

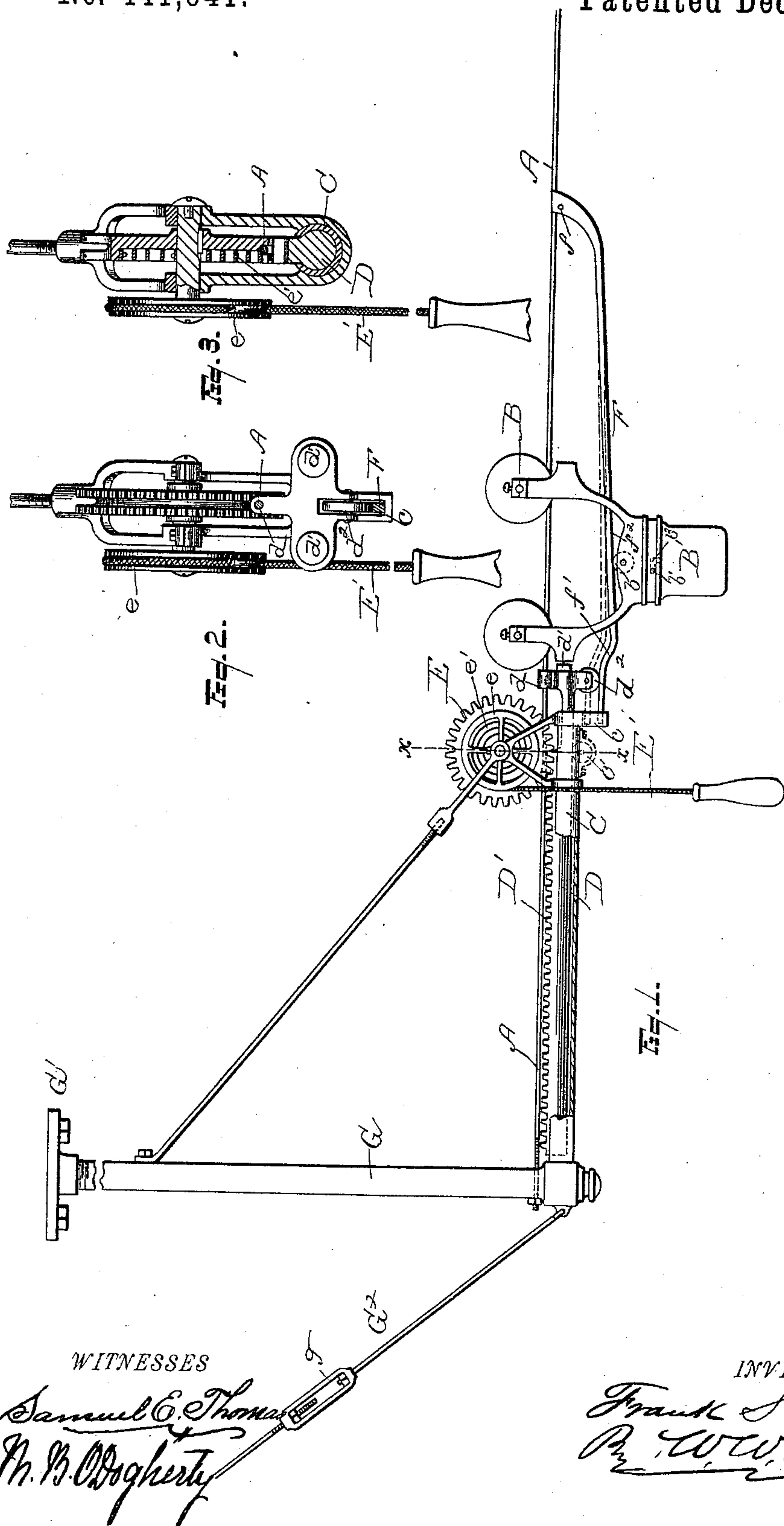
(No Model.)

2 Sheets—Sheet 1.

F. S. CHURCH.
CASH CARRIER.

No. 441,641.

Patented Dec. 2, 1890.



