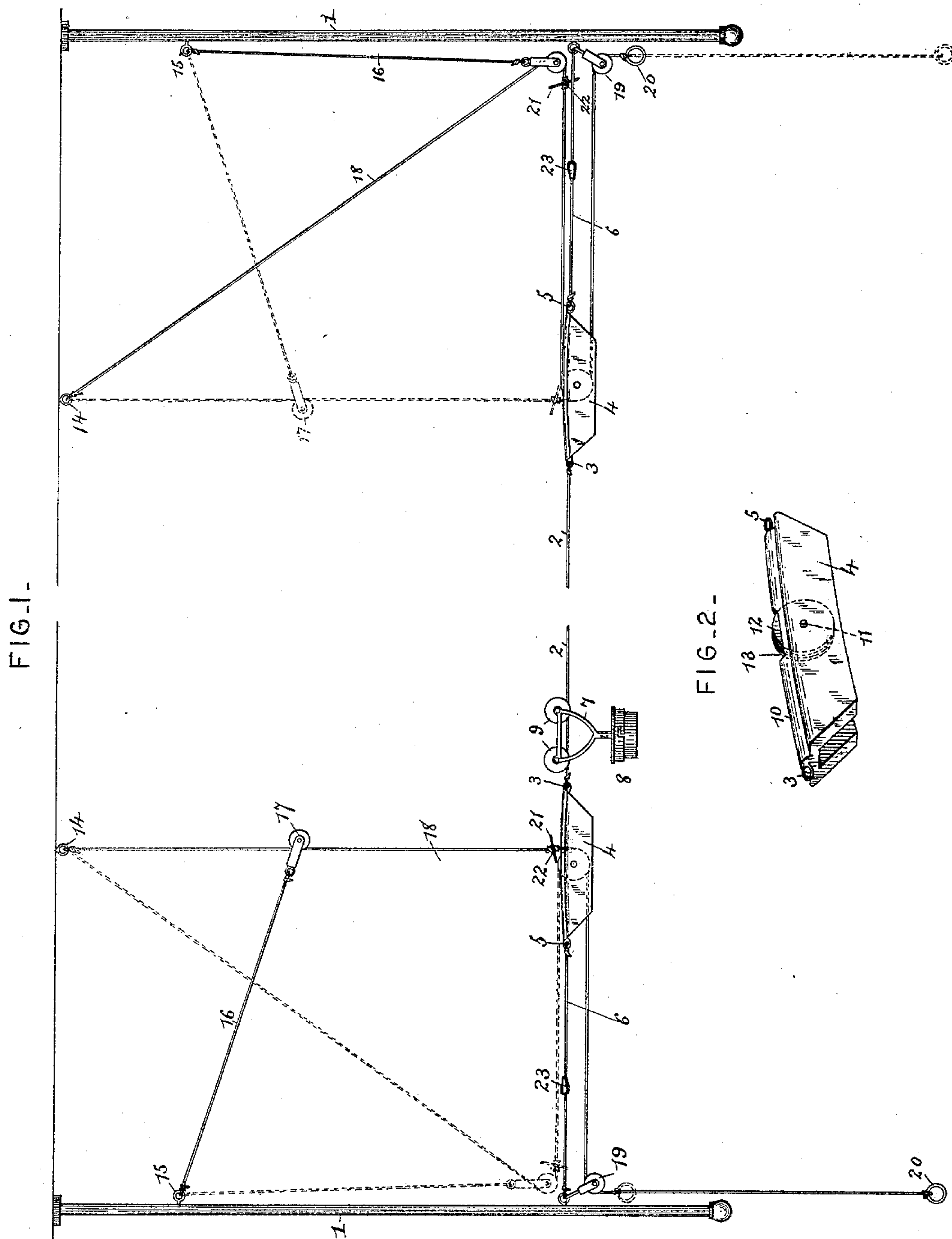


(No Model.)

H. E. CRANDALL.
STORE SERVICE APPARATUS.

No. 442,265.

