

No. 856,189.

PATENTED JUNE 4, 1907.

J. L. BALDWIN.  
CASH AND PARCEL CARRIER.  
APPLICATION FILED JAN. 25, 1906.

3 SHEETS—SHEET 1.

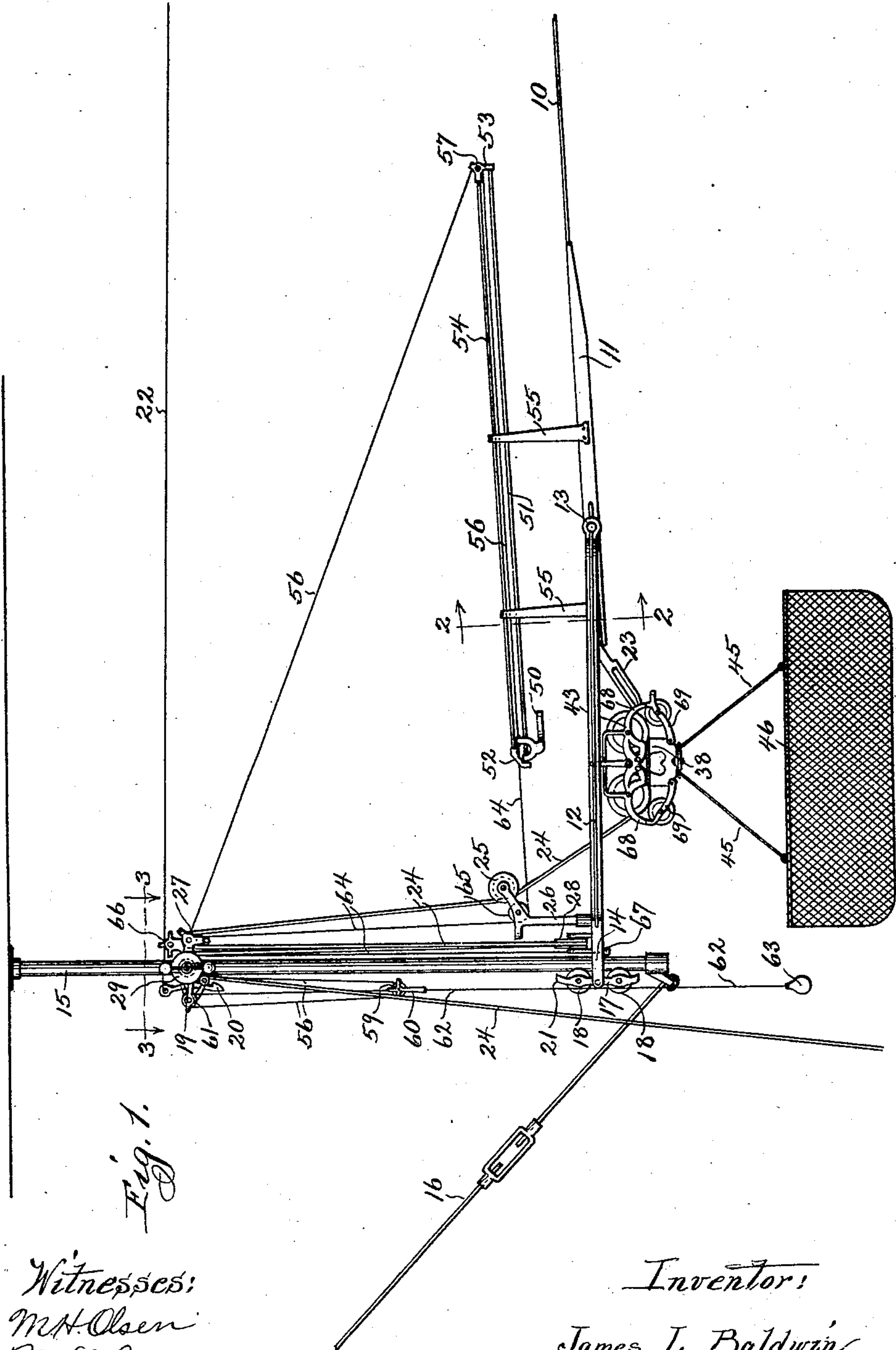


Fig. 1.

