W. JOHNSTON.

MAIL CRANE.

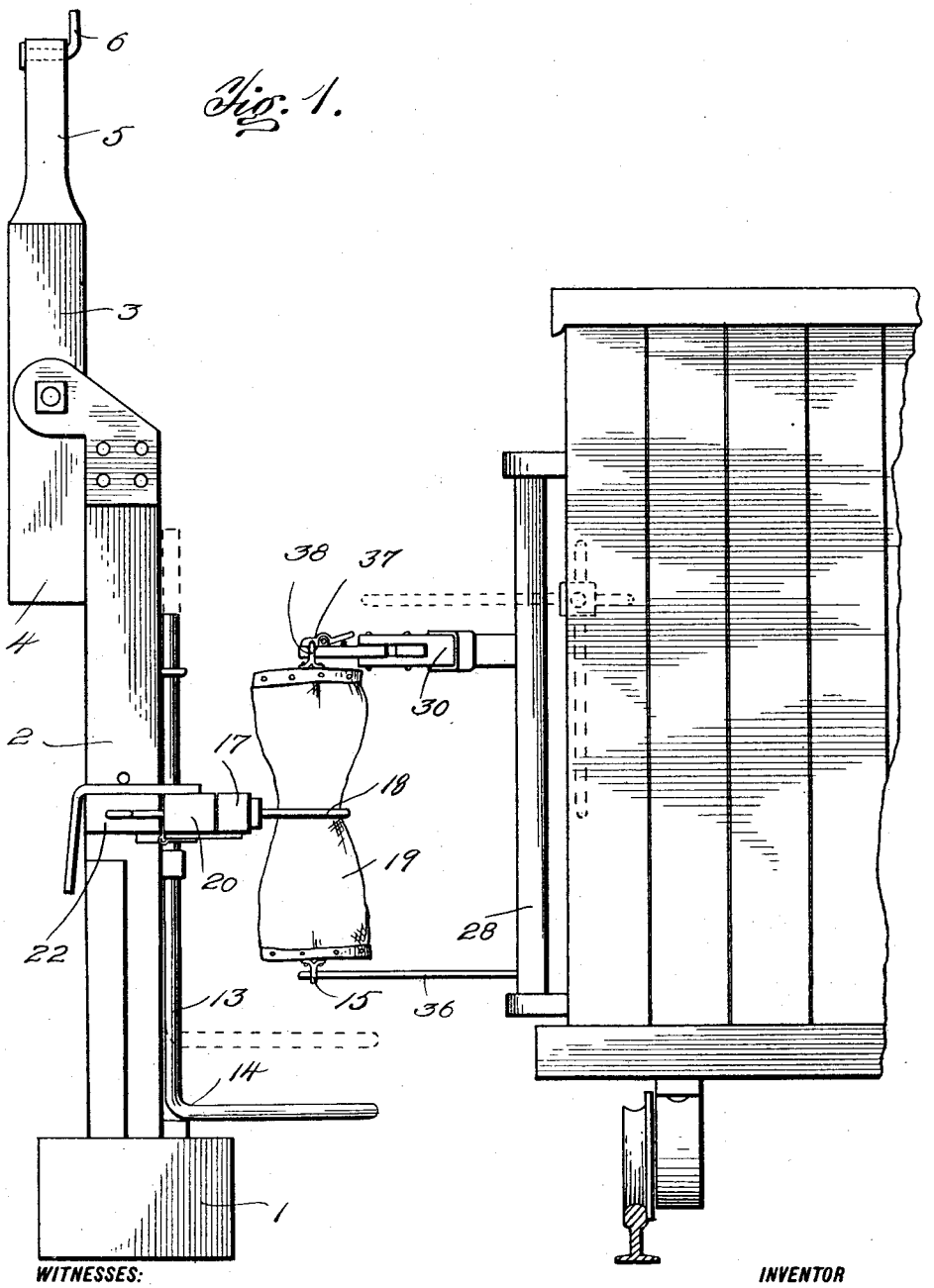
APPLICATION FILED DEC. 26, 1912.

1,067,344.

Patented July 15, 1913.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES:

M. P. McKee

R. Kislink

INVENTOR

W. Johnston

BY

Alex. J. Wedderburn, Jr.

ATTORNEY

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

W. JOHNSTON.

MAIL CRANE.

