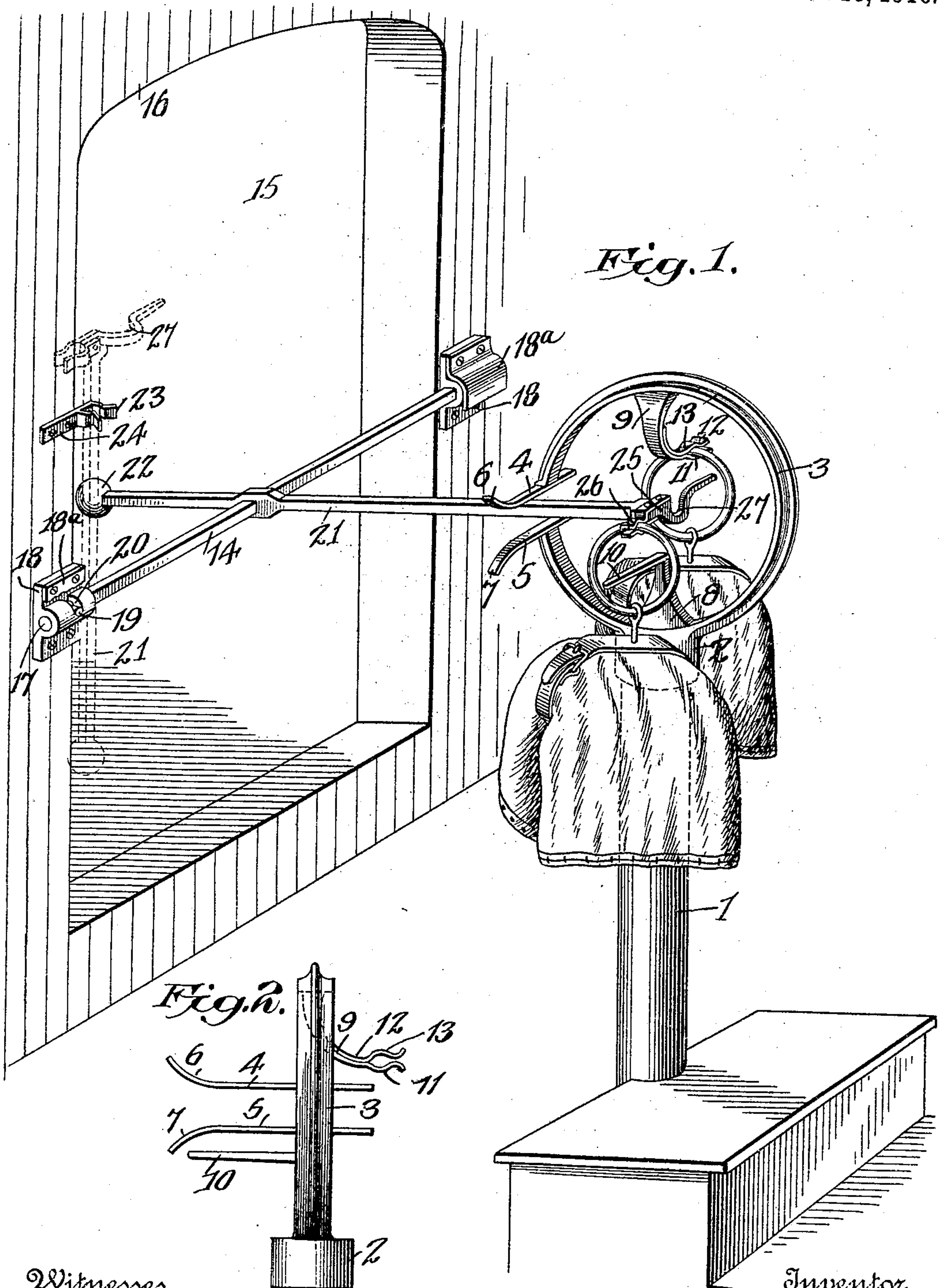


W. L. WOOD.
MAIL RECEIVING AND DELIVERING APPARATUS.
APPLICATION FILED MAY 11, 1909.

946,630.

Patented Jan. 18, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM L. WOOD, OF PROVIDENCE, RHODE ISLAND.

MAIL RECEIVING AND DELIVERING APPARATUS.

946,630.

Specification of Letters Patent.

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Application filed May 11, 1909. Serial No. 495,340.

To all whom it may concern:

Be it known that I, WILLIAM L. WOOD, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Mail Receiving and Delivering Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to mail bag catchers and cranes and has for its principal object certain improvements therein whereby a bag may be delivered from a car and received by the car from the station simultaneously without danger of damage to the bags and without exposing the mail attendants to injury.