Witnesses:  
M. H. Olsen  
M. L. Brown

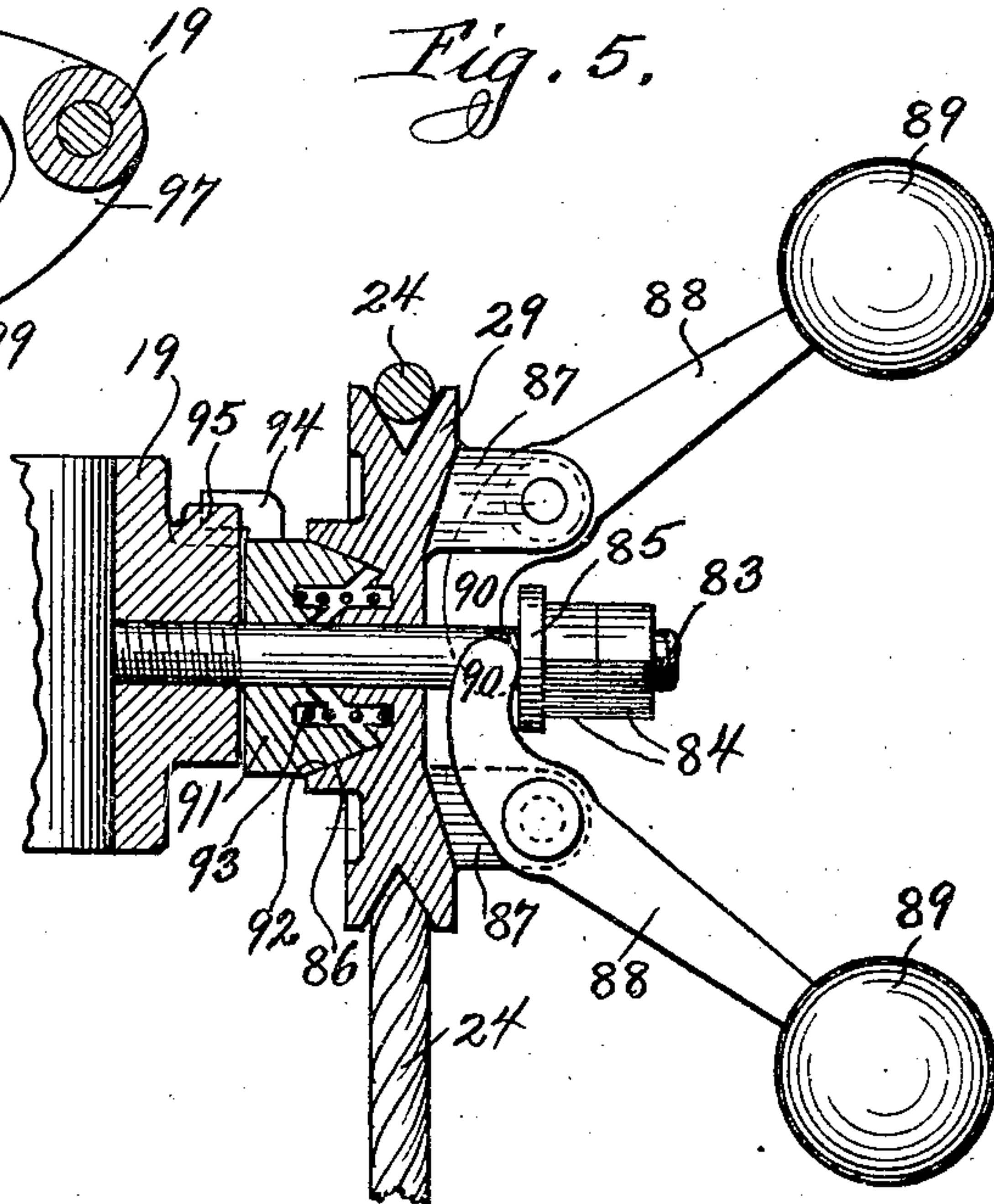
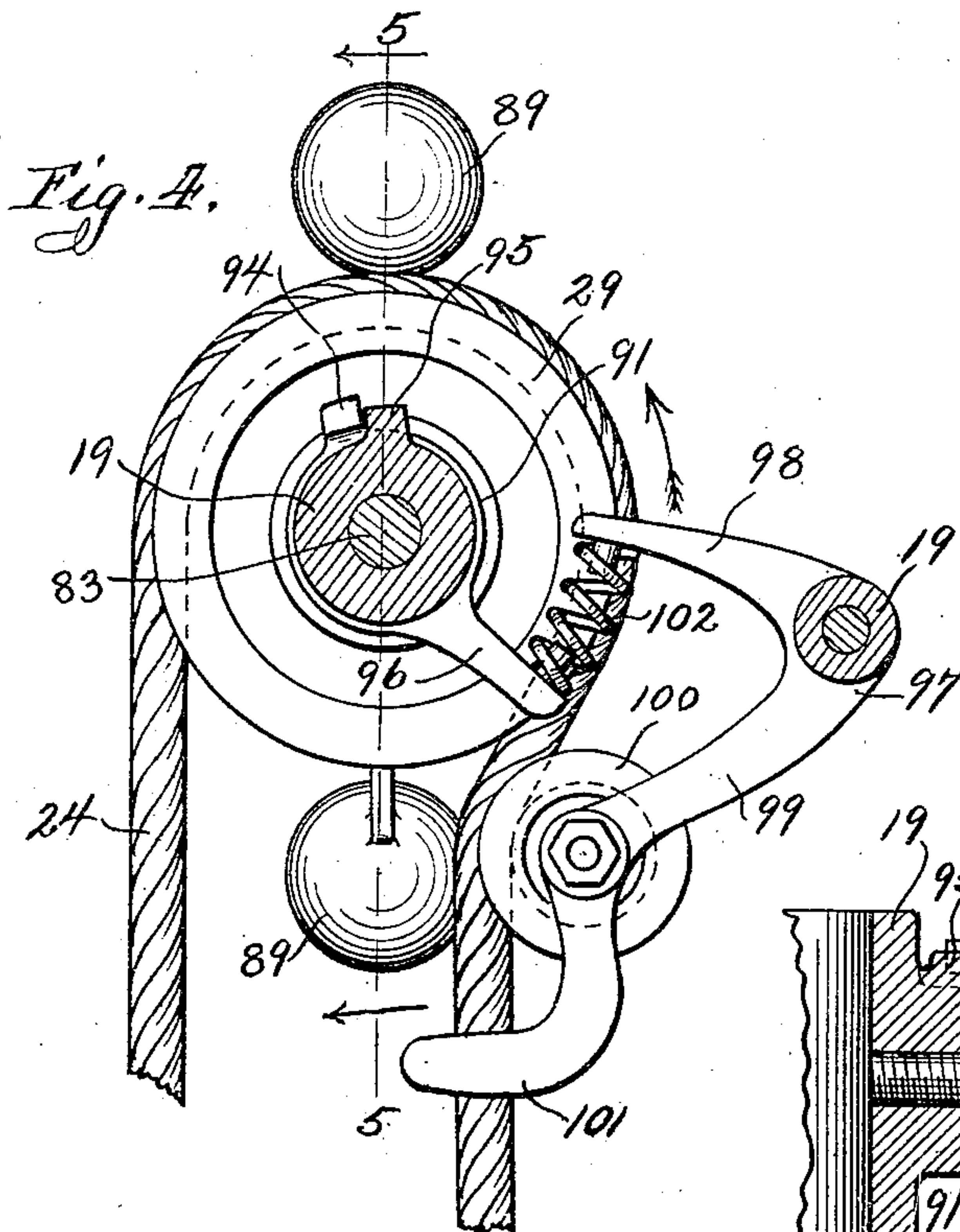
