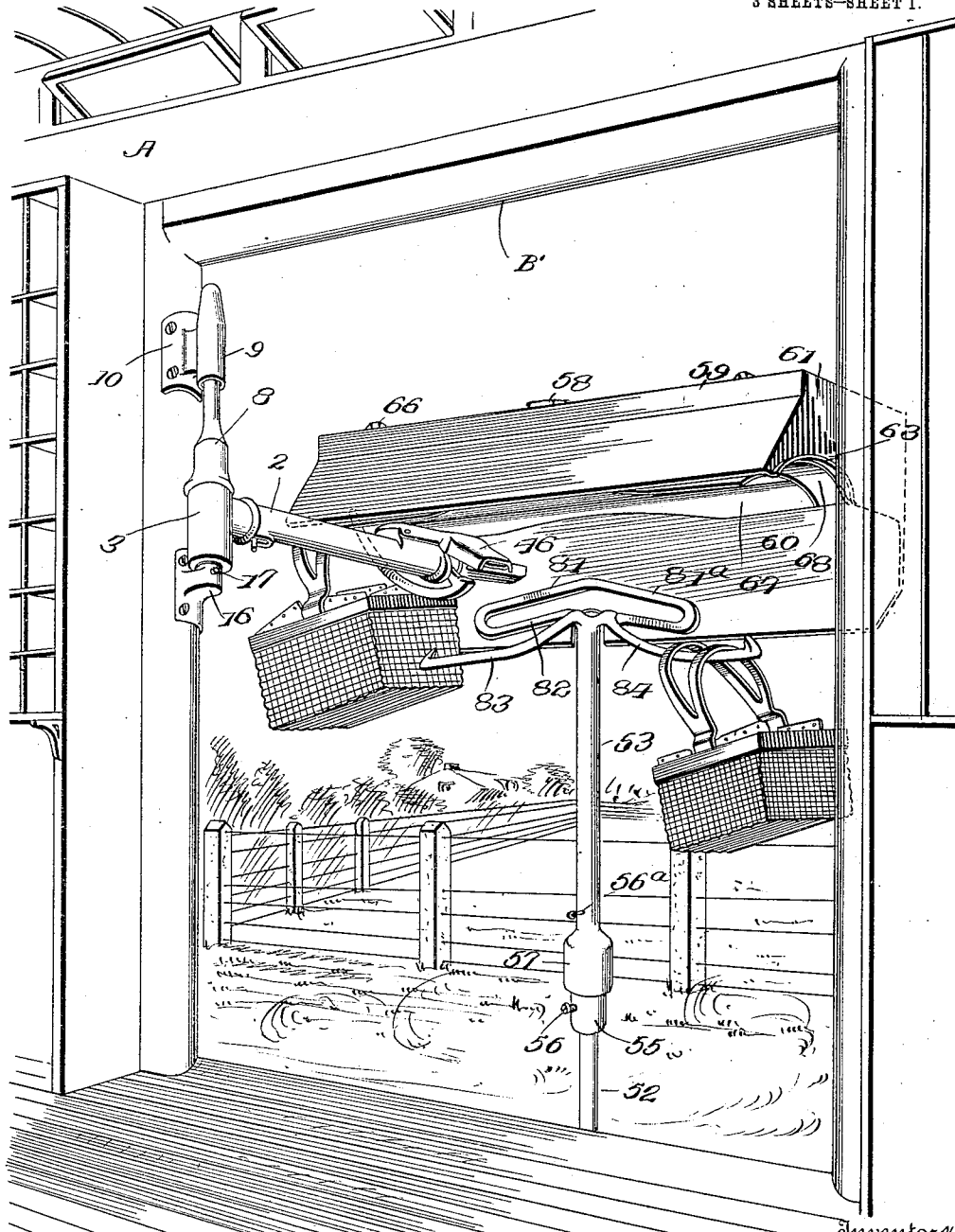


B. B. & W. A. CLARK.
MAIL BAG CATCHER AND DELIVERER.
APPLICATION FILED JAN. 29, 1912.

1,041,962.

Patented Oct. 22, 1912.

