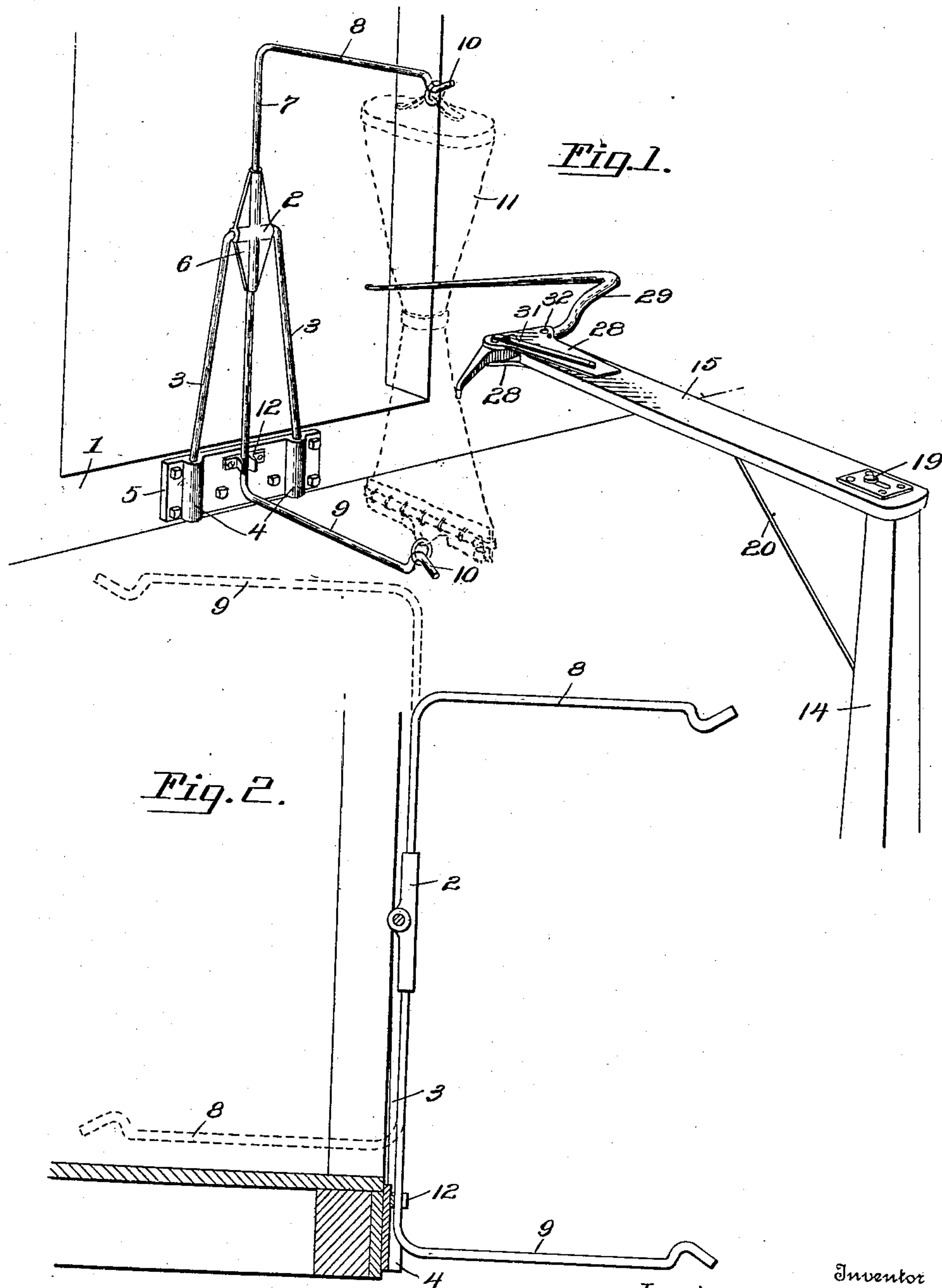


No. 890,845.

