

P. J. HANEY & J. H. MORTIMER.
 APPARATUS FOR CATCHING AND DELIVERING MAIL.
 APPLICATION FILED NOV. 28, 1908.

930,175.

Patented Aug. 3, 1909.
 2 SHEETS—SHEET 1.

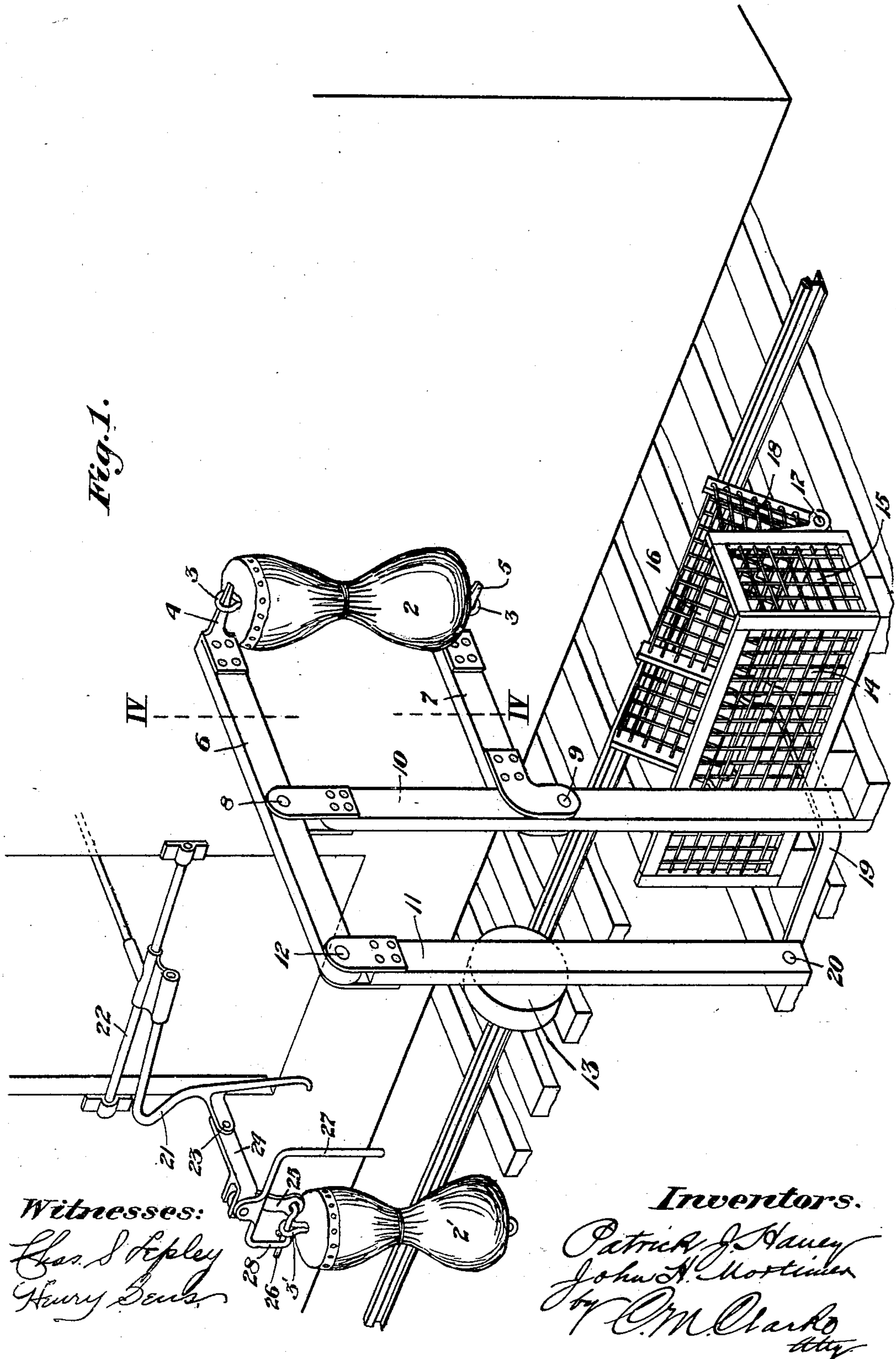


Fig. 1.