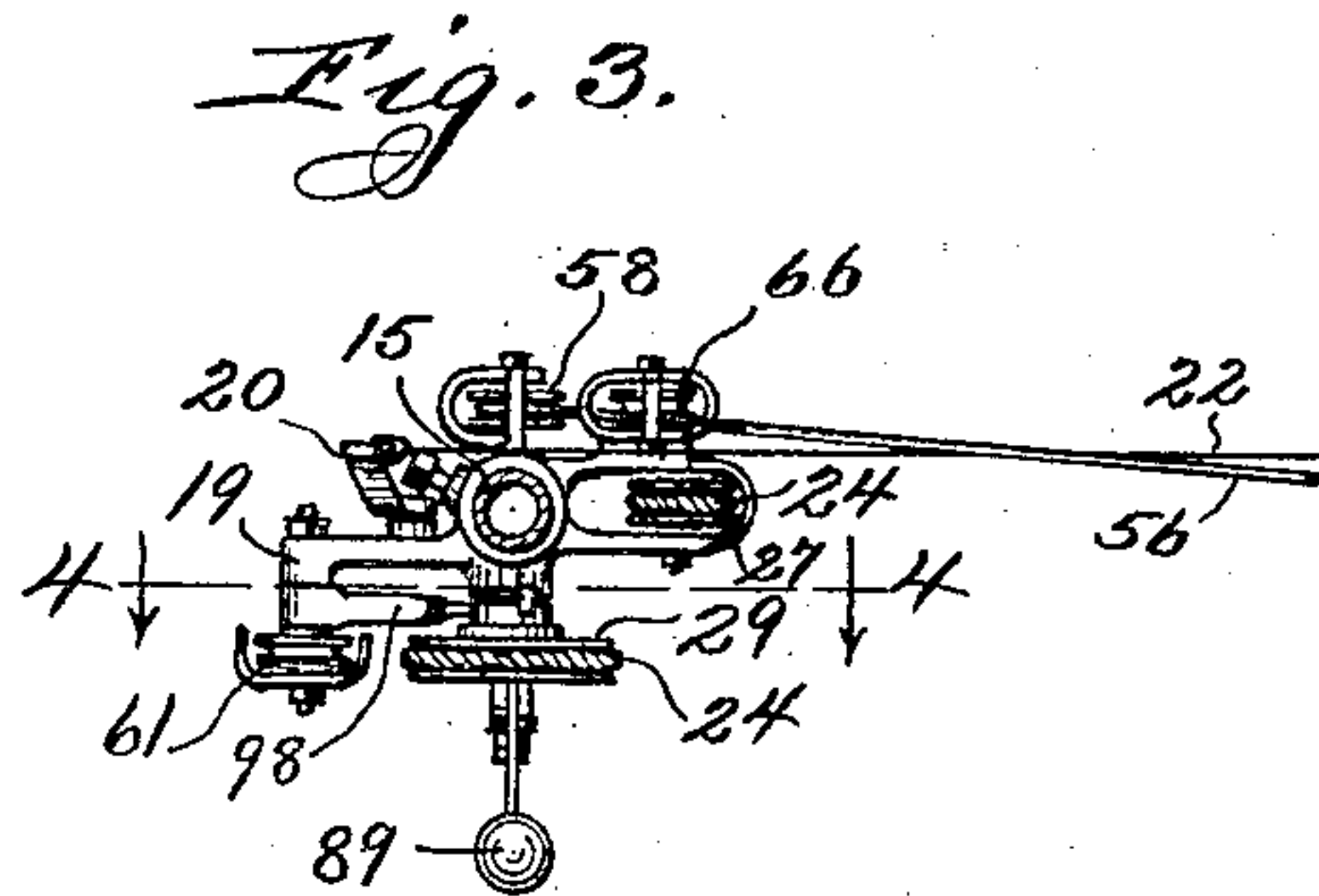
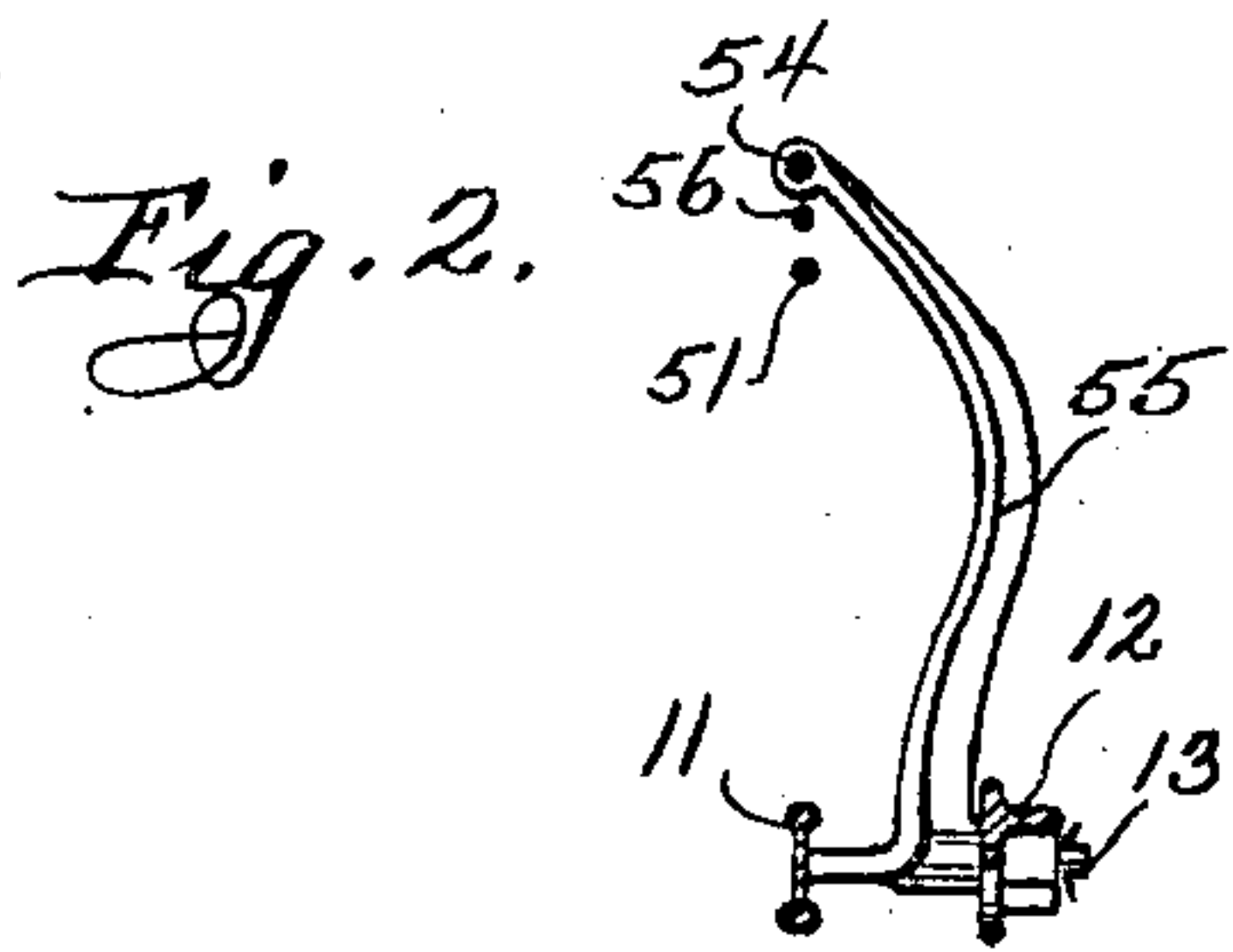
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 6.

