

No. 825,465.

PATENTED JULY 10, 1906.

A. F. JANSEN.
LITTER CARRIER.

APPLICATION FILED NOV. 10, 1905.

3 SHEETS—SHEET 1.

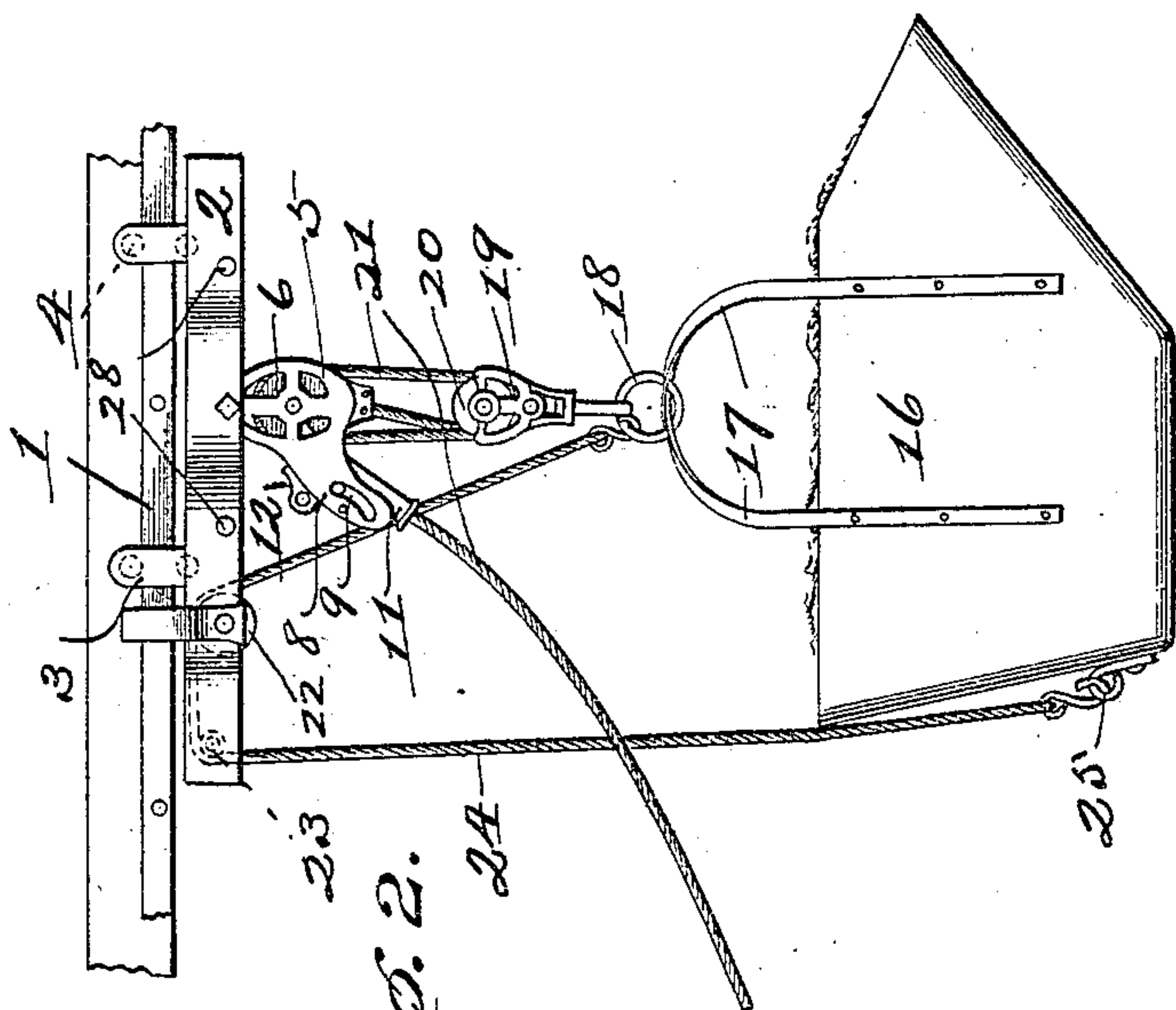


Fig. 2.