Witnesses:
 Chas. S. Repley
 Henry B. B. B.

Inventors.
 Patrick J. Haney
 John H. Mortimer
 by C. M. Clark
 atty

P. J. HANEY & J. H. MORTIMER.
APPARATUS FOR CATCHING AND DELIVERING MAIL.

APPLICATION FILED NOV. 28, 1908.

930,175.

Patented Aug. 3, 1909.

2 SHEETS—SHEET 2.

Fig. 2.

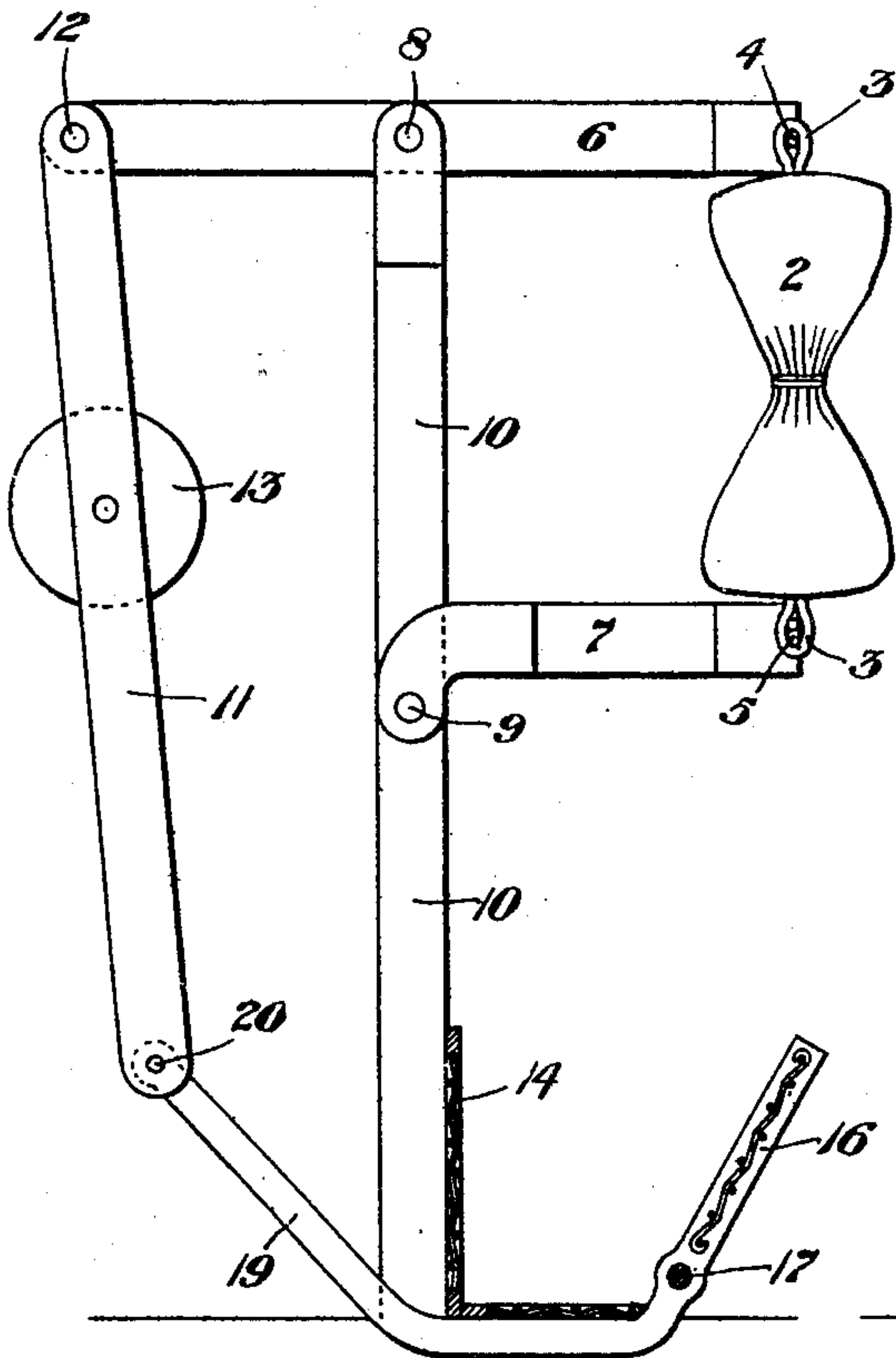


Fig. 3.