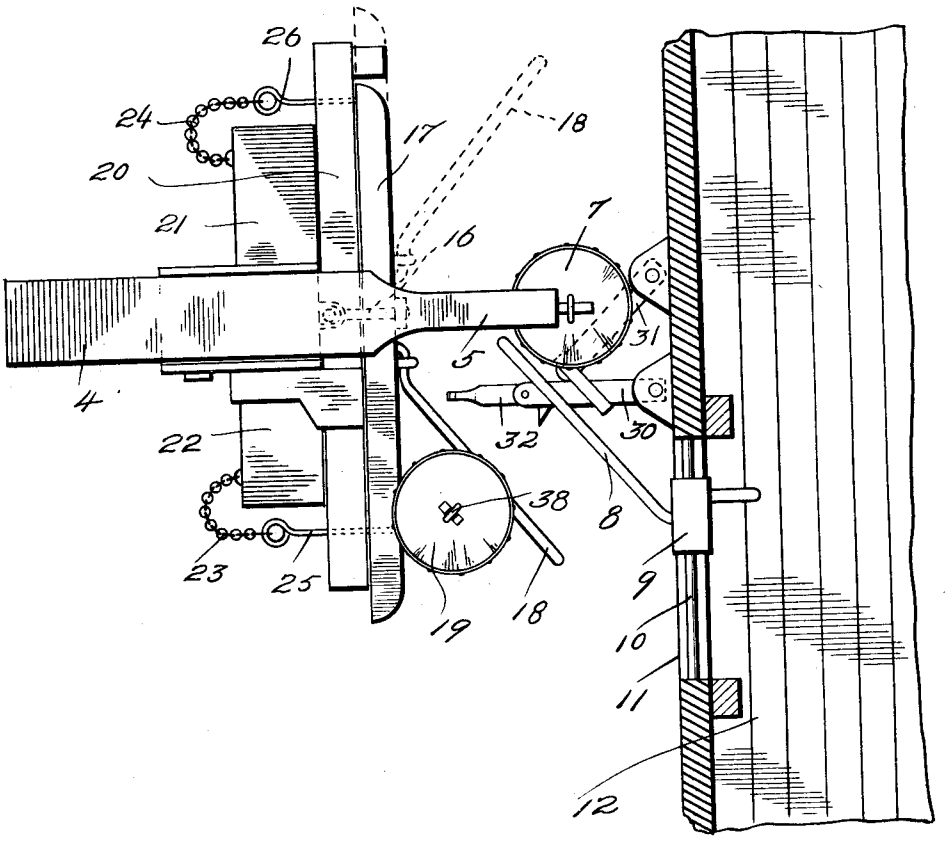
APPLICATION FILED DEC. 26, 1912.

1,067,344.

Patented July 15, 1913.

3 SHEETS—SHEET 2.

Fig. 2.



WITNESSES:

M. P. McKee

R. Kislink

INVENTOR

W. Johnston

BY

Alex. J. Wedderburn, Jr.

ATTORNEY

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

W. JOHNSTON.

MAIL CRANE.

APPLICATION FILED DEC. 26, 1912.

1,067,344.

Patented July 15, 1913.

3 SHEETS—SHEET 3.

Fig. 3.

