

(No Model.)

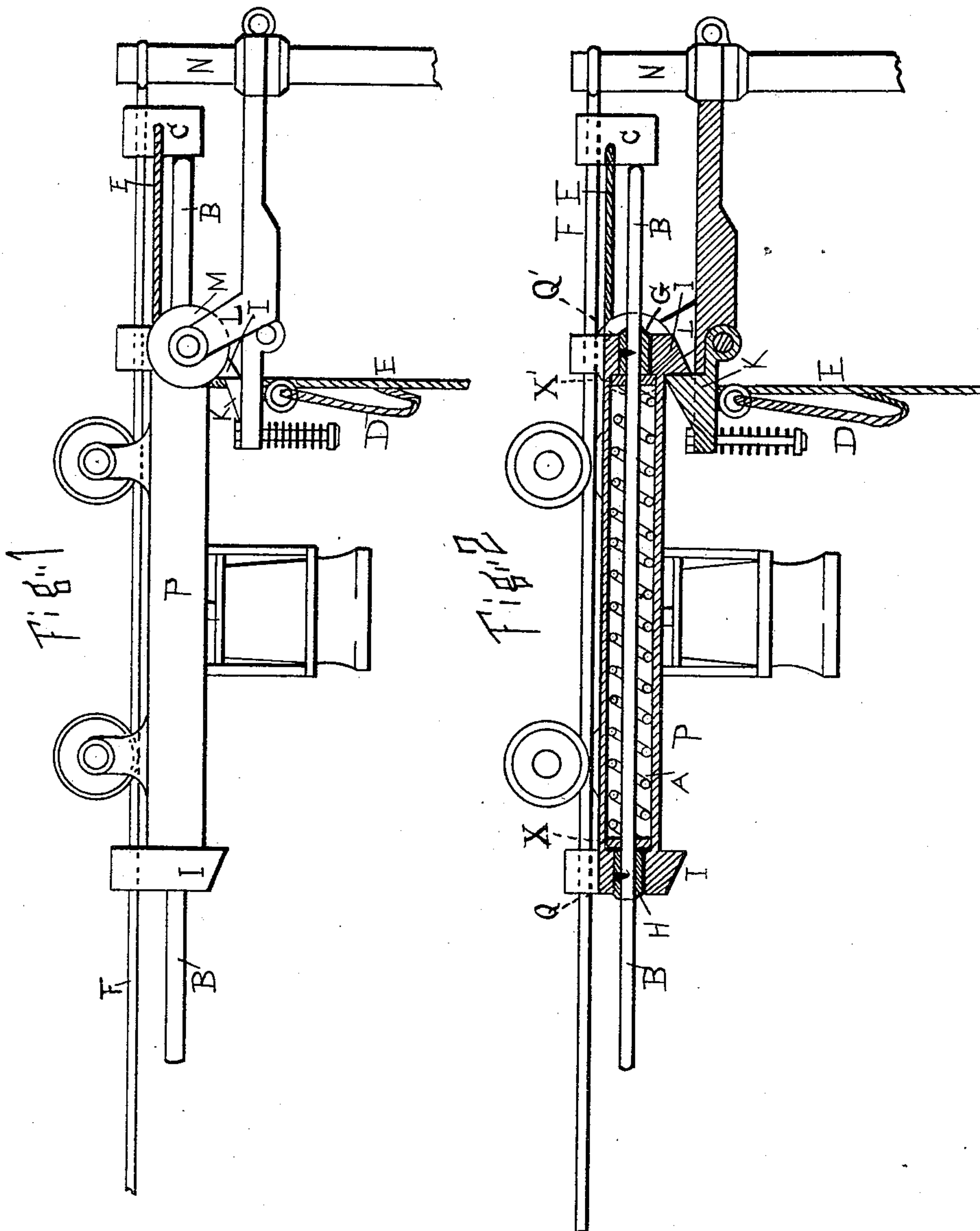
2 Sheets—Sheet 1.

C. F. BURTON.

STORE SERVICE APPARATUS.

No. 344,244.

Patented June 22, 1886.



WITNESSES
Anna C. White
Marcus W. Frazer

INVENTOR
Charles F. Burton

(No Model.)

