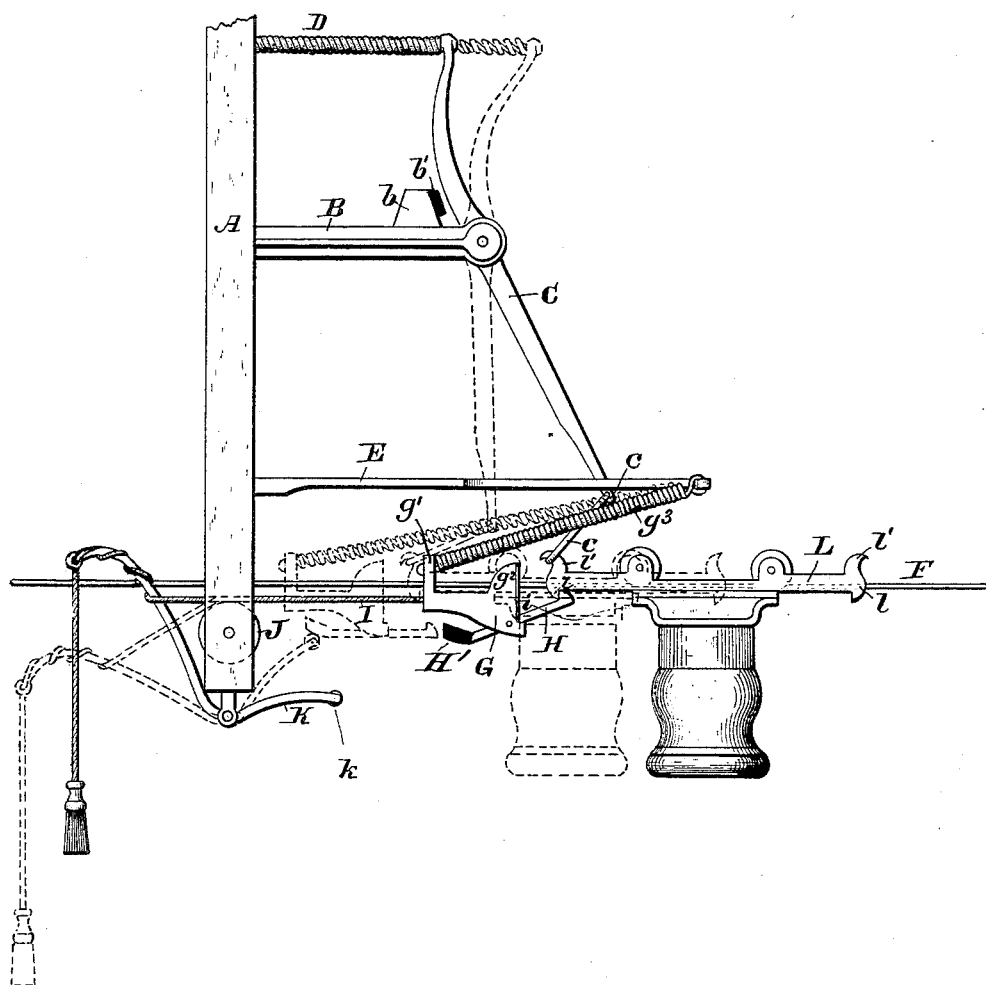


(No Model.)

A. B. PARK.
STORE SERVICE APPARATUS.

No. 418,926.

Patented Jan. 7, 1890.



ATTEST.

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UNITED STATES PATENT OFFICE.

AMBROSE B. PARK, OF ADRIAN, MICHIGAN.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 418,826, dated January 7, 1890.

Application filed December 6, 1888. Serial No. 292,794. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE B. PARK, a citizen of the United States, residing at Adrian, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Store-Service Apparatus; and I do hereby 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.

My invention relates to improvements in store-service apparatus, such as is used in stores and mercantile establishments for transmitting parcels and cash from one station or part of the room or building to another, and more particularly to that class of devices wherein the carriage conveying the articles travels upon a track-wire and is propelled along said wire through the medium of an actuating-spring, which exerts its force to propel the car forward upon the car being released; and the invention consists in the novel construction and arrangements of parts hereinafter fully described, due reference being had to the accompanying drawing, in which—

The figure illustrates a side elevation of a portion of a store-service apparatus constructed in accordance with my invention.

Referring to the drawing, the letter A indicates a hanger suspended from the ceiling or other part of the room, and B an arm rigidly secured to said hanger at a suitable point. Pivoted to the outer end of the arm B is a lever C, whose upper end has connected thereto an actuating-spring D, the other end of the spring being attached to the hanger, and this spring exerts its force to draw the upper end of the lever C toward the hanger and throw its lower end in the opposite direction. Upon the arm B is a block *b*, provided with a rubber or other pad *b'*, which acts as a bumper and as a stop to limit the throw of the lever C. The lower end of the lever C terminates in a loop *c*, for the purpose hereinafter described. Rigidly secured to the hanger at a point below the arm B is another arm E.