3 SHEETS—SHEET 1.



Witnesses
W. M. Woodson,
K. M. Capen

H. G. I.
By

Inventors
B. B. Clark
W. A. Clark

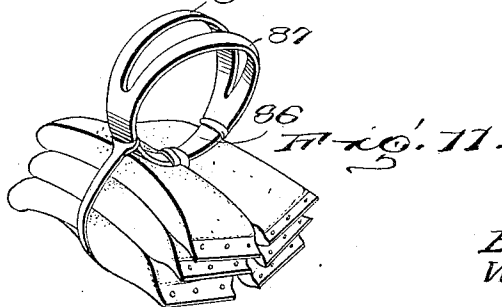
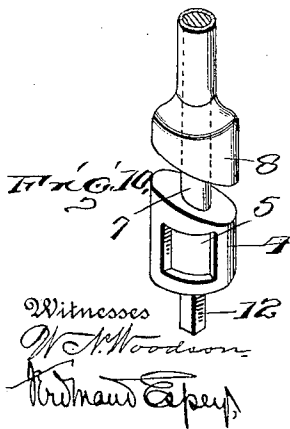
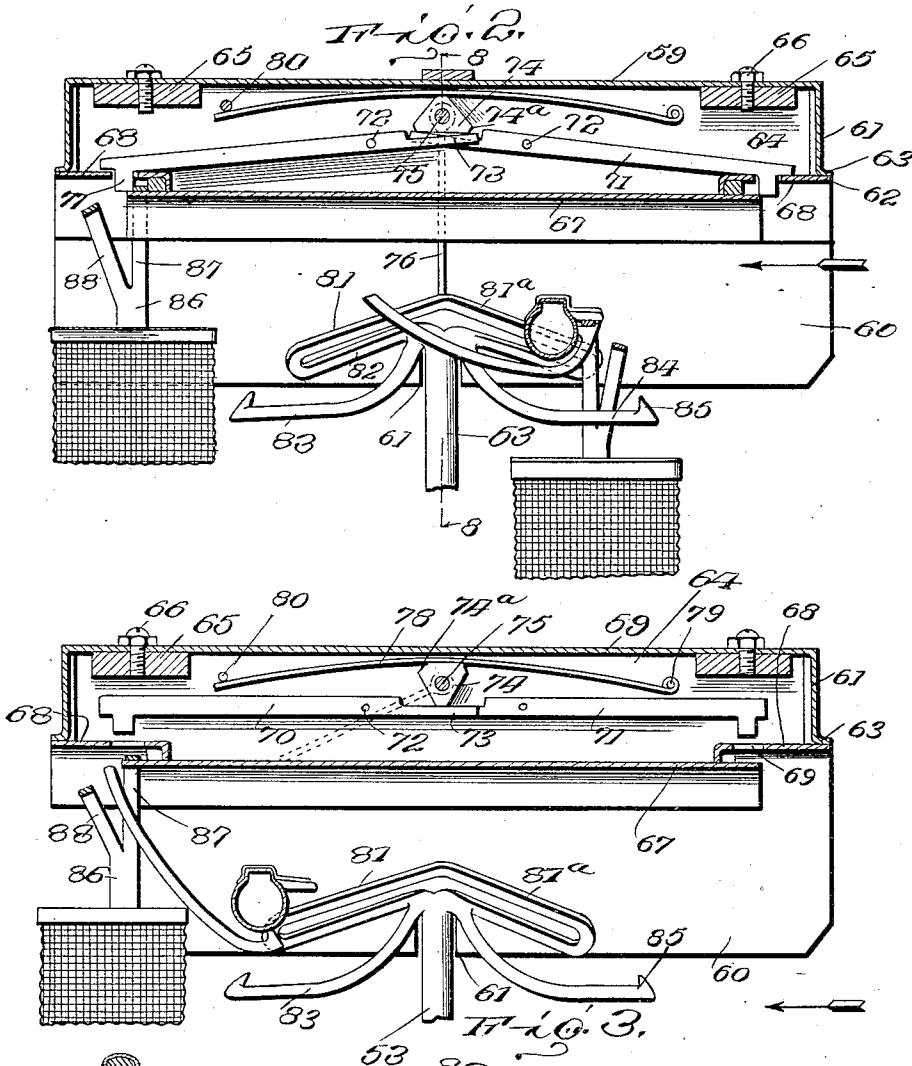
H. M. Sacy, Attorneys

B. B. & W. A. CLARK.
MAIL BAG CATCHER AND DELIVERER.
APPLICATION FILED JAN. 29, 1912.

1,041,962.

Patented Oct. 22, 1912.

3 SHEETS-SHEET 2.



Inventors
B. B. Clark
W. A. Clark

By

W. A. Clark

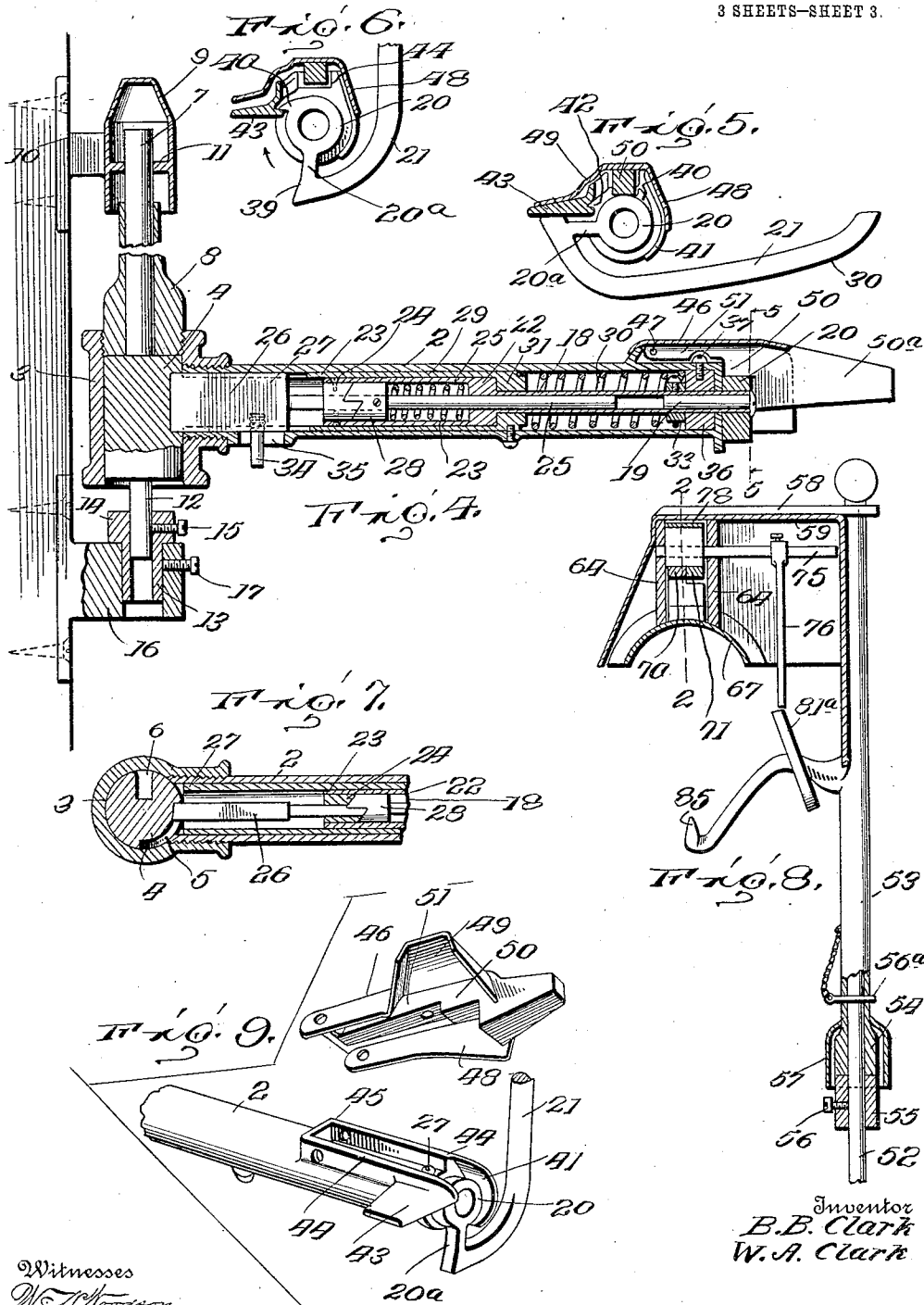
Attorneys.