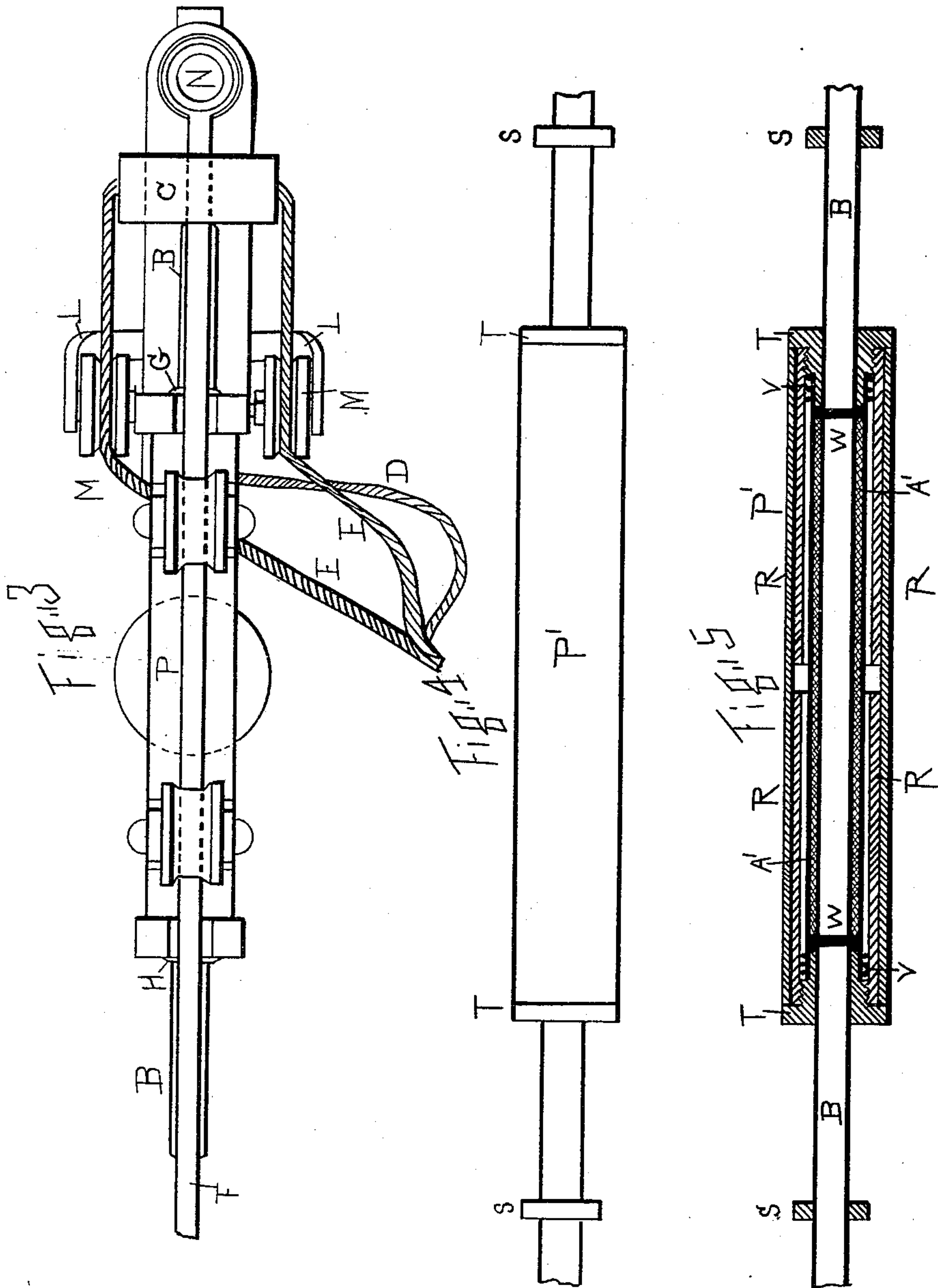
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INVENTOR
Charles F. Burton

UNITED STATES PATENT OFFICE.

CHARLES F. BURTON, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
RALZEMOND A. PARKER, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 344,244, dated June 22, 1886.

Application filed December 11, 1885. Serial No. 185,328. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. BURTON, a citizen 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.

Figure 1 is a side elevation, and Fig. 2 a section showing the method of constructing my invention. Fig. 3 is a top view. Fig. 4 is an external side view of a part of my apparatus, showing the part containing the motor hereinafter described. Fig. 5 shows a modified form, using an extension-spring instead of the compression-spring shown in Fig. 2.

