

No. 861,009.

PATENTED JULY 23, 1907.

C. R. YEAGER.

MAIL BAG CATCHING AND DELIVERING DEVICE.

APPLICATION FILED MAY 6, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

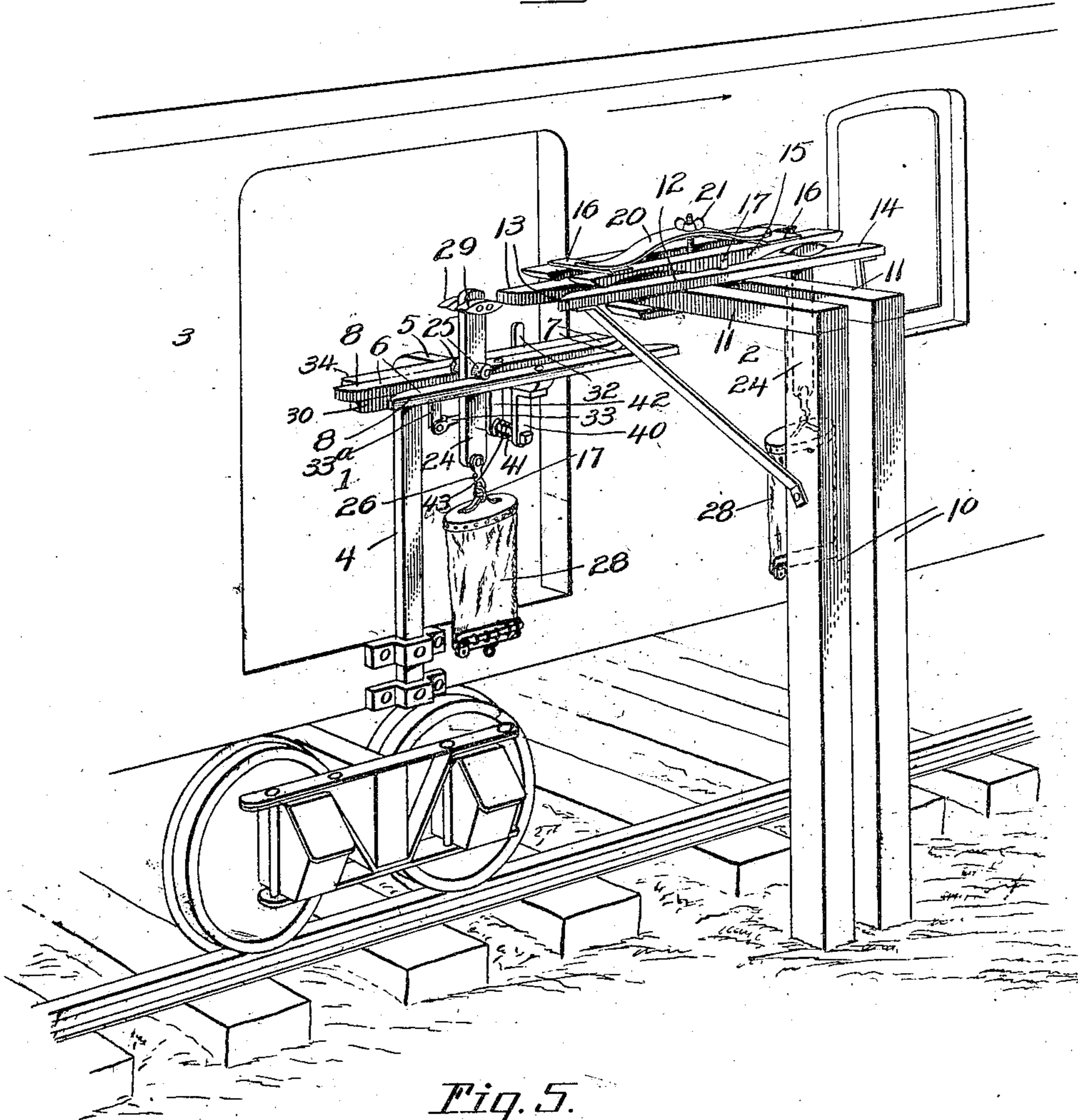
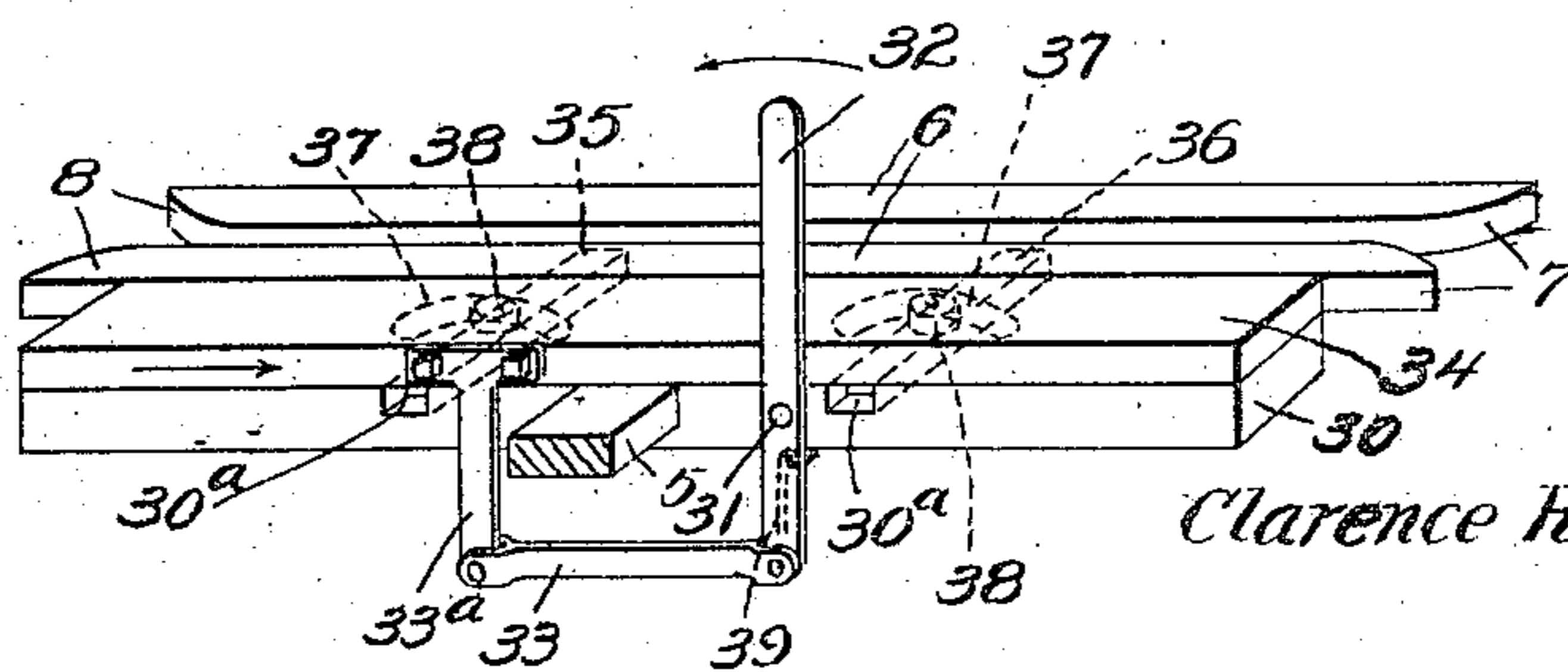