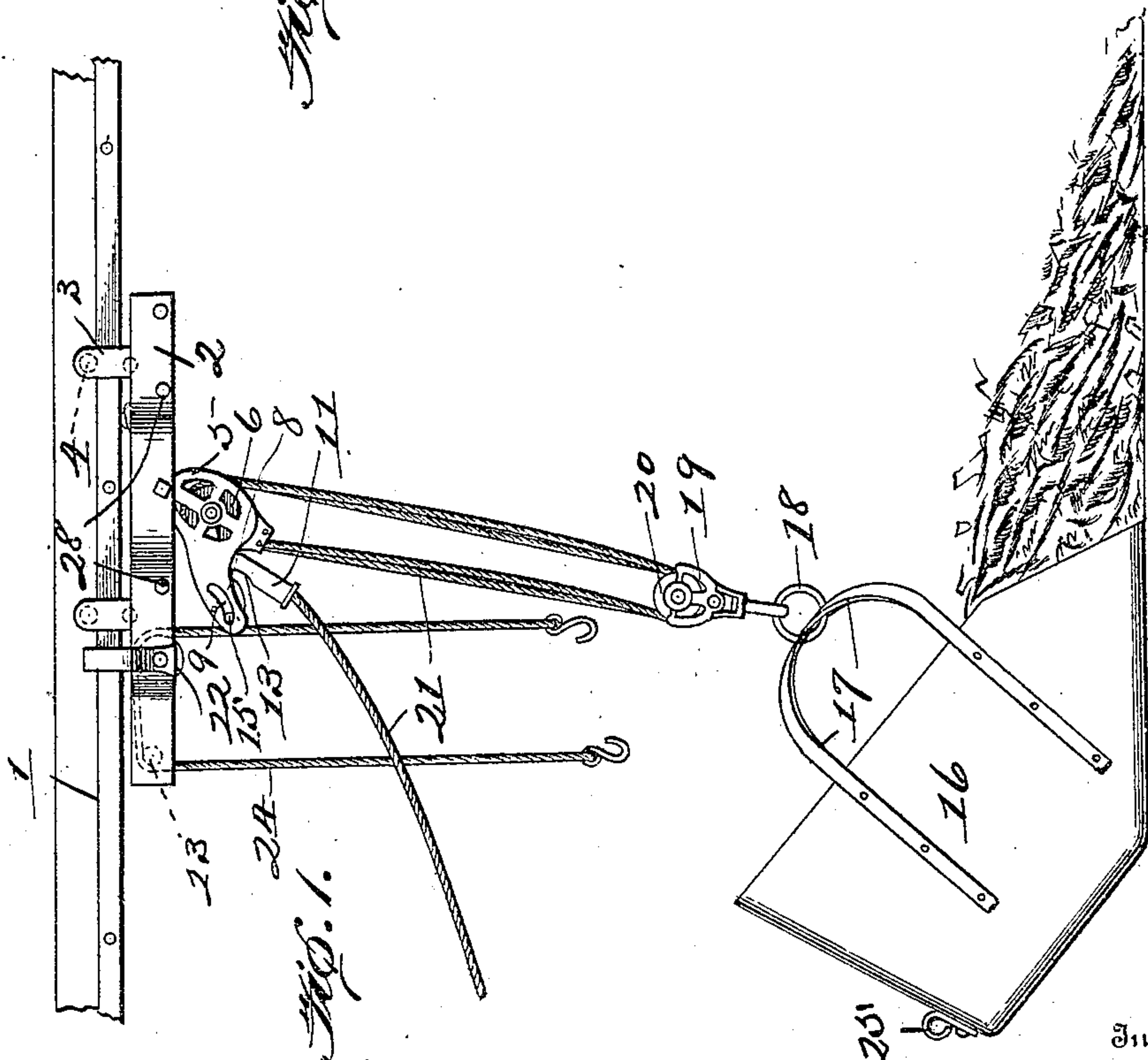


Fig. 1.

