

No. 621,202.

Patented Mar. 14, 1899.

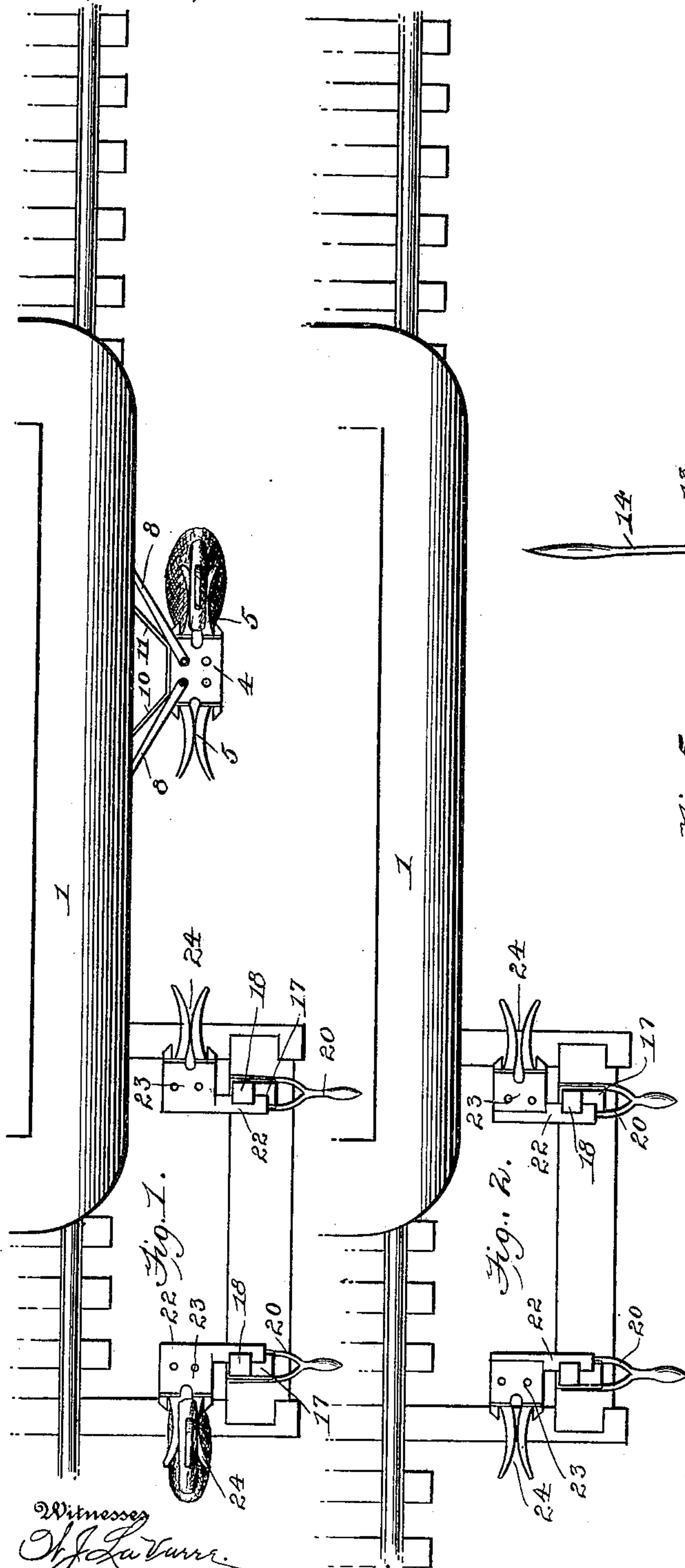
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MAIL BAG CATCHING AND DELIVERING MECHANISM.