In carrying out the object of the invention generally stated above it is contemplated employing a counterweighted car fork which is provided with a novel type of catching and delivering arm, said fork being adapted to be swung to and retained in an inoperative position on the car so as to permit the door to be closed, and held in such position in such a manner as to avoid any objectionable rattling or clattering of the same. In connection with the fork, it is contemplated employing a station crane provided with novel catching and delivering arms, and also means for guiding the car fork so that it will catch and deliver a bag to said arms.

The invention also contemplates the employment of novel details in connection with the prominent features mentioned which facilitate the operation of the same, as will be more fully set forth in the following detailed description and shown in the accompanying drawings.

It will be understood, of course, that the essential features of the invention involved in carrying out the invention as generally stated above are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying sheet of drawings, wherein—

Figure 1 is a perspective view of the improved catcher and deliverer, shown in operative relation. Fig. 2 is a rear elevation of the upper portion of the station crane.

Referring to said drawings by numerals, 1 designates a standard which forms the sta-

tion crane and which may consist of a vertically arranged tube or pipe the top of which has mounted thereon a cap 2 carrying a vertically arranged ring 3 the side adjacent the rails or tracks of the same being open and carrying spaced apart horizontally arranged guiding arms 4 and 5 the ends of which project to either side of said ring, and one of said ends being outturned in opposite directions, as indicated at 6 and 7. Said ring carries an upper and a lower arm 8—9, said arms being diametrically opposite, the arm 8 being an upstanding one and having its end portion 10 outturned and projecting in a horizontal plane and is preferably tapering. The upper arm is a pendent one and has its end portion curved outwardly in an opposite direction to the end portion of the arm 8, and is provided with a transverse groove 11. The end portion of the arm 9 carries a spring leaf 12 provided with a transverse groove 13 complementary to the groove 11, thereby forming a spring holding clip.

It will be understood from the foregoing that the spring clip of the arm 9 is for holding a bag, and the arm 8 is for receiving a bag from a car fork, the car fork being guided by the arms 4 and 5 to catch the bag carried by arm 9 and deliver its bag to the arm 8 simultaneously.

The mechanism carried by the car for co-operating with the described station crane comprises a flat sided shaft 14 extending transversely across the doorway 15 of the car 16 and having its pintle ends 17 mounted in bracket castings 18 carried by the door frame. Said pintle ends 17 each carries a laterally projecting lug or pin 19 which co-operates with a transversely arranged slot 20 formed in the bracket to limit the turning movements of the shaft 14 so that the fork arm 21 mounted thereon can only be swung outwardly at substantially a right angle to said shaft, and when swung inwardly, can only swing to a substantially vertical position within or adjacent to the doorway of the car. Said fork arm 21 at its inner end is provided with a weight 22 which overbalances said arm when the same is not carrying a bag so that normally said arm will be retained in a vertical position. The arm 21 is slidably mounted on the shaft 14 and when not in use, may be slid thereon to one side of the doorway and

forced between the gripping arms 23 of a bracket 24 projecting from one side of the doorway and thereby securely held in a vertical position out of the path of movement of the car door so that the same may be closed, and also so that there will be no objectionable clattering or rattling of said arm. The outer end of said arm 21 carries a horizontally arranged arm 25 which projects beyond each side of the fork, one end of the same being provided with a spring clip 26 and the other end being provided with a depressed holding seat 27. The seat 27 is for receiving a bag from the station crane and the spring clip 26 is for delivering a bag to the same.

The operation of the invention is as follows:—Assuming the parts of the invention to be in the position shown in Fig. 1, it will be seen that the car fork is delivering a bag to the arm 8 of the station crane and at the same time receiving a bag from the arm 9. This is accomplished by the said fork being guided by the guide arms 4 and 5 to cause its end arm to remove the bag from the arm 9 and catch the same in the seat 27. At the same time the bag carried by the spring clip 26 contacts with the standard 1 and causes its bag to be released by said clip and be caught by the arm 8. After the fork has passed the crane, a slight pressure on its weighted end will cause the same to rock to a vertical position so that the “caught” bag may be readily removed by the attendant within the car, and if the fork is not to be used, the same may be moved along its shaft and engaged with its holding bracket.

To protect the slotted portion of the brackets from dirt, snow, ice, or the like, a protecting apron 18^a is extended over the same, said apron being bolted or otherwise rigidly secured to the said brackets.

What I claim as my invention is:—

1. A mail bag catching and delivering apparatus comprising a standard, an open sided ring carried thereby, guide arms carried by said ring, oppositely disposed catching and delivering arms also carried by said ring, and a car fork guided by said guide arms and adapted to simultaneously receive a bag from the delivery arm and deliver a bag to the catching arm.

