

(No Model.)

W. R. COLE.
STORE SERVICE APPARATUS.

No. 529,599.

Patented Nov. 20, 1894.

Fig. 3

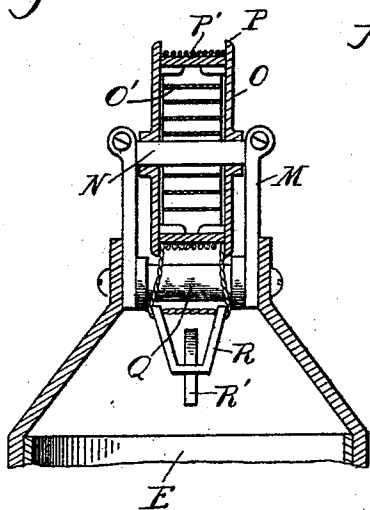


Fig. 4.

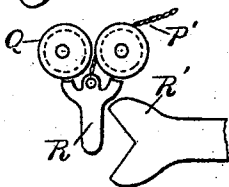


Fig. 1.

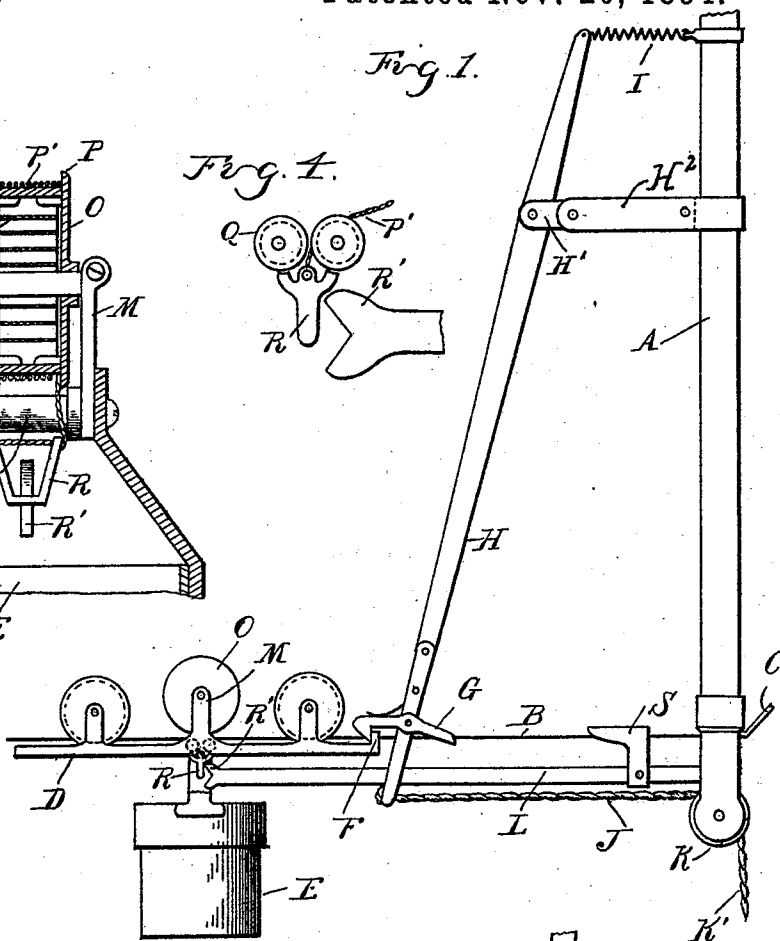
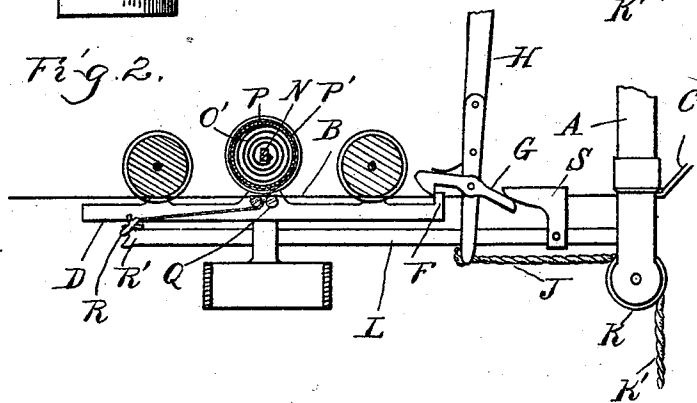


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM R. COLE, OF DETROIT, MICHIGAN.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 529,599, dated November 20, 1894.