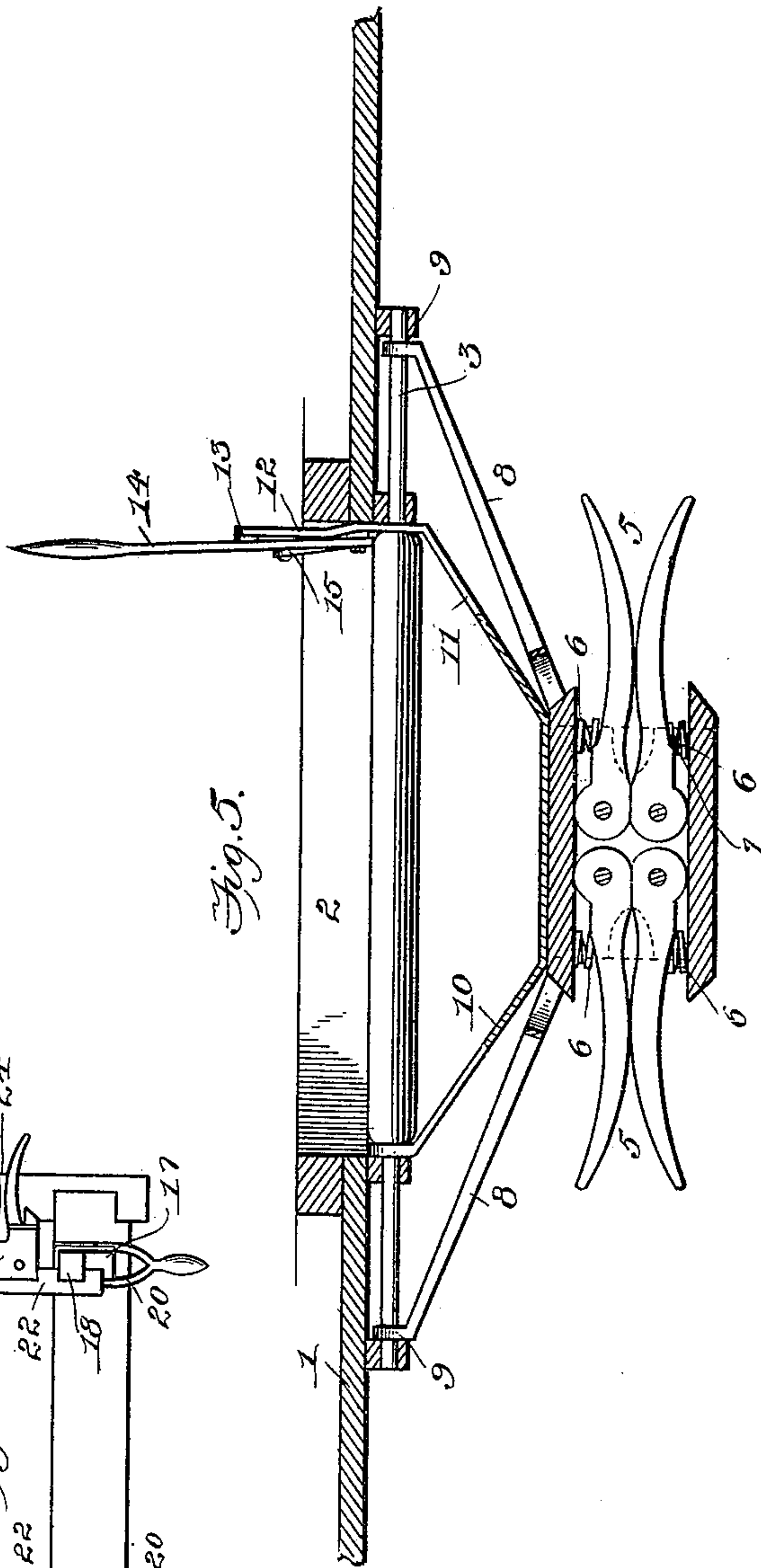
(Application filed May 20, 1898.)

2 Sheets—Sheet 1.

(No Model.)