2. A mail bag catching and delivering apparatus comprising a station standard, guide arms carried thereby, delivery and catching arms also carried by said standard, and a car fork for simultaneously receiving a bag from the delivery arm and delivering a bag to the catching arm.

3. A mail bag catching and delivering apparatus comprising a standard, a ring carried thereby, upper and lower oppositely disposed arms carried by said ring, said arms having their ends projecting in oppo-

site directions and adapted respectively for delivering and catching a mail bag, guide arms also carried by said ring, and a car fork guided by said guide arms to simultaneously receive a bag from the delivery arm and deliver a bag to the catching arm.

4. A mail bag catching and delivering apparatus comprising a standard, an open sided ring carried thereby and provided with guide arms which project to either side of said ring, oppositely disposed upper and lower arms carried by said ring and having their ends projecting in opposite directions, and a car fork for delivering a bag to one of said arms and receiving a bag from the other arm.

5. A mail bag catching and delivering apparatus comprising a stationary ring provided with an open side, spaced apart guide arms carried by the open side of said ring, oppositely disposed upper and lower catching and delivering arms carried by said ring and having their ends projecting in different directions, and a car fork guided by said guide arms to deliver a bag to the catching arm and receive a bag from the delivering arm.

6. In a mail bag delivery apparatus, a station crane comprising a standard, a cap therefor, a ring carried by said cap provided with an open side, guide arms carried by the open side of said ring, and an upper and a lower arm carried by said ring for catching and delivering bags.

7. In a mail bag delivery apparatus, a station crane comprising an open sided ring provided with guide arms, an upper pendent arm carried by said ring and having an outturned horizontally arranged end provided with a spring clip for detachably holding a bag, and a lower upstanding arm also carried by said ring and provided with an angular end which projects in an opposite direction to the end of the arm for holding a bag and adapted to receive a mail bag.

8. In a mail bag delivery apparatus, a station crane comprising a standard, a cap therefor, a ring carried by said cap and provided with guide arms at one side, and catching and delivering arms carried by said ring.

9. In a mail bag delivery apparatus, a station crane comprising a standard, a ring carried thereby and provided with an open side, horizontally arranged spaced-apart guide arms carried by the open side of said ring, and oppositely disposed vertically arranged catching and delivering arms also carried by said ring.

10. In a mail bag delivery apparatus, a station crane comprising a standard, an open-sided ring carried thereby, an upper pendent arm carried by said ring and provided with an outturned horizontally ar-

5 ranged end portion, a spring carried by said end portion for holding a bag thereon, and a lower upstanding arm also carried by said ring and provided with a horizontally arranged end portion which projects in an opposite direction to the end portion of the upper arm.

10 11. In a mail bag delivery and catching apparatus, a station crane comprising an open sided ring provided with guide arms, an upper arm depending from said ring and provided with a horizontally arranged end portion provided with a transversely arranged seat, a spring carried by said end
15 portion for detachably holding a mail bag in engagement with said seat, and a lower upstanding arm also carried by said ring and provided with a horizontally arranged end portion which projects in a direction
20 opposite to the end portion of the upper arm and adapted to receive a mail bag.

25 12. A mail bag delivery apparatus comprising a rotatable shaft carried by a car, a fork mounted thereon, oppositely projecting delivery and catching arms carried by one end of said fork one of said arms being provided with a spring clip for detachably engaging with a bag and the other arm being provided with a seat for receiving a bag, and
30 a station crane adapted to simultaneously deliver a bag to the arm provided with the

seat and receive a bag from the arm provided with the spring clip.

13. In a mail bag delivery apparatus, a pair of brackets carried by a car and each
35 provided with a slot, a shaft rotatable therein and provided with lugs which enter said slots to limit its rotation, and a car fork mounted on said shaft.

14. In a mail bag delivery apparatus, a
40 pair of brackets carried by a car and each provided with a slot, a protecting apron carried by said brackets for shielding said slots, a shaft rotatably mounted in said brackets, and a car fork carried by said
45 shaft.

15. In a mail bag delivery apparatus, a rotatable shaft mounted in a doorway of a car, means for limiting the rotation of said shaft, a delivery fork slidably mounted on
50 said shaft and provided with a counterweight at its inner end, catching and delivering arms carried by the outer end of said fork, and a spring clip carried by the doorway of the car for holding said fork in
55 an inoperative position.

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

WILLIAM L. WOOD.

Witnesses:

CLIFFORD S. TOWER,
HARRIET M. SMITH.