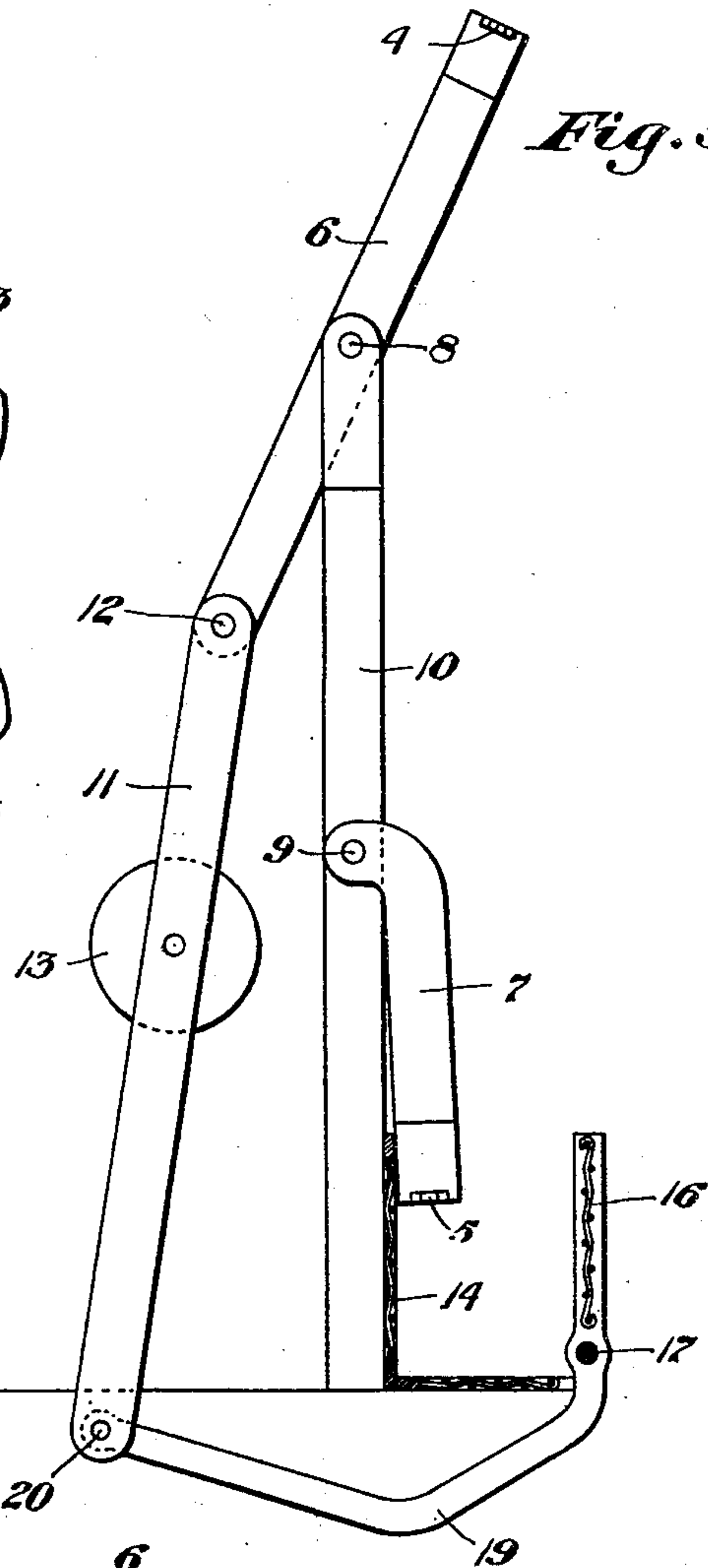


Fig. 5.

