

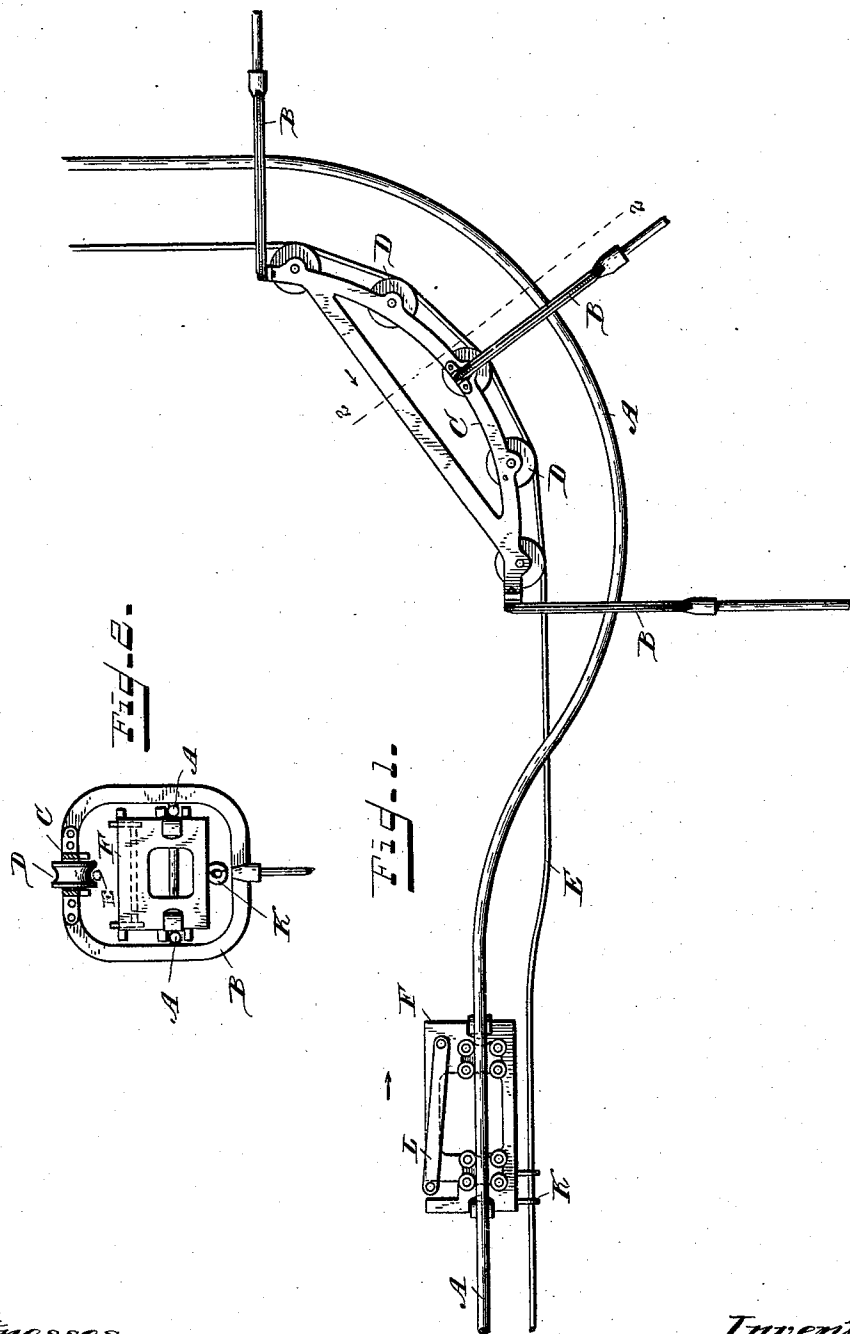
(No Model.)

2 Sheets—Sheet 1.

R. B. WILSON.
STORE SERVICE APPARATUS.

No. 478,038.

Patented June 28, 1892.



Witnesses.

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E. H. Mockbee

Inventor.

