

J. W. CLARK.
 PARCEL CARRIER.
 APPLICATION FILED MAY 6, 1909.

958,723.

Patented May 24, 1910.

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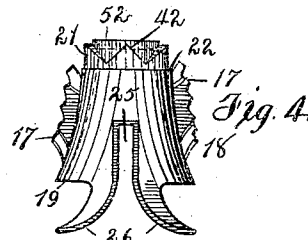
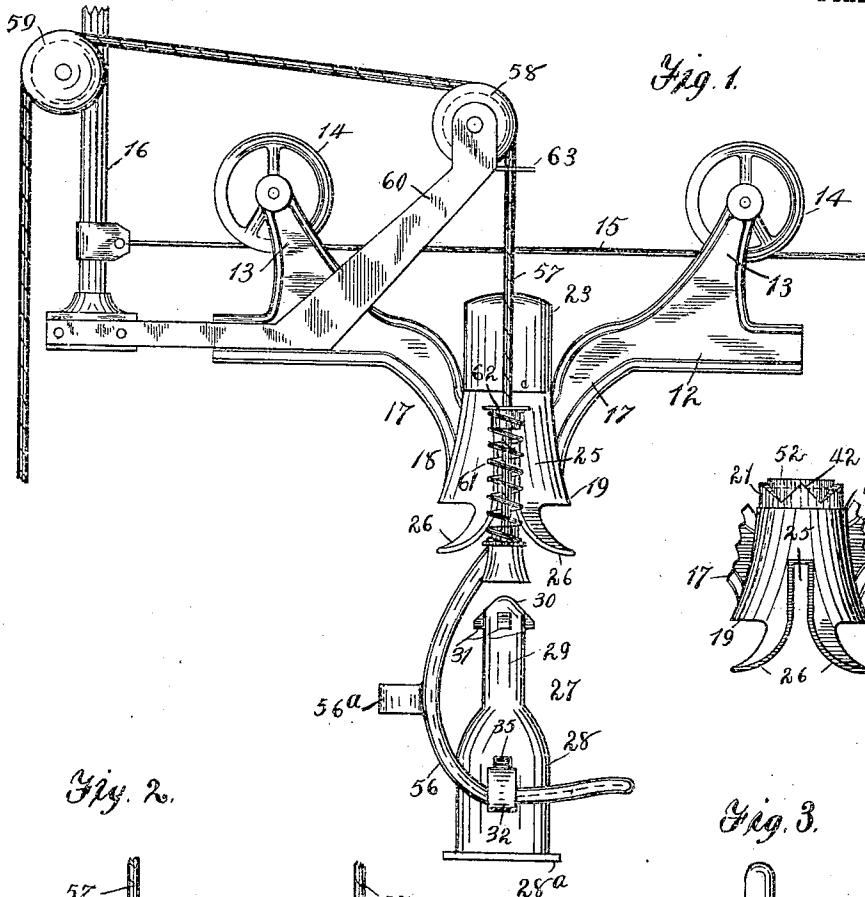


Fig. 2.

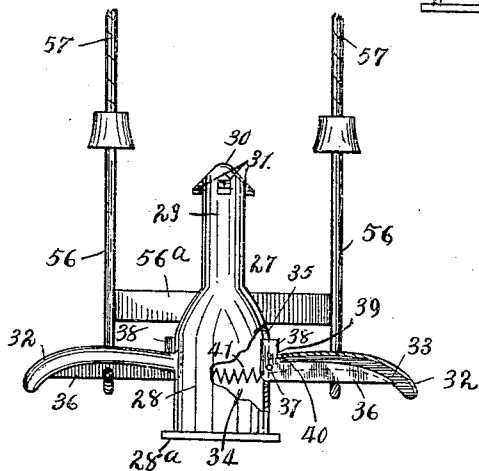
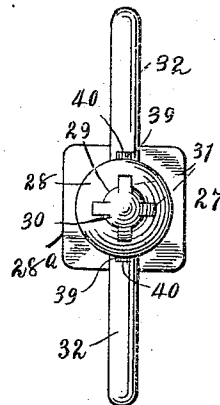


Fig. 3.



Witnesses
 Chas. F. Bassett
 M. A. Milford.

Inventor
 James W. Clark
 By *Fredrick & Benjamin*
 Attorneys

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2 SHEETS—SHEET 2.