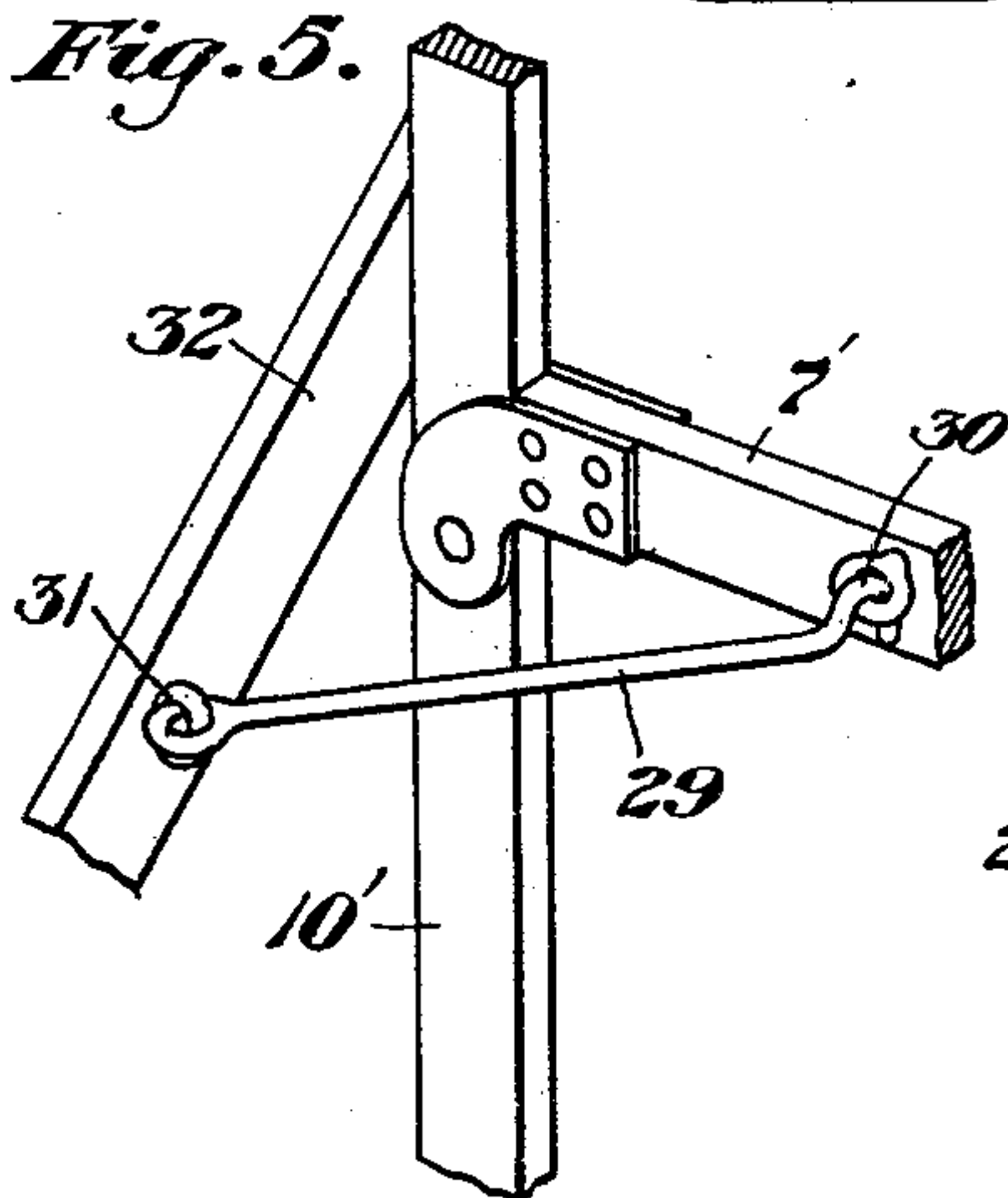