F indicates a track-wire, which is stretched level from one station to another and secured to the hangers.

G indicates a catch-block, having two upwardly-extending lugs *g'* *g''*, which are per-

forated for the passage of the track-wire upon which it moves. Pivoted to the lower portion of the catch-block is a gravity-catch H, having its rear end beveled, as shown, and weighted at H', so that its beveled rear end will descend by gravity and throw the forward hooked end of the catch upward. To the lug *g'* on the catch-block is fastened one end of a spring *g''*, the other end of the spring being fastened to the extremity of the arm E, and said spring exerts its force to pull the catch-block toward the extremity of the arm E, and also acts as a bumper-spring to check the motion of the carriage as it engages said catch-block. To the rear end of the catch-block is secured in any suitable manner a cord I, which passes over a pulley J, journaled in the lower part of the hanger A, and secured at its other end to one end of a lever K, pivoted to the bottom of the hanger. Said lever K is preferably curved, as shown, and has journaled in its free end a friction-roller *k*.

L indicates the carriage, consisting of a frame having journaled therein two or more grooved wheels adapted to travel upon the wire and having suspended from its under portion a cage or receptacle for the cash or parcels. Each end of the carriage L is provided with a downwardly-projecting hook or catch *l*, adapted to be engaged by the gravity-catch H on the catch-block, and projecting upwardly from each end of the carriage are fingers *l'*, adapted to engage the loop *c*, carried by the lever C.

I will now proceed to describe the operation of the apparatus. Let it be supposed that the carriage is in the position shown in the drawing. The cash or parcel having been deposited in the cage of the carriage, the attendant grasps the cord depending from the lever K and pulls downward. This causes the cord I to draw the catch-block backward upon the track-wire, and the catch-block being in engagement with the carriage and the carriage with the loop *c* on the lever C the carriage and lower end of said lever will also be drawn backward against the tension of the actuating-spring D. Upon continuing to pull upon the cord until the catch-block and the tripping-lever assume the position shown in dotted lines the roller *k* upon the free end of the tripping-lever K will strike the bev-

eled end of the gravity-catch H on the catch-block and release the carriage. Upon the release of the carriage the spring D will throw the lower end of the lever C forward, thus
 5 propelling the carriage forward over the track-wire to its destined station. At the same time the spring g^3 will propel the catch-block forward, ready for its engagement with the carriage upon its return. Upon the return of the carriage the finger l' upon the
 10 approaching end of the carriage will engage the loop c upon the lower end of the lever C, and continuing upon its course the forward end of the carriage will strike the catch-
 15 block G.

The face of the catch-block is provided with a pad i , which receives the force of the stroke from the approaching carriage and acts as a bumper, and the force of the shock
 20 is further broken by the spring D when the carriage engages the loop c on the lever C, and the carriage is finally and gently brought to rest by the spring g^3 , attached to the catch-block and the arm E. It will be observed
 25 that the springs D and g^3 each possess a doublefunction. Both serve to retard the momentum of the carriage upon its approach and bring it to a state of rest without shock, while one also serves to propel the carriage
 30 forward and the other serves to return the catch-block to a position to meet the approaching carriage, the cord I and lever K preventing the catch-block from traveling too far forward. The said springs may be formed of
 35 coiled wire or rubber, or may be of any suitable construction.

What I claim is—

1. In a store-service apparatus, the combination, with a track-wire and a carriage
 40 traveling thereon, of a catch-block traveling on the track-wire and provided with a pivoted catch adapted to engage the carriage, a cord for retracting the catch-block and carriage, and a pivoted lever attached to said

cord and operated thereby, and having its free end adapted to engage the catch as the catch-block is retracted to trip said catch and release the carriage, substantially as shown and described.

2. In a store-service apparatus, the combination, with a track-wire and a carriage
 50 traveling thereon, of a pivoted spring-actuated lever engaging with the carriage, a catch-block traveling on the track-wire and provided with a bumper-spring, and a pivoted
 55 catch adapted to engage the carriage, a cord for retracting the catch-block and drawing the carriage against the tension of the actuating-spring, and a pivoted lever attached to said cord and operated thereby, and having its free end adapted to engage the catch
 60 as the catch-block is retracted to trip said catch and release the carriage, substantially as shown and described.

3. In a store-service apparatus, the combination, with a track-wire and a carriage thereon, of an actuating-spring connected with a pivoted lever carrying a loop at its lower end
 70 engaging said carriage, a catch-block traveling on the track-wire and having pivoted thereto a gravity-catch having its weighted end beveled, as shown, and engaging the carriage, a cord for retracting the catch-block and drawing the carriage against the tension
 75 of the spring-actuated lever, and a pivoted lever attached at one end to said cord and operated thereby, and carrying at its other end a roller which, when the catch-block is retracted, engages the beveled end of the catch on the catch-block and releases the carriage,
 80 substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

AMBROSE B. PARK.

Witnesses:

R. B. ROBBINS,
 WM. PAYNE.