Fig. 5.



Inventor

Clarence R. Yeager.

Witnesses

F. L. Gibson.

C. C. Hines

By

Victor J. Evans

Attorney

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2 SHEETS—SHEET 2.

Fig. 2.

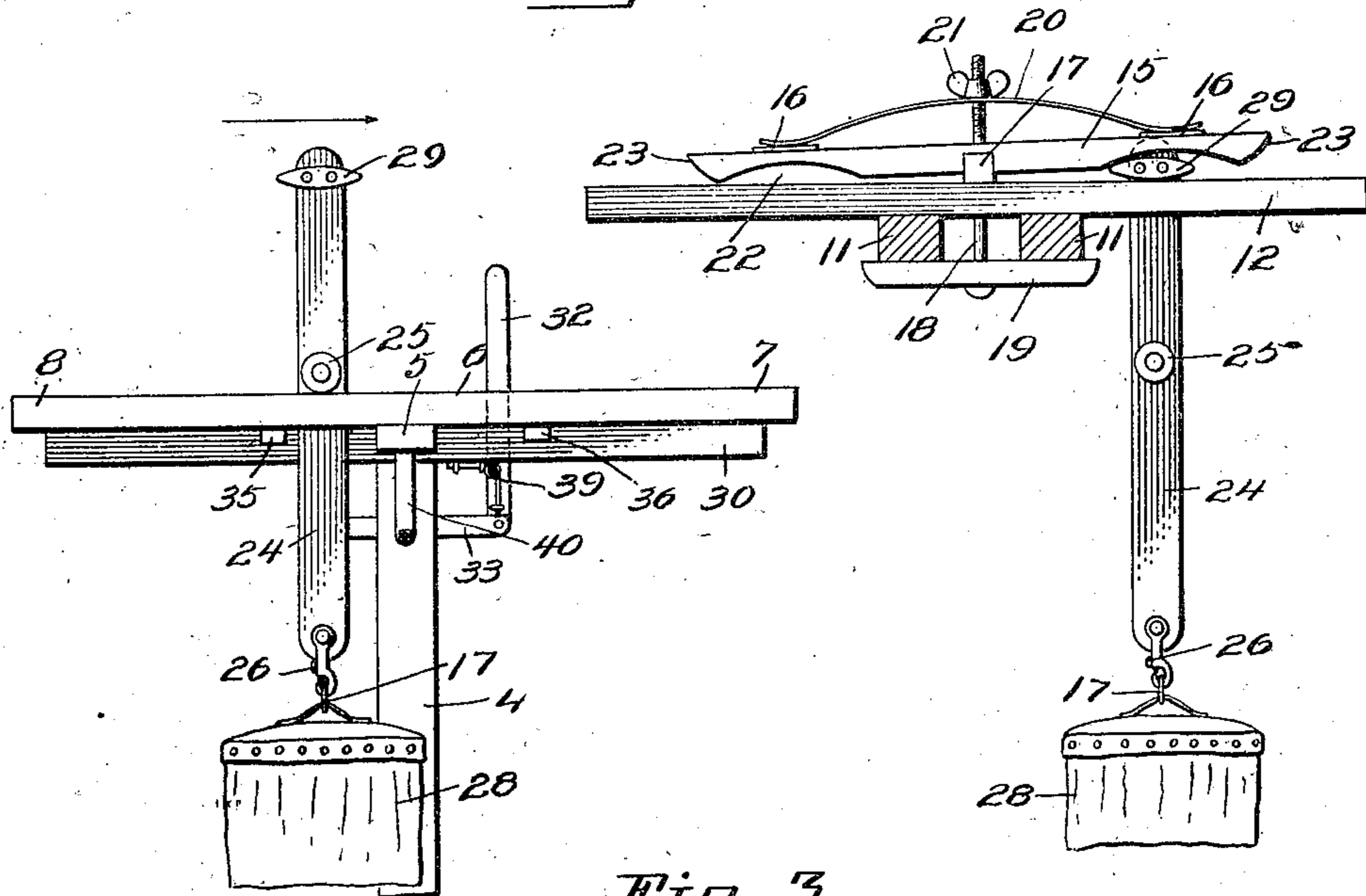


Fig. 3.