B. B. & W. A. CLARK.
MAIL BAG CATCHER AND DELIVERER.
APPLICATION FILED JAN. 29, 1912.

1,041,962.

Patented Oct. 22, 1912.

3 SHEETS—SHEET 3.



Witnesses
W. H. Woodson,
Wm. A. Clark

334

Wm. A. Clark

Attorneys.

UNITED STATES PATENT OFFICE.

BURTON B. CLARK AND WALTER A. CLARK, OF NEW HAVEN, CONNECTICUT.

MAIL-BAG CATCHER AND DELIVERER.

1,041,962.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed January 29, 1912. Serial No. 674,072.

To all whom it may concern:

Be it known that we, BURTON B. CLARK and WALTER A. CLARK, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Mail-Bag Catchers and Deliverers, of which the following is a specification.

Our invention relates to devices for catching and delivering mail pouches, and the main object of the invention is the provision of a relatively simple, thoroughly effective mechanism of this character which shall be adapted to service conditions and in which the pouches shall be caught and dropped with the least possible shock, thus relieving the pouches of the wear and tear incident to the ordinary mail pouch-catching and delivering mechanism.

A further object is to provide in connection with pouch-catching and delivering mechanism, a pouch carrier adapted to support either one or a plurality of pouches in position to be caught or delivered.

A further object is to provide a device adapted to catch and deliver either one or a plurality of pouches as the circumstances of any particular case may require.

Still another object is to provide a pouch-catching and delivering mechanism in which the pouch carriers are positively locked in position until caught or delivered, thus preventing any accidental removal of the pouch from the supporting devices.

A further object is to provide means for positively locking the coacting parts of the catching and delivering mechanism in their operative position, and in this connection particularly to provide means for positively locking the pouch-carrying arm on the mail car, either in its retracted or its projected position.

Another object is to provide means whereby the pouch-carrying arm on the mail car may be returned to its inoperative or retracted position after the pouches have been transferred, thus relieving the mail clerks from the necessity of manually drawing in the pouch-carrying arm and minimizing the chance of accident caused by the projecting arm.

Still another object is to provide a stationary pouch-catching and delivering device, so mounted upon a standard that it

may be turned entirely away from the track after the transfer of the pouches, thus minimizing any chance of accident from this source.

Another object is to provide a construction of this character in which the bearings for the vertical shafts upon which the mechanism is mounted are thoroughly protected from dust and moisture.

Further objects of our invention will appear in the course of the following description.

Our invention is illustrated in the accompanying drawings wherein:

Figure 1 is a perspective view looking from the inside of a mail car through the door opening thereof and showing our improved mechanism at the time that one pouch carrier has been transferred and the other pouch carrier is just about to be transferred. Fig. 2 is a longitudinal section on the line 2—2 of Fig. 8. Fig. 3 is a like view to Fig. 2 but showing the position of the parts when the catching devices on the car have released the locking devices on the fixed pouch support and are about to engage with a pouch or bundle of pouches. Fig. 4 is a longitudinal section of the pouch-carrying arm on the car. Fig. 5 is a cross sectional view on the line 5—5 of Fig. 4 with the finger in its pouch-engaging position. Fig. 6 is a like view to Fig. 5 but showing the parts in the position they occupy after the finger has been released. Fig. 7 is a fragmentary sectional view of the rear end of the mail pouch carrying arm taken, on a line extending diametrically through the arm 2 at right angles to the face of the bolt 26. Fig. 8 is a vertical sectional view on the line 8—8 of Fig. 2. Fig. 9 is a detail perspective view of the extremity of the arm 2 and of the mail bag latch supported from the arm. Fig. 10 is a perspective detail view of the lower end of the standard. Fig. 11 is a perspective detail view of a mail bag carrier and a number of mail bags attached thereto.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Generally speaking, our mechanism includes an arm pivotally mounted on the forward side wall of the door opening B of a mail car A, this arm being adapted to swing

either into a position of alinement with the side of the car or in position at right angles thereto as illustrated in Fig. 1. This arm carries upon it certain pouch carrier engaging devices as will be later described.

Disposed at the side of the track is a standard upon which are mounted fingers for engaging and catching the bags delivered from the pouch supporting arm on the car, and also provided with oppositely disposed pouch carrier engaging devices adapted to support the pouch carriers in such position as to be engaged by the catching devices upon the pouch carrying arm on the car.