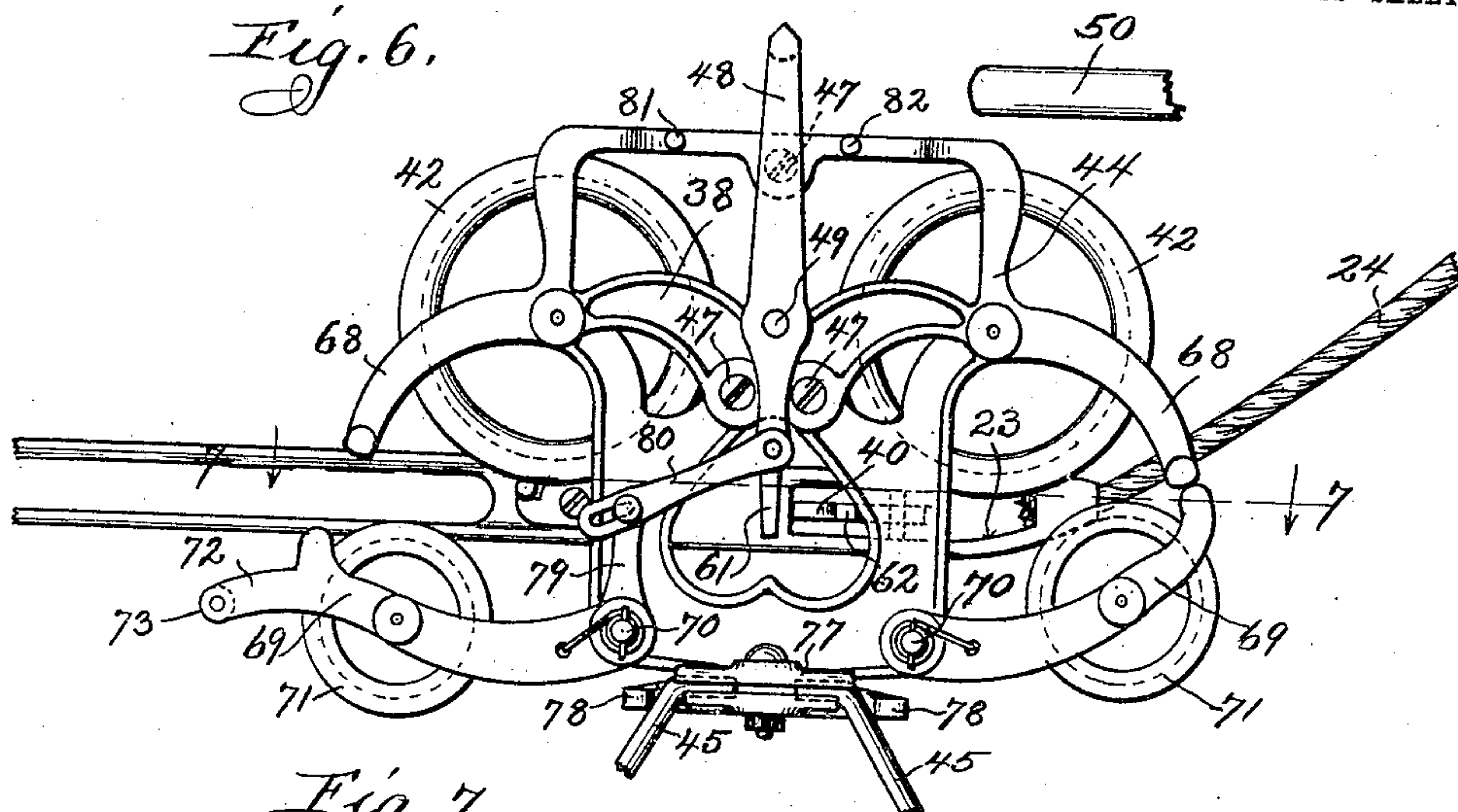


Fig. 7.

