

(No Model.)

J. M. CAILLE.
STORE SERVICE APPARATUS.

No. 464,293.

Patented Dec. 1, 1891.

Fig. 2.

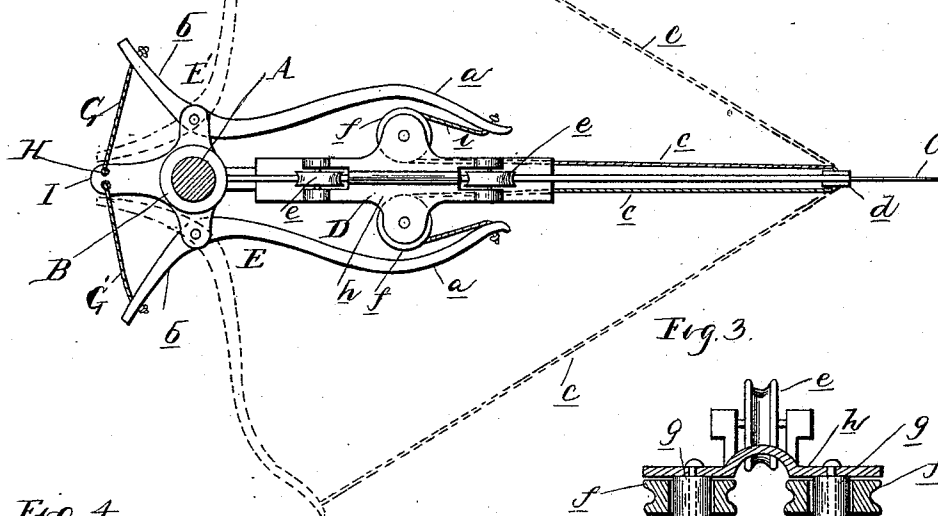


Fig. 3.

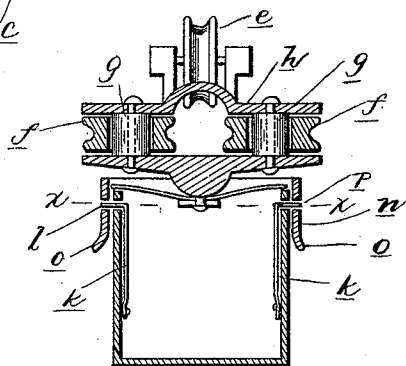


Fig. 4.

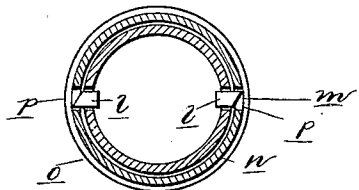
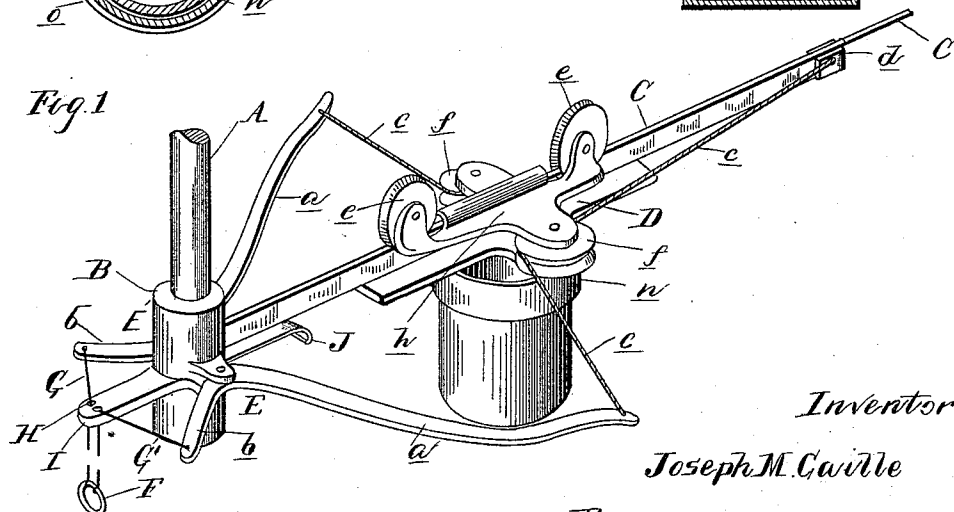


Fig. 1.



Inventor

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Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH M. CAILLE, OF SAGINAW, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE UTILITY MANUFACTURING COMPANY, LIMITED, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 464,293, dated December 1, 1891.