PATENTED JUNE 16, 1908.

L. B. COX.
MAIL BAG DELIVERER.
APPLICATION FILED OCT. 23, 1907.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

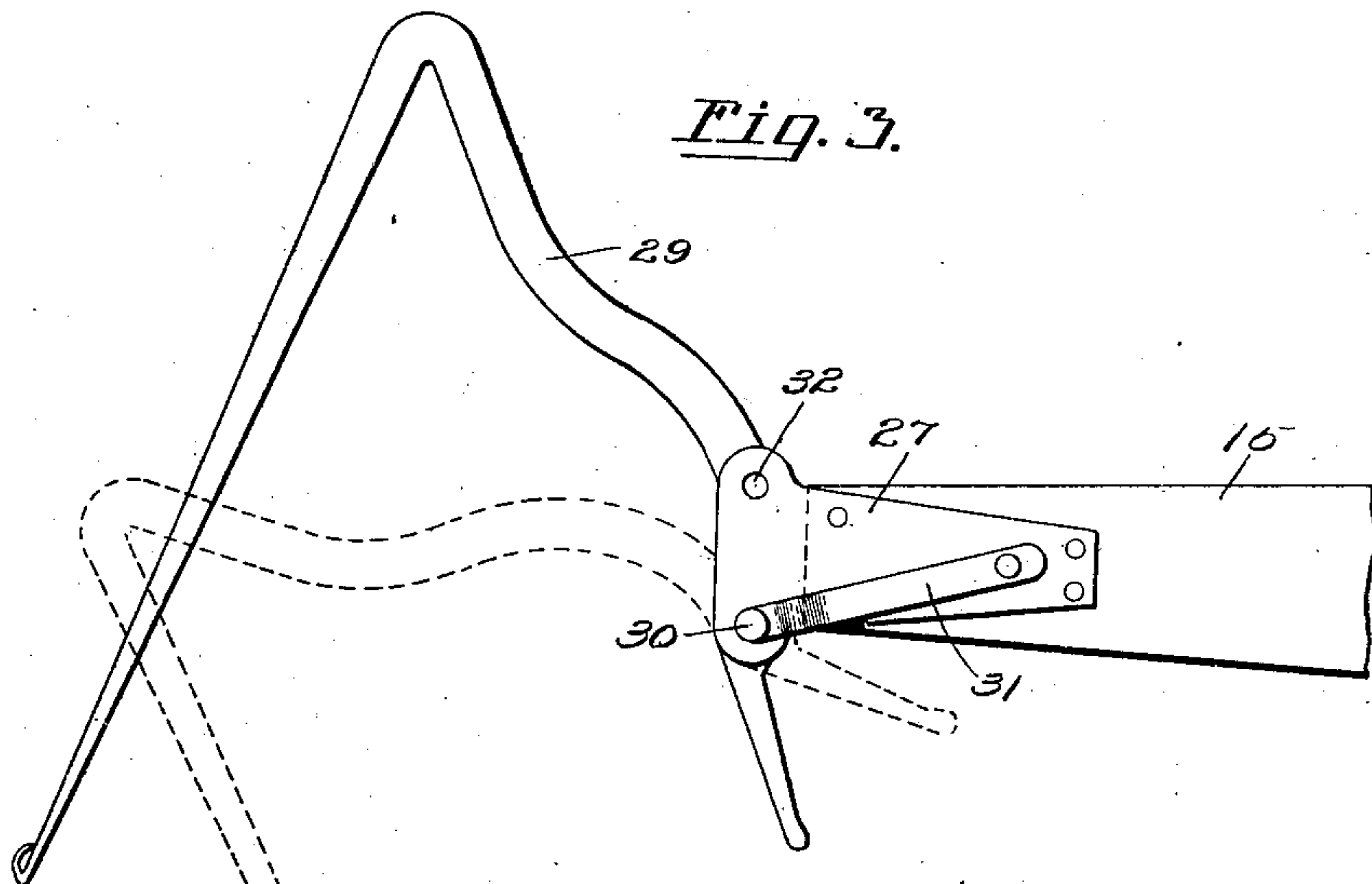


Fig. 6.