Patented Dec. 9, 1890.



Witnesses:

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HERMAN E. CRANDALL, OF NEW BRITAIN, CONNECTICUT.

STORE-SERVICE APPARATUS.

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To all whom it may concern:

Be it known that I, HERMAN E. CRANDALL, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented a new and useful Store-Service Apparatus, of which the following is a specification.

This invention has relation to store-service apparatus for the transmission of parcel or cash carrying cars over overhead wires from the salesman to the cashier or bundle-wrapper, and the invention has particular reference to the car-impelling mechanism.

The objects of the invention are to produce an extremely simple, cheap, and effective means for giving impetus to the car, whereby the latter may receive sufficient force to be thrown from one end of the wire track or way to the opposite end, and also to provide means for arresting the travel of the car when said car has reached its destination and prevent any rebound of the car caused by its sudden arrest.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of the apparatus at opposite stations for propelling the car, constructed after my invention and connected by a track-wire. Fig. 2 is a detail in perspective of the sheave-block.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the usual depending station-hangers, which are secured at their upper ends in any usual manner to the ceiling, as shown. One of these hangers is arranged at each end of each of the various lines running from convenient points of the store where sales are made to the cashier's desk or to the bundle-wrapper, as the case may be, where the several lines converge.

2 represents the usual track wire or way, which near its station-standard is connected to an eye 3, formed upon the front end of a cast-metal sheave-block 4, which sheave-block is provided at its rear end with a similar eye 5, connected to which is the front end of a short wire track-section 6, the opposite end of which is made fast to the hanger 1, and is

usually provided with means for adjusting the track and relieving the same of any sag.

7 represents the frame of the cash-car, at the lower end of which is secured any ordinary cash-cup 8 or parcel-receiving basket. The cash-cup 8 is in this instance formed in two sections, the upper one or cap being connected to the frame and is provided with a bayonet-slot, and the cup is removably mounted in the cap and having a stud projecting from its exterior surface and adapted to interlock with the bayonet-slot of said upper section or cap. The upper end of the frame 7 is Y-shaped, as shown, and in each of the Y sections or terminals, which are perforated, there is mounted a grooved pulley 9.

The sheave-block 4 is of inverted U-shape and preferably formed of cast metal, and is provided along its upper longitudinal side with a rib 10, which rib forms a continuation of the track-wire 2 and connects said track-wire with the short sections 6. Journaled upon a shaft 11, mounted transversely in the sheave-block, is a grooved pulley 12, adapted for free rotation, and above said pulley there is formed in the rib an opening 13. Vertically above the pulley 12 there is secured to the ceiling an ordinary eye 14, and to an eye 15, projecting from the front and near the upper end of the standard 1, there is connected the upper end of a retracting-cord 16, the lower end of said cord carrying a small sheaf and pulley 17, the cord 16 being of such length as when in a vertical position to suspend the pulley 17 a short distance above the rear end or terminal of the track-section 6 and adapt it to be swung out to a point in a vertical line with the pulley 12 and the eye 14, depending from the ceiling.

18 represents the propelling-cord, the upper end of which is connected to the depending eye 14, said cord being then passed over the pulley and through the sheave-frame 17, down through the opening 13 in the sheave 4, under the pulley 12, and to the rear over a guide-pulley 19, from which the terminal of the cord depends and is provided with a pulley ring or handle 20. At a point directly over the pulley 12, when the propelling-cord 18 between the eye 14 and the pulley 12 is in a vertical position, there is secured to said cord a bar 21, which bar is provided with a

