

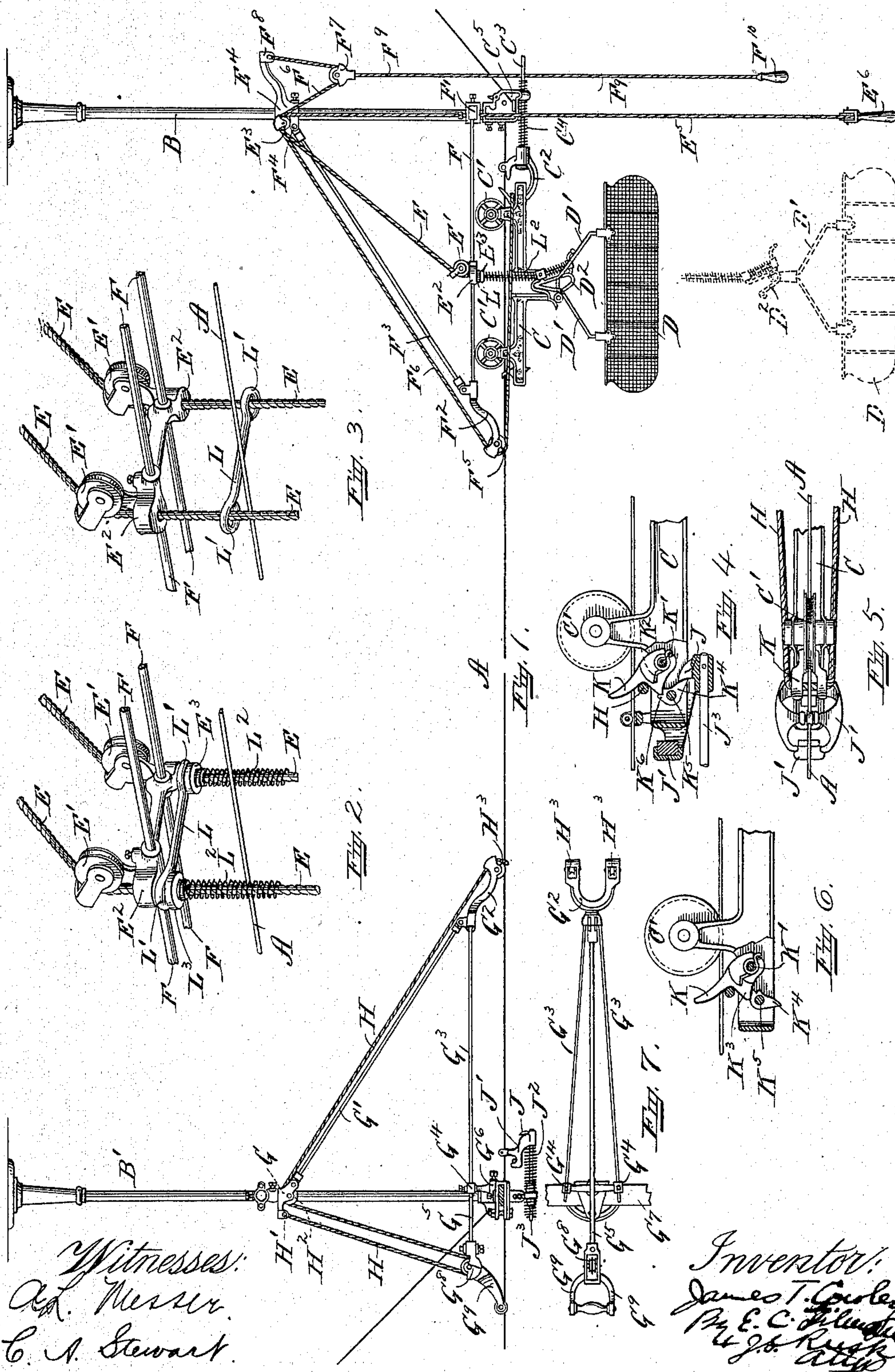
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Patented Aug. 20, 1901.

J. T. COWLEY.
STORE SERVICE APPARATUS.

(Application filed Dec. 20, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JAMES T. COWLEY, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO THE
LAMSON CONSOLIDATED STORE SERVICE COMPANY, OF NEWARK,
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STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 681,040, dated August 20, 1901.

Application filed December 20, 1899. Serial No. 740,964. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. COWLEY, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Store-Service Apparatus, of which the following is a specification.

