

W. GUTENKUNST.
TRIP MECHANISM AND REACTION STOP FOR LITTER CARRIERS.
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938,579.

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Fig. 2.

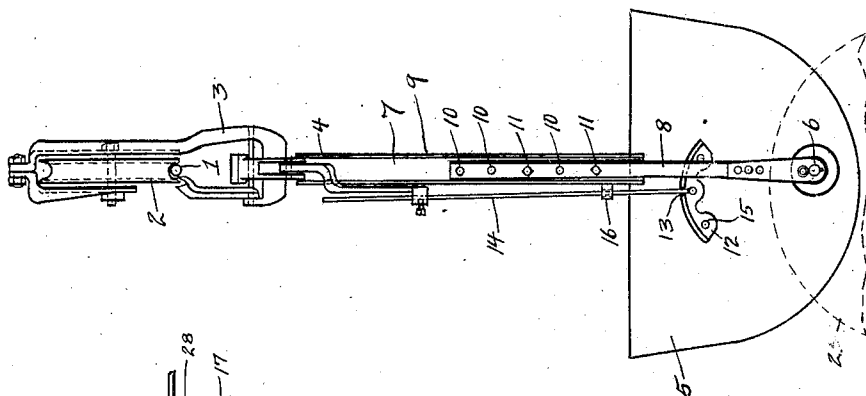
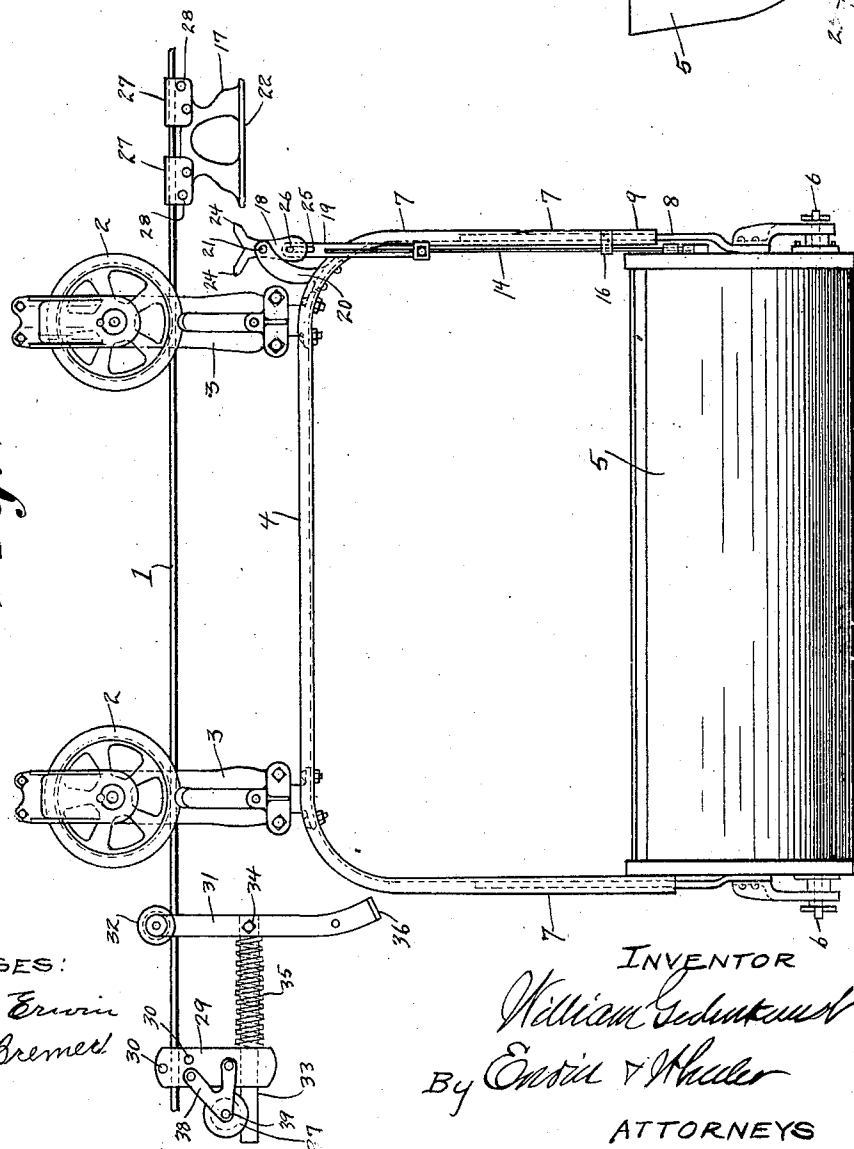


Fig. 1.



WITNESSES:

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TRIP MECHANISM AND REACTION-STOP FOR LITTER-CARRIERS.

938,579.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM GUTENKUNST, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Trip Mechanism and Reaction-Stops for Litter-Carriers, of which the following is a specification.

My invention relates to improvements in litter carriers, and it pertains more especially, among other things,—1st, to the locking and releasing mechanism by which a pivotally supported receptacle is retained in an upright position when being filled and conveyed along its supporting track, and by which it is automatically released and inverted, and its contents discharged when it reaches the place of deposit. 2nd, to the device for adjustably suspending the receptacle nearer to or farther from its supporting track, and 3rd, to the spring operated device for returning the carrier when emptied of its contents back to the starting point.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 is an end view thereof.

Like parts are identified by the same reference figures in both views.

