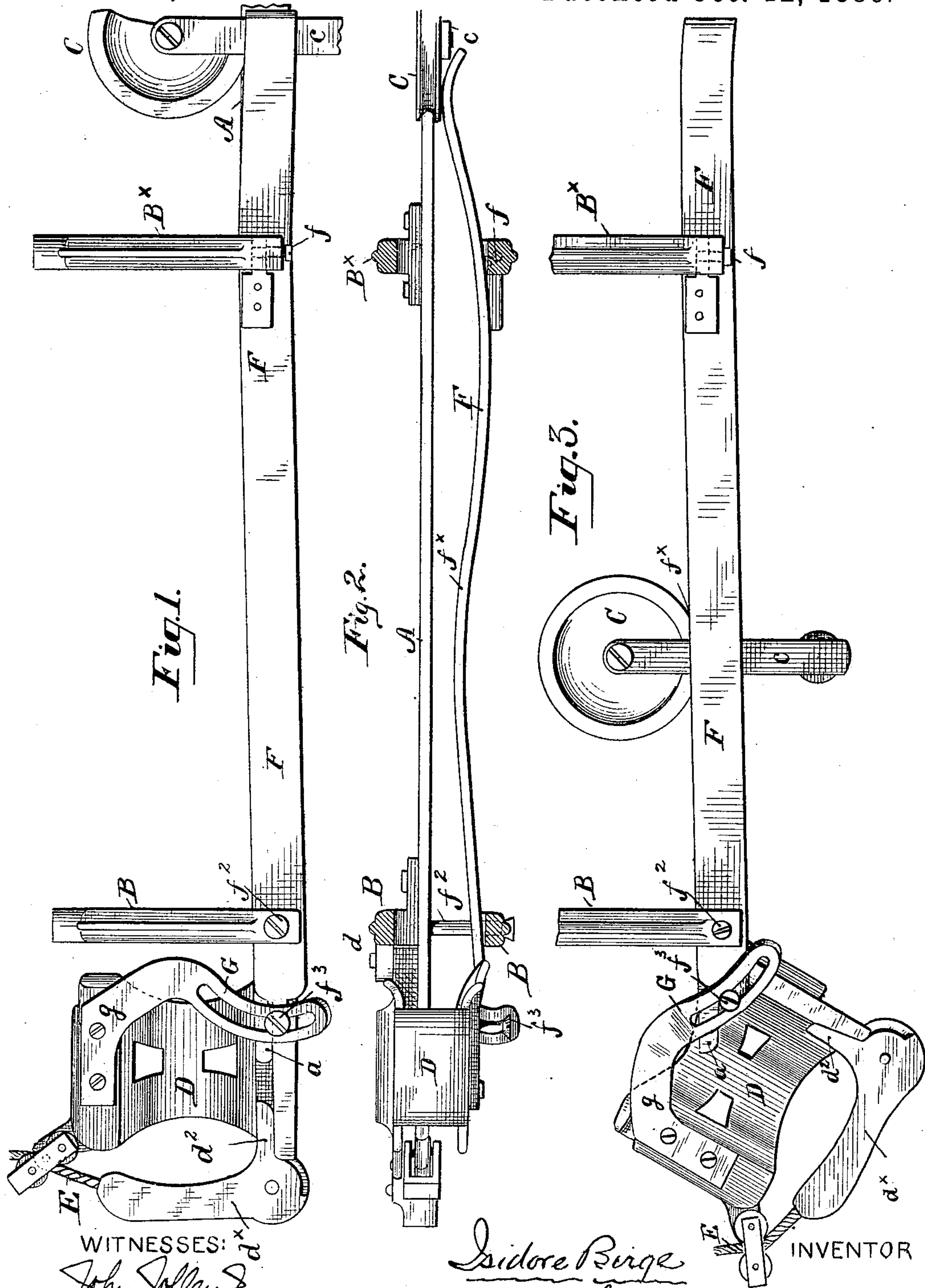
2 Sheets—Sheet 1.

I. BIRGÉ.

STORE SERVICE APPARATUS.

No. 350,861.

Patented Oct. 12, 1886.



UNITED STATES PATENT OFFICE.

ISIDORE BIRGÉ, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
TRANSIT APPARATUS COMPANY, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 350,861, dated October 12, 1886.

Application filed May 5, 1886. Serial No. 201,147. (No model.)

To all whom it may concern:

Be it known that I, ISIDORE BIRGÉ, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Store-Service Apparatus, of which the following is a specification.