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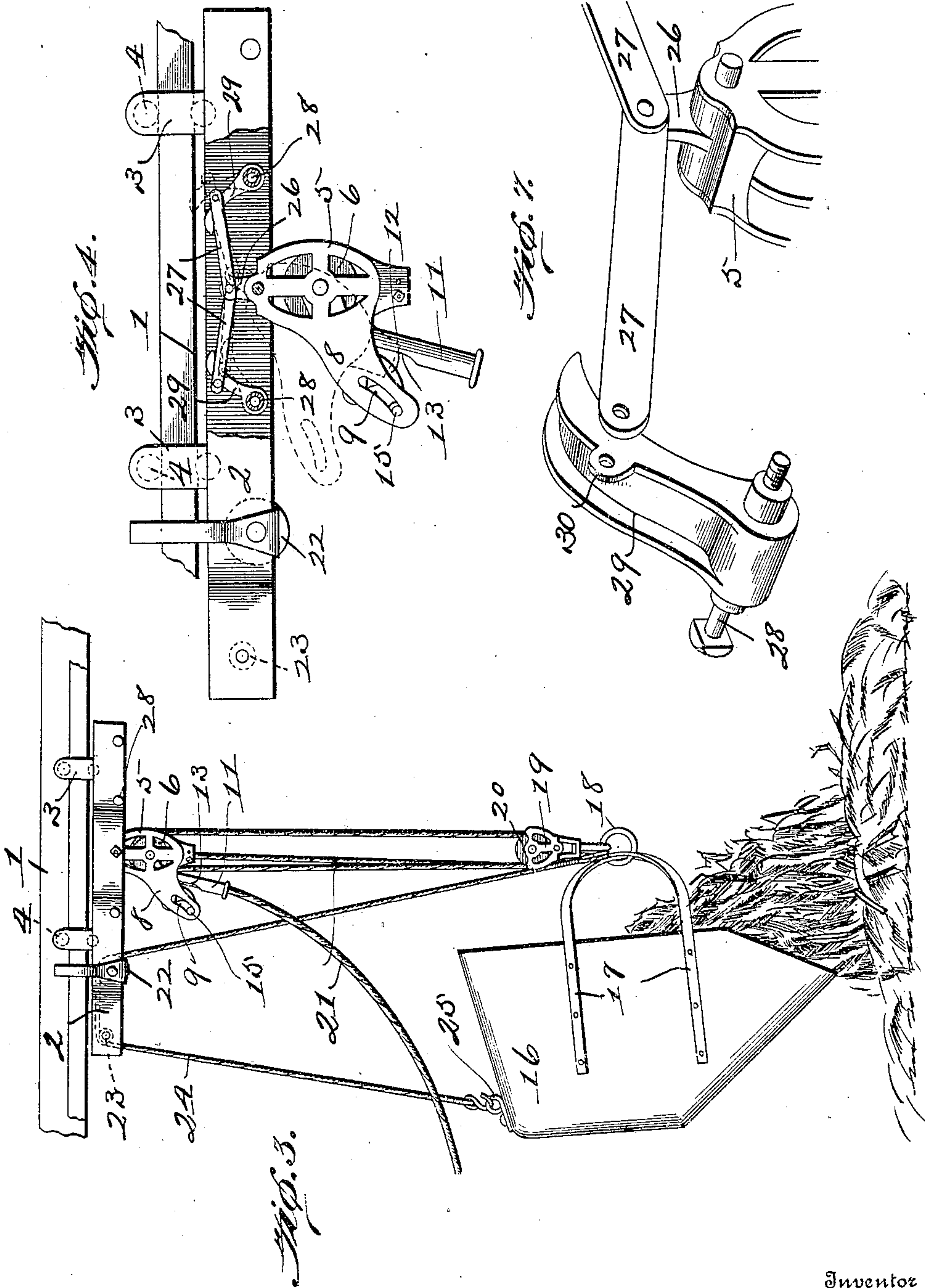
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