Application filed March 18, 1891. Serial No. 385,530. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. CAILLE, a citizen of the United States, residing at Saginaw, in the county of Saginaw 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 This invention relates to new and useful improvements in store-service apparatus; and the invention consists in the peculiar construction of the propelling mechanism for the car and in the peculiar construction of the car adapted to be used in connection with such propelling mechanism, and, further, in the peculiar construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

20 In the drawings, Figure 1 is a perspective view of a station of a store-service apparatus embodying my invention. Fig. 2 is a plan view thereof, showing the position of the parts when the car is at the station and in dotted lines the position of the parts when the car is away from the station. Fig. 3 is a vertical central cross-section through the car. Fig. 4 is a horizontal section on line *xx*, Fig. 3.

30 A is a standard, preferably secured to the ceiling and depending therefrom, at the lower end of which is secured a head B. To this head is secured one end of the wireway C, which, as usual in such constructions, extends from station to station, and upon which a wheeled car D runs.

35 E E' are two levers pivoted upon opposite sides of the head B and having the forwardly-extending curved arms *a* and the rearwardly-extending arms *b*, the whole forming a lever of substantially the shape of a bell-crank lever. The arms *a* are connected together and to the way by means of a cord (or cords) *c*, which is secured at its forward end (some distance from the standard) to the lug *d*, secured to the under side of the way. This cord may be a single cord passing loosely through the aperture in the lug *d* or it may be made up of two cords, each one extending from this lug to its respective lever. The arms *b* of the levers are connected with the handle F by

means of the cords G and G', which pass through suitable bearings or apertures H in the rearward extension I of the head, all so arranged that by pulling downward upon the handle F the arms *b* of the levers will approach each other and the arms *a* will be caused to separate.

The car D is provided with the usual track-wheels *e*, running upon the way, and with the propelling-wheels *f* on either side and at right angles to the track-wheels. These propelling-wheels are journaled upon the hubs *g*, which are secured between the top plate *h* and the body D of the car, the top plate being provided with suitable journals for the track-wheels. Any suitable spring-catch, such as J, may be provided at the station to hold the car. The parts being thus constructed, it is evident that, the lever and cord being in the position shown in dotted lines in Fig. 2, as the car nears the station the propelling-wheels *f* will engage with the cords *c* upon either side and cause said cords to assume a position parallel with the way, at the same time drawing inwardly the arms *a* of the levers.

It is my design to have the cords *c* of sufficient length to allow of forming the loops *i* in the rear of the forward ends of the levers, as shown in Fig. 2. When the car has assumed this position, it will be held by the spring-catch J. Now to propel it the operator pulls upon the handle F, which expands or separates the two arms *a* of the levers, straightening out the loops *i*, which gives a direct push to the car from behind. As the levers continue to separate, the cords are expanded until they assume the position shown in dotted lines in Fig. 2. I thus get an impulse imparted to the car first by a direct push behind in dissolving the loops *i* and a continued impulse by the further expanding of the cords laterally until after the wheels *f* leave the cord *c*, when a sufficient impulse will have been imparted to the car to carry it to the next station.

The construction of the detachable cash-box and its connection with the body of the car are as follows: *k* are spring-catches secured upon the inside of the car and extending to near the top, where they are provided with

the lateral offsets *l*, having the inclined face *m* upon one side thereof, the offsets extending through the body of the cup. The car is provided with a depending circular flange *n*, having the outwardly-extending flanges *o*. The flange *n* is provided with suitable apertures *p* upon opposite sides, in which the offsets *l* of the spring-catches are adapted to engage. To disengage them, the operator turns the cup, when by means of the incline *m* bearing against the sides of the aperture the springs will be retracted and the cup can be readily removed. In engaging, the lateral offset *l* will be moved inwardly by means of the incline flange *o*, and the cup may be then turned until the spring-catches are opposite the apertures, when they will engage therein and hold the cup in the frame.

What I claim as my invention is—

1. In a store-service apparatus, the combination, with a way and a wheeled car thereon, of a propelling device for said car, consisting of two cords secured to the way, two laterally-movable levers to which the cords are at-

tached, and means for separating said levers to propel the car by the spreading of the cords, substantially as described.

2. In a store-service apparatus, the combination of the way, the wheeled car thereon having the lateral wheels *f*, the propelling-cords *c*, engaging said wheels and secured at one end to the way, the levers *E E*, to the forward ends of which the other ends of the cords are attached, the handle *F*, and connections between the same and rear ends of the levers, substantially as described.

3. The combination, with the frame having a flange *n*, the outwardly-flaring flange *o*, and the aperture *p*, of the cup having the spring-catches *k*, lateral offsets *l*, and inclined bearing *m*, substantially as described.

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

JOSEPH M. CAILLE.

Witnesses:

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