WITNESSES

Samuel C. Thom
Ph. B. O'Boherty

INVENTOR

Frank S Church
By W. W. Leggett
Attorney

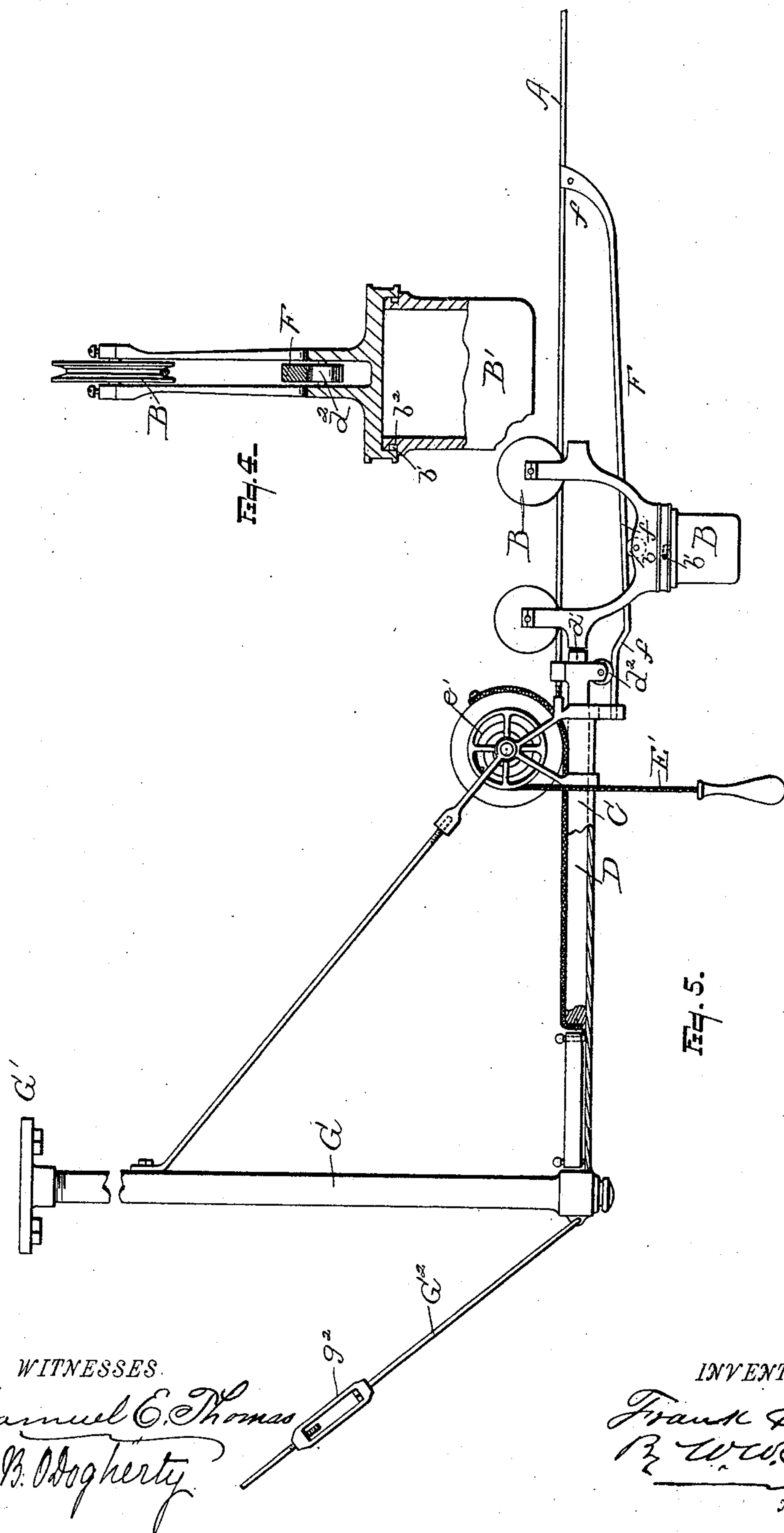
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UNITED STATES PATENT OFFICE.

FRANK. S. CHURCH, OF DETROIT, ASSIGNOR TO ARTHUR CAILLE, ADOLPH A. CAILLE, AND EDWARD A. OWEN, OF EAST SAGINAW, MICHIGAN.

CASH-CARRIER.

SPECIFICATION forming part of Letters Patent No. 441,641, dated December 2, 1890.

Application filed August 30, 1888. Serial No. 284,117. (No model.)

To all whom it may concern:

Be it known that I, FRANK. S. CHURCH, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Cash-Carriers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

In the drawings, Figure 1 is a side elevation of a cash-carrier apparatus embodying my invention, showing parts in section. Fig. 2 is an end elevation with the car removed. Fig. 3 is a cross-section on the line X X. Fig. 4 is a front elevation showing parts in section of the car. Fig. 5 shows a variation of the invention.

It is the purpose of my invention to produce a cash or package carrier for store service which will be simple and effective, and in which the impetus given to the car may be entirely within the control of the operator.