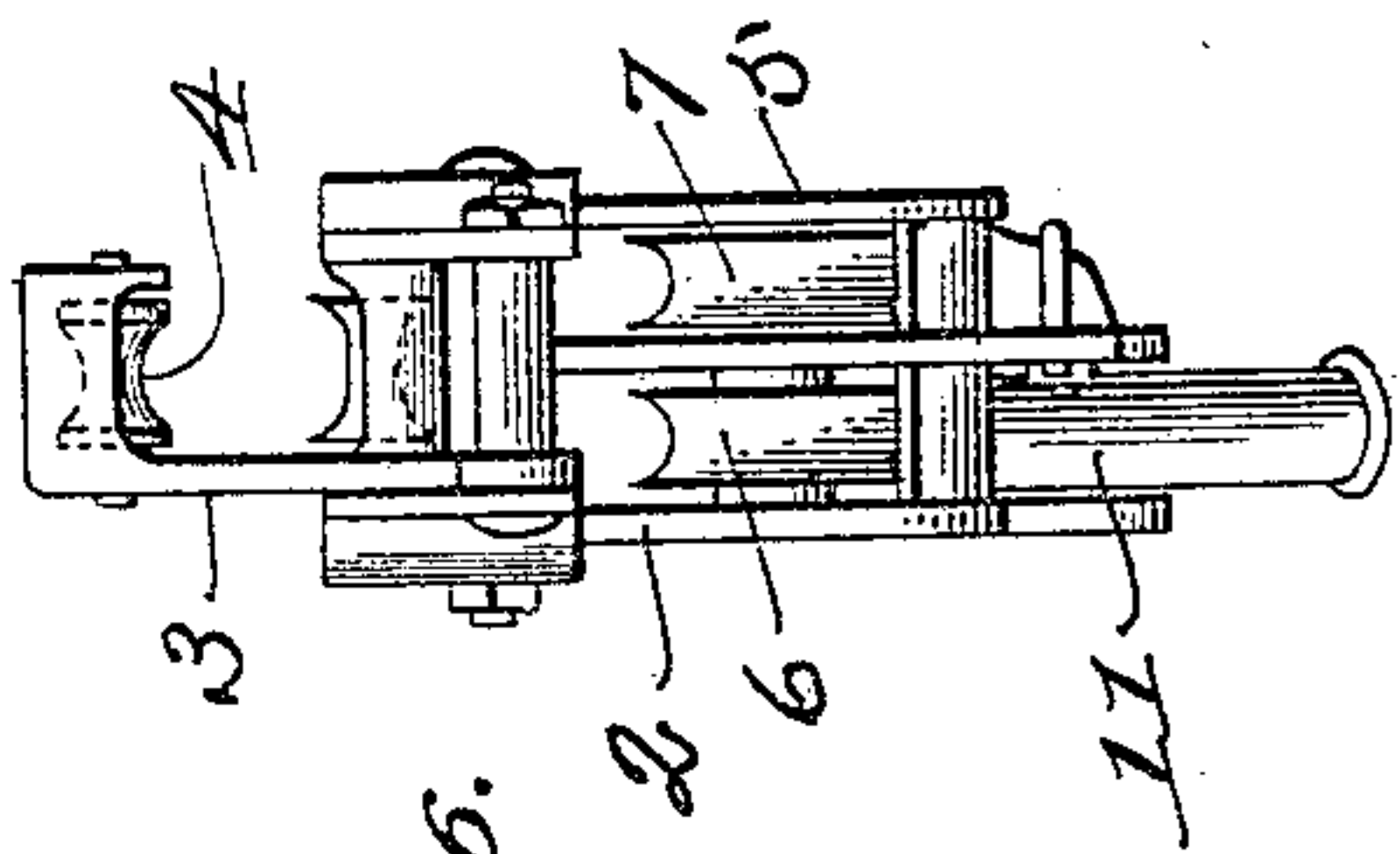


Fig. 6.