My invention relates to improvements in store-service apparatus; and one object is to carry cash and parcels between the salesmen and the cashier, and to locate the line on which the carrier travels at a greater height than lines are usually located, and to provide for lowering the carrier within reach of the operator, and also to provide means for retaining the carrier at the station when the receptacle is detached therefrom and lowered.

A further object is to provide an improved catch for retaining the carrier at the station when received from the opposite end of the line.

This invention is an improvement on that shown, described, and claimed in United States Letters Patent No. 582,810, dated May 18, 1897, and issued to the Lamson Consolidated Store Service Company of New Jersey as my assignee.

My invention relates to certain novel features hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 represents a side elevation of the line with stations located at each end. Fig. 2 is a detail perspective view of a portion of a station, showing the carrier-retaining device in a raised position. Fig. 3 is a view similar to Fig. 2, showing the retaining device lowered in position to retain a carrier after the detachment of the receptacle. Fig. 4 is a detail view, partly in section, of one end of the carrier, showing the catch for holding the carrier when it enters a station. Fig. 5 is a top plan view of the same. Fig. 6 is an end view of the carrier, partly broken away, showing the catch in its released position from that shown in Fig. 4. Fig. 7 is a top plan view of the station shown at the left-hand end of the line, Fig. 1.

Like letters of reference refer to like parts throughout the several views.

A represents a wire track over which a carrier is adapted to travel in passing from one station to another and is supported at its opposite ends by the hangers B B'. The carrier C, having wheels C', is adapted to travel forward and backward over the track A, and when the carrier reaches the right-hand end of the line it engages with the catch C², supported on the track A by a suitable roller M, and is cushioned by the spring C⁴, mounted on the rod C³ and working freely in the casting C⁵, secured on the end of the standard B.

D represents a receptacle having bails D', the upper end of which is arranged to engage with the carrier C.

D² represents drop-hooks suspended by the cords E, passing over the pulleys E' in the bracket E², mounted on the brace-rods F, the hooks D² being adapted to engage with the yoke D³, connecting the bails D' on the receptacle D when the carrier enters a station. The cord E passes up over the pulleys E³, mounted in the casting E⁴, and passes downwardly, as shown at E⁵, and is provided with a handle E⁶ for raising and lowering the drop-hooks to first detach the receptacle and lower the same and to attach the receptacle when the receptacle is raised by the operator.

The detaching and attaching, which are accomplished by pulling on the handle E⁶, form no part of the present invention, as the mechanism and the operation are identical with that shown, described, and claimed in the above-mentioned Letters Patent.

The brace-rods F are secured to the bracket F', mounted on the standard B, and the outer ends are secured to the fork F², carrying at its outer end the pulleys F⁵, over which the cord F⁶ passes. This cord F⁶ passes around the end of the carrier C, as shown in Fig. 1, and passes over the pulleys F⁵ upwardly, over the pulleys in line with the pulleys E³, and then passes downwardly, as shown at F⁶, around the pulleys in the casting F⁷ and is secured to the bracket E⁴ at F⁸. Secured to the casting F⁷ and extending downwardly within reach of the operator is a cord F⁹, having at its lower end the handle F¹⁰.

The construction above described is the salesman's station and the one at the left is the central station. At the central station

the bracket G, supported by the standards B', has a brace-rod G', extending downwardly and secured to the fork G², having at its outer ends the pulleys H³. Secured to the fork G² are opposite brace-rods G³. The opposite ends of these brace-rods are secured at G⁴ to the bracket G⁶, mounted on the cross-bar G⁷, secured to the lower end of the standards B', only one of which is shown; but they are identical and located in line. Pivoted on the fork G² is an arm G⁵, having at its outer end the handle G⁹. This handle is provided with pulleys G⁸, around which the cord H passes. This cord H is secured at H' to the bracket G, passes downwardly around the pulleys G⁸, upwardly over the pulleys H², and downwardly around the pulleys H³, located in the ends of the fork G². The cord H forms a loop at the fork G², and said loop passes under the wire track A in position to engage with the carrier when the carrier enters a station and is carried back along with the carrier, raising the handle G⁹.

The apparatus thus far described forms no part of my invention, which consists of the construction to be hereinafter described.