Referring now particularly to Figs. 1, 4, 5 and 7, it will be seen that the pouch carrier and catching devices mounted on the car comprise a tubular arm 2 which in the form of our invention illustrated is connected in any suitable manner to a T coupling 3. Disposed within the T coupling but not rotatable therewith is a block 4 having recesses 5 and 6 set in quartering relation to each other. Attached to the coupling 3 and extending up therefrom is a pintle 7, and attached to the coupling 3 and surrounding the pintle 7 is the sleeve 8. A cap 9 is attached to the door frame by means of a base plate 10 and this cap carries a bearing 11 for the upper end of the pintle 7. Extending downward from the lower end of the block 4 is a pintle 12 which carries upon it an exterior sleeve 13 having a head 14 through which passes a set screw 15. The reduced end of this sleeve 14 is seated in a supporting bracket 16 attached to the door frame. The sleeve is held in place by means of a set screw 17 passing through the bracket. By releasing the set screw 15, the pintle 12 and its supported parts may be upwardly shifted, and thus the catcher arm be entirely removed whenever necessary.

The tubular arm 2 extends out to any suitable distance and projecting from the extremity of the arm and extending into the interior of the arm is a tubular member 18. This tubular member at its projecting end is closed by means of a plug 19, and mounted upon the projecting end of the tubular member 18 exterior to the extremity of the arm 2 is a collar 20 carrying upon it the bag supporting and tripping finger 21. The inner end of the tubular member 18 carries upon it a collar 22, this collar being annular. Also carried upon the collar 22 and shiftable within a tubular guide 23 is an annular clutch member 24 having ratchet-shaped clutch teeth extending toward the collar 22. Passing through the clutch member 24, through the collar 22 and into the tubular member 18, is a plunger rod 25 whose extremity terminates in a flat bolt 26 adapted to engage with either one of the recesses 5 or 6 in the head 4. This bolt is guided by

slots 27. Mounted upon the plunger rod 25 and movable therewith is a clutch member 28 coacting with the clutch member 24.

Disposed within the tubular member 23 is a coiled spring 29 which bears against the clutch member 28. Disposed within the outer tubular arm 2 near the extremity thereof and surrounding the tubular member 18 is a spring 30. This spring is coiled and one end is attached to a collar 31 which is disposed immediately in advance of the collar 22 and formed integral with the guide 23. The other end of the coiled spring 30 is attached to a collar 33 fast upon the tubular member 18. This coiled spring 30 is not intended as a compression spring but is intended to act against any rotation of the collar 20 and the tubular member 18 to which the collar is attached; that is, while the spring 30 will yield to permit the finger 21, the collar 20 and the member 18 to be rotated, it will return these parts to their normal position when the force used in rotating the parts is relieved. In order to permit the bolt 26 to be manually shifted within the tubular member 23 so as to release the tooth 27 on the head 26 from its engagement with the recess 5, the head 26 is provided with a depending pin 34 passing through a slot 35 in the under side of the tubular arm 2. The forward end of the tubular member 2 is closed by means of an annular plug 36 held in place by means of a set screw 37.

The construction of the pouch supporting and tripping finger is illustrated clearly in Figs. 5 and 6. As before stated, 20 designates a collar or hub which surrounds and is attached to the tubular member 18. This collar has projecting from it a radially extending arm 20^a forming a heel, and attached to the extremity of this arm and extending for a portion of its length concentrically to the collar 20 is a finger 21 which then extends at a tangent to the collar 20 and is gradually curved so as to provide a curved under face 38. The upper portion of the arm 20^a and the butt end of the finger 21 where it joins the arm 20^a and forms the heel is slightly concaved as at 39 so as to form a seat for the pouch carrier as will be hereinafter described.

By reference to Fig. 5 it will be seen that the collar 20 is provided with an outwardly projecting shoulder 40 which forms a stop. The material of one side of the tubular member 2 extends out beyond the collar 20 as at 41, and thus bears against the arm 20^a when the parts are in the position shown in Fig. 5, while when the parts are in the position shown in Fig. 6, the lug 40 bears against the bottom wall of a pocket 42 formed in a projecting lug or clamping jaw 43.

The upper face of the arm 2 at its extrem-

ity is provided with oppositely disposed, parallel, longitudinally extending flanges 44 within which the head of the set screw 27 is housed. At the rear ends of the flanges 44 two ears 45 are provided for a pivoted latch 46. This latch has downwardly depending side margins at its rear end which fit over the rear ends of the flanges 44, and a pin 47 joins this latch 46 to the ears 45. As before stated, the latch 46 has downwardly depending side flanges, one flange 48 being adapted to fit down over the side of the tube 2. The other flange on the opposite side is provided with an outwardly projecting jaw 49 co-acting with the upper face of the jaw 43, this jaw 49 being formed with downwardly depending side flanges so that when the jaw is in position it entirely houses the jaw 39. The forward end of the latch 46 is provided with a detent tooth 50 which is adapted to engage in front of the lug 40 when the plate 46 is lowered, but when the plate 46 is raised, the tooth 50 will be withdrawn from its position in front of the lug 40 and permit the parts to be rotated to the position shown in Fig. 6. In order to hold the member 46 rigidly in position and take off any strain from the hinge of this member, we preferably provide the under side of the plate 46 with the longitudinally extending rib 51 which engages between flanges 44 when the plate is in its lowered position as shown in Fig. 4, thus preventing any lateral shifting of the plate.

It will be seen that the plate 46 constitutes a latch which when down prevents any rotation of the collar 20 and the finger 21, but which when raised permits such rotation under the influence of the spring 30. This member 46 also constitutes a cover which is lowered upon the coacting jaw member 43. It will be seen that the latch member 46 is provided at its extremity with a nose 50^a and disposed in a position where it may be engaged by a fixed cam and lifted so as to release the collar 20 from engagement with the latch and permit a rotation of the finger as hereafter described. The cover formed by latch 46 protects the parts beneath from rain, snow or dust.