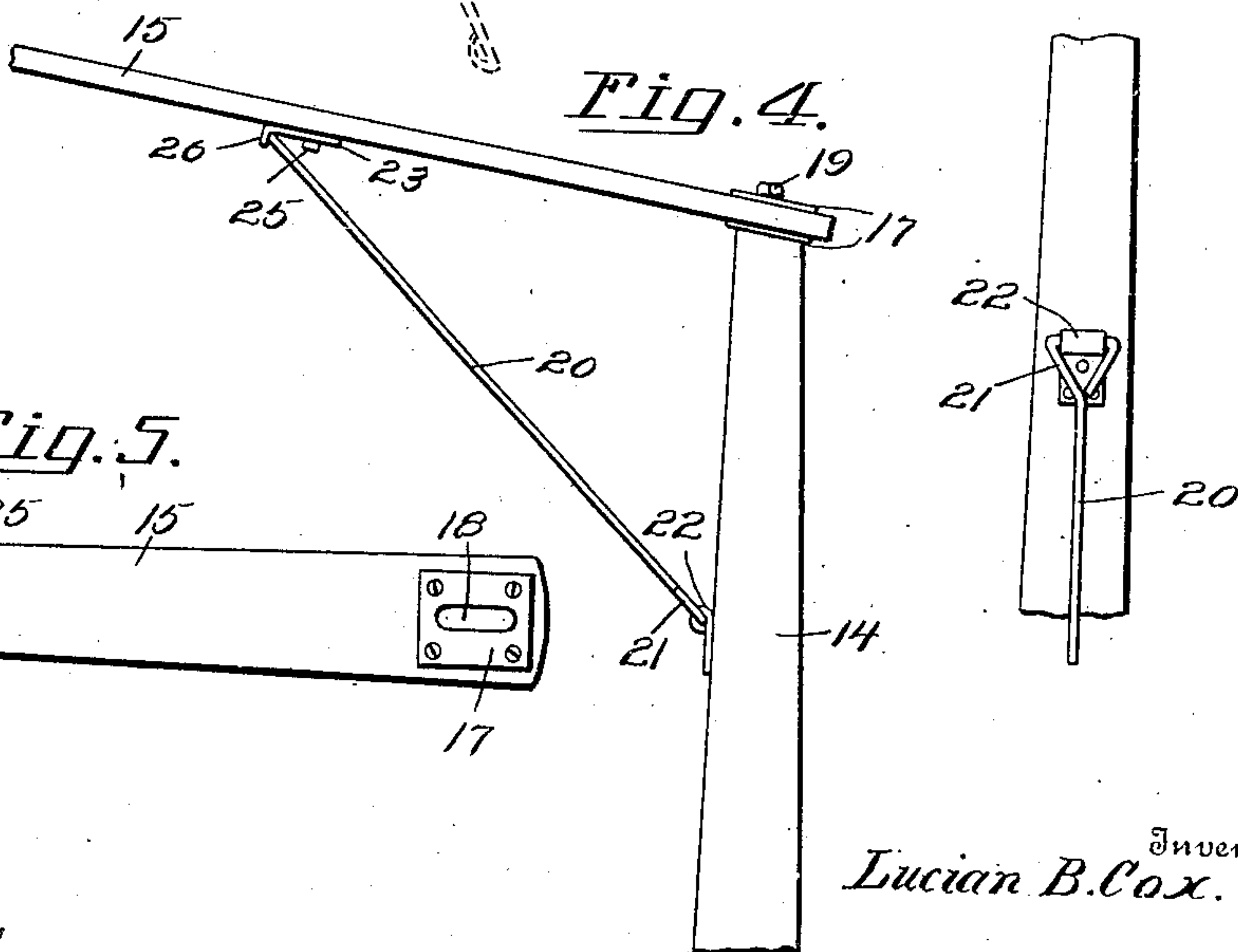


Fig. 4.

