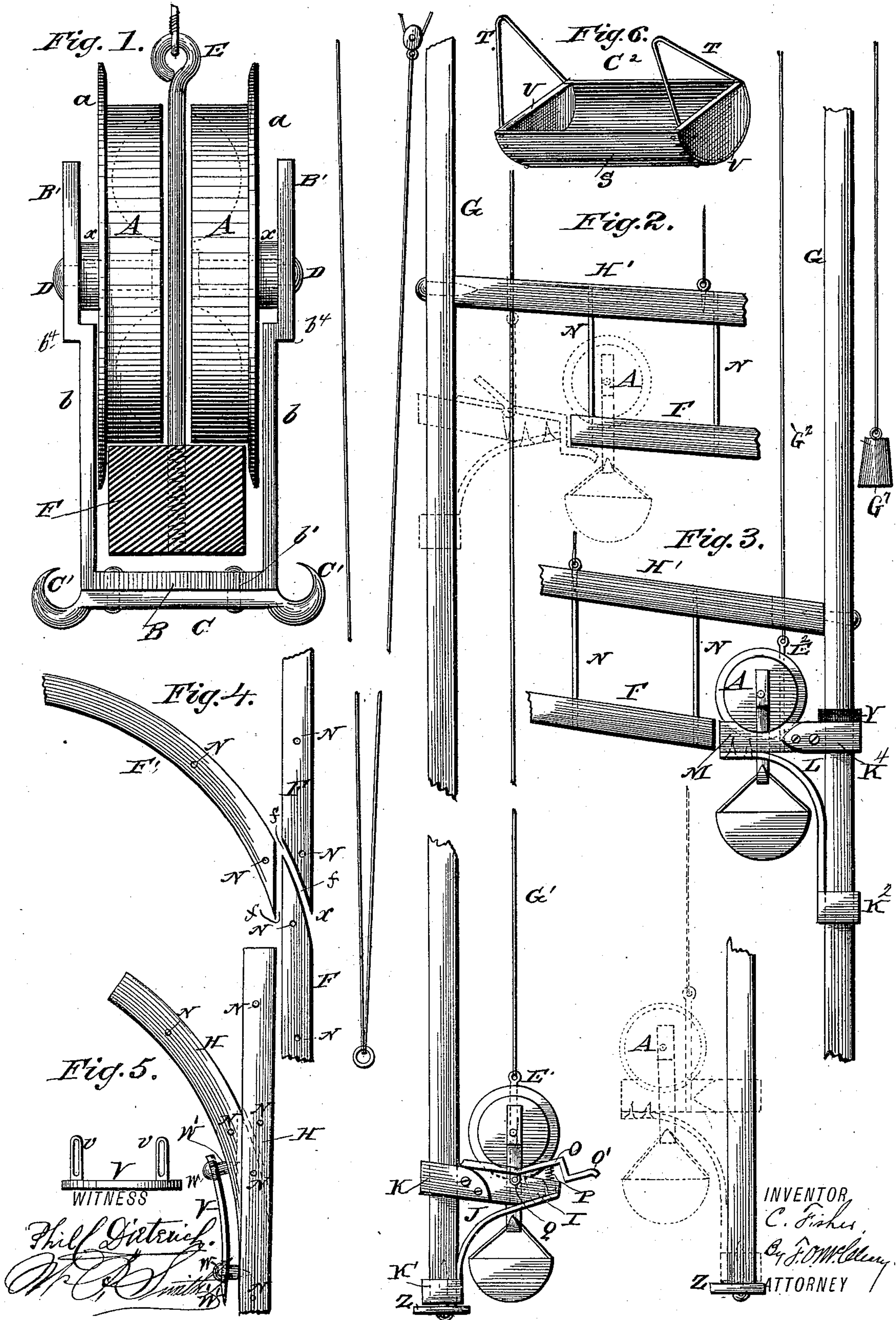


(No Model.)

C. FISHER.
STORE SERVICE SYSTEM.

No. 308,481.

Patented Nov. 25, 1884.



UNITED STATES PATENT OFFICE.

CHARLES FISHER, OF MANITOWOC, WISCONSIN, ASSIGNOR TO THE INTERNATIONAL STORE SERVICE COMPANY, OF SAME PLACE.

STORE-SERVICE SYSTEM.

SPECIFICATION forming part of Letters Patent No. 308,481, dated November 25, 1884.

Application filed August 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FISHER, of Manitowoc, in the county of Manitowoc and State of Wisconsin, have invented certain new and useful Improvements in Store-Service Systems; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to store-service systems, the object being to provide a combined cash and parcel carrier adapted to be used as such or as a cash-carrier only.

The invention consists in a novel form of carrier, in an improved elevator, a receiver of improved construction, in an adjustable switch-guide, and in the various features of construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a vertical sectional view of the carrier-track with my improved carrier applied thereto. Fig. 2 is a side elevation of my improved elevator and a portion of the track. Fig. 3 is a similar view of the receiver. Fig. 4 is a plan view of a portion of the track, showing a switch-junction. Fig. 5 illustrates the supports for the track at switch-junctions; and Fig. 6 is a basket adapted for use with the carrier.

The track of the system consists of a single inclined strip or rail, F, which is suspended from a ceiling-plate or other support (not shown) by means of eyebolts E, whose lower ends are screwed into the track, as seen in dotted lines of Fig. 1.

The carrier consists of two counterpart wheels or disks, A A, each formed with an annular guard-flange, *a*, and a hub, *x*.

B represents a frame consisting of parallel sides *b b*, connected by a cross-bar, *b'*. These sides *b b* of the frame are each formed with a bearing to receive a shaft, D, upon which are mounted the wheels A A of the carrier.