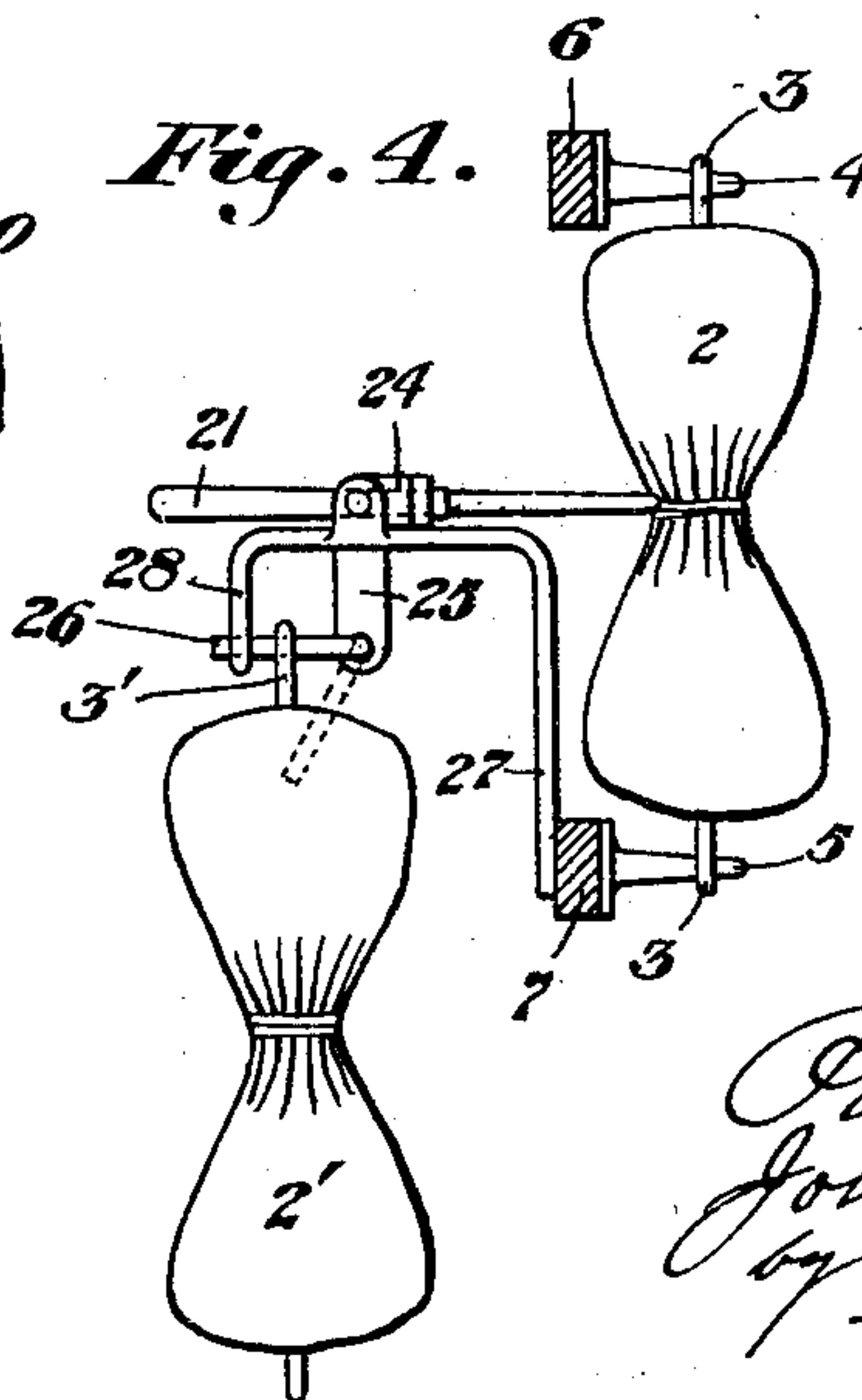