Application filed July 6, 1894. Serial No. 516,750. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. COLE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Store-Service Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention consists in the peculiar construction of the actuating devices for the carriage comprising a spirally wound spring having a hoop or loop at its end adapted to engage with the stationary abutment at the station and means for drawing the carriage away from the engaging part of the abutment to wind up the spring, with a tripping device for releasing it at the desired point, so that the spring will act to throw the carriage along the line.

20 The invention further consists in the peculiar construction, arrangement and combination of the various parts.

25 In the drawings, Figure 1 is a side elevation of my improved device showing the carriage at the station in its normal position. Fig. 2 is a similar elevation partly in section showing the carriage drawn back ready to be propelled over the line. Fig. 3 is a vertical section through the carriage to illustrate the construction of the actuating devices; and Fig. 4 is a detail elevation of the hooked arm and the loop.

35 A is a standard supporting one end of the wire way B, the other end of which is supported in any desired manner and the wire stretched tight between the two. C is a brace for its standard.

40 D is a carriage running on the wire way, and E is a box or receptacle for coin or packages on the carriage. The carriage at its inner end is provided with the locking lug F, with which a spring hook G on the lever H is adapted to engage as the carriage comes into the station to hold it. This lever is pivoted on a link H' which has a rule joint connection with an arm H² on the standard A and is held normally at an angle to the standard by the tension of a coiled spring I, secured to the upper end of the lever and to the standard.

50 By the employment of the link H' the hook

on the lower end of the lever H is permitted substantially a direct movement which will cause the outer end of the hook G to engage the stationary abutment S while the inner end is held substantially in the plane of the carriage. The rule joint prevents the downward movement of the link H'. To the lower end of this lever is secured a cord J, which passes over a sheave K and extends in a vertical section K' in proximity to the operator below.

L is an arm or rod forming a stationary abutment secured at one end to the standard A and extending outwardly therefrom parallel with the track or beside the same.

Centrally of the carriage are the standards M connected together at their upper ends by a shaft or cross bar N upon which is journaled the drum O. Within this drum is a coiled spring O' having one end secured to the shaft N and the other end secured to the inner face of the drum O.

P are peripheral flanges on the drum and between these flanges around the drum is a flexible cord or tape P' which extends from the drum between two rollers Q below the drum and at its end is provided with the loop or hook R, which in the normal position of the carriage hangs in front of a finger or hook R' on the end of the arm L. The parts being in the position shown in Fig. 1, the operator draws down on the vertical section K' of the cord which will rock the lever H and draw the carriage (which is secured to the lever by means of the hook G) toward the standard, at the same time the loop R engaging with the finger R' on the stationary abutment will unwind the cord P' from the drum which will wind up the spring in the drum. As the carriage reaches the end of its inward movement, the hook G will strike the stationary abutment S and will be tripped, releasing the carriage from the lever, when the tension of the spiral spring O' will rapidly propel the carriage over the line, at the other end of which if desired a similar device may be employed for returning it.

What I claim as my invention is—

1. In a store service apparatus, the combination with the standard and the track, of a wheeled carriage on the track, a spring actu-

ated drum secured on the carriage, a flexible cord around the drum, a hook or loop on the end of this cord projecting beside the carriage, a stationary abutment at the station with which such hook is adapted to engage and means for drawing the carriage beside the stationary abutment to withdraw the cord from the drum, and a tripping device to release the carriage from the station, substantially as described.

2. The combination of the standard, the way, the wheeled carriage on the way, a latch to retain the carriage at the station, and a tripping device for the latch, of a spiral spring on the carriage, a flexible cord actuated by the spring passing between stationary bearings on the carriage, a hoop or loop on the end of the cord, a stationary abutment beside the track with which said loop is adapted to en-

gage, and devices for moving the carriage to wind up the spring, substantially as described.

3. In a store service apparatus, the combination of the carriage, the drum journaled thereon, a spiral spring for actuating the drum, the cord P' around the drum, the rollers Q on the carriage between which said cord passes, the loop R at the end of the cord, the arm L beside the track having engaging devices at its end for the loop, and the cord and lever for drawing the carriage away from the end of the arm L, substantially as and for the purpose described.

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

WILLIAM R. COLE.

Witnesses:

L. J. WHITTEMORE,
O. F. BARTHEL.