

(No Model.)

J. H. GOODFELLOW.
STORE SERVICE APPARATUS.

No. 568,441.

Patented Sept. 29, 1896.

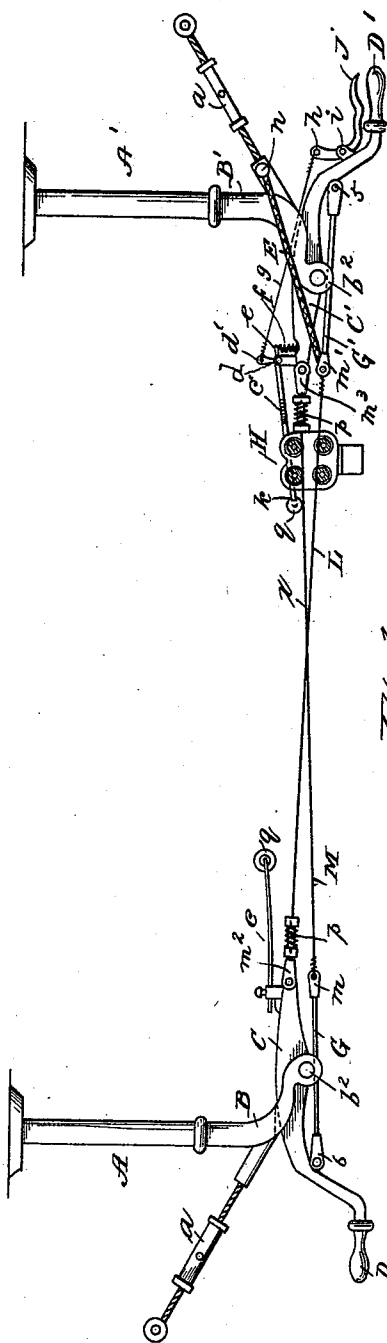


Fig. 1.

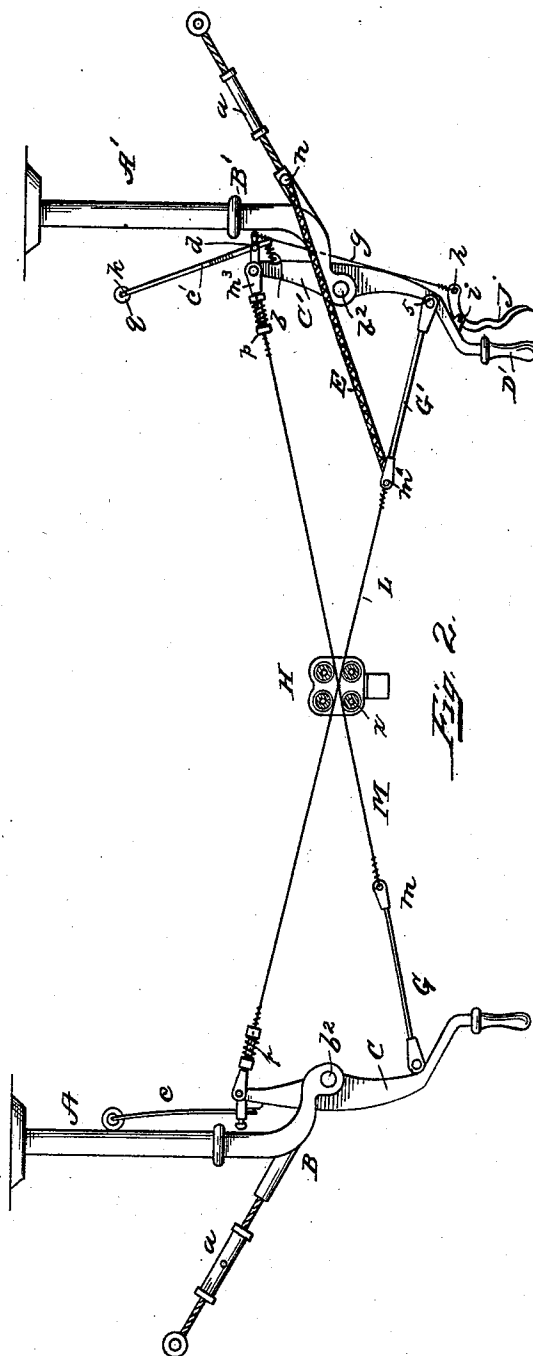


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN H. GOODFELLOW, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO THE
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STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 568,441, dated September 29, 1896.

Application filed January 18, 1894. Serial No. 497,273. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GOODFELLOW, of Lowell, county of Middlesex, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Store-Service Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

One object of my invention is to provide means for returning the levers and propelling ways to their normal positions after the carrier has been propelled toward the opposite end of the way.

Another object is to provide means for preventing the salesman operating the apparatus so as to return the carrier to himself from the cashier's end.

Another object is to arrange the double ways in a crossed position, whereby a greater impulse is obtained for the reason that the angle of the ways, when moved by the levers, is pitched from the ends of the levers to the center of the length of the ways instead of to the terminating or opposite ends of said ways.

These and other objects are accomplished by constructions and arrangements of the parts hereinafter described and claimed, and shown in the accompanying drawings.

My invention consists of certain novel features, combinations, and arrangements hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of my store-service apparatus with the carrier at the cashier's end of the way. Fig. 2 is a similar view showing the position of the parts after the system has been operated to send the carrier to the salesman's end, and it shows the carrier as having reached the center of its travel.