The fixed catching and delivering devices comprise a sectional standard formed of a rod 52 extending up from any suitable base and mounted upon the station platform, and a tubular sleeve 53 mounted upon the rod and longitudinally shiftable thereon. The lower end of the sleeve 53 is enlarged as at 54, and is adapted to engage with a collar 55 mounted upon the standard and shiftable therealong. The upper face of the collar 55 and the lower face of the head 54 are provided with coacting notches and teeth whereby the tubular member 53 may be held in any desired rotated position with relation to the collar 55. The collar is held in place

by a set screw 56. A pin 56^a may be used to hold the parts in their rotatively adjusted position, but by removing this pin the sleeve 53 may be raised until the coacting teeth on the head 54 and the collar 55 disengage from each other, whereupon the tubular member may be rotated. The member 53 also carries a shield 57 which extends down over the joint between the members 54 and 55 and protects the same from moisture and dust.

Disposed upon the upper end of the tubular section 53 of the standard is an angularly projecting supporting arm 58 supporting a hood 59 which extends longitudinally of the track and is provided with a depending rear plate 60 which is notched on its under edge. The hood 59 has depending end portions 61 formed with a curved recess 62, the margin of the recess being outwardly flared as at 63.

Detachably mounted beneath the hood 59 and depending downward therefrom at right angles to the upper face of the hood are the supporting bars 64. These bars extend longitudinally practically the entire length of the hood and are spaced apart from each other by means of filling blocks 65 which are formed integral with the bars and are supported upon the hood by means of screws 66 which pass through the hood. Attached to the lower edges of the bars 64 is a laterally curved, longitudinally extending, upwardly bowed, guiding member 67. This member as will be seen from Figs. 2 and 3 is less in length than the hood. Disposed above the ends of the guide 67 and spaced above the upper faces of said ends are the laterally curved terminal members 68 which extend out to the flaring flanges 63 of the ends 61 of the hood.

It will be seen that the extremities of the member 67 extend beyond the inner ends of the terminal members 68 and are in spaced relation thereto. It will also be seen from Figs. 2 and 3 that each of the members 68 is formed with an opening 69 immediately above the adjacent extremity of the member 67. The rings or carriers from which the mail pouches are suspended are adapted to be supported upon the extremities of the member 67 as illustrated in Figs. 2 and 3, and in order to hold these carriers in place we provide the jaw members or latch members designated 70 and 71. Both of these members are alike. Each member 70 and 71 is pivoted at 72 and has an inwardly projecting tail 73 which projects beneath a three faced cam 74 rotatably mounted upon a pin 75 which extends as shown in Fig. 8 through the two bars 64 and toward the rear of the hood. This pivot pin 75 is provided with the downwardly depending arm 76, also as illustrated in Fig. 8.

When the pouches are in position upon

either extremity of the member 67, the latch levers 70 and 71 are depressed as shown in Fig. 2 and the tooth 77 of each latch member passes through the adjacent opening 69 and into engagement with the adjacent extremity of the member 67. The tooth 77 therefore acts as a latch holding the pouch carrier upon the extremity of the member 67 as illustrated in Fig. 2. When the cam 74 is rotated, however, the tails of the levers 70 and 71 are depressed, thus elevating the free ends of the latch levers and thus releasing the bag carrier.

Any movement of the cam 74 is resisted by means of a spring 78 which is attached at one end to a pin 79 and at its other end projects beneath a pin 80, these pins passing between the bars 64. The spring 78 is upwardly bowed and contacts at its middle with the face of the cam 74. It will be seen that the cam 74 is not an absolute triangle in shape but that the corners of the triangle are cut away as at 74^a so as to present flat faces which will engage with the tails 73 when the cam is turned to the position shown in Fig. 3.

Mounted upon the tubular member 53 and projecting out through the notch 61 of the rear plate of the hood, is an angular cam. As illustrated, this cam comprises a bar extending longitudinally of the hood, and bent downward on each side from the middle of the hood as at 81, 81^a. The middle portion of this cam is disposed farther out from the rear face of the hood than the terminal portions are. The bar 81 is supported by having its extremities reflexed as at 82. These reflexed extremities extend inward and are connected immediately to the tubular member 53 as shown in Fig. 8. Also projecting from the tubular member 53 at the point of junction of said member with the cam 81, 81^a are the diverging, outwardly projecting catching fingers 83 and 84. Each of these fingers are alike but they project in opposite directions and extend somewhat beyond the terminal end portions of the cam 81, 81^a. The extremities of the fingers 83 and 84 are hook-shaped but upwardly turned as at 85.

The pouch carrier comprises a bail designated 86 which extends upward in the form of a loop 87 adapted to be engaged with one or the other of the projecting terminal ends of the member 67 as illustrated in Fig. 3, or adapted to be engaged with the upper face of the arm 20^a projecting from the collar 20 on the arm 2. The bail 86 is also formed with an upwardly and outwardly inclined loop 88, this loop however not extending as high as the loop 87 and affording a means whereby the finger 30 will push the bail off from the projecting support formed by the terminal end of the member 67 as illustrated in Fig. 3.

The bail 86 may be attached to any suitable support for one or a plurality of mail bags, or the bail may be attached to the mail pouch itself and not attached to any netting or basket therefor. In Fig. 1 we have shown these bails as attached to baskets or like receptacles designated 89 wherein the pouches may be supported, but in Fig. 11 we have illustrated the bail as used where a number of pouches are attached immediately to the bail. It will be understood that we do not wish to limit ourselves to any particular manner of supporting the pouches from the bail, and that we contemplate the use of the bail either with one or a plurality of pouches, or with a pouch carrier of any suitable description.