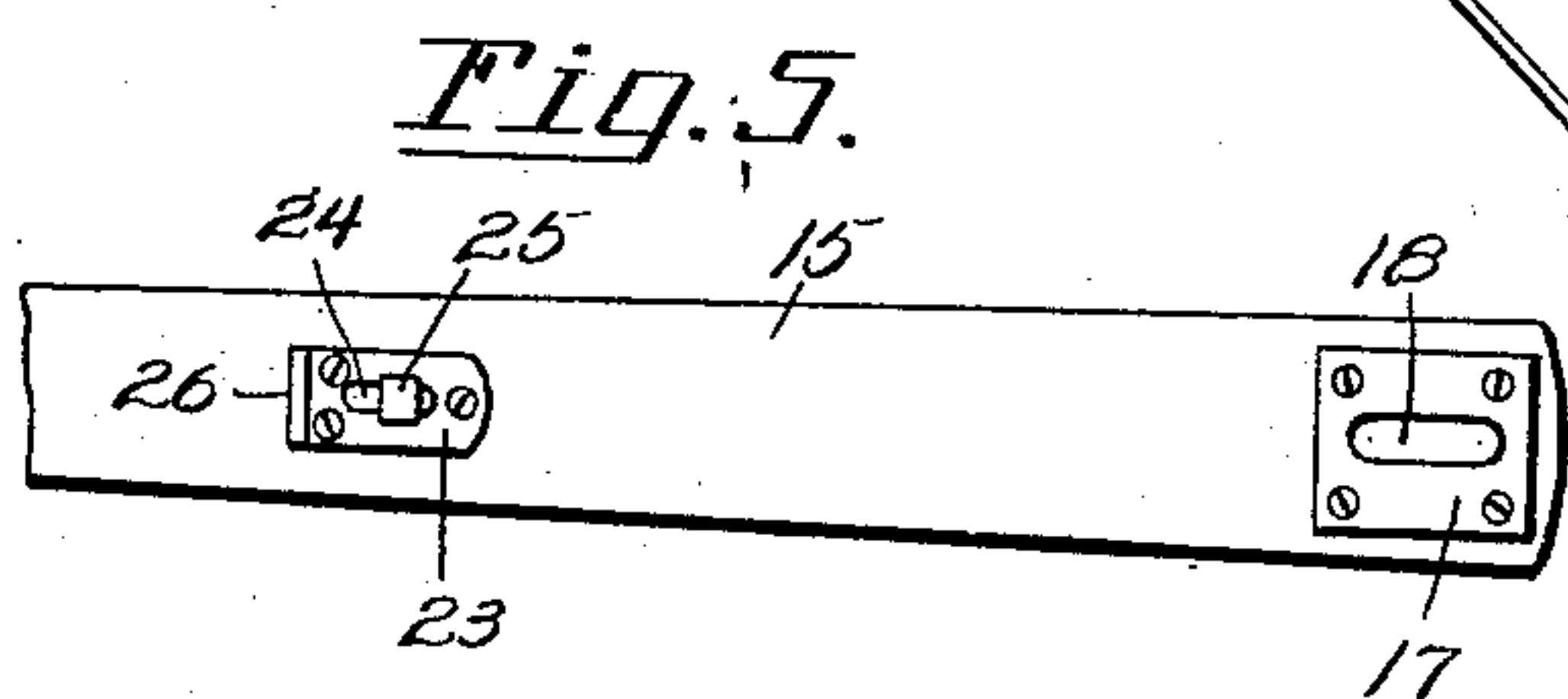


Fig. 5.

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LUCIAN B. COX, OF NORFOLK, VIRGINIA.

MAIL-BAG DELIVERER.

No. 890,845.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed October 23, 1907. Serial No. 398,806.

To all whom it may concern:

Be it known that I, LUCIAN B. COX, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented new and useful Improvements in Mail-Bag Deliverers, of which the following is a specification.

