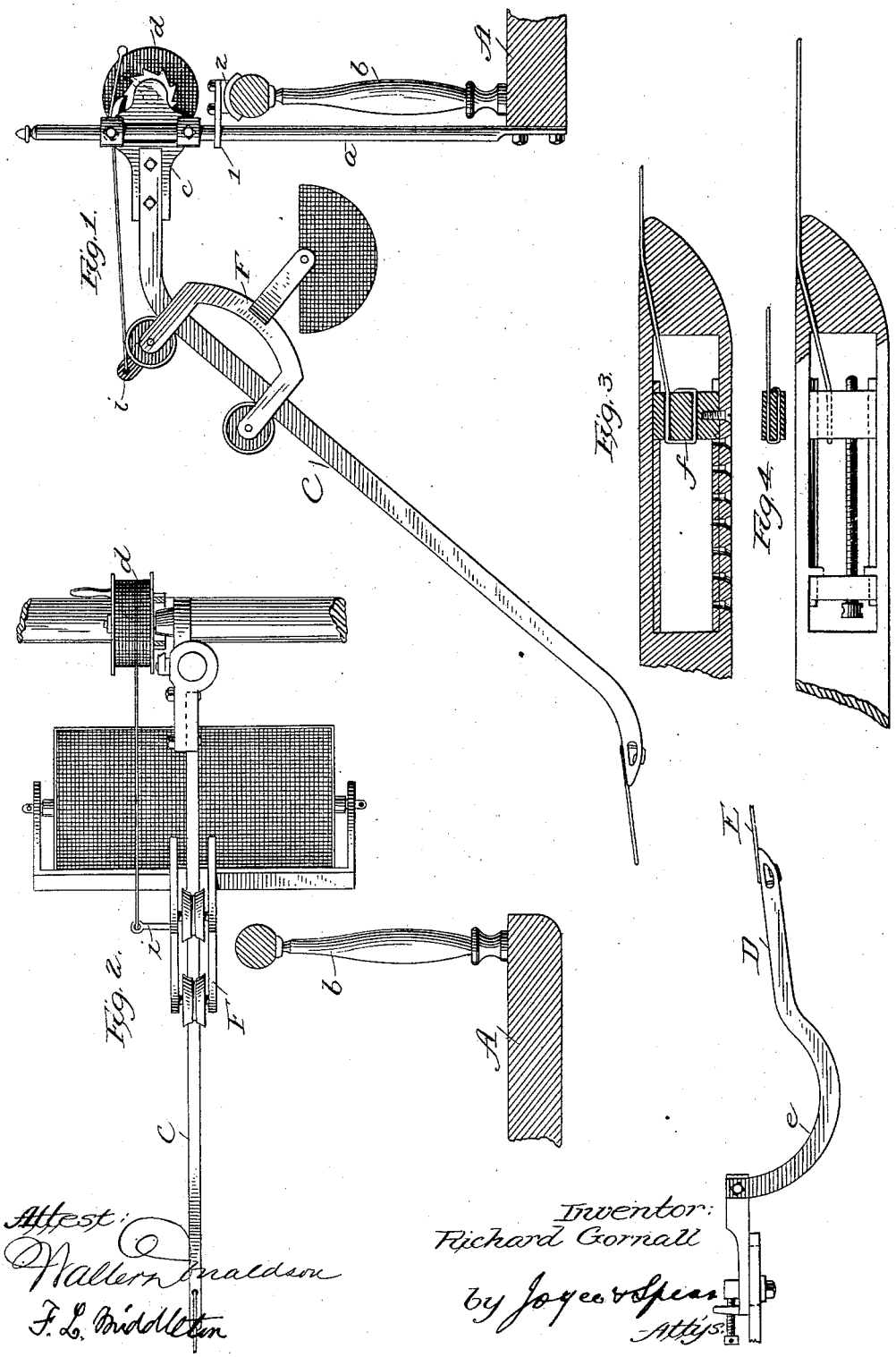
(No Model.)

R. GORNALL.

STORE SERVICE APPARATUS.

No. 342,254. Patented May 18, 1886.



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UNITED STATES PATENT OFFICE.

RICHARD GORNALL, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO GEORGE A. DUBREUIL, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 342,254, dated May 18, 1886.

Application filed February 11, 1886. Serial No. 191,610. (No model.)

To all whom it may concern:

Be it known that I, RICHARD GORNALL, of Baltimore, and State of Maryland, have invented a new and useful Improvement in Store Service Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to store-service apparatus, and is designed particularly for use between the upper and lower floors of a store, in order that the salesman upon the second floor can transmit cash or parcels to the cashier upon the floor below.

My invention consists in the various devices and combination of devices hereinafter set forth.

In the accompanying drawings, Figure 1 represents the salesman's end of the way upon the upper floor and the cashier's end below, the intermediate line of wire broken away in order that the two stations may be shown. Fig. 2 is a plan view of the carrier and the track at the salesman's end of the way, representing also the mechanism under the control of the salesman for transmitting and returning said carrier. Fig. 3 is a sectional detail view of the end of the track, showing the connection with the wire. Fig. 4 is a modification of the same.