Robert B. Wilson
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his Attorneys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

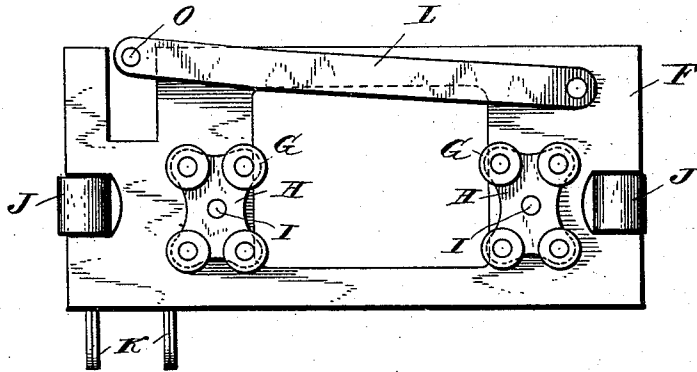


Fig. 4.

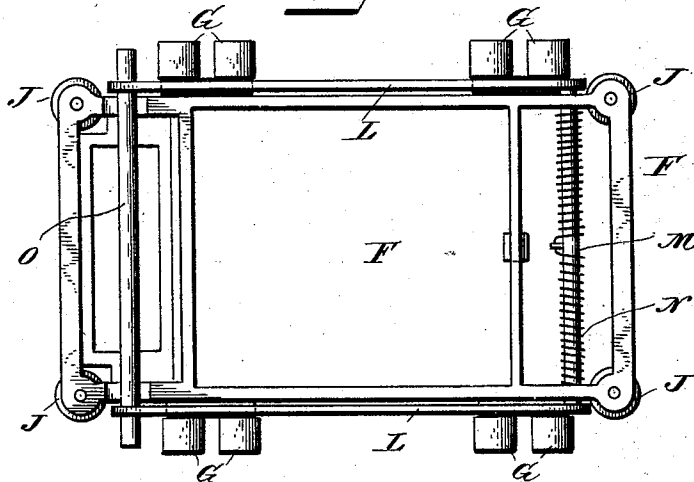
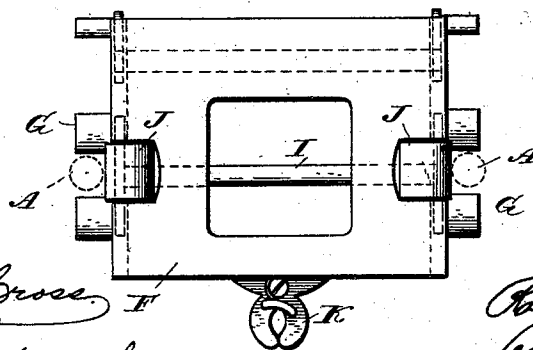


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

ROBERT B. WILSON, OF CINCINNATI, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE WILSON IMPROVED STORE SERVICE COMPANY, OF KENTUCKY.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 478,038, dated June 28, 1892.

Application filed August 27, 1891. Serial No. 403,898. (No model.)

To all whom it may concern:

Be it known that I, ROBERT B. WILSON, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Store-Service Apparatus, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of store-service apparatus in which the carriers are propelled by an endless cable; and it consists in the improved construction of the carriers themselves and in the means for carrying them around bends in the track, especially around upward bends where the carriers are to pass from one floor of the establishment to a floor above. Its novelty will be herein set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of the track and cable, an upward bend in the track, the device for supporting the track and cable around said bend, and a carrier upon the track. Fig. 2 is a vertical section on the line 2 2 of Fig. 1, showing one of the supporting-brackets and the carrier passing through the same. Fig. 3 is an enlarged side elevation of the carrier; Fig. 4 a top plan view, and Fig. 5 an end elevation, of the same.

The same letters of reference are used to indicate identical parts in all the figures.

The track consists of two rails A A, preferably composed of tubing, as shown by the cross-section in Fig. 2. At the bend shown in Fig. 1 they are supported by brackets B, fixed to any suitable supports. The brackets are connected by a curved frame C, in which are journaled the rollers D, which carry the cable E around the bend.