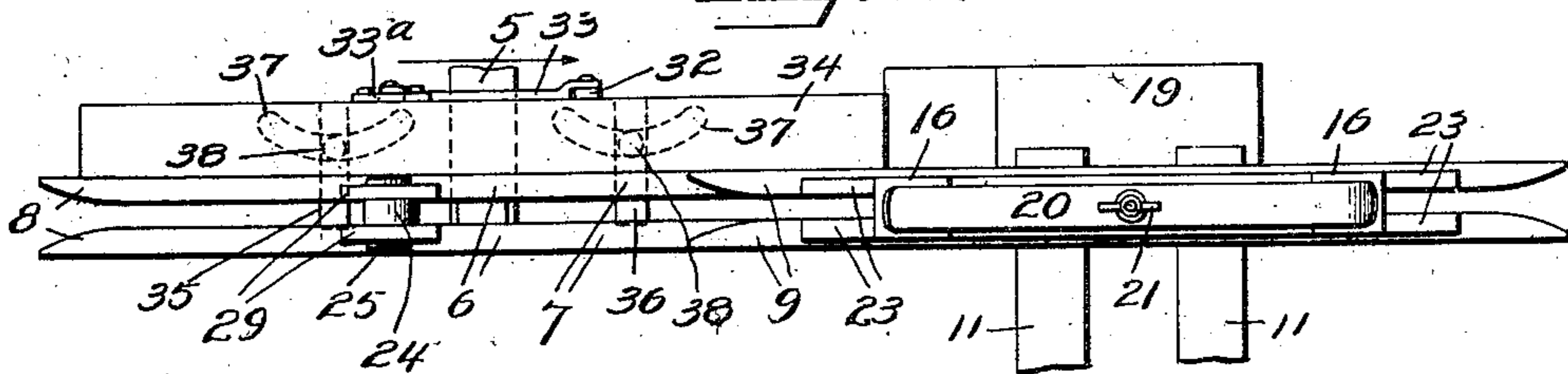
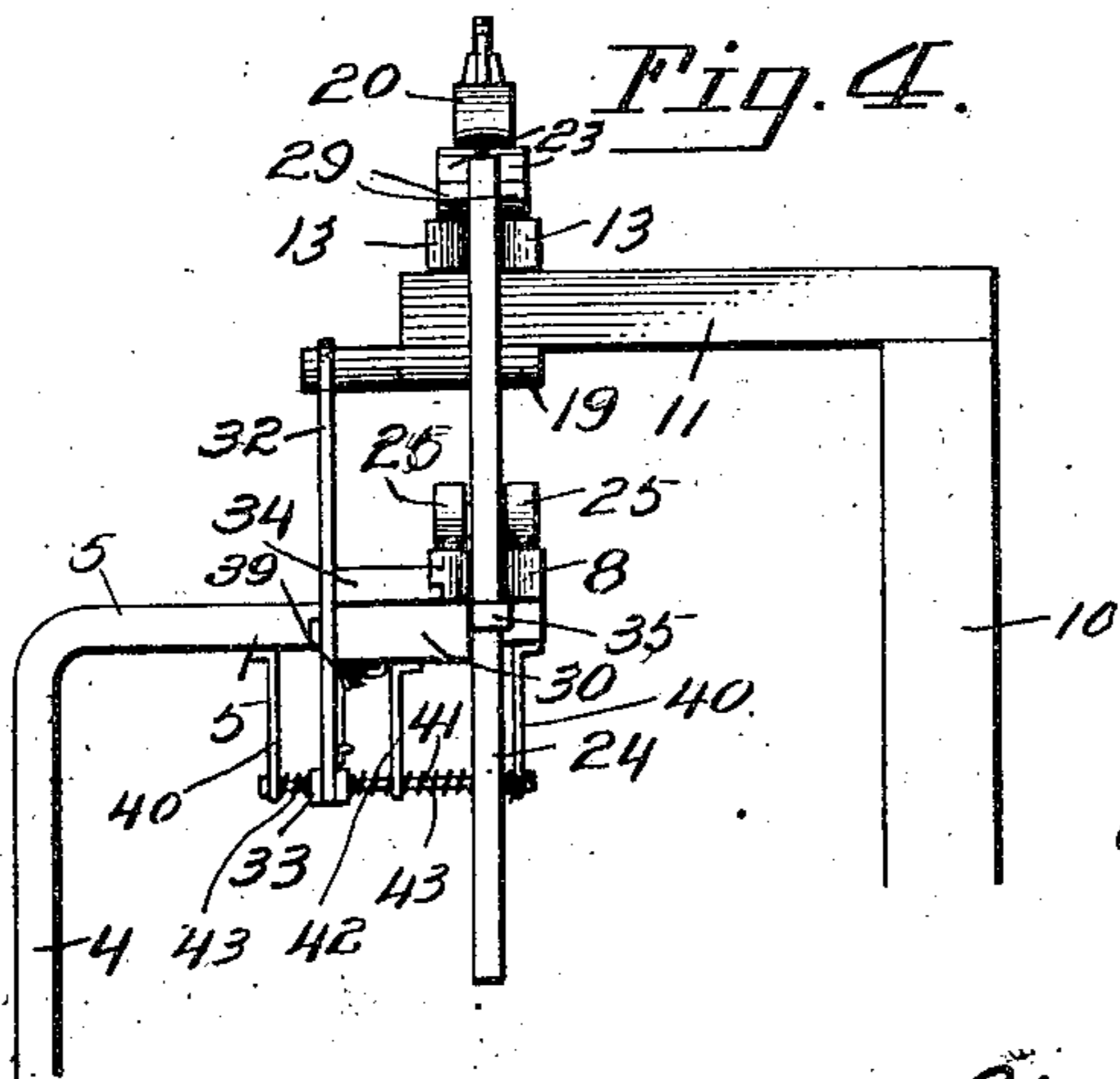