Witnesses
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Inventor
John Q. Baker.
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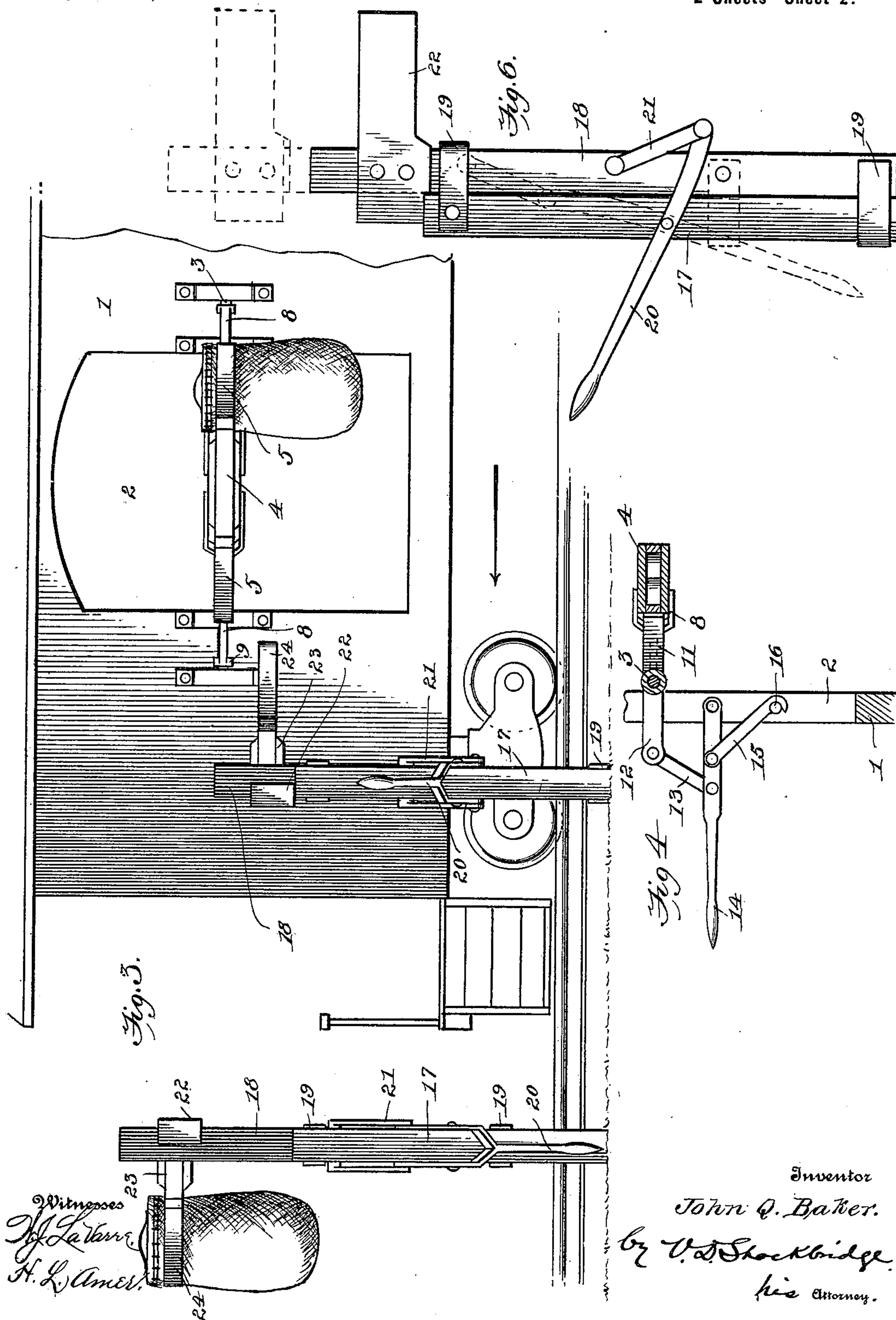
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2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

JOHN Q. BAKER, OF BRADNER, OHIO.

MAIL-BAG CATCHING AND DELIVERING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 621,202, dated March 14, 1899.