Like letters of reference refer to like parts throughout both views.

The hangers A A', respectively, support the levers C C', which in turn support the track-wires L M. Suitable guys or tighteners a are located at both ends of the system. The bifurcated brackets B B' are secured to the ends of the hangers A A', respectively, and

the levers C C' are respectively journaled at b² in said brackets B B'. The lever C has a catch c permanently connected thereto for receiving the carrier as it reaches the salesman's station to prevent the rebound of said carrier, but leaving said carrier under the control of the cashier at the opposite end of the way, so that, if desired, the cashier can return the carrier to himself without the salesman operating his own end of the way.

The lever C' is provided with a pivoted latch c' for receiving and retaining the carrier at the cashier's end, but by reason of its being pivoted at d the carrier is prevented from being returned to the salesman by his attempting to operate his own end of the way. Secured to and extending above the pivot of this latch-lever c' is an arm d', and secured to the pivot in rear thereof an arm e, between which and the lever C' is located a spring f. To the arm d' there is a suitable connection g, which extends rearwardly to the arm h, having a pivotal support i at the rear of the lever C'. To this arm h, and in rear of the pivot, is a handle j, extending over the handle D' of the said lever C'. The action of the spring f is such that it maintains the handle j raised above the lever-handle D' and tends to hold the forward end k of the catch c in front of the carrier, as shown in Fig. 1. By this arrangement it will be seen that the lever C, having a handle D, loses control of the carrier at the cashier's end of the way, so that while the cashier can send the carrier to the opposite end of the way and return it to himself when he desires the clerk can only send the carrier from his own end of the way to the cashier's end and is prevented from returning it to himself.

The spring E, of suitable material, is connected to the arm G' near its connection with the way L and to the bracket B' at the point n. The action of this spring is to return the levers and ways to the position shown in Fig. 1 after they have been moved by the operator to despatch the carrier, as shown in Fig. 2, without any attention on the part of the operator, who in operating the system simply moves his lever to a vertical position and then removes his hand, and the spring E re-

turns the system to its normal position, as shown in Fig. 1, and the carrier continues past the middle of the way as the wires converge in front of the carrier as it travels from one end to the other after the system has been operated and the carrier has reached the middle point. By this arrangement a greater impulse is given to the carrier on account of the angle of the ways being pitched from the ends of the levers to the center of the ways instead of to the extreme opposite ends of the ways, and there is no opposition to the continued travel of the carrier past the middle point, as the ways return to their normal positions and approach one another in front of the carrier as it travels along past the middle point of the said ways, as shown in Fig. 1.

One end of the wireway L is pivotally connected at m^1 to the inner end of the arm G', which has its pivot connection to the operating-lever C' at 5, and the opposite end of said way is pivotally connected at m^2 to the lever C at its upper end below the catch c. The other way M is pivotally connected at m to the inner end of the arm G, and the other end of said way M is connected at m^3 to the upper end of the lever C'. As thus constructed and arranged the wires L and M cross one another in all positions, as shown in Figs. 1 and 2.

The carrier traveling from either end of the system contacts at the opposite end with a spring-buffer p , rebounds against the pad q , and is held firmly in its position. Should the clerk undertake to return the carrier to his own station by operating the lever, the spring f will keep the end of the catch c in front of the carrier and thus lock the parts against their movement in that direction, and prevents the carrier from leaving the cashier's end. It will be seen that the cashier has full control of the latch c' by means of the auxiliary lever j and its connections with the latch, and his first action is to press down the auxiliary lever j , so as to raise the end of the latch c' , and then by continued pressure on the auxiliary lever j and lever-handle D' the lever C' is raised to a vertical position, the wires diverge, and the carrier starts from the cashier's end toward the salesman's end, as hereinbefore described.

I do not limit myself to the exact arrangement and construction shown, as the same

may be varied without departing from the spirit of my invention.

Having thus ascertained the nature and set forth the construction of my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a store-service apparatus, the combination with the ways crossing one another, of a wheeled carrier adapted to travel on said ways, and mechanism comprising levers for spreading said ways and pressing obliquely against the rear of the carrier for propelling said carrier along said ways and means for returning the levers and ways to their normal positions.

2. In a store-service apparatus, the combination with the ways crossing one another, of a wheeled carrier adapted to travel on said ways, and mechanism for spreading the wires in the rear of the carrier for propelling it along said ways, and separate means for bringing the wires together forward of the wheels after the carrier has been started upon the way by the spreading of the wires.

3. In a store-service apparatus, the combination with the ways crossing one another, of a wheeled carrier adapted to travel on said ways which pass between the wheels of the said carrier, and mechanism comprising levers for spreading the wires in the rear of the carrier and thereby propelling it along the way and means at one end of the ways for returning the levers and ways to their normal positions.

4. In a store-service apparatus, the combination with the ways crossing one another, of a wheeled carrier adapted to travel on said ways, mechanism comprising levers for spreading said ways and pressing obliquely against the rear of the carrier, buffers located at the stations, and a spring-catch at each end of the way for engaging the carrier and a spring at one end of the apparatus for returning the levers and ways to their normal positions.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 11th day of January, 1894.

JOHN H. GOODFELLOW.

Witnesses:

L. H. TROW,
JAS. H. CONNELLY.