Fig. 4.



Inventor
Clarence R. Yeager.

Witnesses

G. L. Gibson.

C. C. Hines.

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

CLARENCE R. YEAGER, OF FREEPORT, ILLINOIS.

MAIL-BAG CATCHING AND DELIVERING DEVICE.

No. 861,009.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed May 6, 1907. Serial No. 372,101.

To all whom it may concern:

Be it known that I, CLARENCE R. YEAGER, a citizen of the United States of America, residing at Freeport, in the county of Stephenson and State of Illinois, have invented new and useful Improvements in Mail-Bag Catching and Delivering Devices, of which the following is a specification.

This invention relates to improvements in mail bag catching and delivering devices, the object in view being to provide a simple, efficient and reliable construction of means upon a mail car and at mail stations along the line of a railway for taking up and delivering sacks of mail matter.

The invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a perspective view illustrating the catching and delivering devices upon a car and at a mail station with sacks supported thereon for transfer from one to the other. Fig. 2 is a transverse section through the horizontal arm of the post of the stationary catching and delivering device taken on a line between the track bars thereof, showing portions of said device and the traveling catching and delivering device in side elevation. Fig. 3 is a top plan view of the catching and delivering devices. Fig. 4 is an end elevation thereof. Fig. 5 is an inner perspective view of the parts of the traveling catching and delivering device, the bracket arm appearing in section.

Referring to the drawings, 1 and 2, respectively, represent traveling and stationary mail bag catching and delivering devices, the device 1 being mounted upon a traveling element, such as a mail car 3, while one of the devices 2 is provided at each mail station along the line of the railway for coöperation with the said device 1.

The device 1 comprises a vertical bracket bar 4 secured at its lower end to the side of the car adjacent to the doorway and provided at its upper end with an outwardly projecting horizontal arm 5, supporting two spaced parallel track rails or bars 6, secured centrally to said arm and arranged in a plane parallel with the side of the car. The respective ends 7 and 8 of the bars or rails are adapted to operate interchangeably as catching and delivering fingers, accordingly as the car travels in one direction or the other, and said fingers are formed with beveled surfaces 9 to provide an enlarged entrance to the space therebetween.

The stationary catching and delivering device 2 comprises a supporting post composed, in the form shown, of a pair of parallel standards 10 embedded at their lower ends in the ground or otherwise suitably supported at one side of the track. The standards carry at their upper ends inwardly extending arms 11 projecting horizontally toward the trackway, and

transversely arranged on said arms 11 are track bars or rails 12 conforming in construction and arrangement to the bars 6 of the device 1, the ends of said bars 12 forming catching and delivering fingers 13 and 14, 60 adapted to be interchangeably used for either purpose.