The operation of our invention is as follows. Normally it will be understood that the arm 2 is retracted into position in alignment with the side of the car, and that it is held in this position by the engagement of the tooth 27 on the head 26 with the recess 5 in the head 4. When it is desired to place a mail bag upon the end of the arm 2, the member 46 is raised, thus permitting the collar 20 to be rotated to the position shown in Fig. 5. The loop 87 is placed in engagement with the upper face of the arm 20^a as the collar 20 is rotated to the position described, and when the collar 20 has been fully rotated to the position shown in Fig. 5, the tooth 50 of the member 46 will move downward by its own weight into position behind the lug 40, thus locking the collar 20 in the position shown in Fig. 5 with the pouch carrier depending from the arm 20^a and with the finger 21 projecting outward. As the train nears the station where the mail is to be transferred, the mail clerk pulls the pin 34, thus releasing the head 26 from its engagement with the head 4 and permitting the arm 2 to be rotated to a position where it will extend out at right angles to the side of the car. Meanwhile the mail clerk at the station has placed a pouch carrier in the position shown in Fig. 3, assuming that the train is coming from the direction of the arrow in Fig. 3. The bail 87 is placed over the projecting end of the guide 67 and the arm 76 is moved to a vertically depending position as shown in Fig. 2, thus permitting the catch levers 70 and 71 to move downward and the teeth 77 to move through the openings 69. The tooth of one of these levers will engage immediately in advance of the bail 87 as illustrated in Fig. 2, thus holding the bail in place and preventing the wind from blowing the pouch carrier out of its engagement with the member 67.

With the parts in this position as the car arrives opposite the transfer station, the nose 50^a will strike the upwardly inclined cam face 81^a, assuming that the car is going

in the direction indicated in Figs. 2 and 3 by the arrows. This will raise the member 46 and the tooth 50 will as a consequence be lifted from in front of the lug 40. As soon
 5 as the lug 40 is released, the spring 30 will cause the collar 20 to rotate, thus throwing the finger 21 to the position shown in full lines in Fig. 3 and releasing the pouch carrier which will drop down upon the hooked
 10 finger 84. The finger 21 will have moved up to the position shown in Figs. 1 and 3 and will contact with the laterally curved under face of the guide plate 67. It will travel along this face until it emerges as shown
 15 in Fig. 3 and passes between the loop 87 and the loop 88. In the passage of the arm 2 from the position shown in Fig. 2 to that shown in Fig. 3, the arm will strike the arm 76 and rotate it toward the position shown
 20 in dotted lines in Fig. 3. The spring 78 acting upon the flat faces of the cam will cause a continued rotation of the cam 74 until it reaches the position shown in Fig. 3 with the arm 76 so lifted as to permit the
 25 further forward passage of the arm 2, and also to such position as to lift the latches 70 and 71 entirely free from the projecting ends of the guide plate 67. In this position as shown in Fig. 3, the finger 21 will engage
 30 with the loop 88 and carry the pouch carrier off from the projecting end of the guide 67, whereupon the loop 87 will slip down upon the upwardly curved finger 21, and the finger will turn to a position where it extends vertically upward as in Fig. 6. The
 35 result of the finger 21 turning vertically upward into this position is that it will rotate the collar 20. This will rotate the tubular member 18 which will rotate the head 22, and this through the tubular member 25 will rotate the clutch member 24. The rotation of the clutch member 24 will force back the clutch member 28 by reason of the coacting ratchet teeth, against the force of the
 45 spring 29 and thus the rod 25 will be forced vertically along the arm 2 carrying the head 26 outward and its tooth 27 out of engagement with the recess 6 in the head 4, thus unlocking the arm 2 and permitting it to be
 50 moved around into a position parallel to the side of the car.

While ordinarily the force of the wind will be sufficient to rotate the arm 2 to this parallel position after it is unlocked, we
 55 have provided additional means for positively moving this arm. For instance, we have shown the upper face of the head 4 and the under face of the member 8 as being formed with coacting cam faces, whereby
 60 when the arm is released, the downwardly sloping coacting cam faces will cause the weight of the arm, the coupling 3 and the interior parts to rotate the arm 2, the coupling 3 etc. through a quarter of a revolution,
 65 or until the tooth 27 can engage with

the recess 5. It will of course be understood that we do not wish to be limited to the use of this means for rotating the arm 2 as other means might be used, or no means at all
 70 may be provided and the arm simply returned by the force of the wind striking it.

It is sometimes objectionable to have the standard supporting the fixed catching and delivering arms so mounted that the catching and delivering arms extend at all times
 75 toward the train. It is for this reason that we have provided the connection illustrated in Fig. 8 whereby the tubular member 53 may be rotated upon the fixed member 52 so that the hood and the catching and delivering mechanism supported beneath the same
 80 may be turned entirely away from the train, thus leaving the space adjacent the train entirely unobstructed.

The operation of placing a pouch carrier
 85 in position to be caught by the finger 21 is obvious from what has gone before. The loop 87 of the bail 86 is simply placed over the end of the shield or guide 67, as illustrated in Fig. 3. The finger 76 connected to
 90 the cam 74 is then turned to the position shown in Fig. 2 which locks the pouch carrier in place.

It will be seen that we have provided by the mechanism heretofore described a very
 95 simple and positively acting mechanism for delivering a package of mail matter from a moving car, and receiving a package of mail matter at the station, the mechanism being so formed that the pouch carrier is not liable
 100 to be injured by being struck by the catcher arm, and that the pouches are delivered from the car without striking the ground. Furthermore, it will be seen that all of the operative parts act positively so that the
 105 pouch carriers are firmly held in position until the releasing mechanism is actuated. Again it may be pointed out that all the parts are thoroughly protected, the fixed mail catching and delivering mechanism being
 110 protected by the hood 59 so that the pouches when supported in position ready to be caught by the arm on the train will not be subjected to the action of rain. Furthermore, it will be seen that all the actuating
 115 mechanism is entirely protected so that it is not liable to become clogged up with dust or rusted. The mechanism carried by the catcher arm on the train is very largely inclosed within the tubular catcher arm 2,
 120 while the mechanism upon the extremity of the arm is largely protected by the member 46 which has depending side flanges which extend over the operative parts. The pouches carried within the receptacle supported upon the end of the catcher arm 2
 125 may be covered by means of a cap of waterproof cloth illustrated in Fig. 2 and designated 88.