Fig. 4.



Witnesses:

Chas. S. Lyley.
Henry S. End.

Inventors.

Patrick J. Haney
John H. Mortimer
by C. M. Clarke

UNITED STATES PATENT OFFICE.

PATRICK J. HANEY AND JOHN H. MORTIMER, OF VERSAILLES, PENNSYLVANIA.

APPARATUS FOR CATCHING AND DELIVERING MAIL.

No. 930,175.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed November 28, 1908. Serial No. 464,862.

To all whom it may concern:

Be it known that we, PATRICK J. HANEY and JOHN H. MORTIMER, citizens of the United States, residing at Versailles, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Catching and Delivering Mail, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to an apparatus for collecting and delivering mail to and from a moving mail car, and consists of apparatus mounted on the car adapted to support a mail pouch by detachable supporting mechanism; and stationary apparatus arranged to support a mail pouch to be collected, provided with a receiving basket or receptacle, said apparatus collectively being so designed to operate whereby the mechanism on the car will practically simultaneously deliver its pouch to the receiving apparatus and will collect the stationary pouch, by the means and in the manner hereinafter more fully described.

Referring to the drawings: Figure 1 is a perspective view showing a portion of a car equipped with its mechanism, in operative advancing relation to the stationary pouch-supporting and receiving mechanism. Fig. 2 is a transverse sectional view of the stationary pouch-supporting and receiving mechanism, in position for operation. Fig. 3 is a similar view showing the apparatus in its position after the operation. Fig. 4 is a sectional detail view, indicated by the line IV. IV. of Fig. 1, showing the collecting mechanism in position immediately before delivering its pouch and grasping the supported bag to be gathered. Fig. 5 is a detail view in perspective showing a pivoted bracing arm for the lower pouch-supporting arm.

The invention is designed to provide automatic mechanism for both delivering and receiving, whereby the delivered pouch will be safely deposited within a receiving receptacle or basket adapted to positively grasp and retain it against accidental mis-carriage and resulting destruction or damage, with collecting mechanism arranged to gather a suspended pouch into the car.

We are aware that various devices have been designed for the same general purpose, and that it is not new to gather a pouch supported in a position adjacent to a passing

car equipped with a suitably constructed gathering element, but ordinarily such mechanism is only partially efficient, for gathering only, the mail pouch to be delivered being thrown outwardly from the car at the station where it is liable to be damaged or caught under the wheels of the passing train, and our invention is designed to prevent any such possibility and to provide means for positively receiving a delivered pouch and holding it against such mis-carriage, as well as for taking in the supported pouch to the mail car.

2 represents the pouch to be collected by the mail car supported by its terminal eyes 3, 3, upon horns 4, 5, of outwardly extending arms 6, 7, pivoted at 8 and 9 respectively upon a standard 10, of well known construction. Upper arm 6 extends backwardly beyond its pivotal mounting and is provided with a depending connecting arm 11 pivoted at 12 and preferably counter-weighted as by counter-weight 13, or otherwise weighted to insure prompt downward travel of such inner end of the arm 8 and resulting upward travel of its pouch-supporting terminal, when the pouch has been gathered, as indicated in Fig. 3.