C represents a plate bolted to the cross-bar *b'* of the frame B, and formed at its ends with hooks C' C' to receive a basket, C², the latter consisting, preferably, of wooden end pieces, U U, connected by the body S of wire-netting or other suitable material.

T T represent the handles or hangers of the basket.

The wheels of the carrier should be cast hollow, as indicated by dotted lines.

It will be clear from the description thus far that the carrier as thus constructed will readily travel on the inclined track F, the space between the wheels allowing the carrier to pass the suspending-bolts E without contact therewith.

I shall now refer to the switch and switch-guide illustrated in Figs. 4 and 5.

F represents the main track, and F' the switch.

To permit the passage of the frame B of the carrier it is necessary to cut away the rails at the switch-junction to form open passages *f*. I then arrange above the junction short track-sections H H, corresponding to the track, and brace the track thereto by rods N. These sections H serve to support the switch-guide V, which is provided with ears *v v*, having elongated slots, as shown. The guide is secured by screws W to the edge of the section H in such position as to be engaged by the upper ends, B', of the slides of the carrier-frame B. The elongated slots of the guide permit of vertical adjustment of the latter to accommodate carriers whose frames B are of different heights.

W' W' represent washers arranged upon the screws W between the switch-guide and track-section H.

The carriers will readily pass from a curved track-section to a straight one without contact with the suspended guide V.

It will be readily understood that the ends B' of the frame B are to vary in their height above the shaft D, and by thus varying them and adjusting the guide V each carrier will seek its own station.

It will be observed that the sides *b b* of the frame B are formed with offsets *b⁴* below the shafts of the wheels, so that the upper ends, B', of said sides will extend out sufficiently on each side of the wheels to engage the switch-guides. Instead of employing these offsets *b⁴*, I may form the sides *b b* straight throughout their length, and insert headed pins into their outer sides to engage the switch-guides, said pins to be adjustable to different points on the sides of the frame.

Fig. 2 illustrates the elevator having a single way, G, secured to a ceiling-plate at its upper end and provided with a bumper, z. The way G is secured to the track F by a short strip, H', and braces N N, which latter are formed with right and left hand threads, as seen in dotted lines.

K' K' represent bands or guides embracing the way G and adapted to slide thereon.

I represents a strip constituting the elevator-cage and secured to the band K, and connected to the lower band, K', by a curved rigid brace, J.

E' represents an eyebolt secured to the strip I and adapted to receive the elevating-cord G'.

O represents an arm, pivoted to the strip I by a pivot, Q, and bent at its outer end to form a catch, O'. A spring, P, operates to hold the arm O in contact with the carrier to support the latter. The contact of the catch O' with the track F releases the carrier.

Fig. 3 illustrates my improved receiver.

G is the way formed of a single strip and provided with a bumper, z.

M represents the carrier-seat, concaved to secure the carrier thereon. The seat M is supported upon the way by means of a spring, L, which is secured at its upper end to the seat and at its lower end to a guide-band, K², which embraces the way, and also by an upper band, K⁴. The receiver is provided with an eyebolt, E², and elevating-cord G². The employment of the spring L insures the proper and substantially-uniform descent of the seat M regardless of the weight of the carrier. The heavier the weight of the load on the carrier the greater will be the bend of the spring L, and the friction thus caused against the way will counter-balance the weighted carrier.

Y represents a bumper secured upon the way G to limit the upward movement of the receiver. The latter, as above described, is provided with an eyebolt, E², to which is attached an elevating-cord, G². This cord passes over a suitable roller, and is attached to a weight, G⁷, which operates as a counter-balance for the receiver, and elevates the latter after the load is removed.

I do not limit myself to the precise construction here shown and described, as many slight alterations in the details may be resorted to without departing from my invention.

I reserve to myself the right to make all such modifications in form and structure as may properly fall within the scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a store-service system, the combina-

tion, with a single-rail track, of a carrier consisting of a frame and independent wheels, said frame provided with side pieces having projections to engage the switch-guides, substantially as set forth.

2. In a store-service system, the combination, with a single-rail track, of a carrier consisting of a frame and independent wheels, said frame having hooks to receive a basket, and side pieces adapted to engage switch-guides, substantially as set forth.

3. In a store-service system, the combination, with a track consisting of a single suspended strip or rail, of a carrier consisting of a frame provided with hooks and a basket, and independent flanged wheels mounted upon shafts supported by said frame.

4. The combination, with the main track and a switch-track, both cut away as described to form open passages, of strips H H', arranged above said tracks, and a switch-guide, substantially as set forth.

5. In a store-service system, the combination, with a track, of a vertically-adjustable switch-guide, substantially as set forth.

6. In a store-service system, the combination, with the track of a switch-guide provided with ears having elongated slots, substantially as set forth.

7. In a store-service-system elevator, the combination, with a single way, of a cage provided with an elevating-cord, and a spring-arm for securing the carrier, substantially as set forth.

8. In a receiver for store-service systems, the combination, with a single way, of a seat for the carrier, said seat being adapted to slide on the way, an elevating-cord and weight, and a spring, L, substantially as set forth.

9. In a store-service system, the combination, with the track of a receiver having a spring-brake to compensate for the load upon the carrier, substantially as set forth.

10. In a store-service-system receiver, the combination, with a way, of the carrier-seat and guide, and a spring, L, substantially as set forth.

11. In a store-service-system receiver, the combination, with a way, of a carrier-seat concaved as described, guides adapted to travel on said way, and a spring-support, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES FISHER.

Witnesses:

W. J. JANECEK,

E. G. NASH.