It will be seen that the curved cam face 130

81^a will strike the curved under face of the nose 50. The incline of the cam face 81^a is relatively gentle and therefore the tripping action will be relatively gentle and no shock will be transmitted to the arm 2. As soon as the finger 21 is tripped, the pouch carrier will be dropped upon the arm 84 or 83 as the case may be. The pouch carrier may travel upward slightly upon the arm 83 or 84 but the upward inclination of this arm will slacken the speed of movement of the pouch carrier and bring it to a stop before the pouch strikes the upper end of the arm 84 or 83 and before the carrier will strike the supporting standard 53. It will be seen that the latching mechanism contained within the hood above the guide 67 is extremely simple, can not readily get out of order and may be easily repaired or replaced. In order to repair it, it is only necessary to take out the screws 66, whereupon the latching and unlatching mechanism may be readily withdrawn.

It will be noted that the guide member supporting the pouch carriers is laterally curved. The purpose of this lateral curvature is to guide the finger 21 into proper engagement with the loop of the pouch carrier, even when the car is rocking so that the finger will oscillate upon the under face of the guide. It may also be pointed out that the mechanism contained within the tubular arm 2 may be entirely removed from the tubular arm by simply removing the finger pin 34, the set screw engaging collar 31 and the set screw 37. When this finger piece is removed, all the internal mechanism may be removed from the open end of the arm. This provides an easy method of oiling these parts and cleaning or repairing them.

It will be seen that not only are the pouch supporting and catching mechanisms on the standard thoroughly protected from snow and rain, but that the pouch supporting and catching devices on the arm are also thoroughly protected from rain, snow and ice, by reason of the fact that the latch 48 has depending side flanges which entirely house and cover in the heel of the finger 21 and the projecting jaw or support upon which the pouch carrier is hung. It is also to be noted that the locking recess 5 in the fixed member 4 is cut away on one side so as to form a shoulder only on one side of the recess and thus permit the arm 2 to be turned inward into the car, the shoulder, however, preventing any outward movement of the arm until the bolt is retracted. Further it will be seen that the arm 2 will return to its innermost position unless it has been forced out fully to the position shown in Fig. 1. It is only in the position shown in Fig. 1 that the bolt will engage the recess 6. Thus the pouch carrying mechanism must be

placed in its operative position, and if it is not so placed, it will return to an entirely inoperative position and thus will not strike either the pouches carried by the standard or the pouch carrying and tripping mechanism on the standard. This is a particularly vital point of our invention.

The clutch 24 is attached to the sleeve 23 by means of screws, thus permitting the clutch member to be removed from engagement with the sleeve or to be adjusted. The opposed clutch member is set in place so that it may be rotatably adjusted, thus providing for a proper setting of the clutch members relative to each other.

Having thus described the invention, what is claimed is:

1. A mail pouch transferring mechanism, including an arm mounted upon a car, a finger pivoted on the end of the arm and having a heel at its rear end adapted to support a pouch carrier when turned to one position, a latch adapted to hold the finger from rotation, in combination with a fixed standard beside the path of travel of the car, and a cam member on the standard adapted to trip said latch to permit rotation of the finger and heel.

2. A mail pouch transferring mechanism, including an arm mounted on a car for pivotal movement from a retracted to a projected position, a finger pivotally mounted on the end of the arm for movement in a plane at right angles to the axis of the arm, said finger having a rearwardly projecting heel adapted to support a pouch when the finger is in a downwardly turned position, means urging the finger to an upwardly projecting position, and a latch mounted upon the end of the arm and holding the finger from rotation, in combination with a fixed standard beside the track, a pouch carrier supporting means mounted on the standard, and a cam member on the standard adapted to trip said latch.

3. A mail pouch transferring mechanism, including an arm pivotally mounted on the car for movement in a horizontal plane, a pouch carrier engaging finger rotatably mounted on the end of the arm for movement in a plane at right angles to the axis thereof and having a rearwardly projecting heel adapted to support a pouch carrier, means urging the finger from a horizontal to a vertical position, a latch holding the finger in a horizontal position, a fixed standard beside the track, a guide member mounted on the standard and extending parallel to the track, said guide member including means for supporting a pouch carrier, and a cam on the standard for tripping the latch, said finger when the latch is tripped engaging with the guide and being guided thereby through the pouch carrier.

4. A mail pouch transferring mechanism, 130

including an arm mounted on the car for pivotal movement in a horizontal plane, a pouch supporting mechanism on the end of the arm, a latch for holding the pouch supporting mechanism in an operative position, means urging the pouch supporting mechanism into an inoperative position when the latch is tripped, and means disengageably holding the arm in a projected position, said means being released upon a tripping of the latch.

5. A mail pouch transferring mechanism, including an arm mounted on a car for pivotal movement in a horizontal plane, a rotatably mounted finger on the end of the arm, means urging the finger to a vertical position, means for holding the finger in a horizontal position against such urging means, a bolt holding the arm in a position parallel to the car, said bolt being shiftable out of engagement to permit the arm to be moved to a projected position, wherein it shall be held by the bolt, and means whereby a movement of the finger to a vertical position will release said bolt to permit a retraction of the arm.

6. A mail pouch transferring mechanism, including an arm mounted on a car for circular movement in a horizontal plane, a finger pivotally mounted upon the arm for movement in a vertical plane at right angles to the axis of the arm, means urging the said finger to a vertical position, a latch device for holding the finger in a horizontal position, a bolt carried by said arm, a fixed member engaged by the bolt when the arm is in its projected position, and means for withdrawing said bolt from its engagement when the finger is raised to a vertical position.