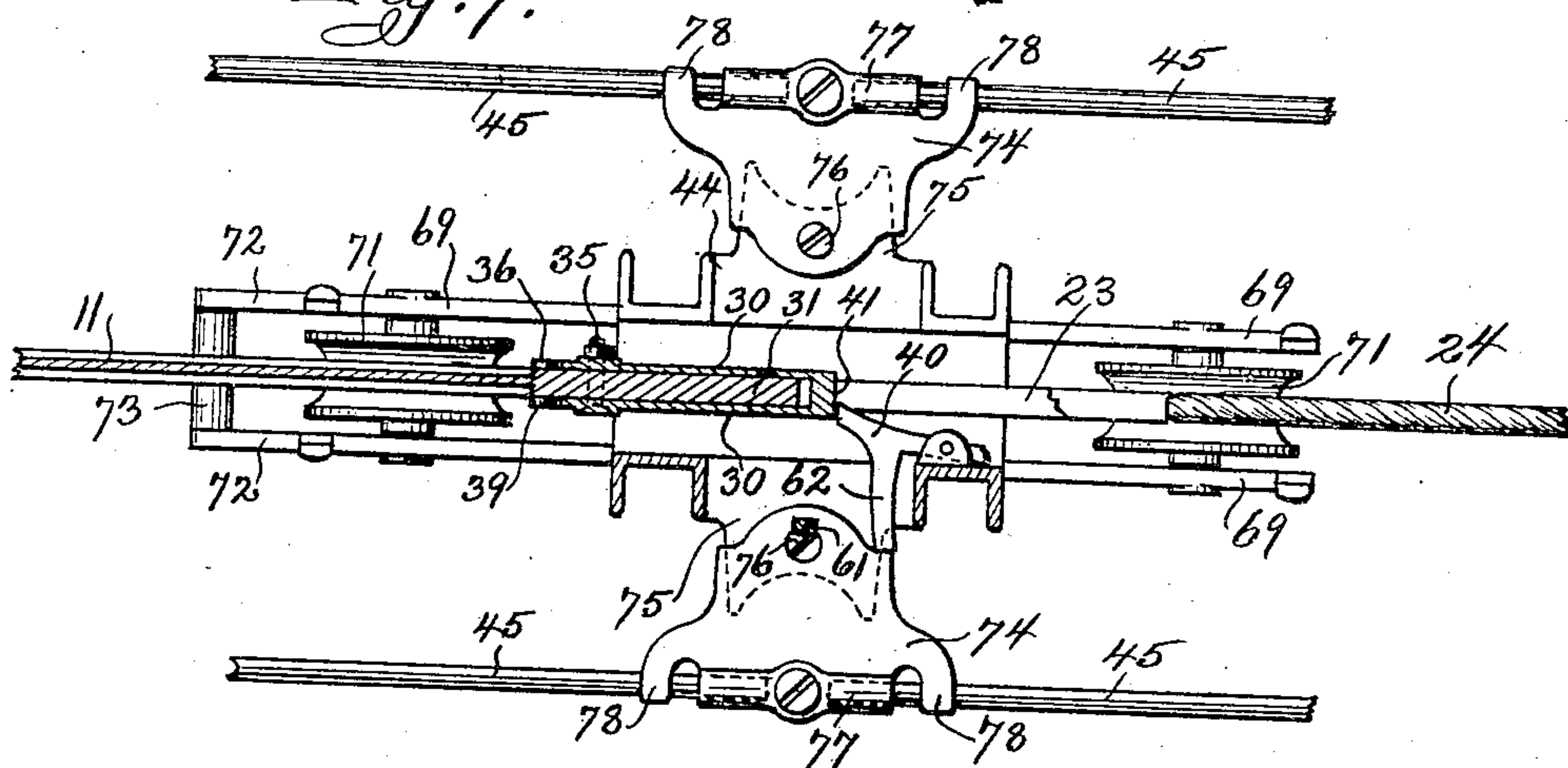
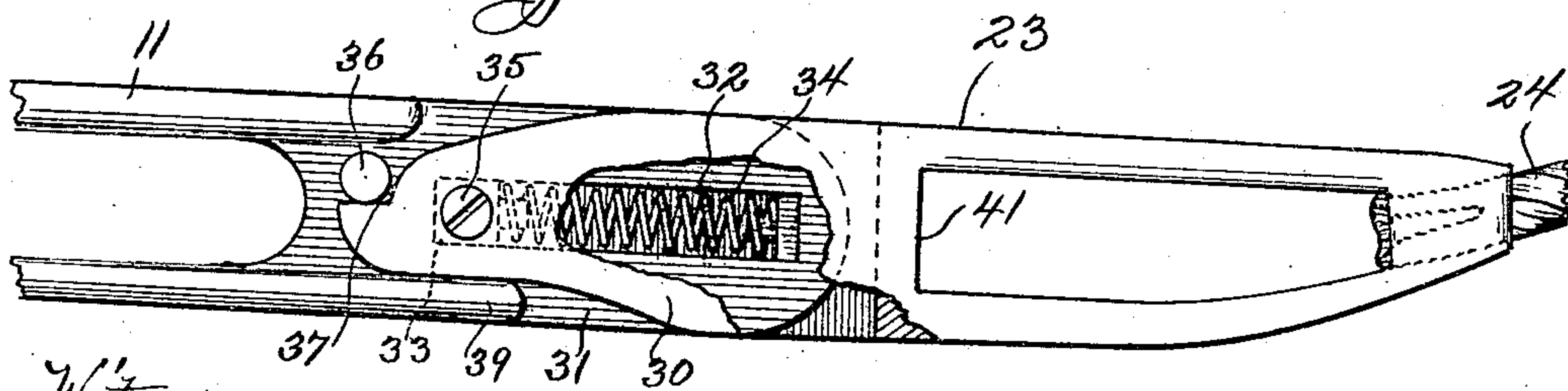


Fig. 8.



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# UNITED STATES PATENT OFFICE.

JAMES L. BALDWIN, OF CHICAGO, ILLINOIS.

## CASH AND PARCEL CARRIER.

No. 856,189.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed January 25, 1906. Serial No. 297,869.

*To all whom it may concern:*

Be it known that I, JAMES L. BALDWIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Cash and Parcel Carrier, of which the following is a specification.

My invention relates to cash and parcel carriers in which a car supporting a basket travels on a suspended track or wire and a device is provided at the end of the track to lower the car; and the objects of my invention are first to raise and lower one end of the track and control the speed of the same while lowering; second, to provide a thrower for the car; third, to provide means for lowering the car at the end of the track and a governor to automatically control the lowering of the car; fourth, to afford means for holding the car in a suspended position when not in use; fifth, to have the car positively stop in front of the throwing fork; sixth, to prevent the car from leaving the track; seventh, to provide a novel locking section of the track and other objects to become apparent from the description to follow.