Application filed May 20, 1898. Serial No. 681,224. (No model.)

To all whom it may concern:

Be it known that I, JOHN Q. BAKER, a citizen of the United States, residing at Bradner, in the county of Wood and State of Ohio, have invented certain new and useful Improvements in Mail-Bag Catching and Delivering Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to mail-bag catching and delivering mechanism, the object of the same being to provide means whereby a mail-bag may be caught or grabbed by a moving train and another mail-bag simultaneously delivered therefrom.

A further object is to provide means whereby the bag caught by the train or the one delivered therefrom may be grabbed at the same point in whatever direction the car may be moving.

A further object of the invention is to provide means whereby the catching and delivering mechanism on the car may be readily and conveniently folded down out of the way when not in use and may be readily locked in operative position when desired.

Other objects and advantages of the invention will hereinafter appear.

The invention consists of the construction, combinations, and arrangements of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a plan view of a portion of a mail-car provided with my improvements and the coacting mechanism at one side of the track. Fig. 2 is a similar view of the car with the catching and delivering mechanism in folded or inoperative position. Fig. 3 is a side elevation of the car with the catching and delivering mechanism in operative position and the mechanism on one side of the track in the position to catch and deliver mail to the car when the latter is moving in the direction of the arrow. Fig. 4 is a vertical transverse sectional view through the catching and delivering mechanism on the car, showing the means for raising and lowering the same in elevation. Fig. 5 is a horizontal longitudinal section through the catching mechanism on the car, and Fig. 6 is a side elevation of one of the adjustable

standards on which the catching and delivering mechanism at one side of the track is mounted, showing the same in full lines in its lowered position and in dotted lines in its raised position.

Like reference-numerals indicate like parts in the different views.

The mail-car 1 is formed with a door-opening 2, across which extends a rod or shaft 3, mounted in suitable bearings upon the side of the car. The catching and delivering mechanism for the car consists of a block 4, having oppositely-extending gripping-fingers 5 thereon, the same being pivoted at their inner ends to said block and flaring outwardly at their opposite ends. The said gripping-fingers fit within sockets in the block 4 and are normally held inwardly by means of coil-springs 6 6, which engage the outer surfaces of said fingers and fit upon lugs or projections 7 on the inner surfaces of the recesses in said block. The block 4 has secured to it angularly-arranged rods or bars 8 8, provided with bifurcated end, which embrace said block and with eyes 9 9 in their opposite ends, which surround the rod or shaft 3 and form a swivel connection between said block and said shaft. Said block is further supported by braces 10 11, secured to the inner side thereof and provided with openings in their opposite ends, through which the rod or shaft 3 passes. The brace 10 terminates at the side of the car 1, whereas the brace 11 is bent at its point of connection with the rod or shaft 3, forming an arm 12, which extends inwardly within the car, as clearly shown in Fig. 4 of the drawings. To the arm 12 is pivoted, through a link 13, an operating-lever 14, which is fulcrumed at one end to the car 1 within the opening 2 therein. The said operating-lever has further pivoted to it a hook 15, which is adapted to engage a pin 16, projecting from the car into the opening 2 therein.

By the construction just described it will be seen that by releasing the hook 15 from the pin 16 the lever 14 may be raised and the block 4, carrying the catching and delivering mechanism for the car, may be forced down so that it lies in line with the outer surface of the car, and is thereby held out of the way. When it is desired to throw the catching and delivering mechanism into operative position, it is merely necessary to draw down upon the free end of the lever 14 and cause the

hook 15 to engage the pin 16, when the mechanism will be held in the position shown in Figs. 1 and 3 of the drawings.

Upon one side of the track over which the car 1 passes are provided two uprights or standards 17 17, carrying extensible or vertically-movable members 18 18. As both of these uprights and the parts connected thereto are identical, except that the catching and delivering mechanism carried thereby is reversely located, but one of them will be described.