The track 1, rollers 2, yoke 3, bail 4, receptacle 5 and receptacle supporting pivots 6, and all substantially of ordinary construction, and my invention pertains to certain improvements in such parts by which the same are made more efficient and adapted to be more conveniently used. Experience has shown that under certain conditions, the carrier can be more conveniently used when the receptacle 5 is suspended nearer to the track, while under other circumstances, it is more conveniently used farther from the track. To meet these various conditions, the vertical arms 7, 7, of the bail are formed of two overlapping parts 8 and 9, which are respectively provided with a plurality of bolt holes 10 for the reception of the fastening bolts 11, whereby it is obvious that by removing said bolts, the lower members 8 of such overlapping parts, together with the receptacle 5, may be raised or lowered and adjusted at different elevations corresponding with the distance between said bolt holes, when they are rigidly

secured together at such points of adjustment by said bolts. One end of the receptacle 5 is provided with a locking cam 12, the upper side of which is circular in form and provided at its center with a recess 13 for the reception of the locking bar 14. The cam 12 is secured to the end of the receptacle by a plurality of bolts 15, or in any convenient manner. The locking bar 14 is slidably connected with the vertical side of the bail by the retaining loop 16 and motion is communicated to said locking bar from the stop 17, through the pivotally supported bracket 18 and adjustable link 19. The bracket 18 is supported from one side of the bail by the lugs 20 and pivotal bolt 21 in such position that as the carrier is moved longitudinally along the track 1, the upper end of said bracket 18 is adapted to contact with the lower side 22 of the stop 17, whereby the upper end of said bracket will be caused to turn on said pivot 21, whereby its lower end will be thrown upwardly, thereby carrying with it the link 19 and locking bar 14, whereby the lower end of said locking bar is disengaged from the locking cam 12, when the receptacle 5 will be caused by its own gravity to turn upon its pivotal support 6 and will be inverted, when its contents will be discharged.

It will be understood that the pivotal support 6 is supported below and at one side of the center of gravity of said receptacle, whereby the same will be caused to turn on its pivotal support as soon as released by its retaining mechanism. When, however, the receptacle 5 is brought back from its inverted position indicated by the dotted line 23 to that shown, the convex side of said locking cam will be brought beneath the lower end of the locking bar 14, whereby said bar will be thrown up and caused to ride on the convex surface of said cam until the recess 13 is brought beneath it, when said locking bar 14 will drop of its own gravity into said recess, whereby said receptacle 5 will be locked and retained in place until again released by contact of the bracket 18 with said stop 22. The upper end of the bracket 18 is provided with two radial lugs 24, 24, of like construction, whereby said bracket will be operated by said stop 22 as it is brought in contact with said stop from either direction.

To provide for the free vertical movement

of the link 19 as the receptacle 5 is brought to its upright position, the same is preferably provided at its upper end with a slot 25, for the reception of the pivotal bolts 26, by which said link is connected with the bracket 18, whereby a certain lost movement is permitted between such cooperating parts, which facilitates the movement of the receptacle, and whereby the greater movement of the link 19 is adapted to correspond or conform to the lesser movement of the bracket at the point of connection. The stop 17 is rigidly connected to the track 1 by the clamping lugs 27 and clamping bolts 28, or in any other convenient manner.

As a means of returning the carrier to the starting point, I have provided a reaction stop, the actuating spring of which is compressed by contact with the bail of the carrier as the latter approaches it, when by the re-coil of said spring, the carrier will be thrown in the opposite direction back to the starting point. Such re-action stop comprises a stationary member 29, which is rigidly affixed to the track 1, by a plurality of bolts 30, a movable arm 31 provided at its upper end with a roller 32, adapted to move on said track, a horizontal guide bar 33 having slidable bearings at one end in the lower end of said stationary member 29 and connected at its opposite end by a bolt 34 to said arm 31, whereby as one of the vertical arms 7 of the bail is brought in contact with the lower end of the arm 31, the spring 35 will be compressed, said guide bar 33 will be moved rearwardly through its bearings in said clamping plates until the momentum of the carrier is thereby arrested, when by the re-coil of the spring 35, said arm 31 will be thrown forwardly against the bail of the carrier with a quick positive movement, whereby said carrier will, as stated, be returned to its starting point.

To facilitate contact of the bail with the lower end of the arm 31, said arm is preferably provided with a laterally projecting arm 36 against which said bail is adapted to contact. To diminish the friction of the guide bar 33 in its bearings, I preferably provide the same with a roller bearing 37, which is revolubly supported from said stationary member 29 by the bracket 38 and roller supporting pin 39, whereby the friction of the guide bar 33 through said sta-

tionary member will be reduced to the minimum.

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

1. In a track supported carrier of the described class, the combination of a receptacle supporting bail, the side arms of which comprise two overlapping members adjustably secured together, a rigid V-shaped releasing bracket pivotally supported from said bail, a locking bar slidably connected to one of the vertical arms of said bail adapted to engage a locking cam on one end of said receptacle, a link adjustably secured at its lower end to the upper end of the locking bar, and slidably secured at its upper end to said link substantially as set forth.

2. In a carrier of the described class, comprising a track, a receptacle, a stationary bail, rollers, and yokes for suspending said bail and receptacle from said track, trip mechanism for locking and releasing said receptacle as it is alternately filled at one end of the track and inverted and emptied at the other, in combination with a re-action stop supported on said track, comprising a contact arm, a roller revolubly supported from the upper end of said arm on said track, a guide bar affixed at one end to said contact arm and having sliding bearings at its opposite end in a stationary supporting member, a stationary supporting member, a spiral spring carried by said guide bar and interposed between said contact arm and said stationary member, a roller bearing revolubly supported from said stationary member and adapted to bear upon and diminish the friction of said guide bar, said contact arm being adapted to be forced rearwardly and said spring compressed by contact of the moving carrier bail, until the momentum of said carrier is stopped, when it is thrown by the re-coil of said spring in the opposite direction against the supporting bail of said carrier, whereby said carrier is thrown back to its starting point, substantially as and for the purpose specified.

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

WILLIAM GUTENKUNST.

Witnesses:

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