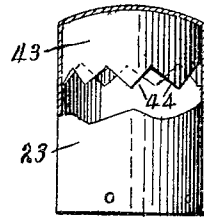
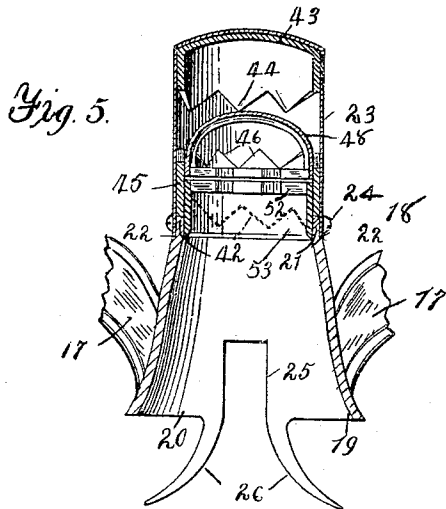
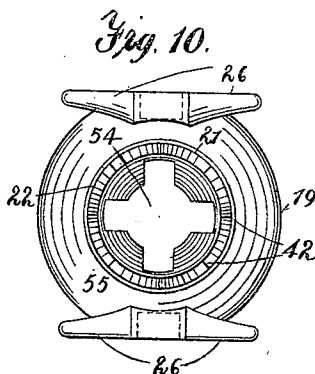
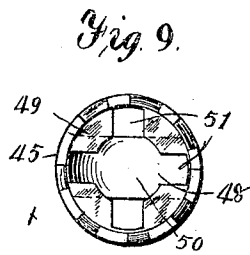
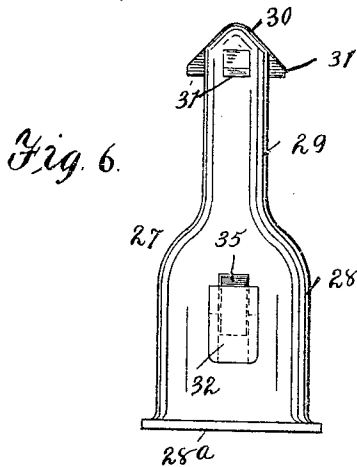
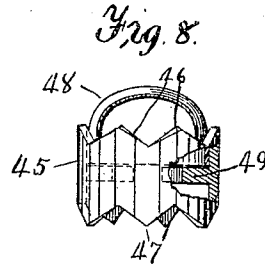


Fig. 7.



Witnesses
 Chas. F. Bassett
 M. A. Milord

Inventor
 James W. Clark
 By *Frederic & Benjamin*
 Attorneys

UNITED STATES PATENT OFFICE.

JAMES W. CLARK, OF JANESVILLE, WISCONSIN.

PARCEL-CARRIER.

958,723.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed May 6, 1909. Serial No. 494,400.

To all whom it may concern:

Be it known that I, JAMES W. CLARK, citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Parcel-Carriers, of which the following is a specification.

This invention relates to improvements in overhead or trolley parcel carrying apparatus and the particular improvements which form the subject matter of this application relate to the means for elevating and detachably supporting a parcel carrying basket.

The chief objects of my hereinafter described improvements are to provide means by which the basket will be readily caught when elevated and securely held during transmission from the station to the cashier's or inspector's desk, and as easily and certainly released when it is desired to accomplish this result.

A further object is to simplify and strengthen the parts so they will not be liable to get out of order or break from the ordinary use to which such appliances are subjected.

In the accompanying drawings I have illustrated my invention in the following views:—

Figure 1 is a side elevational view of the parts comprised within my invention and the attached cooperating parts; Fig. 2 is a fragmentary detail of the parts which are immediately connected with the basket, the latter not being shown; Fig. 3 is a top-plan detail of the male interlocking member; Fig. 4 is a fragmentary sectional detail of the female interlocking member; Fig. 5 is a sectional detail on an enlarged scale of the female interlocking member and its cooperating members; Fig. 6 is an elevation of the male interlocking member on an enlarged scale; Fig. 7 is a detail of the cap which forms the top of the female member; Fig. 8 is a detail in elevation of the member which directly cooperates with the cap shown in Fig. 7; Fig. 9 is a bottom plan view of the part shown in Fig. 8; Fig. 10 is a top plan view of the part shown in Fig. 5, with the cap and ring removed.

Referring to the details of the drawing, the numeral 12 indicates a carriage frame, furnished with upwardly extending brackets 13, in which are journaled grooved wheels 14, adapted to travel on a trolley-wire 15, one end of which is shown attached to the

usual hanger-post 16, pendent from any convenient overhead support. The trolley-wire and supporting fixtures may be of any type in ordinary use, and as they do not form any part of my present invention, only so much of their construction is illustrated as will suffice to show the relation of my improvements thereto.