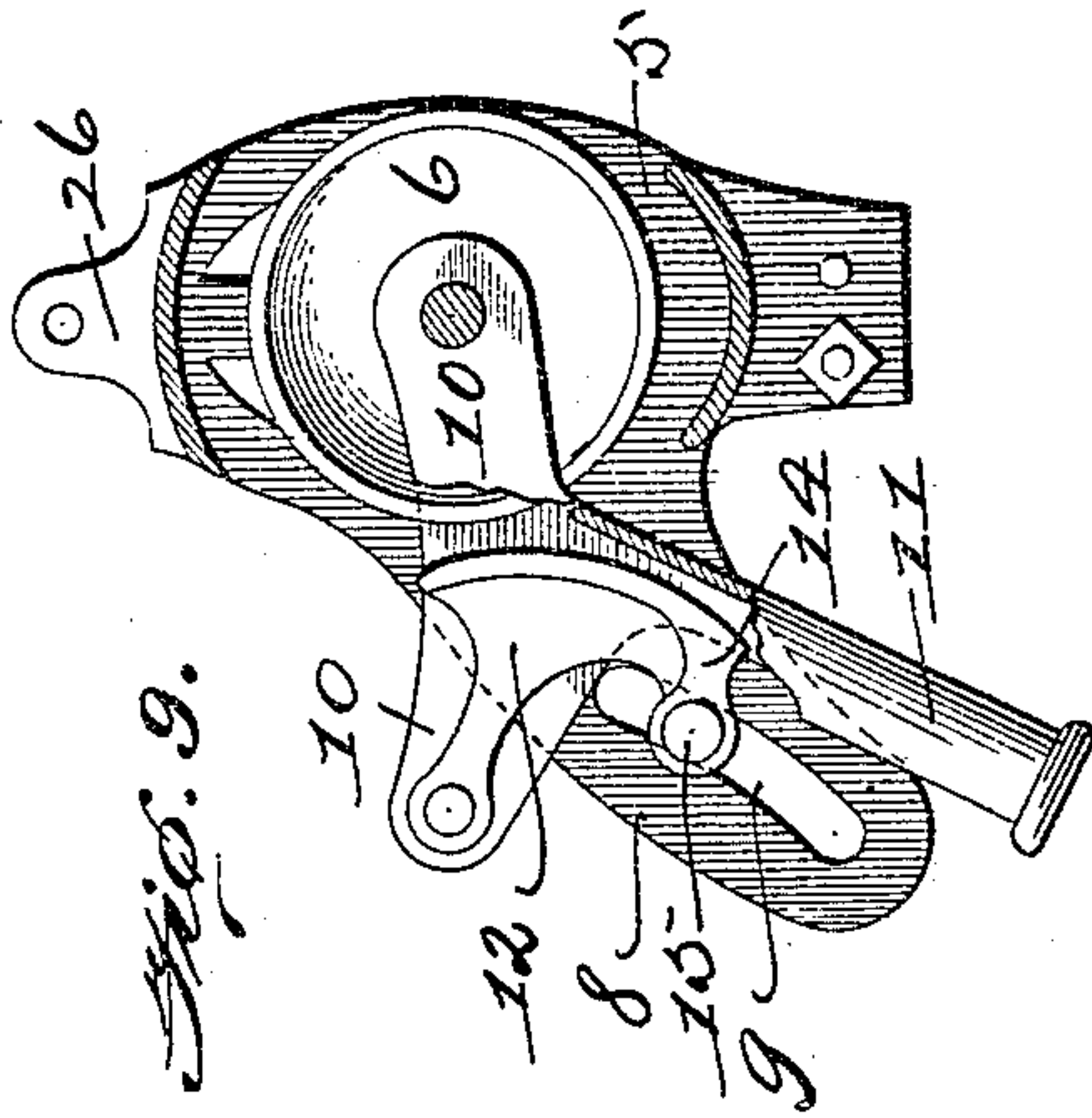


Fig. 9.