My invention relates in general to the class of store-service apparatus in which the traveling carrier is a basket or other goods-receiver suspended from the depending arm or hanger of a one or two wheeled truck, the wheel or wheels of which travel upon an elevated track composed of a single rail.

My invention relates, specifically, to the carrier receivers or devices for receiving the carriers at the end of a given line of track, and for permitting of the descent or bringing down of said carriers one by one from the level of the track to a lower level; and it also relates to a class of devices employed in connection with the carrier-receivers, which are known as "carrier-arresters," and are employed for stopping or arresting the carriers at the end of a given track and before their travel upon the receiver.

My invention comprehends an improved carrier-arrester, a good form of a convenient embodiment of which is represented in the accompanying drawings, and described in this specification, the particular subject-matter claimed as novel being hereinafter definitely specified.

In Letters Patent of the United States, No. 325,384, granted September 1, 1885, upon my application, there is shown and described, essentially, such a carrier-receiving apparatus as is herein represented as employed in connection with my improved arrester, and in Letters Patent of the United States, No. 325,435, granted September 1, 1885, to S. G. North, there is also shown and described a substantially similar carrier-receiver to that herein depicted, and reference can therefore be made to both of the foregoing patents for a clear understanding of such a receiver as it is convenient to employ.

In the accompanying drawings, Figure 1 is a view in side elevation, and Fig. 2 a top plan view, sectioned through the suspenders, of an apparatus embodying my invention, the parts

being represented in the positions which they occupy when the receiver has been elevated. Figs. 3 and 4 are respectively similar views of the said apparatus, in the positions which the parts occupy when the receiver has been dropped. Fig. 5 is a fragmentary side elevational detail representing the position of the receiver in the act of being dropped or elevated, a part of the arrester-bar being broken away. Fig. 6 is an end elevational detail of the suspender B, showing especially the application of the lateral guide-pin f^2 to the arrester-bar. Fig. 7 is a sectional side elevational detail through the pivot of the arrester-bar.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the terminal portion of the track or carrying-rail, which, in the mounting of the apparatus represented is sustained by two depending forked suspenders, B B'.

C represents traveling carriers; c, the depending hangers of said carriers.

D is the carrier-receiver, pivoted at d , near the terminal extremity of the track, and provided with a pivoted detent, d^x , provided with a heel, d^z , and controlled by the operating-cord E in substantially the manner set forth in Patent No. 325,384. The extremity of the track A is prolonged to form a horizontal foot, a , which extends into the receiver in alignment with the heel d^z of the detent d^x . This foot serves not only as a track-bar within the receiver to deliver the carrier into the crotch of the detent, but also as a rest, to prevent the falling of a succeeding carrier entering the receiver before a carrier within it has been brought down, and again as a stop to limit the upward throw of the receiver itself.

F is the carrier-arrester bar, pivoted by means of a vertical pivot, f , to the forked suspender B', the said bar being a long flat plate or piece of metal provided with two curves to form stops, which I respectively designate as the "outer" stop, f' , and the "inner" stop, f^x , and which are respectively in advance and beyond the pivot f of said bar. That extremity of the arrester-bar which passes between the forks of the suspender B is con-

veniently provided with a lateral guide-pin, f^2 , which passes through a suitable bearing in the adjacent arm or fork of the said suspender B.

G is a slotted camway or curved bar, fixedly connected conveniently by the bracket g with the carrier-receiver D, through the slot of which passes a headed lug, f^3 , laterally, and outwardly projecting from that extremital portion of the arrester-bar which terminates in proximity to the receiver. The curve of the slotted camway is two-fold: first, upon an arc of the pivot d of the carrier-receiver, so as to permit of the movement of the said receiver about its pivot without occasioning the binding of the headed lug within the slot of the camway, and second, outwardly from its bracket, so as to cause the engagement of the said camway, in the movement of the latter with the receiver, either against the inside face of the head of the lug f^3 or against the outside face of the extremity of the arrester-bar, and thereby occasion in the movement of the carrier and camway a movement of the arrester-bar about its pivot f .

