

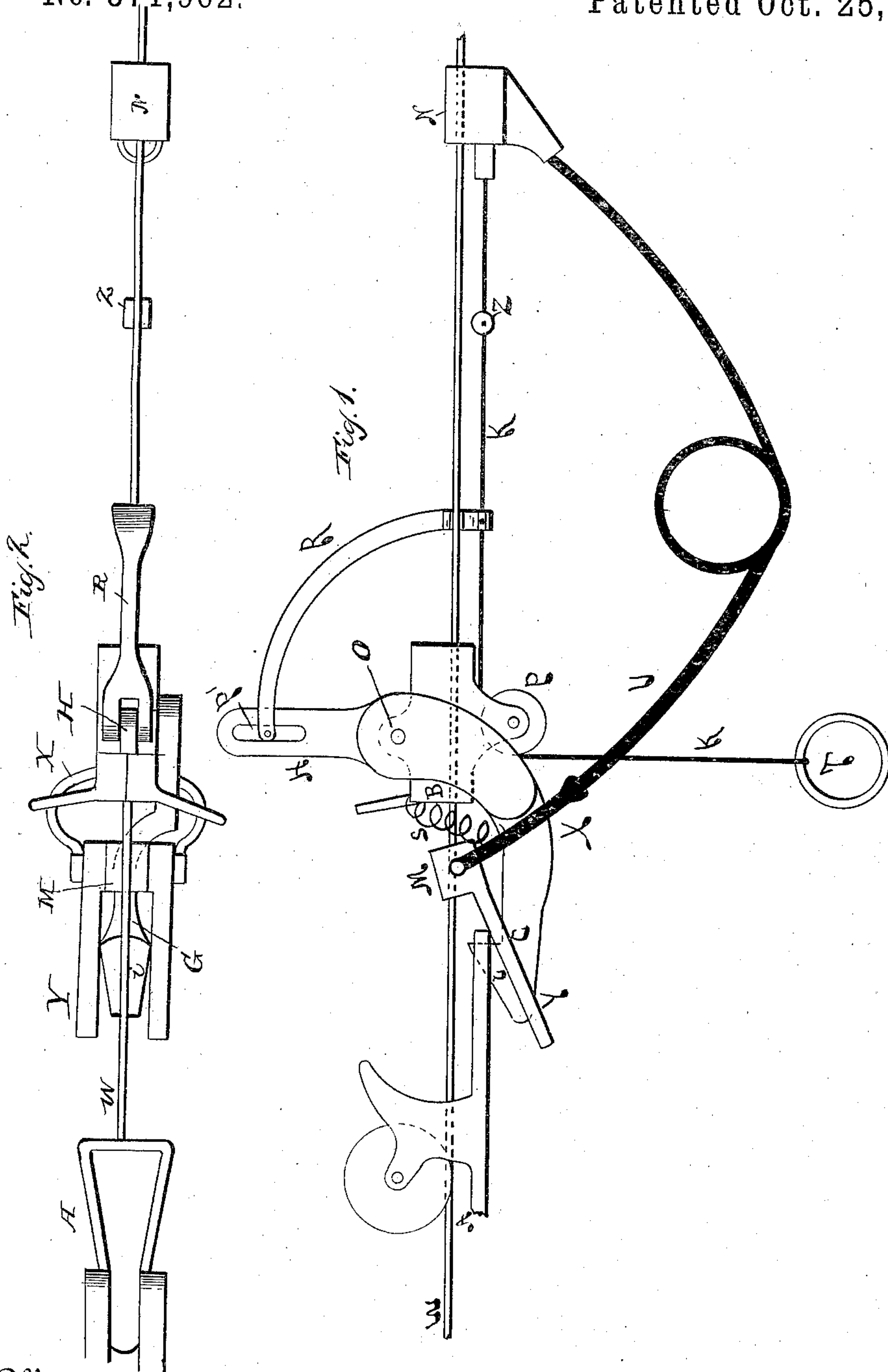
(No Model.)

R. A. McCARTY & H. YOE.

STORE SERVICE APPARATUS.

No. 371,962.

Patented Oct. 25, 1887.



Witnesses
Charles F. Burton.
Ellwood J. Heane

Inventor
Robert A. McCarty
Henry Yoe

UNITED STATES PATENT OFFICE.

ROBERT A. McCARTY AND HENRY YOE, OF DETROIT, MICHIGAN, ASSIGNORS
TO THE RAPID SERVICE STORE RAILWAY COMPANY, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 371,962, dated October 25, 1887.

Application filed May 3, 1887. Serial No. 236,927. (No model.)

To all whom it may concern:

Be it known that we, ROBERT A. McCARTY and HENRY YOE, citizens of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Store-Service Apparatus, of which the following is a specification.

The drawings represent, in Figure 1, a side view of the mechanism employed in our invention, and in Fig. 2 a plan view thereof, the carrier being disconnected from the catch.