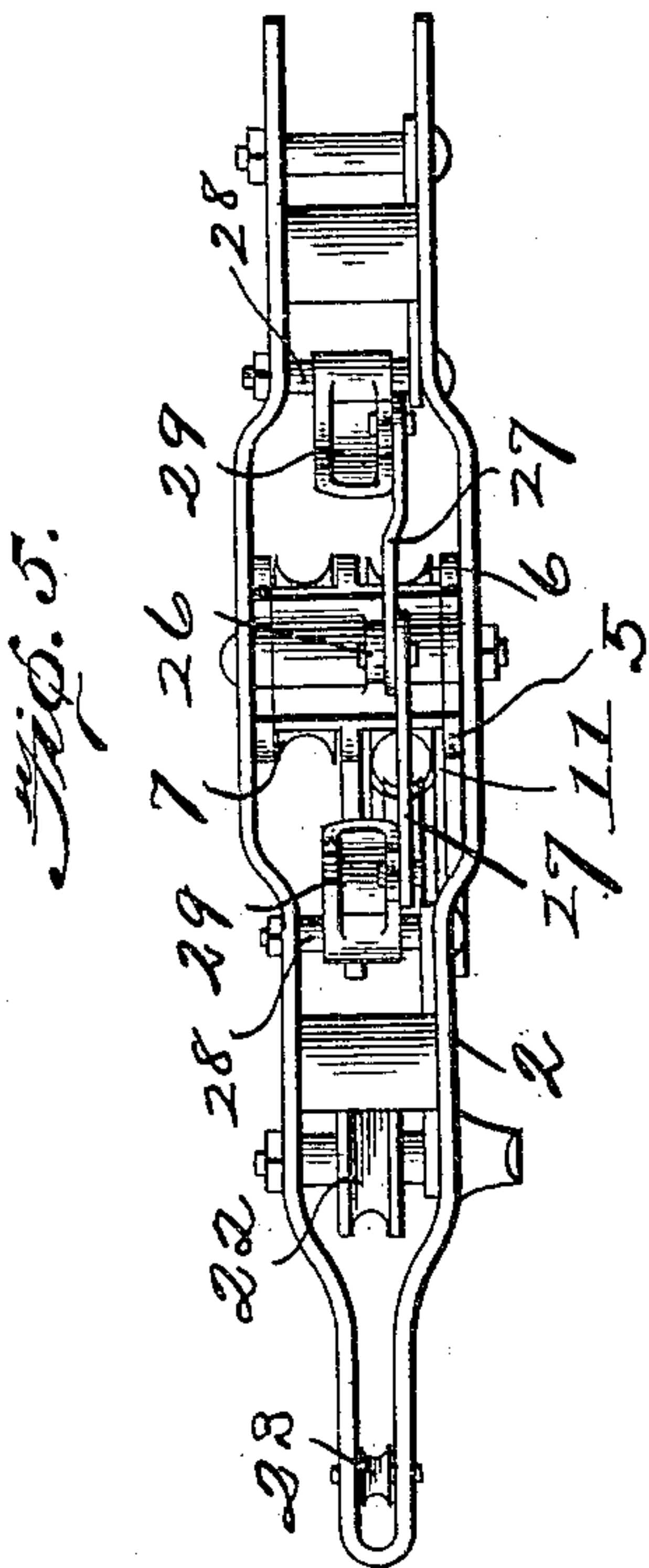


Fig. 5.

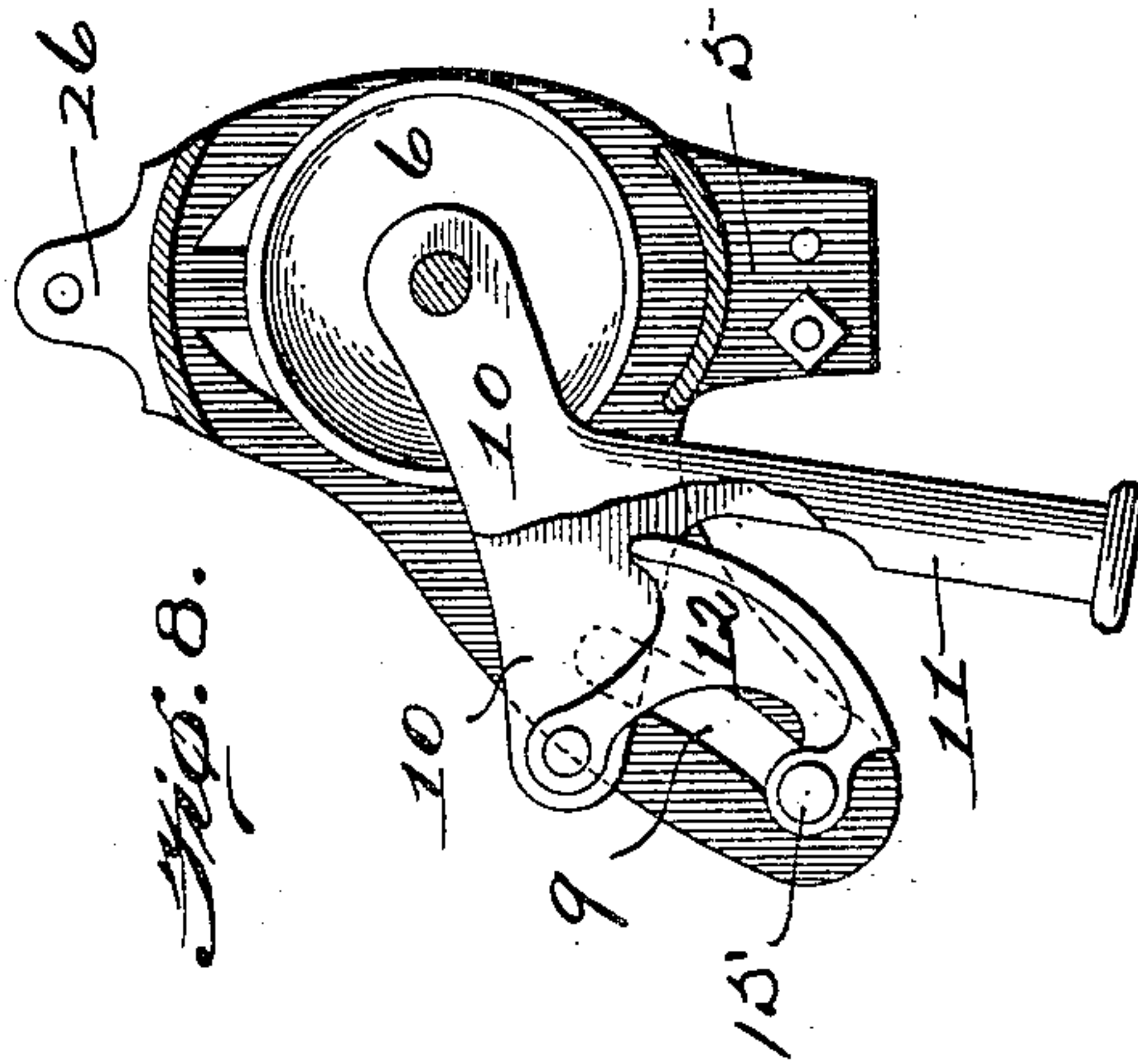


Fig. 8.