Latch devices are employed for use in conjunction with the bars 12 and comprise bars 15 arranged above the same, the two bars 15 being connected adjacent therewith by cross pieces or plates 16. The latch bars 65 are rigidly fastened to a central fulcrum bar 17 adapted to rock upon the rails 12, said bar 17 being vertically slotted for the passage of a coupling bolt 18 fixed at its lower end in a bracket or cross piece 19 secured to the underside of the arms 11. A bowed plate spring 20 70 is disposed above and on a line between the latch bars and bears terminally upon the plates 16. Through the center of this spring projects the upper threaded end of the bolt 18 which carries a thumb nut 21 bearing against the center of the spring to hold it in position and regulate its pressure on the plates 16, by which means the tilting action of said latch bars may be regulated and controlled. The opposite ends of the latch bars are arranged respectively above the fingers 13 and 14 and are notched to form keeper recesses 22 and provided with beveled ends 23. 75

Bag suspending devices are employed for use in conjunction with the traveling and stationary catching and delivering devices, and each of said suspending devices consists of a carriage composed of a vertical bar 85 or bracket member 24 of suitable width to enter into the spaces between either of the sets of acting and delivering fingers, and provided at a substantially intermediate point with rollers 25 at opposite sides thereof to rest upon the upper surface of the rails 6 and 12. At its 90 outer end the bar 24 carries a snap hook or other suitable device 26 for engagement with a ring 27 upon the top of a mail bag 28, whereby the latter may be suspended from one of the sets of fingers on the device 1 for transfer to the device 2. At its upper end the bar 24 is provided on opposite sides with keeper lugs or projections 29 of proper form to rest and slide upon the rails 12 of the device 2 and to ride beneath the ends of the latch bars and snap into engagement with recesses 22. 95

In Figs. 1 and 2 I have shown the catching and delivering devices respectively arranged upon a car 100 traveling in the direction of the arrow, and alongside of the track at one of the mail stations, with bags supported upon said devices for transfer from one to the other. It will be observed that the bag carried by the traveling device 1 is suspended from a bracket 24 projecting upwardly between the rear fingers 8 with its rollers resting upon said fingers and its locking lugs 29 arranged in the path of the rear latch arms of the bars 15 in the direction of travel of the car, while the bag 28 105 is supported from a similar bracket 24 which hangs suspended from the forward fingers 14 of the device 1.

by its locking lugs 29 which are held by the forward locking arms of the latch bars 15. As the car moves forward, the lugs 29 upon the mail suspending device supported thereon slide over upon the fingers 13 and snap under the rear ends of the arms of the latch bars, and are held in the recesses 22 of said arms by the pressure of the rear end of the spring 20, the bag being released from engagement with the device 1 by the stoppage of movement of the suspending device thereon, whose wheels or rollers travel along and run off the fingers 8. Simultaneously with this operation the forward fingers 7 of the device 1 pass on opposite sides of the bracket or suspending device 24, hanging from the rollers 25 of said suspending device, which run along the fingers 7 until the bar 5 engages said suspending device 24 and causes the latter to be forcibly withdrawn from engagement with the front latch arms of the device 2 under the forward motion of the car, the lugs 29 of said suspending device sliding outward off the rails 14 in this operation, as will be readily understood.