I have represented the way as arranged so as to descend from the salesman's position on the upper floor down through the opening usually made in the floors of stores for the admission of light, thus requiring no special construction of the building in order to adapt it to the use of my invention. In Fig. 1, therefore, A represents the second floor, and *b* the railing, which usually surrounds the opening between the upper and lower floors. To one side of this opening I bolt a standard, *a*, which is secured to the timbers of the floor by suitable bolts upon the inside of the opening, so as to be out of the way. This is suitably braced upon the railing or post by a plate, 1, surrounding the standard at one end and secured at its opposite end to a block, 2, which has a convex cap on its lower face, which bears upon the head of the post, and thus steadies the rod at this point. Any other suitable form of bracing may be substituted for this, if desired.

The curved sectional track C consists, preferably, of a bar of metal set on edge, and extends from this rod downwardly through the opening in the floor. This section of track at its upper end is bolted to a plate, *c*, which is swiveled upon the standard, having suitable set-screws to attach it thereto rigidly when the right angle has been attained. The plate *c* projects slightly beyond the standard and over the railing, and has an arm formed therewith or secured thereto, which forms a bearing for a drum, *d*, to which is secured the operating-cord. Between this drum and the plate *c* is an ordinary pawl-and-ratchet mechanism, the pawl having a finger-piece extending to the front, by which the pawl can be operated conveniently by the salesman. The metal track C extends from the standard downwardly through the opening in the floor to a suitable distance below the line of the ceiling of the first floor, the angle at the end being less abrupt. Secured to this end of the track is an ordinary wire, being extended in an inclined direction to the cashier's desk, where it may be secured in any desirable manner. In the present case, however, instead of having it extend entirely to the cashier's desk, I have shown a small section of track, D, which is secured in place at the cashier's desk by means of a sliding connection by which the position of the same may be adjusted and the wireway put under more or less tension. This section of track is hollow at one end, and is inclined slightly upward at its forward end, having the wireway E secured thereto. The inclination of the front end of the track is preferably the same as the end of the track C, and the wire between them is of course at the same inclination. Thus when the salesman releases the carrier it will descend the track C onto the wire way E, and from thence to the track D, and the curved or hollowed out portion *e* is sufficient to sustain the shock of the carrier and to act as a buffer.

The carrier is shown at F. It is composed of a frame having two wheels, upon which it is mounted upon the track, and a basket pivoted to an extension of the frame below the track. The basket is pivoted so that it can assume a vertical position under all conditions of inclination of the carrier-body. The projection *i*

upon one of the ends of the frame has a rope secured to it, and this rope is wound around the drum *d*. By means of this drum the salesman returns the carrier from the cashier, and also controls the speed in transmission by simply placing his hand upon the reel, whereby he can allow it to descend with greater or less rapidity.

Instead of the mechanism shown at the cashier's desk, the wire may be secured directly to the bolt with a suitable buffer attached, or it may be attached to a curved track, such as that shown in an application filed by me in the United States Patent Office of even date herewith.

In order to prevent the wire from slipping at its connection with the end of the curved track, I provide the means shown in Figs. 3 and 4.

In Fig. 3 the end of the track is shown as slotted and having upon the walls of the slot splines, upon which the block *f* slides. The wire is drawn through the eye in the front end of the track and passes through an opening in the block *f*, then bent, and passes through a parallel opening therein and clinched upon the front. The tension of the wire may be adjusted by sliding the block *f* within the slot and securing it in place by small screws, as shown. A number of screw-holes are made for this purpose.

In Fig. 4 I have shown a modification of this device. In this case the block, instead of being held in position by means of screws, is mounted upon a screw, and is adjusted by turning said screw in the ordinary manner.

It will be understood that I do not limit myself to the length or shape of the metal track, as this may be changed in many ways, it only being necessary that the angles which it is necessary to make in passing from one floor to the other be overcome by the use of said track, the wireway extended for the rest of the distance.

The matter shown herein but not claimed is included and claimed in a pending application filed by me on the 11th day of February, 1886, the serial number of which is 191,609.

I am aware of the patent of John F. Keller, granted December 11, 1860, No. 30,881, for improvement in water-elevators, in which the water-carrier is operated by means of a cord and windlass, and descends into the well upon a pendent rail, the upper part of the track or rail being adapted to tip, and I do not broadly claim such as my invention.

I claim as my invention—

1. The combination, in a store-service apparatus between the upper and lower stories of a store, of a curved track fixed at the salesman's counter and extending through the opening in the floor, a way extending from said track to the cashier's desk, a carrier mounted thereon adapted to travel to the cashier's desk by gravity, and means for returning said carrier to the salesman's position, substantially as described.

2. The combination, in a store-service apparatus adapted to be used between the upper and lower stories of a store, of a metal track, C, fixed at the salesman's counter and extending through the opening in the floor, the wireway extending from said metal track to a metal track, D, at the cashier's desk, said track D being curved, as shown, to act as a buffer for the carrier, the carrier mounted on said way having a pivoted receptacle connected thereto, a cord attached to said carrier and connected to the reel under the control of the salesman, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHARD GORNALL.

Witnesses:
WALTER DONALDSON,
ISADORE MIDDLETON.