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UNITED STATES PATENT OFFICE.

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LITTER-CARRIER

No. 825,465.

Specification of Letters Patent.

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Application filed November 10, 1905. Serial No. 286,751.

To all whom it may concern:

Be it known that I, ANTON F. JANSEN, a citizen of the United States, residing at Effingham, in the county of Effingham and State of Illinois, have invented a new and useful Improvement in Litter - Carriers, of which the following is a specification.

This invention relates to a litter-carrier designed to convey trash and litter from a barn or similar building to a suitable dumping-ground at a distance from the building, and has for its object the picking up of the litter, its conveyance to the dumping-ground, and the dumping of it at the desired point.

The invention comprises an elevated track, a hanger traveling upon said track, a scoop or bucket suspended by suitable cables by said hanger, together with certain track-gripping devices and dumping devices.

The invention consists also of the novel features of construction hereinafter fully described, pointed out in the claims, and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the device in position to receive the litter. Fig. 2 is a side elevation of the device, the bucket being in position to be moved along the track. Fig. 3 is a side elevation showing the bucket in dumping position. Fig. 4 is a side elevation of the track-hanger and connected parts, a portion of the hanger being broken away. Fig. 5 is a plan view of the hanger. Fig. 6 is an end view of the hanger. Fig. 7 is a detail view of a portion of a track-gripping device. Figs. 8 and 9 are detail views, partly in section, of a pulley-block and rope-guide, showing the same with certain movable parts in different positions.

In carrying out my invention I employ a suitable overhead track 1, constructed in any desired manner, and upon this track travels a hanger 2, which is provided with angled arms 3, which arms carry suitable rollers 4, adapted to travel upon the rail-section of the track 1.

The hanger carries a double pulley-block 5, in which are arranged side by side two loose pulleys 6 and 7. The hanger-block is also provided with two parallel downwardly-projecting plates 8, in each of which is formed a slightly-curved slot 9. Upon the pulley-shaft of the pulley 6 are loosely mounted two parallel arms 10, which carry a downwardly-extending cylindrical rope-guide 11, preferably formed integral with the arms 10, and which at its upper end opens between the

said arms 10, and between the free ends of the said arms and above the rope-guide 11 is pivoted a brake-shoe 12, which works between the said arms, and the upper end portion of the rope-guide 11 is cut out on the side adjacent the said brake-shoe, as shown at 13 in Figs. 1 and 4, so as to permit the said brake-shoe to enter the upper portion of the rope-guide and bear upon the rope, thereby gripping the rope between the brake-shoe 12 and the pulley 6. To guide the brake-shoe 12 and also to control the movement of the rope-guide 11, the brake-shoe is provided with a curved lug 14, which extends between the slotted arms 8 and carries a pin 15, the ends of which travel in the slots 9.

It will be obvious that from Figs. 8 and 9 when the parts are in the position shown in Fig. 8 a rope running through the guide 11 and over the pulley 6 will pass freely over the said pulley and out of contact with the brake-shoe 12, the pin 15 being at the lower end of the slots 9. It will further be obvious that by drawing upon the rope, so as to pull the rope-guide 11 toward the arms 8, the arms 10, to which the rope-guide 11 is connected, will be rotated upon the pulley-shaft, and the pin 15 will travel up the slots and the brake-shoe 12 will press upwardly and inwardly against the rope, and when the parts reach the position shown in Fig. 9 the rope would be bound between the shoe and the pulley 6. The object and effect of this binding of the rope will appear more fully hereinafter.

The litter is carried in a suitable scoop or bucket 16, which is provided with handles 17, which cross the bucket diagonally, crossing each other above the bucket, and a ring 18 engages the said handles 17 at their point of intersection. This ring 18 is supported from a suitable pulley-block 19, carrying pulleys 20. The pulley-block 19 is supported below the hanger by means of a suitable cable 21, which runs over the pulleys 6, 7, and 20 in the usual manner of a block-and-tackle cable, and the free end portion of the said cable, after passing over the pulley 6, runs through the rope-guide and hangs loosely in position to be grasped by the hand of the operator.