For the purpose of receiving the delivered pouch from the mail car, we provide a basket construction 14 of wire netting or other suitable material, mounted upon any suitable supporting framework as extended ties of the railway track, having an outer wall and an inclosed end, as indicated at 15, the other end, toward the approaching pouch of the car, being left open as indicated in Fig. 1. The receptacle as thus constructed is open at the side toward the track, but provided with a hinged side 16 mounted upon a pivotal rod or shaft 17 carried in suitable bearings, and also having a closing end portion 18 adapted to pass inside end 15, so that the end of the entire basket, whether open or closed, will always present a limiting wall against which the delivered pouch may be thrown and which will retain it against further forward travel.

19 is an operating lever for the hinged side 15 of the basket, incorporated with rod 16 and preferably extending on a plane with and forming a portion of the side 15 at the front, while at the back lever arm 19 is preferably deflected upwardly as shown and pivotally connected at 20 with the lower end of connecting arm 11. As thus constructed,

it will be seen that when pouch 2 is collected from horns 4 and 5 arms 6 and 7 will rise and fall respectively, counter-weight 13 carrying connecting arm 11 downwardly, operating lever 19 and closing the basket, as shown in Fig. 3.

If it is desired to brace the lower arm 7', as indicated in Fig. 5, against the impact of unlocking arm 27, this may be done by a pivoted brace 29, pivotally connected at 30 with arm 7' and at 31 in a suitable connection on the inner side of a brace 32 attached to post 10', or in any other suitable manner. By this construction the arm 7' will be rigidly held against lateral movement, but is free to rise and fall in the same manner as has been described as to arm 7.

The car is provided with a collecting crane 21 of well known form, having a receiving crotch adapted to embrace the middle portion of the pouch 2, said crane extending outwardly from the hinged supporting bar 22 mounted in bearings at each side of the car door opening and having an inwardly extending manipulating handle of usual construction. Upon the outer portion of said frame 21, and preferably pivotally mounted at 23 on an extended bracket thereof so as to be capable of being set at any desired angle, is a pouch-supporting bracket 24. Depending from said bracket is a link 25 having a loosely connected pin 26, while also pivotally mounted on bracket 24 is a trigger arm 27 extending forwardly and downwardly at the front or advancing portion and having at its rear portion a downwardly extending hook terminal 28.

Pin 26 in supporting position, is passed through the eye 3' of the pouch to be delivered by the car and its other end engaged by hook 28, the pouch thus being held outwardly and suspended vertically at the other end of frame 21. After having been swung outwardly through the car door opening, arm 27 extends downwardly to about the level of bracket arm 7 when erected as in Fig. 1, and the pouch 2' to be delivered is carried along in a vertical plane coinciding with the center of the receiving basket, so that when arm 27 comes into contact with bracket arm 7 it will be thrown backwardly, releasing pin 26 and permitting it to fall, as indicated in dotted lines in Fig. 4, depositing pouch 2' by gravity into the receptacle. Likewise pouch 2 is simultaneously engaged by the crotch of crane 21 and carried off of supporting horns 4 and 5, whereupon arms 6 and 7 being released, will rise and fall respectively as stated, and as shown in Fig. 3, the closing front 18 of the basket with its end portion, being thrown inwardly by counter-weight 13, thus positively grasping pouch 2'.

Pouch 2 is gathered inwardly through the door opening of the mail car as usual, the

pouch for the next station being secured in the releasing support at the outer end, whereupon the operation is repeated.

The construction of the entire mechanism is comparatively simple, composed of few parts, not liable to get out of order, and will positively operate under the existing conditions and hard usage to which devices of this class are subjected.

Arm 27 is designed to make contact with bracket arm 7 about the time when said bracket arm is released, thereby providing clearance, while it will also swing backwardly on its pivoted support to release the pouch-holding pin and prevent any binding while effecting immediate release of the pouch to be delivered, positively above and closely adjacent to the receiving receptacle, thus insuring its deposit.