This invention relates to mail bag deliverers, the object of the invention being to provide simple, reliable and efficient mechanism for delivering a mail bag from a car to a station or from a station to the car, the part of the apparatus carried by the car being so constructed and mounted relatively to the car door opening that it may be readily set and locked in its operative or delivering position and easily unlocked and swung inward within the plane of the side of the car.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts hereinafter fully described, illustrated and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a car, showing the apparatus used in connection therewith and also showing a crane arm and catcher in position to catch the bag, the latter being indicated in dotted lines. Fig. 2 is a vertical sectional view, showing the bag holder set in position to deliver the bag, and also indicated by dotted lines as swung inward within the car door opening. Fig. 3 is a plan view of the crane arm and catching fork. Fig. 4 is a side elevation of the crane. Fig. 5 is a bottom plan view of the crane arm. Fig. 6 is a detail view of a portion of the post of the crane showing a connection between the same and the drop brace.

The bag holder or delivery member of the apparatus is shown applied to a car indicated at 1, and said holder comprises a double supporting standard which is preferably formed from a rod bent to form a horizontal portion 2 and downwardly diverging arms 3, the lower extremities of which are removably fitted in sockets 4 formed on a bracket or plate 5 which is secured to the sill of the car just under the car door opening, as clearly shown in Fig. 1.

Mounted on the upper horizontal portion 2 of the support is a bearing member 6 to which is fastened an upright 7 having upper and lower bag holding arms 8 and 9 respectively, which extend substantially at right angles to

the upright portion 7 and terminate at their outer ends in hooks or fingers 10 adapted to be inserted through the eyes or rings of a mail bag indicated by dotted lines at 11 in Fig. 1, so as to hold said mail bag stretched in a vertical position in readiness to be caught by the other portion of the apparatus to be hereinafter described. The upright 7 together with the arms 8 and 9 may be conveniently constructed out of a rod and the upright portion is held fast in the bearing members 6 which is adapted to turn on the journal 2 to permit the holder to be swung outward to its operative or holding position, as indicated in full lines in Fig. 2, or reversed and swung inward out of the way and within the plane of the car side as indicated by dotted lines in the same figure. In setting this portion of the apparatus in position, after swinging the arms 8 and 9 outward to the position shown in Figs. 1 and 2, the lower end portion of the upright 7 is engaged by a catch 12 consisting of a notch on the plate 5 or a pair of ears or lugs which form a notch in which the said upright 7 is received as clearly shown in Figs. 1 and 2.

The frame comprises essentially a post 14 and a train arm 15 provided with a slotted end. As the train arm is ordinarily made of wood, reinforcing plates 17 are secured to the slotted end thereof, and this is provided with slots 18 through which a securing bolt 19 passes, said bolt entering and being fastened to the upper extremity of the post 14, the slot in said arm permitting the arm to be moved lengthwise to an extent which will adapt the handle of the arm to be adjusted for setting the outer extremity thereof up or down as may be necessary to bring the catching fork into the proper relation to the bag to be caught.

In connection with the post 14 and arm 15 I employ a drop brace 20, one end of which is provided with an eye 21 journaled in an eye 22 on the post, while the opposite or free end of said brace engages an adjustable shoulder on the underside of the arm 15 which adjustable shoulder is illustrated in Fig. 5 as consisting of a plate 23 having a slot 24 and secured to the arm 15 by means of a clamping screw or bolt 25 whereby said plate may be adjusted to the necessary extent lengthwise of the arm 15, said plate being provided with a pendent lip or shoulder 26 which engages the point or extremity of the drop brace 20, the latter thereby serving to uphold the arm

while waiting for the arrival of the mail bag; the brace 20 also permits the arm 15 to swing laterally to one side, whereupon the arm and brace become disengaged, thus allowing both
5 of said parts to drop and carry the outer end of the crane arm below the plane of the windows of the passenger coaches.