Such being a description of a good form of contrivance, its operation will be readily understood. When the carrier-arrester has been dropped and is at rest or in the position represented in Figs. 3 and 4, the camway will have occasioned the deflection of the inner portion and inner stop, f^x , of the arrester-bar against the track A, and the carrier then advancing along the track will encounter the said arrester-bar, as represented in Figs. 3 and 4, and be arrested. So soon as it is desired to bring down the arrested carrier the receiver is lifted from the position shown in Figs. 3 and 4 to that shown in Figs. 1 and 2, with the result that the arrester-bar is deflected into the position represented in Fig. 2, and the arrested carrier permitted to gravitate into the receiver. The act, however, of elevating the receiver and occasioning a deflection of the arrester-bar from the position which it is shown as occupying in Fig. 4 to that represented in Fig. 2 will cause the outer stop, f' , of the said arrester-bar, by being deflected inward toward the track, to be presented in advance of and as a guard against the entrance of a following carrier, while the carrier first arrested is run into the receiver. So soon, however, as the carrier first arrested has entered the receiver and the receiver has been allowed to drop, to bring said carrier down, the action of the dropping of the receiver will, through the camway, occasion the redeflection of the arrested bar from the position shown in Fig. 2 to that shown in Fig. 4, and consequently permit the second or subsequently-arrested carrier to gravitate as far as against the inner stop, as shown in Fig. 4, where it will remain until the receiver is again elevated, the arrested bar thereby again deflected, and its own progress no longer barred.

The operation of the apparatus, as will be

perceived, is simple, constant, and automatic, and the entire contrivance is not liable to become disarranged.

It is obvious that the precise form and curve of the camway represented may be modified, and that the said camway, if desired, be otherwise formed or attached in any preferred manner, so long as the change does not affect its operation for the lateral deflection in either direction, according to the position of parts, of the arrester-bar.

The lateral guide-pin f^2 may, if desired, be omitted; but it is preferably employed to lessen the leverage otherwise exerted upon the pivot of the arrester-bar.

It is obvious that other forms of pivoted receivers adapted to have applied to them a camway for operating my arrester-bar, can be substituted for the specific receiver represented.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a store-service apparatus, the following elements in combination: a track, a pivoted carrier-receiver, a horizontally-moving arrester-bar adapted to be deflected toward or from the track, and a device connected with the receiver for occasioning the movement of said arrester-bar, substantially as set forth.

2. In a store-service apparatus, the following elements in combination: a track, a pivoted carrier-receiver, a horizontally-moving pivoted arrester-bar adapted as to either of its ends to be deflected toward or from the track, so as to block or permit the movement of the carrier both in advance of and beyond its pivot, and a cam device moving with the receiver to occasion the deflection of the said arrester-bar, substantially as set forth.

3. In a store-service apparatus, the following elements in combination: a track, a pivoted carrier-receiver, a horizontally-moving pivoted arrester-bar so formed as to present a stop on each side of its pivot, and a cam device fixedly connected with the receiver, and having a sliding connection or traveling union with said arrester-bar, for occasioning the movement of the latter, substantially as set forth.

4. In a store-service apparatus, the following elements in combination: a track, a pivoted carrier-receiver, a horizontally-moving doubly-curved pivoted arrester-bar adapted to be deflected toward or from the track, and a cam device fixedly connected with the receiver and having a sliding connection or traveling union with said arrester-bar for occasioning the movement of the latter, substantially as set forth.

5. In a store-service apparatus, the following elements in combination: a track, a pivoted carrier-receiver, a horizontally-moving pivoted arrester-bar adapted to be deflected about its pivot toward or from the track, a slotted camway connected with the receiver, and a headed lug connected with the arrester-

bar and engaged with the slot of the camway, substantially as set forth.

5 6. In a store-service apparatus, a pivoted carrier-receiver having no track-bar, but provided with a detent having a heel, in combination with a track, the terminal extremity of which is provided with a horizontal foot which extends into the receiver in alignment with the heel of the detent, and serves as a track-

bar to said receiver when the latter is elevated, so substantially as set forth.

In testimony whereof I have hereunto signed my name this 30th day of April, A. D. 1886.

ISIDORE BIRGÉ.

In the presence of—

J. BONSALL TAYLOR,
WM. C. STRAWBRIDGE.

350,861.

It is hereby certified that in Letters Patent No. 350,861, granted October 12, 1886, upon the application of Isidore Birge, of Philadelphia, Pennsylvania, for an improvement in "Store Service Apparatus," an error appears in the printed specification requiring the following correction: In line 58, page 2, the word "arrested" should read *arrester*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 26th day of October, A. D. 1886.

[SEAL.]

H. L. MULDROW,
Acting Secretary of the Interior.

Countersigned:

R. B. VANCE,
Acting Commissioner of Patents.

CORRECTION