If it is desired to lock the pouch receptacle in closed position, any suitable automatic mechanism may be provided whereby inwardly swinging hinged side 16 may be locked with the other portion of the receptacle, so as to positively retain the pouch therein against unauthorized removal.

The invention may be variously changed or modified in construction or different details, but all such changes are to be considered as within the scope of the following claims:

What we claim is:—

1. The combination with a movable vehicle, a supporting frame having vertically movable pivoted pouch arms, and a pouch-receiving receptacle; of a crane carried by the vehicle having a pouch support and an unlocking trigger arm adapted to engage one of the pivoted pouch arms to drop the pouch into said receptacle, substantially as set forth.

2. The combination with a movable vehicle, a supporting frame having vertically movable pivoted pouch arms, and a pouch-receiving receptacle; of a crane carried by the vehicle having a pouch engaging neck and a releasable pouch support provided with an unlocking trigger arm adapted to engage one of the pivoted pouch arms to drop the pouch into said receptacle, substantially as set forth.

3. The combination with a movable vehicle, a stationary frame, and a receiving receptacle having a movable side; of a crane carried by the vehicle having a releasable pouch support and a trigger arm, vertically movable pouch-supporting arms pivoted on the frame, and means connecting one of said arms with said movable side, substantially as set forth.

4. The combination with a movable vehicle, a stationary frame, and a receiving receptacle having a movable side; of a crane carried by the vehicle having a releasable pouch support and a trigger arm, an upper

pouch-supporting arm pivoted on the frame provided with counter-weighted mechanism connecting it with said movable side, and a lower pouch-supporting arm pivoted on the frame and adapted to engage said trigger arm, substantially as set forth.

5 5. Apparatus for receiving and delivering mail pouches consisting of a supporting framework and a stationary receptacle having an opening and closing side portion, outwardly extending pivoted pouch-supporting arms having terminal horns, and counter-weighted mechanism connected with the upper of said arms and with said opening and closing side, whereby said side is maintained open when the arm is in supporting engagement with the pouch, and is closed when the pouch is removed therefrom, substantially as set forth.

20 6. Apparatus for receiving and delivering mail pouches consisting of a supporting framework and a stationary receptacle having an opening and closing side portion, an upper pouch-supporting arm having a terminal horn and a backward extension, a pivoted operating lever for swinging the side portion of the receptacle, and means adapted to fall by gravity when a pouch is removed from said arm and arranged to actuate said lever to close said side portion, substantially as set forth.

25 7. Apparatus for supporting a mail pouch to be delivered to a moving vehicle consisting of a post, an upper vertically movable pivotally mounted arm having a terminal finger, a lower vertically movable pivotally mounted arm having a similar terminal finger, and pivotally attached means for bracing

ing said arm against lateral movement, substantially as set forth.

8. Apparatus for supporting a mail pouch to be delivered to a moving vehicle consisting of a post, an upper pivotally mounted arm having a terminal finger, a lower pivotally mounted arm having a similar terminal finger, and a swinging bracing arm pivotally attached to said arm at one end and at the other to a pivoting support, adapted to swing downwardly with the pouch arm and to brace it against lateral movement, substantially as set forth.

9. The combination with a mail car, of a pivotally mounted crane having a pouch-engaging neck portion and an outer extension provided with a pivoted releasable pouch support, and a pivoted trigger arm engaging said support and having a portion adapted to make contact with an abutment to release said pouch support, substantially as set forth.

10. The combination with a mail car, of a pivotally mounted crane having a pouch engaging neck portion and an outer adjustable extension provided with a pivoted releasable support, and a pivoted trigger arm engaging said support and having a portion adapted to make contact with an abutment to release said pouch support, substantially as set forth.

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

PATRICK J. HANEY.
JOHN H. MORTIMER.

Witnesses:

F. B. CAMPBELL, Jr.,
ARTHUR R. MAY.