The carrier F travels between the track-rails A A and is mounted and secured upon them by means of four sets of rollers G. There are four rollers in each set, journaled at the four corners of a plate H, which is fast upon the end of a rock-shaft I. There are two of these rock-shafts, one near each end of the carrier. They are suitably mounted in the frame of the carrier and extend transversely across it, their ends projecting beyond its

sides and having secured to them the plates H, which carry the rollers G. The track-rails A A fit between the two upper and the two lower rollers of each set, as shown, the rollers embracing the rails and holding the carrier thereon. In addition to the four sets of rollers G the carrier is provided with four rollers J, one carried upon a vertical pivot at each of the four corners of the frame of the carrier. These rollers bear against the inner sides of the rails A and steady the carrier and relieve friction between its sides and the rails.

The above-described means of supporting the carrier upon the track-rails by the four sets of rollers G, connected by the plates H, fast upon the ends of the rock-shaft I, permits the carrier to travel freely around the bends in the track, the rocking of the plates H permitting the rollers of each set to accommodate themselves to the shape of the track, while the rollers J prevent the sides of the carrier coming in contact with the rails and causing friction.

While I prefer to secure the plates H fast upon the opposite ends of the rock-shafts I, so that the opposite plates and their sets of rollers will rock together, yet the plates may be independently mounted upon the shafts or upon the frame of the carrier and the shafts dispensed with. Also, the four sets of rollers G may be employed without the rollers J; but the conjoint use of all of them is highly advantageous.

I do not deem it necessary to illustrate and describe the particular construction of the gripping mechanism for gripping the carrier to the cable, since any usual or suitable mechanism may be employed for that purpose. It will suffice to say that I purpose using substantially the same mechanism that is shown in my prior patent, No. 454,793, of June 23, 1891, parts of which mechanism appear in the drawings. The two sets of grips K project below the carrier, as shown, and are operated to grip and release the cable by a frame L. This frame is hung at one end upon a transverse shaft M, and a spiral spring N, coiled around the shaft and connected to the frame, serves to yieldingly hold up the opposite end of the frame in the position shown in the

drawings. The cross-rod O of the frame projects beyond it at each side into position to ride under suitable trips to depress the frame and open the grip-jaws at the proper side track or at the cashier's desk, as described in my prior patent above referred to.

As the carrier passes around a bend, such as shown in Fig. 1, the cable is pulled away from the rollers D to the outer side of the track and the carrier passes around the curve between the cable and the rollers, as seen in Fig. 2, where the normal position of the cable is indicated by the dotted lines.

In the drawings I have shown simply the frame of the carrier. The cash box or receptacle is fitted and secured in this frame in any suitable manner.

Having thus fully described my invention, I claim—

1. In a store-service apparatus, the combination of the track-rails A A, the carrier F between them, the rocking plates H, and the four sets of rollers G, mounted upon said plates and embracing the track-rails, substantially as and for the purpose described.

2. In a store-service apparatus, the combination of the track-rails A A, the carrier F, traveling between them, the rock-shafts I, the plates H, fast upon the rock-shafts, and the

four sets of rollers G, four rollers in each set, mounted upon the plates H and embracing the track-rails, substantially as and for the purpose described.

3. In a store-service apparatus, the combination of the track-rails A A, the carrier F, traveling between them, the rocking plates H, the four sets of rollers G, mounted upon said plates and embracing the track-rails, and the four rollers J, bearing against the inner sides of the track-rails, substantially as and for the purpose described.

4. In a store-service apparatus, the combination of the track-rails A A, having the upward curve therein, the brackets B, supporting the rails, the frame C, connecting the brackets, the rollers D, mounted in the frame C on axes substantially parallel with the plane of the track-rails A A, the cable E, passed around the curve upon the rollers, and the carrier F, embraced by the track-rails and gripped to the cable and adapted to travel around the curve between the cable and the rollers D, substantially as described.

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Witnesses:

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