The carriage frame 12 is depressed intermediate of its ends, forming suitably curved arms 17, which are connected by a vertical hollow, cylindrical body or ferrule interlocking member 18 open at both ends, and having its walls slightly flaring toward its lower opening, as indicated at 19, thus forming a bell-shaped mouth 20, to facilitate the introduction of an interlocking member hereinafter described. The upper end 21 of the said female interlocking member or body 18 is reduced to form a shoulder 22, which constitutes a stop for an elongated cap 23, arranged to telescope over said reduced portion and secured thereon by screws 24. The lower flaring end of the said body 18 is furnished with diametrically arranged longitudinal slots 25, extending upward from the margin, and the body walls, adjacent to these slots, are prolonged downward to form curved guiding fingers 26. The interlocking member or body 18, forms a socket to receive a male interlocking member 27, having a cylindrical body portion 28, furnished with a stem or neck 29, projecting axially from the upper end of the said body 28. This stem or neck terminates in a rounded extremity or head 30 furnished with laterally projecting ears 31, spaced 90 degrees apart about the said head, thus forming a cruciform arrangement clearly shown in Figs. 3 and 6. Upon diametrically opposite sides of the body 28 of said interlocking member 27 are horizontally projecting arms 32, slightly curved downward toward their free ends and furnished on their lower sides with grooves 33, extending the entire length of the arms. The said body 28 is hollowed out to lessen the weight of the casting, forming a cavity 34, and the said grooves 33 in the arms 32 communicate with this body cavity through slots 35. The said grooved arms 32 form housings for flat latch levers 36, arranged on edge in said grooves, and pivoted to the walls of the housing at 37. The inner ends of these latches are upturned to form stop lugs 38, which project upward through notches or slots 39, in the upper walls of

the arms 32, the margins 40 of the said notches forming stops to limit the latch movement.

The parts are so arranged that the upper margin of each stop lug will project laterally from the slot 35 in the body 28, when held by the weight of the long arm of the latch lever 36 in its normal position against the stop 40. The lower edge of the latch drops below the side walls of its housing, and a sufficient interval is left above the said latch to allow it to rise high enough to retract the shorter arm or lug 38 within the body of the member 27, for a purpose that will hereinafter appear. In order to supplement the weight of the latches and promote a quick action of the mechanism, I connect the levers 36 by a tension spring 41 which extends across the cavity 34. The lower margin of the body 28 is furnished with a flange 28^a, to afford a convenient attachment for a basket or parcel receptacle (not shown).

The upper margin of the reduced portion 21 of the body member 18, is furnished with indentations forming ratchet teeth 42, and in the upper end of the cap 23 is located an inverted crown-shaped lining 43, having a series of teeth 44 on its lower margin, corresponding with the teeth 42, but in staggered relation thereto.

Within the cap 23 between the crown 43 and the reduced portion 21, which are separated by a considerable interval, is arranged a loose ring 45, of the same diameter as the structures bearing the series of teeth 42 and 44, and having two series of similar teeth 46, 47, formed on its upper and lower margins respectively. The said ring is both rotatable and slidable on the inner surface of the cap and is furnished with a dome shaped bridge 48, which springs from diametrically opposite sides of the sleeve, and is arranged so that the center of its concavity lies in the axis of the member, somewhat above the upper serrated ring margin 46. The ring 45 is narrower than the distance between the serrated margins above and below, so that it can engage only one of the fixed series of teeth at the same time. The normal position of this ring is that of engagement with the lower series 42, upon which it rests by gravity. Within the ring is located a diaphragm 49, having a central opening 50, from which radiate slots or notches 51, to permit the passage of the head 30 and ears 31, under conditions hereinafter set forth. A fixed diaphragm 52, supported by a flange or collar 53 is arranged below the normal position of the diaphragm 49, and is furnished with a cruciform aperture similar to that in the movable or ring diaphragm 49, comprising a central opening 54 with communicating radiate notches 55.

Arranged adjacent to the carriage, when

the latter is at one of its stations, as shown in Fig. 1, is a basket elevating mechanism, comprising hooks 56 connected by a spacing bar 56^a and adapted to engage the arms 32 of the member 27. These basket elevating hooks are suspended by cords 57, which pass over pulleys 58, 59, in the usual manner, the pulleys 58 being supported on brackets 60 attached to the post 16. Buffer springs 61 surround the cords just above their attachments to the said hooks, and the upper ends of these springs carry loose collars 62, which engage stops 63, attached to the brackets 60 when the hooks are elevated by traction on said cord, thus preventing injurious shock to the mechanism, when the member 27 reaches the limit of its movement within the cavity of the member 18.