central eye 22, through which the cord is passed and knotted at opposite sides of the eye, so that the bar is prevented from vertical movement. Upon each of the track-sections 6 there is mounted a stop 23, slightly in advance of the standards, over which the pulleys or grooved rollers 9 of the carriage or car are adapted to ride, and thus prevent said car from rebounding from the station after having been received therein. The weight of the pulley and sheave-block 17 is sufficient to retain the propelling-cord 18 in a retracted or set position, as shown at the right of Fig. 1, the retracting-cord 16 being in substantially a vertical line, as shown. The car being in position and the propelling-cord set as shown in Fig. 1, it will be apparent that a draft upon the propelling-cord or ring 20 will serve to draw the propelling-cord to a vertical position between the eye 14 and the pulley 12, the retracting-cord 16 following the movement of the propelling-cord. The propelling-cord takes in rear of the car and the cross-bar 21 over the same, so as to prevent the car from jumping the track, and the sudden jerk given the propelling-cord in bringing it to a vertical position is sufficient to give the car the initial impulse to carry it over the way. When the car arrives at the opposite terminal or station, the grooved wheels 9 thereof ride over the rib 10 and take over the stop 23, which prevents, as before stated, any rebound. The parcel or cash is now removed from the car, and by drawing upon the ring or handle 20 the opposite cord is actuated in a similar manner, as heretofore described, and the car returned to its original position, the propelling-cord having in the meantime been set as shown by the drawings.

Having thus described my invention, what I claim is—

1. In a cash-carrier apparatus, the combination, with the depending hanger, the track-wire, a sheave-block, and a pulley mounted for rotation therein, arranged parallel with the track in front of the hanger, of a propelling-cord having its upper end connected to the ceiling above the pulley, passed under the same and to the rear through suitable guides, and terminating in a handle, and a loose cord suspended in rear of the propelling-cord and provided at one end with a pulley over which the propelling-cord runs, substantially as specified.

2. In a cash-carrier apparatus, the combination, with the depending hanger, a wire track and a track-section, the rear end of the latter being connected to the hanger, and a pulley-block connecting the terminals of the track-section and track and forming a continuation of the same, and a grooved pulley mounted loosely in the block and having an opening, of a propelling-cord connected to the ceiling at its upper end at a point vertically opposite said opening and passing under the

pulley and at the rear through suitable guides connected to the hanger and terminating below said guides in a handle, and a loose retracting-cord connected at its upper end to the hanger above the track and provided at its front end with a weighted block and pulley, over which latter is passed the propelling-cord, whereby said cord is normally maintained in a retracted or set position, substantially as specified.

3. In a cash-carrier apparatus, the combination, with the depending hanger, a track-section connected at its rear end to the standard, a track-wire, an inverted-U-shaped block having eyes formed at its ends for connecting the adjacent ends of the track and track-section, provided with a longitudinal rib forming a continuation of the track and provided with an opening, and a grooved pulley loosely mounted in the block below the opening in the rib, of the propelling-cord 18, connected at its upper end to the ceiling, passed through the opening in the block under the pulley and to the rear over suitable guides, and depending at the lower end of the hanger, and the retracting-cord connected at its upper end to an eye in the hanger above the track and terminating at its free end in a weighted block having a pulley, said retracting-cord adapted to extend laterally to a point above the opening in said U-shaped block, substantially as specified.

4. The combination, with the hanger, the track-wire, the block connected to the end thereof, and the track-wire section connected to the opposite end of the block and to the hanger, and the loose pulley mounted in the block, of the propelling-cord connected at its upper end to the ceiling, passing through the block under the pulley and rearwardly through suitable guides, the retracting or setting cord 16, connected, as at 15, to the hanger and having a pulley for loosely receiving the propelling-cord, and the transverse bar 21, having the central eye, through which is passed the propelling-cord, said latter cord being provided with knots at each side of the bar, substantially as specified.

5. The combination, with the block and the loose pulley mounted therein, of the propelling-cord connected at its upper end to the ceiling, passed through the block under the pulley and rearwardly through suitable guides, and the retracting or resetting cord 16, connected, as at 15, to the standard and having a pulley which runs on the propelling-cord, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HERMAN E. CRANDALL.

Witnesses:

LUCIUS B. STEELE,
FRANK F. FOSTER.