A wire way or track, W, is stretched between two points and passes over or near to the stations between which it is desired that the carrier A shall travel. At each of the stations we clamp upon the wire a block, B. This block supports in a position beneath the wire a pulley, P, and a catch, C, which is hung upon trunnions at O and has a bell-crank handle, H, projecting upward above the wire. The hook part L of the catch C lies under the wire W and closely adjacent thereto, and is held up in position by the light spiral spring S. To the upper part of the handle part of the catch C we attach an arm, R, which is held to the handle H by a pin passing through the slotted opening P' in the upper end of the handle H. This arm R is slotted at its lower end, so as to engage and ride upon the wire W, and also at its lower end is perforated to permit the passage of the cord K.

Upon the wire W we mount two sliding blocks, M and N, one on either side of the catch - holding mechanism, previously described. These blocks are perforated to permit them to move freely upon the wire W, and the perforations are in vertical diameter considerably greater than the diameter of the wire W, so that a considerable vertical movement is possible, but little or no side movement can be had. The two blocks M and N are connected by the spring-wire V. The spring-wire V has one or more coils made at its middle part to give it an increased resiliency, and has one end firmly fixed to the block N and the other end attached to the fork X, which passes up at the sides of the catch C to the block M, and is there attached to the block M by a pin or hinged joint, J. The block M has two prongs, Y, extending upward from its lower

side, between which lies the catch C when the spring is in the position shown in the drawings.

To the block N we attach the cord K, 55 which passes forward over the pulley P and downward to a position to be reached by the hand of the operator, and ends with a handle, T, by which it may be grasped. The end of the car A is provided with a looped wire or 60 with an opening adapted to pass over the hook L of the catch C.

The operation of the mechanism is as follows: The loop upon the car is brought into engagement with the hook L, and when brought 65 into that position has necessarily pushed the sliding block M before it, so that the sliding block M will lie between the block B and the rear end of the car. The prongs Y of the block will then lie on either side of the catch 70 C and below the end of the car A. The block N will be thrown by the spreading force of the spring V to the extreme limit of its motion back of the block B. The operator now grasps the handle T of the cord K and pulls 75 downward, bringing the block N forward and putting tension upon the spring V. The downward pull is continued until the button Z upon the cord K is brought into contact with the lower end of the arm R. The spreading force 80 of the spring causes the block M first to press forward against the rear of the car, which is held from forward motion by the hook L, and next to press upward slightly by means of the prongs Y, thus preventing the loop on the car 85 from following the hook L when the hook shall be drawn downward by the next movement. A continuation of the downward pull upon the handle T now pulls the arm R forward to a position parallel to the position that it first 90 held, and pulls the arm H forward and the catch C downward until the hook L is out of engagement with the loop on the end of the car. The instant this engagement ceases the spring V expands, and the block M is thrown 95 forward, pushing the car in front of it with a sudden impulse sufficient to propel the car along the way, the distance and velocity of course depending on the strength of the spring V and the amount of compression that has 100 been given to it.

Having thus described our invention and its

mode of operation, what we claim as novel, and desire to have secured by Letters Patent, is—

1. In a store-service apparatus, the combination of a catch hinged to a block arranged to be clamped upon a wire way, two movable blocks adapted to slide on said way, and a spring connecting the two blocks together.

2. The combination of a hooked catch, a spring propelling mechanism interposed between slides mounted on a wire way, and a lever connected with said catch by which the catch is moved from its normal position.

3. The combination of a catch hinged to a block mounted upon a wire way, a block sliding upon said wire way, a spring connecting said block to a second block, and a cord passing from the second block over a pulley, by means of which the spring is placed in a state of tension, substantially as described.

4. In a store-service apparatus, the combination, with a car, of a spring mechanism for propelling the car, both ends of which spring are attached to blocks sliding upon the wire of the main track.

5. In a store-service apparatus, the combination, with a car, of a spring propelling mechanism, both ends of which spring are free to move through a limited space, and a pronged block attached to one end of the said spring and sliding upon the wire of the track, the prongs of which block pass down on either side of a catch mounted on the wire between the ends of the spring.

6. In a store-service apparatus, the combination of a car adapted to travel on a wire way, a wire way having mounted thereon a catch adapted to hold said car, a spring-motor, both ends of which are movable along the wire track, one end of which is adapted to push against the said car while the car is held by the catch, and the other end of which is adapted to be pulled toward the first-described end until tension is produced in the said spring sufficient to propel the car along the way.

7. The combination of a way, a car adapted to travel thereon, a pivoted catch mounted fixedly on the way, blocks sliding on the way and pressed apart by a spring, a cord for drawing the blocks together and compressing the spring, and an arm connected to the catch and to the cord for rocking the catch to release the car, substantially as described.

8. The combination of a way, a car adapted to travel thereon, a pivoted catch mounted fixedly on the way, blocks sliding on the way and pressed apart by a spring, one of which blocks being provided with an extended end adapted to lie upon the side of the catch, a cord for drawing the blocks together and compressing the spring, and an arm connected to the catch and to the cord for rocking the catch to release the car, substantially as described.

ROBERT A. McCARTY.

HENRY YOE.

Witnesses:

CHARLES F. BURTON,
ELLWOOD T. HANCE.