The longitudinally-movable member 18 is guided in its movements upon the upright or standard 17 by means of loops or bands 19 19, secured, respectively, to one of these parts and embracing the other. The longitudinally-movable member 18 is raised or lowered by means of a forked lever 20, which embraces or straddles both the upright 17 and the member 18, is fulcrumed to the former at a point intermediate of its ends, and is connected to the latter by means of links 21. The points of connection between the lever 20 and the upright 17 and the link 21 and the member 18 are so located with respect to each other that when the member 18 has been raised by drawing down upon the free end of said lever the pivotal point between the end of the lever and the link 21 will pass beyond the line connecting said points, and thereby lock the member 18 against accidental displacement in its raised position. To lower the member 18, it is merely necessary to raise the free end of the lever 20. To the upper end of the member 18 is secured a cross-beam 22, extending toward the track and carrying a block 23, in which are mounted two pivoted spring-actuated gripping-fingers 24 similar in all respects to the gripping-fingers 5, heretofore referred to. The said gripping-fingers 24, however, upon the two uprights 17 17 extend from the block 23, in which they are mounted, in a direction parallel to the track and away from each other.

From the foregoing description it is thought that the operation of my device will be readily understood. Briefly stated, however, it is as follows: If the car be approaching in the direction of the arrow, Fig. 3—that is, from the right to the left—the extensible member 18 on the right-hand upright 17 will be in its lowered position and the extensible member 18 on the left-hand upright 17 will be in its raised position, and the mail-bag 25 to be caught by the train will be placed between the gripping-fingers 24 on the latter. The mail-bag 26 on the car to be delivered will be placed between the gripping-fingers 5 5 toward the rear end of the car. During the passage of the train the block 4 will pass above the block 23 on the right-hand upright 17, and the gripping-fingers 24 on the latter will engage the bag at a point adjacent to its center or beneath that at which it is clutched by the fingers 5. As the pressure exerted by the fingers 24 upon the bag will be in a direc-

tion toward the full lower end of said bag, and it will be opposed by a pressure exerted by the fingers 5 at a point adjacent to its upper or contracted end, said bag will be readily drawn from the fingers 5 and caught by the fingers 24. The car passing on causes the block 4 to move beneath the fingers 24 upon the left-hand upright 17. The forward fingers 5 on the block 4 will therefore engage the other bag 25 at a point intermediate of its ends, and operating in the same manner as that heretofore described, will readily withdraw the bag from the fingers 24 and deliver it to the mail-car.

It will be readily understood that if the car be moving upon the track in an opposite direction the extensible member 18 of the left-hand upright 17 will be lowered and the extensible member 18 of the right-hand upright 17 will be in its raised position.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a car, a mail-bag catcher and deliverer pivoted thereto, having an arm extending within the car, a lever pivoted to the side of the car, a link for coupling the lever and arm of the catcher, and means connected with the lever for locking the catcher in operative position, substantially as described.

2. The combination with a car, of mail-bag catching and delivering mechanism pivoted thereto, an operating-lever therefor fulcrumed to the car, a link connecting said lever with said mechanism, and a hook pivoted to said lever and adapted to engage a pin or projection on said car, as and for the purpose set forth.

3. The combination with a car having an opening therein, of a transverse rod or shaft extending across said opening, a block carrying gripping-fingers and constituting catching and delivering mechanism for mail-bags, braces secured to said block and pivotally connected to said rod or shaft, one of which is extended rearwardly forming an arm which projects into the car, an operating-lever fulcrumed to the car, a link connecting said lever to said arm, a pin, and a hook pivoted to said lever and adapted to engage said pin, as and for the purpose set forth.

4. Catching mechanism for mail-bags, comprising a block having sockets or recesses therein, gripping-fingers fitting within said sockets and pivoted to said block at their inner ends, lugs on the inner surfaces of said block, and coil-springs surrounding said lugs and engaging the outer surfaces of said fingers.

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

JOHN Q. BAKER.

Witnesses:

WILLIAM J. SIMPSON,
EDWARD SLAYER.