The hanger 2 carries also a loose pulley 22 and a roller 23, and a cable 24 runs over these rollers and is provided at its ends with suitable hooks, one of which is adapted to engage the ring 18 and the other of which engages an

eye 25, placed upon the rear end of the bucket 16 and adjacent its bottom.

The pulley-block 5 has an upwardly-extending arm 26, to which is pivotally connected the inner ends of bars 27. In the hanger or carrier and between the side members of the same is pivoted upon suitable bolts 28 a curved track-grip 29, suitably flanged to engage the lower edge of the track 1, provided on one side with ears 30, and to each of these means is pivoted the outer end portion of one of the bars 27. These track-grips 29 are oppositely acting and are arranged upon opposite sides of the pulley-block 5, thereby making the device reversible and capable of use upon either side of a barn or other building.

It will be obvious from Fig. 4 that when the pulley-block 5 is depending substantially vertically from the hanger or carrier 2 both of the grips 29 will be out of engagement with the track-section and the hanger 2 can be readily drawn along the track 1 by a pull exerted upon the free end portion of the cable 21; but when the block 5 and connecting parts are thrown into the position shown in dotted lines in Fig. 4 one of the track-grips will be thrown upwardly and will engage the track and lock the hanger 2 against further movement along the track, and it will further be obvious that when the tackle-block is thrown into this last-described position upon the left-hand side the track will be gripped by the right-hand grip 29, and if the direction of pull is from the right-hand side the track will be gripped by the left-hand-side grip 29, so that the carrier can be locked upon the track from a pull in either direction.

The operation of the device is as follows:
When the bucket 16 is to be filled with trash, it is drawn into proper position above the trash and then lowered into the position shown in Fig. 1, and after it has been filled it is drawn upwardly by means of the cable 21 into the position shown in Fig. 2. When the cable 21 is grasped and the operator walks along with the same, the parts are thrown into the position shown in Fig. 9 and the shoe 12 grips the cable 21 between the shoe and the pulley 6 and prevents descent of the bucket 16. When the parts are thrown into this position, however, the gripping devices 29 are not shifted sufficiently to grip the track. When the point of unloading has been reached and it is desired to dump the device, a stronger pull or jerk upon the cable 21 will throw the pulley-block 5 into the position shown in dotted lines in Fig. 4, and one of the gripping-fingers 29 will engage the track and lock the carrier or hanger against further movement along the track. By then releasing the strain upon the cable 21 the block will by the weight of the bucket be drawn into the position shown in Fig. 3, and the shoe 12 will release the cable 21 and the

bucket will descend. The cable 24, having one end fastened to the ring 18 and the other end to the eye 25, will cause the rear end of the bucket to be held in a higher plane than the forward end, and as the bucket descends toward the ground it will be automatically tipped into the position shown in Fig. 3 and its contents will be dumped.

It will be obvious that the track 1 may be of any desired length and that it may be given a slight downward inclination toward the dumping-ground, if desired, so that the carrier will be operated in part by gravity, the cable 21 being employed to control the movements of the bucket with respect to the hanger and to throw the gripping devices into operation at any desired point.

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

1. A device of the kind described comprising a track-section a carrier thereon, a bucket suspended from said carrier, and movable vertically with respect to the carrier, gripping devices carried by the carrier adapted to be thrown into engagement with the track-section, means for locking the bucket against vertical movement, and means for automatically dumping the bucket when the said locking means are released and the bucket descends.

2. A device of the kind described comprising an elevated track-section, a carrier movable thereon, a pulley-block, an arm upon said pulley-block, gripping-fingers pivotally carried by the carrier and adapted to engage the track, and bars pivotally connected to the pulley-block at their inner ends and to the gripping-fingers respectively at their outer ends.

3. A device of the kind described comprising an elevated carrier, a tackle-block pivotally connected thereto, track-gripping fingers pivotally carried by the elevated carrier, bars pivoted at one end to one of said fingers and at their opposite ends to the pulley-block, the said pulley-block having integral slotted arms, parallel arms loosely mounted in the pulley-block, a rope-guide carried by said arms, a cable passing through said guide and through the pulley-block, a brake-shoe pivotally connected to the loosely-mounted arms and adapted to engage the rope, means carried by the said brake-shoe adapted to engage and work in the slots of the arms carried by the pulley-block, a tackle-block supported below the pulley-block and having the cable running therethrough, and a bucket carried by the tackle-block as and for the purpose set forth.

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