Heretofore there has been considerable difficulty experienced in delivering the basket or basket carriers to their destination at the end of track, *i. e.* some were constructed with an inclined track on which the car supporting the basket would gravitate to its destination at an unsatisfactorily slow speed, and if the track wire was slack the car would sometimes stop on the track at a point intermediate the end stations and cause delay and trouble; some were constructed with a thrower to throw the car with basket up an inclined track, this required considerable skill to land the basket at its destination, especially was this true when the same basket at different times carried goods of different weight. Still others were so constructed that the car would accidentally leave the track or the lowering device for the basket at the end of the track was inconvenient and unsatisfactory.

By the use of my invention all these difficulties are eliminated, the car with the basket is normally supported up above the head of the operator, it can quickly be lowered by the operator, raised again and forced quickly along the track with positive assurance of its reaching its destination and no skill is required in the operation.

My invention comprises a track suspended at any desired height above the floor, it is preferably a wire having its end secured to a piece of bar track which is pivoted to a link or frame, provided on its extremity with means for moving up and down on a vertical support depending from the ceiling. To the end of the bar track is pivoted to move in a vertical plane a short lock track to which is secured a rope which passes under pulleys on the vertically moving frame and over pulleys secured on the vertical support above the same and finally down to within reach of the operator. The rope is so arranged as to serve as a continuation of the track and to lower the car with the basket to within reach of the attendant and to raise it again. The same rope serves to raise and lower the vertically moving frame.

The lock track is a novel feature of my invention and serves to hold the car in a supported position when not in use.

One of the pulleys over which the rope passes is provided with a governor to regulate the descent of the car, and the car is provided with spring pressed means to prevent the car ever leaving the track.

When the vertically moving frame is in a raised position the track is elevated so that the car when pushed onto said track will travel to the remote end of said track by gravity, and when said frame is in a lowered position the track is lowered so that the car when pushed onto said track at the remote end thereof, the car will travel by force of gravity toward the low end of the track. Besides lowering and raising the one end of the track to cause the car to travel along the track by gravity a means is provided to push the car along on the track with considerable force by pulling down on a cord. By this construction a quick and positive acting parcel carrier is provided.

To describe my invention so that others versed in the art to which it pertains can understand it sufficiently to make and use the same, I have illustrated it on the accompanying three sheets of drawings in which:—

Figure 1, is a side elevation of a carrier embodying my invention; Fig. 2, is a section on 2—2 of Fig. 1; Fig. 3, is a section on 3—3 of Fig. 1; Fig. 4, is a section on 4—4 of Fig. 3; Fig. 5, is a section on 5—5 of Fig. 4; Fig. 6, is a side view of the car in position on the lock track; Fig. 7, is a plan section on 7—7



of Fig. 6 partly in elevation and Fig. 8, is a side elevation of the lock track.

Similar reference characters refer to similar parts throughout the several views.

5 The track 10 is preferably a wire having its one end secured to the bar track 11 so that one forms a continuation of the other and its other end secured at a station not shown which station is not necessarily a duplicate  
10 of the one shown in the drawing, and may be any of the usual kinds in which the track wire is not arranged to be raised and lowered. The track 11 is a casting in the form of a flat bar set vertically edgewise; it may be light-  
15 ened by having portions provided with openings and is pivoted midway its ends to one end of a supporting frame 12 at 13 to allow the track 11 to swing in a vertical plane about said pivot. The other end of the  
20 frame 12 is provided with a longitudinally extending fork 14 which straddles the vertical support 15 which is rigidly secured to the ceiling and has a guy wire 16 connected to its lower end. Between the extremities of the  
25 fork 14 is pivoted a carriage 17 with two grooved wheels 18 arranged to travel on the support 15. The track wire 10 is always kept drawn tight by mechanism provided on the station not shown and the strain thus  
30 produced is exerted through track 11, pivot 13, frame 12, fork 14, and carriage 17 onto the wheels 18 which serves to keep said wheels constantly against the support 15.

A suitable distance above the lower end of  
35 the support 15 is secured a bracket 19 to which is pivoted a spring pressed catch 20 arranged to hook into a catch or socket 21 provided on the carriage 17 to retain said carriage and therefore the frame 12 and  
40 tracks 11 and 10 in an elevated position until the catch 20 is withdrawn from said catch 21 by a pull exerted on the small wire 22 connected to the catch 20. The pull on the wire 22 may be made in any desired manner but it  
45 is preferably automatically made by the car to be described striking a lever at the other station not shown.

To the end of the track 11 remote from the wire 10 is slidably jointed a lock track 23 to  
50 be described and to the free end of the lock track 23 is connected in the usual way an elevating rope 24 which passes under pulley 25 pivoted to bracket 26 on frame 12, thence up and over pulley 27 pivoted on bracket 19  
55 thence down and around under pulley 28 pivoted between lugs provided on frame 12, thence up and over pulley 29 pivoted on bracket 19 and finally down to within reach of the operator.

60 The lock track 23 is best shown in Figs. 6, 7 and 8; its one end is vertically slotted forming the two side arms 30 which straddle over the thickened end portion 31, which is provided with a horizontal slot 32 in which is  
65 mounted to slide a block 33 which is normally

held against that end of the slot 32 which is nearest to the wire 10 by a coiled expanding spring 34 interposed between the opposite end of the slot 32 and block 33. A bolt 35 is  
70 passed through holes provided therefor in arms 30 and block 33 and serves to connect track 23 to track 11.

As viewed in Fig. 8 it will be seen that the spring 34 tends to hold track 23 to the left but that it can be moved to the right about  
75 half the length of slot 32 by applying enough force to compress the spring. A short distance to the left of bolt 35 the track 11 is provided with laterally extending lugs or pins  
80 36 on both sides which serve as stops for the shouldered ends 37 provided on the arms 30. It may be stated here that the lock track 23 when in the locked position shown in Fig. 8, supports the car 38 part of the time,  
85 and to relieve the bolt 35 of a portion of the supporting strain the track 11 is provided with lateral flanges 39 directly under bolt 35 for the ends of the arms 30 to rest on. Thus  
90 it will be seen that a pull down on the free end of track 23 will cause a downward pressure on the flanges 39 and an upward pressure on the lugs 36.

In operation when the car 38 is at rest on the track 23 a quick jerk on rope 24 will compress spring 34 sufficiently to move the shoulders 37 out from under the lugs 36 and the  
95 weight of the car will swing track 23 down about bolt 35 as a pivot allowing the car to travel off of track 23 onto rope 24 and then descend as rapidly as the feeding of the rope  
100 will allow.