In carrying out my invention, A represents the wire or cable; B, the car; B', its cash or package holder.

C is a tube or holder.

D is a plunger located therein and having a rack-bar D' formed on or attached to its upper edge, said rack-bar projecting outside the holder and engaging with an actuating gear-wheel E.

E' is a strap or cord provided with a handle for rotating the actuating-pinion E, the strap being wound upon the drum e for a sufficient length to give to the pinion the requisite revolution.

e' is any suitable spiral or helical spring, whereby the wheel may be retracted to its normal position when the handle is released.

The plunger D is at its head engaged loosely at d with the wire or cable, and is provided with bumpers or cushions of rubber or equivalent d'.

F is a spring-bar rigidly engaged at its outer end with the wire, its inner end playing in a slot c, situated in a collar on the end of the tube C. This bar constantly engages a wheel d² on the plunger, and is provided with

a bend or incline f'. The car is provided with a friction-wheel b, which engages the portion f² of the bar.

The operation of the device will now be understood. The car coming back to the position shown by the full lines in the drawings, the wheel b rides into contact with the portion f² of the bar. This serves not only to check its motion so as to prevent a hard blow against the plunger, but also serves to hold the car in a rigid vertical position, which adds greatly to the convenience of handling the cash or package holder. Now, when it is desired to send the car to the other end of the line the operator pulls the strap E' with whatever energy he deems necessary to send the car to its destination. As he pulls the strap the pinion E forces out the rack-bar D' and plunger D. As the plunger starts it immediately comes opposite the portion f' of the bar F, and the bar consequently rises to the position shown by the dotted lines. This relieves the friction at the wheel b and the thrust of the plunger sends the car on to its destination. He then releases the strap, the spring e' retracts, and so returns the pinion to its normal position and draws the rack-bar and plunger back to the starting-point. As the plunger recedes the wheel d² forces the bar F down again to the position shown in full lines, ready for the reception of the car on its return trip. The cash or package holder B' may be engaged with the car in any convenient way—as, for instance, a bayonet-fastening consisting of pins b' on one part and a groove b² on the other part. (Shown by dotted lines in Fig. 1.)

G is a suitable post, either depending from the ceiling or rising from the floor. That in the drawings is represented as depending from the ceiling, where it is engaged by any suitable flange-plate or other appliance G'.

G² is a brace provided, preferably, with a turn-buckle g, whereby a suitable tension is given to the wire or cable A. If desired, there may be a friction-roller c' located in the bottom of the tube or support C opposite the pinion, to convert what would otherwise be sliding friction between the plunger and support into rolling friction. This may or may not be employed.

The rack-bar and the pinion-teeth may be dispensed with, and instead thereof a strap be substituted, one end of which is engaged to and winds upon the wheel E, while the
5 other end of the strap is engaged with the farther extremity of the plunger D. In fact, I have made them in this form. Therefore, while I prefer the rack-bar and pinion, I would have it understood that I regard the
10 other construction as a mechanical equivalent, and as covered by my claims. This variation is shown in Fig. 5.

What I claim is—

1. In a cash or package carrying apparatus,
15 the combination, with the car, of means for projecting the same, consisting of a plunger provided with a rack, a wheel provided with cogs engaging said rack, a strap for actuating the wheel, and means for retracting the plun-
20 ger, substantially as described.

2. In a cash or package carrier apparatus, as a means for actuating its car, a plunger D, provided with a rack D', and wheel E, with cogs engaging said rack, a strap for actuating
25 the wheel, and a spring for retracting the plunger, substantially as and for the purpose described.

3. In a cash or package carrying apparatus,

the combination, with the car and an actuating-plunger, of a spring-bar fastened to the
30 track at one end and having its free end normally engaged by the said plunger, said spring-bar adapted to act as a wedge to hold the car, substantially as described.

4. A cash or package carrying apparatus
35 consisting of a track, a car, an actuating-plunger, and a spring-bar having its fast and free ends respectively engaged by the track and the plunger, said bar adapted to act as a wedge to hold the car, and having the bend
40 or incline f' near its free end, substantially as described.

5. The cash or package carrier apparatus
45 consisting of the combination, with the plunger D, provided with a rack and pinion E and a strap for actuating the same, of the car B, provided with roller b , and the bar F, provided with the roller d^2 , substantially as described.

In testimony whereof I sign this specifica-
50 tion in the presence of two witnesses.

FRANK. S. CHURCH.

Witnesses:

M. B. O'DOHERTY,
SAMUEL E. THOMAS.