7. A mail pouch transferring mechanism, including an arm mounted on a car for movement in a horizontal plane, a finger pivotally mounted on the end of the arm for movement in a vertical plane at right angles to the axis of the arm, said finger having a rearwardly projecting heel adapted to support a pouch carrier, means urging the finger from a horizontal to a vertical position, a latch device for holding the finger in a horizontal position, a fixed member having spaced notches, a bolt carried by said arm and engaging said notches, means for manually operating said bolt to release the arm, and means actuated by a movement of the finger to a vertical position operatively connected to the bolt for releasing the same.

8. A mail pouch transferring mechanism, including a pivotally mounted arm moving in a horizontal plane, a finger mounted on the end of the arm and having a heel at its rear end adapted to support a pouch carrier when supported in one position, a latch adapted to hold the finger from rotation, in combination with a latch actuating member,

relatively movable with relation to the arm and adapted to trip said latch to permit a rotation of the finger and heel.

9. A mail pouch transferring mechanism, including a hollow arm mounted on a car for pivotal movement in a horizontal plane, means disposed within and housed by said arm for holding the arm in a retracted or a projected position, a pouch engaging finger mounted on the arm, means urging the finger out of its receiving position, a latch extending over the rear end of the finger and having downwardly extending flanges protecting the rear end of the finger and connected parts, and means mounted beside the path of travel of the car for releasing said latch.

10. A mail pouch transferring mechanism including an arm mounted for pivotal movement in a horizontal plane, a pouch supporting mechanism on the end of the arm, a latch for holding the pouch supporting mechanism in an operative position, means urging the pouch supporting mechanism into an inoperative position when the latch is tripped, and means disengageably holding the arm in a projecting position, said means being released upon a tripping of the latch.

11. A mail pouch transferring mechanism including a standard mounted beside a track, a longitudinally extending hood mounted on the standard, a member supported beneath said hood and having oppositely projecting extensions parallel to the line of track, the ends of said extensions affording an engaging means for a mail pouch carrier, a latch for each end of said member adapted to hold the carrier in engagement with the corresponding end of the member, and means for simultaneously releasing both of said latches.

12. A mail pouch transferring mechanism, including a standard mounted beside the track, a longitudinally extending laterally curved guide operatively supported upon said standard, the ends of the guide affording means for the support of a pouch carrier, oppositely disposed latch levers mounted above the guide and adapted when turned in one position to hold the carrier upon either end of the guide, and an arm projecting below the guide, whereby the latches may be released.

13. A mail pouch transferring mechanism, including a standard mounted beside the track, a longitudinally extending hood on the standard, a longitudinally extending guide beneath the hood, the ends of the guide affording means for supporting mail pouch carriers, pivotally mounted latching levers disposed within the hood above the guide, the outer terminal ends of said levers being adapted to hold pouch carriers upon either end of the guide, means disposed within the hood for operating said levers,

and including the downwardly extending tripping arm, a pouch carrier supporting arm mounted on a car and projecting therefrom into position to engage said tripping arm, and a carrier engaging finger mounted upon said arm and having a heel adapted to support a mail pouch carrier.

14. The combination with a car, an arm pivotally mounted on the car for movement in a horizontal plane, a pouch carrier engaging finger pivotally mounted on the arm, and tripping devices mounted on the arm, of a standard mounted opposite the track and having oppositely projecting carrier engaging arms, a cam mounted on the standard for engagement with the tripping device on the arm, and pouch carrier supporting means also mounted on the standard.

15. A mail pouch transferring mechanism, including a standard, a longitudinally extending hood mounted on the standard, oppositely extending inclined pouch carrier engaging arms projecting from the standard, and pouch carrier supporting means mounted beneath the hood and projecting on either side beyond the extremities of said arms.

16. A mail pouch transferring mechanism, including a standard mounted beside the track, a longitudinally extending hood supported on the standard and having upwardly flared sides and downwardly flared ends, a longitudinally extending laterally curved guide member disposed beneath said hood, the ends of said member providing means for the support of mail pouch carriers, oppositely extending carrier supporting arms mounted on the standard below said guide member, but less in length than the guide member, a tripping cam also mounted on the standard beneath said hood, of a car having an arm pivoted for movement in a horizontal plane, a mail pouch carrier engaging and supporting device pivotally mounted on the end of said arm, and

including a carrier engaging finger, a latch for holding the finger in operative position, said latch being adapted to be engaged by the cam on the standard whereby to trip the latch.

17. A mail pouch transferring mechanism, including an arm mounted on a car for movement in a horizontal plane from a retracted to a projected position, means acting to urge the arm from a projected to a retracted position, a bolt for holding the arm in either its retracted or projected positions, a mail pouch carrier mechanism shiftably mounted upon the extremity of the arm, and means operatively connected to the bolt for retracting the latter when the carrier engaging devices are shifted in one direction.

18. A pouch carrier for mail pouch transferring mechanism, including a bail like member adapted to support a plurality of pouches, and provided with an upwardly extending loop and a loop of less height than the first named loop and extending at an inclination thereto.

19. The combination with a support for one or a plurality of mail pouches, of a carrier member comprising a loop connected to said support and upstanding therefrom and a loop of less height than the first named loop and extending at an inclination thereto, said second-named loop affording means whereby the carrier may be removed from the carrier supporting device.

In testimony whereof we affix our signatures in presence of two witnesses.

BURTON B. CLARK. [L. S.]

WALTER A. CLARK. [L. S.]

Witnesses for Burton B. Clark:

FREDERIC B. WRIGHT,

J. D. YOAKLEY.

Witnesses for Walter A. Clark:

J. S. GRIFFIN,

GEORGE H. BRAY.