If desired, latch mechanism may be employed upon the device 1 to hold the bag-supporting carriage in position against possible disconnection until released by coöperative action with the device 2. To this end a support 30 is secured to the arm 5 parallel with and arranged on the inner side of the inner rail 6, and to said support is hinged or pivoted, as at 31, a lever 32 connected at its lower end by a link 33 with a bracket 33^a fixed to a plate 34 slidable on support 30. Latch bars 35 and 36 are adapted to project across and close the spaces between the respective fingers 7 and 8 midway of the length thereof and are slidably mounted at their inner ends in recesses 30^a in the upper face of the support 30. In the underside of the plate 34 are segmental grooves 37 receiving friction rollers 38 on the latches, so that when the lever is swung from its normal vertical position in either direction the plate 34 will be moved in one direction or the other, while the cam grooves 37 will act upon the rollers 38 to slide the latch bars inwardly and thus retract them. When the lever is vertically arranged the latches are projected so as to lie in the path of outward movement of the bag supporting carriage along the fingers 8, and the admission of the bag supported on the device 2 to the inner end of the space between fingers 7. The parts are held in normal position by a spring 39 acting on the lever. In operation, the upper end of the lever strikes the bar 19, which lies in its path, as shown in Fig. 4, whereby the sliding plate is moved rearwardly to retract the latches, permitting release of the bag on fingers 8 of device 1 for transfer to fingers 13 of device 2, as well as the transfer of the bag from device 1 to the rails or fingers 7 of device 1. Upon the passage of device 1 beyond device 2 the spring 39 will restore the latches to normal position, thus confining the caught bag on fingers 7.

Spaced bracket arms 40 depend from the arm 5 and support a rod 41 on which is fitted to slide a hanger arm 42 depending from support 30, allowing said support and the rails 6 to have lateral movement. This movement in opposite directions is resisted by coiled springs 43 arranged between the fixed arms 40

and the movable arm 42, said springs tending to maintain the parts in normal position. The springs allow the rails 6 to shift laterally in either direction to compensate for lateral play of the mail car, as to bring the catching and delivering devices into direct alinement for transfer of the bags when the parts come into engagement. If, for instance, the carriage on device 2 should not be in direct line with the slot between fingers 7 and should strike against the extreme outer portions of the diverging ends of said fingers, the pressure of said carriage will cause the rails 6 to be shifted to secure a proper alinement.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the device will be readily understood, and it will be seen that a simple, reliable and efficient construction of catching and delivering apparatus is provided. The mode of supporting the bags from the devices 1 and 2 when the train is traveling in the reverse direction will be apparent.

Having thus described the invention, what is claimed as new, is:—

1. In a mail bag catching and delivering apparatus, a car carrying a bracket, horizontal parallel rails centrally secured to the bracket and projecting oppositely therefrom to provide sets of supporting rails, and a bag suspending device having wheels or rollers to travel on said rails.
2. In a mail bag catching and delivering device, a bag suspending device comprising a bar or bracket having bag suspending means, said bracket being provided at an intermediate point with wheels or rollers and above the same with oppositely arranged locking devices.
3. In a mail bag catching and delivering apparatus, a supporting post, spaced parallel bars supported by the post and providing oppositely projecting fingers and track surfaces, latch bars coöperating with said surfaces, and a spring pressure device acting on said bars.
4. In a mail bag catching and delivering device, a supporting post, parallel bars supported by the post and projecting in opposite directions therefrom to form fingers and track surfaces, a latch device comprising connected bars, having a tilting motion, said bars being provided with latch arms coöperating with said fingers, and a pressure spring controlling both sets of latch arms.
5. In a mail bag catching and delivering device, a supporting post, parallel bars centrally mounted thereon and extending in opposite directions to form fingers and track surfaces, latch bars arranged above said track surfaces and mounted to tilt thereon, said bars forming latch arms for coöperation with the fingers, a spring bearing terminally upon the latch arms, and means for regulating the pressure of said springs, whereby the extent of tilting action of the latch bars is controlled.
6. Mail bag catching and delivering apparatus comprising relatively traveling and stationary catching and delivering devices, each provided with oppositely projecting spaced fingers and track surfaces, spring-actuated latches coöperating with the fingers of the stationary device, and bag suspending devices, each comprising a bar or bracket having bag suspending means and provided with rollers upon the track surfaces of the traveling device with locking projections to run upon the track surfaces of the stationary device and to engage said latch devices.

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

CLARENCE R. YEAGER.

Witnesses:

W. N. CRONKRITE,
C. B. COUNTRY.