My device consists, primarily, of a carriage suspended from wheels adapted to travel on a suspended track, which carriage contains within itself a spring-motor and a plunger for bringing the spring into tension, a device for moving the plunger against the spring, a catch to hold the carriage until the spring is in sufficient tension, and a means for unclasping the catch completes the invention.

In the drawings, P represents the body of the carriage, suspended from the wheels W W' on the track F. This body of the car is tubular, and contains within itself the spring A. In Fig. 2 this is intended to be a compression-spring, and consists of a coiled-wire spring surrounding loosely the plunger B. At each end of the tube P is an interior collar, Q Q', constricting the tubular aperture sufficiently to prevent the loose pistons X X' from passing out of the tube. The plunger B extends entirely through the tube at all times. Upon the plunger are firmly attached two collars, G H, at such positions that when the spring A is not in tension the plunger B is at rest with the collar H and the collar G within the collar Q'.

N represents a standard affixed to the ceiling above or to the floor below the station. From this standard an arm, R, extends under and parallel to the track. At the extremity of the arm R is a catch hinged upon the arm and held up by a spring so that it will rise into the path of a catch, I, on the under side of the carriage-body, while the spring will allow it to be depressed temporarily to allow the catch

I to pass over it. From the arm R secondary arms L L support the sheaves M, over which the cord F passes.

A block, C, is hung from the track or from other suitable guides, so that it will slide freely along the track, and while so sliding push against the plunger B when the car is in the position shown in the drawings, and thus brings the spring A into a state of tension, compressing the coiled spring shown in Fig. 2, and extending the rubber spring shown in Fig. 5.

The cord F passes through the block C and forward around the sheaves M M down to within reach of the operator's hand. In use I join the cords below the sheaves, thus forming the part which passes over the sheaves and through the block C into a loop. By drawing down on the depending end of the cord the block C is pulled forward against the end of the plunger B and the spring compressed. A second cord is attached to the catch K and its lower end connected with the main cord E, and its length so adjusted that the catch K will be pulled downward when the block C is pulled forward as far as desired. When the plunger B is pushed through the body of the car from the direction G to H, the collar G, pushing against the piston X', compresses the spring between that piston and the piston X', which is held in place by the interior collar, Q. When pushed the other way, the mechanism operates in the same way from the other end.

Fig. 5 shows a modified form adapted to make use of an extension-spring instead of a compression-spring. The plunger B has the collars W W' on the interior side of the loose rings T T', so that when the plunger is pressed in either direction, as from B toward B', it pushes out the ring T' in front of the collar W', while the other ring, T, already at rest against the end of the exterior tube, remains at rest with respect to the tube. Each of the rings T T' is made with an extension toward the interior, to which the spring is attached, and also has a flange, to which is attached, outside of the spring, a tubular extension, R, sliding easily within the tube P. This tube serves as a guide and to protect the spring from abrasion on the edges of the outer tube.

What I claim as novel, and desire to have secured to me by Letters Patent, is—

1. In a store-service apparatus, the combination of an elevated track, a carriage adapted to move thereon, a spring mounted on said carriage, and a plunger or piston actuated by said springs and capable of movement with relation to the body of the car.

2. In a store-service apparatus, a carriage adapted to run on an elevated track, having a spring mounted on said car, a catch on said car interlocking into a catch located near the end of the track, mechanism, substantially as described, for bringing the springs to a state of tension, and for releasing the interlocking catches when the spring is in tension.

3. In the carriage of a store-service apparatus, a spring and a plunger connected as described, so that tension is produced in the spring by pushing the plunger in the direction in which it is desired to have the car move.

4. In a store-service apparatus, the combination of a car having a spring thereon, and a rod or plunger for operating the same, a slide at the station or end of the track, mounted on a guide adapted to bring it into contact with the

end of the plunger, mechanism for moving said slide upon said guide, and interlocking catches, one of which is on said car and one of which is at said station, to hold said car against the forward pressure of said slide until the catches are released.

5. A carriage adapted to travel on an elevated track, having a spring contained therein, and a plunger for actuating the spring connected therewith, said spring and plunger being capable of motion in either direction with respect to said car within the limits of the variation in length of the spring due to the tension put upon it.

6. A carriage depending from wheels adapted to travel on an elevated track, having connected with the body of said car a spring-motor arranged to give a forward impetus to said car by a parting thrust between said motor and a block resting on or near the track at the point of departure of the car.

CHARLES F. BURTON.

Witnesses:

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