When it is desired to restore the car to a position on the track 23 as seen in Fig. 6, the operator pulls the rope 24 down as far as possible, the last portion of the pull elevates the  
105 free end of track 23 to a point on a level with or slightly above the track 11 when the car 38 travels toward the track 11, then the operator gradually discontinues the pull on the rope 24 and the spring 34 forces track 23 to  
110 the left, as viewed in Fig. 8, and causes the arms 30 to rest on the flanges 39 and the shoulders 37 to rest under lugs 36, which is the locked position of said track.

To assist in moving the track 23 to its  
115 locked position and to prevent the car 38 from moving off of said track 23 onto track 11 until so desired, the car is provided with a spring pressed dog 40 arranged to move laterally into and out of the path of track 23.  
120 The dog is normally held in the path of track 23 and when the car 38 moves from rope 24 onto track 23 toward track 11 as above described the free end of the dog will contact with the squared shoulder 41 provided on  
125 track 23 and tend to move the track 23 in the same direction as the car moves which would be to its locked position.

When in position on the track 23 the car 38 cannot be pushed off of said track onto  
130



track 11 until the dog 40 is withdrawn from back of the shoulder 41 and to accomplish this, I provide mechanism mounted on the car which will automatically withdraw the dog 40 from back of the shoulder 41 when the propelling mechanism is made to act on the car.

The car 38 which is best shown in Figs. 1, 6 and 7 has the two grooved wheels 42 pivoted between the frames 43 and 44 arranged to travel on the tracks 10 11 and 23 and the rope 24. The frame 44 extends from above the track where the wheels 42 are pivoted down to a short distance below the track where the bails 45 of the basket 46 are attached while the frame 43 does not extend below the track so as to allow the car to pass the track supports. The frames 43 and 44 are securely fastened together by the screws or bolts 47.

An inverted V shaped arm 48 is pivoted to the frames 43 and 44 at 49 with its apex extending some distance above said frames to be contacted by the propelling fork 50 which is mounted to slide on the rod 51 located directly above and parallel with track 11 and secured in position by having its extremities fastened in the brackets 52 and 53 which are secured to the ends of another rod 54 which is supported by braces 55 secured to track 11 as shown in Fig. 1.

The normal position of the fork 50 is back adjacent the bracket 52 and to move it forward on rod 51 toward bracket 53 a cord 56 is attached to the fork 50 preferably at a point above rod 51. The cord 56 extends forward from the fork 50 around pulley 57 pivoted in bracket 53, thence up and back over pulley 58 (Fig. 3.) pivoted to bracket 19, thence down under the floating pulley 59 pivoted in a suitable frame 60, thence up and over pulley 61 pivoted to bracket 19 and thence down having its end secured to the frame 60. Thus it will be seen that when the frame 60 is pulled down the fork 50 will be moved from adjacent the bracket 52 toward bracket 53 and during its movement it will contact with arm 48 and propel the car 38 along the track. The arm 48 is provided with an extension 61 below pivot 49 adjacent frame 44 arranged to contact with a tailpiece 62 of the dog 40 in such manner that arm 48 will be swung about pivot 49 and withdraw dog 40 from back of the shoulder 41 when said arm is moved by fork 50. A cord 62 is attached to the frame 60 which hangs down far enough to bring the handle 63 attached to the lower end thereof within reach of the operator. When the handle 63 is pulled down the fork 50 is forced against the arm 48 and tends to move the car 38 out toward wire 10, but the car cannot begin to move until dog 40 is withdrawn as described, after which a further downward pull on han-

dle 63 will propel the car out along on tracks 65 11 and 10 to its destination.

In operation the car 38 is never propelled out onto the track 10 excepting when the frame 12 is in its raised position, being retained by the catch 20 engaging the shoulder or catch 21, and after the car has been propelled away from the station by pulling down on handle 63 the propelling fork 50 remains in its operated position near the bracket 53 until it is returned to its normal position.

Before returning the car to the station, from the station not shown a pull is applied on wire 22 which allows frame 12 with its connections to lower by gravity, and I prefer to have the lowering of frame 12 return fork 50 to its normal position adjacent bracket 52 by attaching one end of a cord 64 to the fork 50 and passing it back under a pulley 65 pivoted to bracket 26 on frame 12 thence upward around pulley 66 pivoted in bracket 19 and finally down and through a perforation in frame 12 below which a stop 67 in the shape of a ball is secured to the cord 64.

Assuming the frame 12 to be in its raised position and the fork 50 near the bracket 53, when the frame 12 is released and moves down it will of course carry the stop 67 down with it and thus pull the fork 50 back to its normal position. It will be understood that as the fork 50 is returned to its normal position the cord 62 and handle 63 are raised to their normal position leaving all the parts in position for another operation.

When the car 38 is on its return trip toward the station it travels at such speed that when it leaves the track 23 and passes onto the rope 24 its momentum will cause a pull on the rope 24 away from track 11 strong enough to unlock track 23 from track 11 and its weight will cause said track 23 to swing down about its pivot 35.

When the car is on track 11 or 10 it sometimes happens that it leaves the track and thus causes damage and delay, therefore I prefer to provide means whereby the car is absolutely prevented from ever accidentally leaving the track. This means comprises the downwardly curved fingers 68 extending from the frames 43 and 44 at each end of the car terminating slightly beyond the wheels 42 and about on the same horizontal plane as the lower edge of wheels 42, and the upwardly curved fingers 69 pivoted to the frame 44 below and on either side of the track which are spring pressed upwardly and arranged so that their ends will normally engage the ends of the fingers 68.

To assist in keeping the car on the track, and to move the fingers 69 down about their pivots to clear the supports secured to track 11 grooved wheels 71 are pivotally mounted between the pair of fingers 69 at each end of the car. The fingers 69 at the one end of the



car may be provided with the extensions 72 which are connected across by a pin or roller 73 which serves to snap under a hook provided on the station not shown to prevent the car from rebounding.