When a carrier has entered the central station, the catch K⁴, pivoted on the pin K⁵, engages with the catch J, secured to the bracket J', supported on the track A by a suitable roller N. This catch J has a rod J³, extending backwardly and supported by the bracket G⁶. Around the rod J³ is a spring J², the object of which is to cushion a carrier when it enters a station. Pivoted at K' on the carrier C is a forked catch K, the upper end of which passes upwardly in position to engage with the cord H when a carrier enters a station. This catch is held forward by the spring K². The catch K⁴ has a lip K⁶ on its upper side in position to engage with the catch K when the parts are in the position shown in Fig. 4. When it is desired to despatch the carrier from the central station, the operator pulls down on the handle G⁹, thereby pulling on the cord H, passing around the upper end of the catch K, as shown in Figs. 4 and 5. As the operator continues to pull on the handle G⁹ the cord H will lift the catch K out of engagement with the upper end K⁶ of the catch K⁴, allowing the catch K⁴ to swing to the position shown in Fig. 6, thereby releasing the carrier from the catch J. By continuing the pull on the handle G⁹ the carrier is forced to the opposite end of the line by the impulse exerted by the operator on the handle G⁹. When the carrier reaches the opposite end of the track and has engaged with the catch C², a catch similar to the catch K⁴ will again be brought into engagement with a catch similar to the catch K in a manner similar to that shown in Fig. 4, it being understood that the catches on both ends of the carrier C are alike. The purpose of these catches as constructed is to securely hold the carrier in the station and to release the same when the operator pulls on the propelling

cord, it being understood that the catch K is lifted out of engagement with the catch K⁴, that the catch K⁴ is then free to turn upon the pin K⁵, and that after the carrier has left the fixed catch at each station the catch K⁴ will fall by gravity to the position shown in Fig. 6 and be returned again to its normal position when a carrier enters a station. By this arrangement the carrier is easily released by the operator pulling on the propelling cord and is also easily engaged when a carrier enters a station. When it is desired to lower the receptacle D within reach of the operator, the operator by pulling on the handle E⁶ will detach the receptacle from the carrier C in the manner as shown and described in the above-mentioned Letters Patent. As the receptacle lowers in engagement with the drop-hooks, as indicated in dotted lines, Fig. 1, the bar L, with the eyes L' around the opposite cords E, forms the retaining device when lowered from its upper position (shown in Figs. 1 and 2) to the position shown in Fig. 3. In this position the retaining-bar L rests upon the track A between the two wheels of the carrier, and consequently the operator cannot despatch the carrier C when the receptacle is detached therefrom, and thus the carrier C is prevented from being sent to the opposite end of the line while the receptacle is detached and lowered, which frequently occurs in the operation of this style of carriers. When the receptacle D has again been brought into engagement with the carrier C by the operator pulling on the handle E⁶, the retaining-bar L is lifted by the collar E³ on the end of the spring L², and with the retaining-bar L in this position it is out of the path of the carrier C, so that the carrier is free to be despatched to the opposite station with the receptacle D attached.

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

1. In a store-service apparatus, a track, a carrier, a receptacle detachably connected to said carrier, mechanism located permanently at the end of the track for lowering and raising said receptacle and means for retaining the carrier at the station when the receptacle is detached therefrom, and adapted to be removed from engagement with the carrier upon the attachment of the receptacle to the carrier.

2. In a store-service apparatus, a track, a carrier, a receptacle detachably connected to said carrier, means for retaining the carrier at the station when the receptacle is detached therefrom, mechanism located permanently at the end of the track for lowering and raising said receptacle and means for releasing the retaining device by the attachment of the receptacle to the carrier.

3. In a store-service apparatus, a track, a carrier, a receptacle detachably connected to

said carrier, and a retaining-bar adapted to be lowered between the wheels of the carrier for retaining the carrier at the station upon the detachment of the receptacle from the carrier.

4. In a store-service apparatus, a track, a carrier, a receptacle detachably connected to said carrier, a retaining-bar adapted to be lowered between the wheels of the carrier for retaining the carrier at the station upon the detachment of the receptacle from the carrier and adapted to be raised from between the wheels of the carrier upon the attachment of the receptacle to the carrier to allow the travel of the carrier from the station.

5. In a store-service apparatus, a track, a carrier adapted to travel on said track, a fixed catch at the end of the track, a pivoted catch on the carrier for engaging with the fixed catch, and means on the carrier for holding the pivoted catch in engagement with the

fixed catch, and means for despatching the carrier and adapted to act on said holding means to release the pivoted catch to allow the despatch of the carrier.

6. In a store-service apparatus, a track, a carrier adapted to travel on said track, a fixed catch at the end of the track, a pivoted catch on the carrier for engaging with the fixed catch, a spring-operated catch on the carrier for holding the pivoted catch in engagement with the fixed catch, and a propelling cord for releasing the pivoted catch to allow the despatch of the carrier.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 15th day of December, A. D. 1899.

JAMES T. COWLEY.

Witnesses:

A. L. MESSER,

V. M. MACLELLAN.