(No Model.)

E. P. ZERBE.

STORE SERVICE APPARATUS.

No. 458,029. Patented Aug. 18, 1891.

Fig. 5.

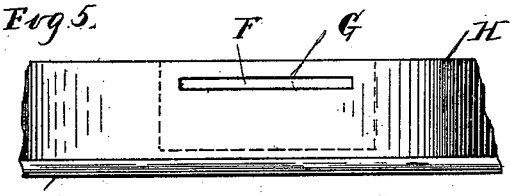

Fig. 1.

Fig. 2.

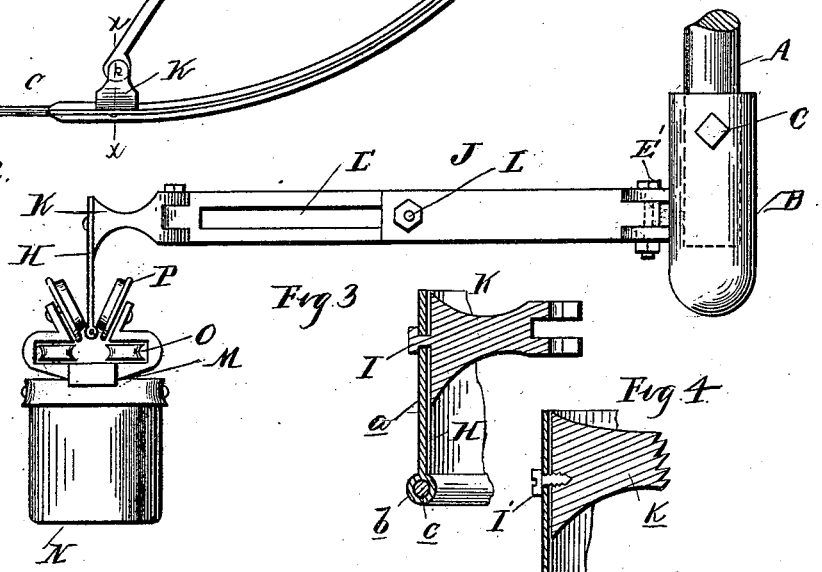

Fig. 3

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

EMIL P. ZERBE, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE UTILITY MANUFACTURING COMPANY, LIMITED, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 458,029, dated August 18, 1891.

Application filed March 18, 1891. Serial No. 385,547. (No model.)

To all whom it may concern:

Be it known that I, EMIL P. ZERBE, 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.

This invention relates to new and useful improvements in store-service apparatus; and the invention consists in the peculiar construction of the way or track and of the carrier designed to run upon said track. It relates especially to the construction of a track which embodies in its length one or more curves, and consists, especially, in the peculiar construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a plan view of a curve embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a cross-section on line *x x* in Fig. 1. Fig. 4 is a similar section showing a modification. Fig. 5 is a partial front elevation of the curve.

A is a standard, preferably secured to the ceiling, at the rear end of which is detachably secured a head B, preferably by means of a set-screw C. This head is provided centrally with an outwardly-extending arm D, and on each side with the lugs E E′. The arm D is provided at its outer end with the rib F, near the top, which is adapted to pass through a slot G in the curve H. This rib being made of malleable iron, the curve H may be secured thereto by forming a head I thereon, as plainly shown in Fig. 3; or, instead, a screw I′ may be used to secure the curve to the arm, as shown in Fig. 4.

J are extensible arms made in two parts pivoted to the lugs E at one end and at the other end carrying the pivotal head-blocks K. The two parts of the extensible arms J are adjustably secured together by means of the clamping-screw L, which passes through a suitable slot L′ in one part of the arm, as plainly shown in Fig. 2.

The head-blocks K are preferably provided with similar ribs F, which pass through corresponding slots in the curve, and may be headed thereon. The curve consists, preferably, of a metal strip bent to form the securing-flange *a* and the wire-passage *p*, the wire-passage being of suitable size to allow the wire *c*, forming the way or track, to pass therethrough.

M is the car having the usual cash-cup N and any suitable means of propelling which may be desired. I preferably, however, propel it by lateral expanding cords engaging with the propelling-wheels O.

P are two angularly-arranged track-wheels outwardly-extending at the top upon each side of the car and separated a slight distance at their lower edges, this opening between the wheels being of sufficient size to allow the flange *a* of the curve to pass between them. The curve being secured to the arms of the standard to bend it to the proper degree, I lengthen or shorten the extensible arms J, and then secure them in their adjusted position by the clamping-screw L, it being evident that the heads K will assume the proper position to the curve to prevent binding or damage to the parts, the arm D being a fixed member around which the curve is bent. The car being propelled as it reaches the curve, the ends *d* thereof being beveled, the wheels will ride upon the top of the wire-passage *b* in passing around the curve. The flange *a* will prevent any undue oscillation of the car or any possibility of its jumping. When it reaches the end of the curve, the wheels will again run upon the wire, and as they bear at two points with the edges sufficient friction will be created against the rotary or oscillating motion of the car to cause the car to run nearly perpendicular at all times, and thus insure its delivery to the station in a perfectly-true position, enabling me at all times to use any variety of propelling mechanism and prevent any possibility of damage to the car. The only purpose of the flange *a* is to give the requisite stiffness to the form of the curve, it being evident that the only requisite in the curve, so far as the car is concerned, is a bead or wire passage or a continuation of the wireway supported a sufficient distance below the bracket to allow the car to pass thereon.

What I claim as my invention is—

In a store-service apparatus, the combination, with a track, a car thereon having oppositely-inclined wheels, and a standard, of a curve consisting of a detachable head on the standard, an outwardly-extending arm rigid on the head, lugs on the head on opposite sides of the arm, a rib on the outer end of the arm, divided arms pivotally secured to the lugs the outer portions of which are slotted, as at L′, bolts passing through the slots and inner portions of the arms, ribbed blocks pivotally secured on the outer ends of the divided arms, a depending flange supported on the arms having a longitudinal slot therein in which the rib of the rigid arm enters, and a cylindrical bearing on the lower edge of the flange, substantially as described.

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

EMIL P. ZERBE.

Witnesses:
M. B. O'DOGHERTY,
N. L. LINDOP.