To secure the bails 45 of the basket to the car I have shown the clamps 74 provided with a socket to fit over the tapered extension 75 of the frame 44, with a bolt 76 to secure them together. A cap 77 is bolted down over the bent ends of the bails 45 which rest in a groove provided in the clamps 74, and the lugs 78 on the clamps 74 prevent the bent ends of the bails 45 from being withdrawn longitudinally.

Some kind of a propelling device is preferably provided at the station not shown which has a fork similar to fork 50 to act on the arm 48, but of course it will move the arm in an opposite direction to which it is moved by fork 50; and when the arm 48 is thus moved about its pivot 49 the pin or roller 73 is moved down and out of engagement with its cooperating hook mentioned above for the reason that the extension 61 of the arm 48 is connected to the vertical extension 79 of the finger 69 by the link 80. Stops 81 and 82 are provided on the upper part of frames 43 and 44 to limit the movement of the arm 48.

Some one of the pulleys over which rope 24 passes has its speed controlled by a governor and in the drawings it is shown as being the pulley 29.

Referring more particular to Figs. 3, 4 and 5 the pulley 29 is mounted to rotate loosely on a pin 83 secured in bracket 19 and having on its outer end the lock nuts 84 and washer 85. The pulley 29 is provided on one side with the conical surface 86 concentric with pin 83 and on the other side with the ears 87 to which are pivoted the arms 88 carrying the governor balls 89. The arms 88 have the short extensions 90 with their rounded ends resting against the washer 85. Mounted loosely on the pin 83 between pulley 29 and bracket 19 is a sleeve 91 provided with a conical end 92 concentric with pin 83 and arranged to fit onto the conical surface 86 of the pulley 29. A spiral expanding spring 93 is interposed between the pulley 29 and sleeve 91 to normally separate the conical surfaces 86 and 92.

The rotation of the sleeve 91 on pin 83 is positively prevented in one direction by the lug 94 on the sleeve contacting with the lug 95 on the bracket 19. The sleeve 91 is also provided with a radial arm 96 which serves to press the rope 24 tightly into the groove of the pulley 29 when it rotates swiftly in the direction indicated by the arrow in Fig. 4, by cooperating with mechanism to be described.

A bell crank lever 97 is pivoted to the bracket 19 having one arm 98 extending into

the path of the arm 96 and the other arm 99 provided with a flanged pulley 100 arranged to constantly hold the free end of rope 24 in the groove of pulley 29. The extreme end of arm 99 is provided with a loop 101 to guide the rope 24. The arrangement of the bell crank lever 97 with relation to pulley 29 is such that when the lever 97 swings on its pivot the pulley 100 will move toward or away from the pulley 29. A coiled expanding spring 102 is interposed between the free ends of arms 96 and 98. In operation the pulley 29 is rotated in the direction indicated by the arrow in Fig. 4, either by the lowering of the frame 12 or by the lowering of the car 38; in either case the mechanism just described will control the speed at which they will fall.

When the pulley 29 is swiftly rotated the governor balls 89 which rotate with said pulley will by reason of the centrifugal force move the arms 88 about their pivots so as to force the extensions 90 against the washer 85. The washer 85 being held against movement by the nuts 84, the surface 86 will be pressed against surface 92 and the friction thus created will tend to revolve the sleeve 91 in the direction indicated by the arrow in Fig. 4, and as the sleeve 91 revolves its arm 96 will act through the spring 102 and bell crank lever 97 to move pulley 100 toward the pulley 29 and insure a more secure grip between the rope 24 and pulley 29.

It will be understood that numerous changes may be made in the construction and form of the several parts without in the least departing from the spirit of the invention.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a parcel carrier, a basket, a track arranged to be raised and lowered for said basket to travel on, a propelling mechanism for propelling said basket along the track and means for lowering the basket.

2. In a parcel carrier, a car, a track arranged to be raised and lowered for said car to travel on, a short pivoted track connected to the end of said first named track arranged to be locked to form a continuation of said first named track and a rope connected to the free end of said second named track serving as a flexible track for said car.

3. In a parcel carrier, a track arranged to be raised and lowered and a governor for controlling the lowering of said track comprising a pulley loosely mounted on a shaft, a rope to travel over said pulley, governor balls pivoted to said pulley and a rope tightening mechanism whereby the speed of said pulley will be checked and the rope will be pressed tightly against said pulley by the action of said balls.



4. In a parcel carrier, a car, a track arranged to be raised and lowered, a rod supported above and parallel with the end of said track, a propelling fork mounted to slide on said rod and a pull cord attached to said propelling fork for moving said fork to propel said car.

5. In a parcel carrier, a car, a track for said car to travel on, a rope connected to the end of said track to serve as a flexible track for said car and to lower and elevate said car, means for propelling said car along on said track, and means for retaining said car in an unmoved position on the track until the propelling means is brought into action.

6. In a parcel carrier, a track, a car to travel on said track provided with stationary fingers above the track and on either side thereof and with spring pressed fingers below the track on either side thereof, said upper and lower fingers arranged to have their ends meet to prevent the car from leaving the track.

7. In a parcel carrier, a track for a car to travel on and a short track flexibly secured to the end of said track and arranged to automatically lock to be in alinement with said first named track.

8. In a parcel carrier, a car, a track arranged to be raised and lowered, a rod supported parallel with the end of said track, a

propeller mounted on said rod and a pull cord to actuate said propeller to propel said car.

9. In a parcel carrier, a basket attached to a car, a track arranged to be raised and lowered for said car to travel on, a propelling mechanism for propelling said car along said track and means for lowering said basket and car.

10. In a parcel carrier, a car, a track arranged to be raised and lowered, a rod supported by above and parallel with, the end of said track, a propelling fork mounted to slide on said rod and a pull cord attached to said propelling fork for moving said fork to propel said car.

11. In a parcel carrier, a car, a track arranged to be raised and lowered, a rod supported by and parallel with the end of said track, a propeller mounted on said rod and a pull cord for operating said propeller to propel the car.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses this 20th day of January 1906, at Chicago, Illinois.

JAMES L. BALDWIN.

Witnesses:

R. J. JACKER,  
PETER PEIFFER.