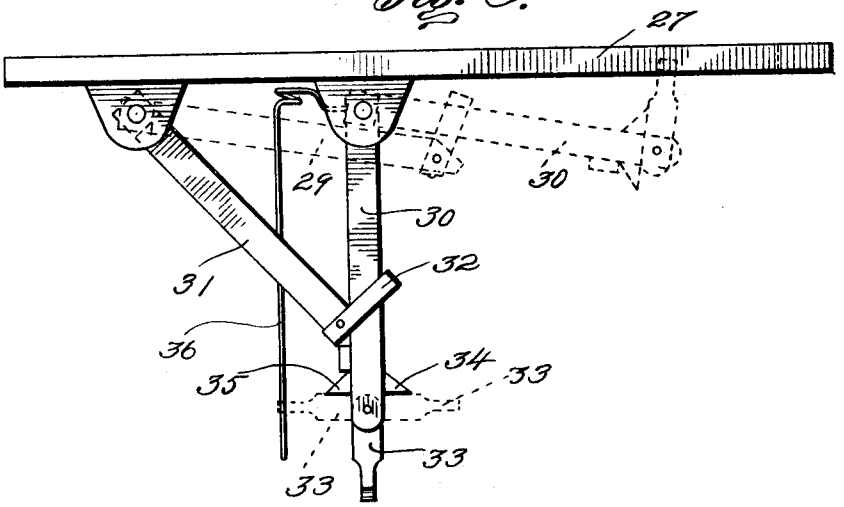
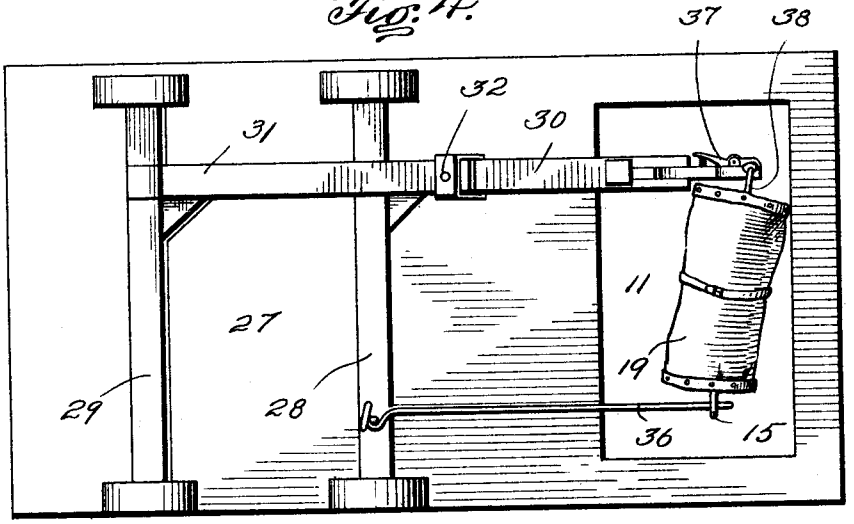


Fig. 4.



Inventor

W. Johnston

Witnesses

M. P. McKee

R. Kislink

By Alex. J. Wedderburn, Jr.

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM JOHNSTON, OF WASHINGTON, PENNSYLVANIA.

MAIL-CRANE.

1,067,344. Specification of Letters Patent. Patented July 15, 1913.

Application filed December 26, 1912. Serial No. 738,739.

To all whom it may concern:

Be it known that I, WILLIAM JOHNSTON, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Mail-Cranes, of which the following is a specification.

This invention relates to improvements in devices for delivering and receiving mail bags from speeding trains and its object is to provide means whereby a mail bag may be delivered to and received from a passing train with a minimum of danger to the bag and its contents.

With the above and other objects in view which will be more clearly set forth in the following specification I have invented the device illustrated in the accompanying drawings in which—

Figure 1 is an elevational view of my invention shown in connection with a section of a mail car, Fig. 2 is a top plan view of Fig. 1 the car being shown in horizontal section, Fig. 3 is a top plan view of Fig. 4, and Fig. 4 is a side elevation of a wall of a mail car showing one part of my invention secured thereto.

Like reference characters indicate like parts throughout the specification and in the various views in the drawings in which—

1 indicates a base for a crane upon which an upright 2 is fixed, to the upper end of which is pivoted a cross arm 3, the end 4 of which is heavier than the end 5. On the latter extreme end is pivotally mounted a bag supporting hook 6 which is adapted to hold the bag 7 which is to be taken therefrom by the arm 8 on the sliding member 9 mounted on the rod 10 secured in the door 11 of the car 12.

Slidable vertically and pivotally mounted on the member 2 is a weight rod 13, having a right angular bottom end 14 which is adapted to engage a loop such as the loop 15 on the bottom of the bag 7 whereby the bag will be held in a vertical position to be received by the arm 8. The member 14 will turn in the direction the car is traveling as will the hook 6 so that the bag will readily slide from engagement therewith.

Pivotally mounted on the rigid member 20, fixed to the member 2 by means of a bolt 16 (shown dotted in Fig. 2) is a cross arm 17 on which the angularly disposed arm 18 is fixed whereby said arm 18 may be directed to the direction from which a train is coming so as to receive the bag 19 from the train.

Wings 21 and 22 are provided on the upright 2, to which are connected by chains 23 and 24 pins 25 and 26 which are adapted to pass through openings in the member 20 and into openings in ends of the member 17 as indicated in dotted lines in Fig. 2 whereby said member may be held in a fixed position.