The member 27 is inserted in the carriage body or member 18 and interlocked therewith, or released therefrom, in the following manner:—The hooks 56 with attached basket, being lowered to a convenient height, the member 27 is placed in the relative position shown in Fig. 2, with the arms 32 supported on the said hooks, the weight of the parts causing the levers 36 to retract the lugs 38. The operator then elevates the hooks and suspended device by pulling upon the cord 57, thus causing the member 27 to enter the bell-shaped mouth of the member 18, the fingers 56 guiding the arms 32 into their slots 25, and as the lugs 38 are retracted, as aforesaid, the member 27 will be carried so far within the member 18 that the head 30 will pass through both diaphragms (49, 52) the openings in which are in registration, and, engaging the inner surface of the bridge, will lift the ring from its seat and thrust it into contact with the fixed teeth 44 on the crown 43. The inclination of the engaging edges of the meeting teeth will cause a partial rotation of the ring 45, the conical head forming a pivotal bearing for the ring in this movement. The operator will then slacken the cord, permitting the suspended member 27 to descend, the ring, of course, following it down and as the ring strikes the teeth 42, it will again be slightly rotated, in the same direction as before, the sum of these two rotary movements equaling one tooth of the ratchet. There are eight teeth in each series so that the loose ring 45 with its diaphragm 49 will be rotated through 45 degrees, or one-eighth of a turn, bringing the solid portions 64 of the diaphragm 49 over the notches 55 in the fixed diaphragm beneath, said portions when thus relatively located forming stops which interlock with the ears 31 and prevent the further descent of the member 27. The hooks 56 are now lowered to their initial position, and as soon as the levers 36 are released from the pressure of said hooks they will drop to normal position, extrud-

ing the lugs 38, and thus preventing the release of the interlocked members while the carriage is traveling along the trolley-wire.

It should be understood that when the member 36 is in the position shown in Fig. 2, and the member 27 is inserted in the member 18, the lugs 38 will engage the end wall of the slots 25, thus preventing the member 27 from being pushed upwardly relatively to the member 18 and thereby become accidentally released through the movements described. As soon as the lugs 38 are retracted by the action of the hooks 56 on the member 36, the member 27 is free to move upwardly. Upon the return of the carriage to the starting point the procedure of unlocking the member 27, and lowering it with its attached receptacle to the initial position within the reach of the operator, is as follows:—The hooks 56 are again elevated by drawing upon the cord 57 and, coming in contact with the levers 36, will retract the lugs 38. Further traction upon the cord will raise the ring 45 and turn it as before by contact with the crown teeth 44. Slackening the cord will permit the body and ring to descend, further rotating the latter, bringing the notches 51 and 55 in the respective diaphragms into registrations. This will allow a clear passage for the ears 31, so that the member 27 and attachments may be lowered in the usual manner to the starting point. It will be seen that each upward thrust of the members 27, through the medium of the hooks 56, will result in alternately interlocking and releasing the members 27 and 18, although the movements of parts are in each case identical.

Having thus described my invention, what I claim as new, is:—

1. In a parcel-carrier, a carriage, a hollow tubular member supported by said carriage, slidable and rotatable interlocking members arranged in said tubular member, a basket supporting member adapted to operate said slidable and rotatable members and to interlock thereon, and means for operating said basket supporting member.

2. In a parcel carrier, a carriage, a hollow tubular member fixed on said carriage,

slidable and rotatable interlocking means arranged in said tubular member, a basket supporting member adapted to operate said slidable and rotatable means and to interlock therewith, arms pivoted on said member, and manually operative means engaging said arms.

3. In a parcel carrier, including a trolley and a carriage adapted to travel thereon, the combination of a hollow body attached to the carriage, an annular member arranged to rotate and slide in said body, means for rotating said member when slid, a cooperating member adapted to slide said annular member, and means for interlocking said members when the annular member is rotated.

4. In a parcel carrier including a trolley, and a carriage adapted to travel thereon, the combination of a hollow body on the carriage, an annular serrated member arranged to rotate and slide in said body, serrations fixed on said body and adapted to rotate said annular member when the latter is slid, a cooperating member adapted to engage and slide said annular member, and means carried by the rotatable member for interlocking said members.

5. In a parcel carrier, including a trolley-wire and a carriage adapted to travel thereon, the combination of a hollow member attached to said carriage, annular series of serrations arranged in staggered relation in said hollow member, a movable serrated ring arranged between said series of serrations, an apertured diaphragm carried by said ring, a fixed diaphragm arranged below said apertured diaphragm and having openings corresponding with the apertures in the first mentioned diaphragm, a cooperating member adapted to engage said ring, and means on said cooperating member adapted to interlock with the diaphragm carried by the ring.

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

JAMES W. CLARK.

Witnesses:

N. A. PALMER,
H. L. MAXFIELD.