To the outer extremity of the crane arm 15 are secured upper and lower plates 27 and 28
10 between the projecting outer ends of which is mounted a catching fork 29, the inner arm or body of said fork being provided with a hole to receive a pivot pin 30 which is carried by the free end of a spring 31 secured to the
15 crane arm, said pin 30 being adapted to engage either one or the other of two sets of vertically alined openings 32 in the plates 27 and 28, whereby the fork may be reversed and set to one side or the other, according to
20 the direction in which the train is moving. The arm 15 and brace 20 are adjusted so as to hold the catching fork 29 at the proper elevation to engage the center of the bag, as shown in Fig. 1, such angle of the arm 15
25 being variable by means of the slotted end 17 and the adjustable shoulder 23 on the underside of said arm.

When the bag is caught by the fork 29 the arm 15 revolves freely around the post on the
30 pivot 19 and thus the bag is taken from the holder on the car without subjecting the catcher to any considerable impact. The hook or fork 29 does not stop the bag as it is delivered from the train and caught from the
35 holder but said hook or fork swings through a circle governed by the length of the arm 15. At the same time a pulling force is exerted by the bag on the arm 15 as the direction of the motion of the bag is changed from a line parallel to the side of the car to that of a circle
40 of which the arm 15 is a radius. As the bag is snatched from the holder, the arms 8 and 9 of the holder spring toward each other and allow the bag to slip therefrom and the bag
45 then continues its circular movement until brought to rest by the friction of the arm 15 on the post and by the resistance of the air.

When a bag is delivered by the holder, the holder is swung on a horizontal axis on the
50 journaled portion 2 of the support and reversed or turned upside down as indicated in Fig. 2 so as to occupy a position within the plane of the side of the car in which position it is ready to receive another bag. As the
55 cover 15 swings on the post, the hook 29 takes the position shown by dotted lines in Fig. 3 when struck by the bag and the bag is thereby prevented from flying out of the hook.

60 I claim:—

1. A mail bag deliverer comprising a support, and a bag holder embodying horizontal arms and a vertical upright, said upright be-

ing journaled on the support and adapted to swing on a horizontal axis, substantially as 65 described.

2. A mail bag deliverer comprising a support detachably connected to a car, and a bag holder comprising projecting spring arms and an upright connecting portion journaled to 70 turn on a horizontal axis on said support, substantially as described.

3. A mail bag deliverer comprising a support, a socket plate by means of which said support is detachably connected to a car, a 75 bag holder embodying bag engaging arms and an upright connecting portion which is journaled to turn on a horizontal axis on the support, and means for holding the bag holder in its operative position. 80

4. A mail bag deliverer comprising a support, a socketed plate whereby said support is detachably mounted on a car, a bag holder comprising projecting arm and an upright connecting portion journaled on said support 85 and capable of being swung on a horizontal axis, and means on said socket plate for engaging the upright portion of the bag holder, substantially as and for the purpose described. 90

5. The combination with a mail bag deliverer, of a crane, comprising a post, a crane arm having a slotted connection therewith, and a drop brace interposed between the post and arm. 95

6. The combination with a mail bag deliverer, of a crane embodying a post, a crane arm pivotally connected thereto, a drop brace interposed between the post and arm, and an adjustable shoulder on the crane arm 100 with which said drop brace engages.

7. The combination with a mail bag deliverer, of a crane comprising a crane arm, plates secured thereto and provided with openings, a catcher fork mounted between 105 said plates and provided with a pivot hole, and a spring pin mounted on the crane arm and adapted to be engaged into engagement with either of the holes in said plates and through the hole in the catcher fork. 110

8. The combination with a mail bag deliverer, of a crane embodying a crane arm, plates secured thereto and provided with vertically alined pairs of holes, a spring secured at one end to the arm and provided at its 115 free end with a pivot pin adapted to enter into said holes in the plates, and a crane arm interposed between said plates and provided with a hole to receive said pin, whereby the crane arm is provided with a shiftable pivot. 120

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

LUCIAN B. COX.

Witnesses:

WM. SIMPSON,
JOHN TABB.