Pivotally mounted upon the outside wall 27 of the car 12 are uprights 28 and 29, the former carrying the arm 30 fixed thereto and the latter carrying the arm 31 which has provided on its extreme end a collar member 32 which embraces the member 30 and is slidable thereover whereby said member 30 is held properly braced. The outer end of the arm 30 is provided with a pivotally mounted hook member 33 which is adapted to engage the stops 34 and 35 whereby the bag 19 can be delivered to the arm 8 on said car 12. On the member 28 is fixed a stiff spring steel arm 36 which engages the loop 15 at the bottom of said bag 19 whereby said bag will be held in the proper position to be received by the arm 18 on the member 17. The hook members 33 will turn in either direction as shown in dotted lines in Fig. 3, so that a bag may be delivered therefrom regardless of the direction in which a train is moving. The arms 30 and 31 swing so as to bring the members 33 and 36 adjacent the door 11 of the car 12 in order that the mail bag 19 may be readily fixed in place on said members as shown in dotted lines in Fig. 3. A clamp 37 may be provided on the member 33 so as to engage the ring 38 on the bag 19 and hold it against accidental displacement.

Having now described my invention that which I claim to be new and desire to procure by Letters Patent is:

1. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted.

2. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted, a horizontal bar to which said first bar may be fixed.

3. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted, a horizontal bar to which said first bar may be fixed, a post to which said last bar is hingedly connected.

4. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted, a horizontal bar to which said first bar may be fixed, a post to which said last bar is hingedly connected, means on said post for suspending another bag.

5. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted, a horizontal bar to which said first bar may be fixed, a post to which said last bar is hingedly connected, means on said post for suspending another bag, said means being swingingly mounted on said post, a rotatable hook on said means.

6. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted, a horizontal bar to which said first bar may be fixed, a post to which said last bar is hingedly connected, means on said post for suspending another bag, said means being swingingly mounted on said post, a rotatable hook on said means, a rotatable rod having a right angular lower end for engaging the bottom of said second bag.

7. A device as described consisting of means on a car and a platform for simultaneously delivering and receiving mail bags, said car delivering means consisting of a hinged arm and a hinged brace therefor, means on said arm for holding a bag in combination with a platform crane having an arm adapted to catch said bag, a swinging bar upon which said last bar is mounted, a horizontal bar to which said first bar may be fixed, a post to which said last bar is hingedly connected, means on said post for suspending another bag, said means being swingingly mounted on said post, a rotatable hook on said means, a rotatable rod having a right angular lower end for engaging the bottom of said second bag, said rod being vertically movable against said post and a slidable arm on said car for taking said second bag.

8. A device as described consisting of means on a car and a platform for delivering and receiving a mail bag at one time, said platform delivering means consisting of a pivoted arm and a pivoted weight adapted to hold a bag in a vertical position, said car delivering means consisting of a pair of horizontally movable arms, one adapted to support a bag and the other adapted to brace said first one.

9. A device as described consisting of means on a car and a platform for delivering and receiving a mail bag at one time, said platform delivering means consisting of a pivoted arm and a pivoted weight adapted to hold a bag in a vertical position, said car delivering means consisting of a pair of horizontally movable arms, one adapted to support a bag and the other adapted to brace said first one, and a resilient arm adapted to act with said supporting arm to hold said bag in a vertical position.

10. A device as described consisting of means on a car and a platform for delivering and receiving a mail bag at one time, said platform delivering means consisting of a pivoted arm and a pivoted weight adapted to hold a bag in a vertical position, said car delivering means consisting of a pair of horizontally movable arms, one adapted to support a bag and the other adapted to brace said first one, a resilient arm adapted to act with said supporting arm to hold said bag in a vertical position, means for holding said bag against accidental displacement.

11. A device as described consisting of means on a car and a platform for delivering and receiving a mail bag at one time, said platform delivering means consisting of a pivoted arm and a pivoted weight adapted to hold a bag in a vertical position,

said car delivering means consisting of a pair of horizontally movable arms, one adapted to support a bag and the other adapted to brace said first one, a resilient arm adapted to act with said supporting arm to hold said bag in a vertical position, means for holding said bag against accidental displacement, in combination with an arm adapted to receive a bag from said platform delivering means.

12. A device as described consisting of means on a car and a platform for delivering and receiving a mail bag at one time, said platform delivering means consisting of a pivoted arm and a pivoted weight adapted to hold a bag in a vertical position, said car delivering means consisting of a pair of horizontally movable arms, one adapted to support a bag and the other adapted to brace said first one, a resilient arm adapted to act with said supporting arm to hold said bag in a vertical position, means for holding said bag against accidental displacement in combination with an arm adapted to receive a bag from said platform delivering means, and said latter arm being slidable.

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

WILLIAM JOHNSTON.

Witnesses:
EDWARD DAY,
J. W. BRYAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."