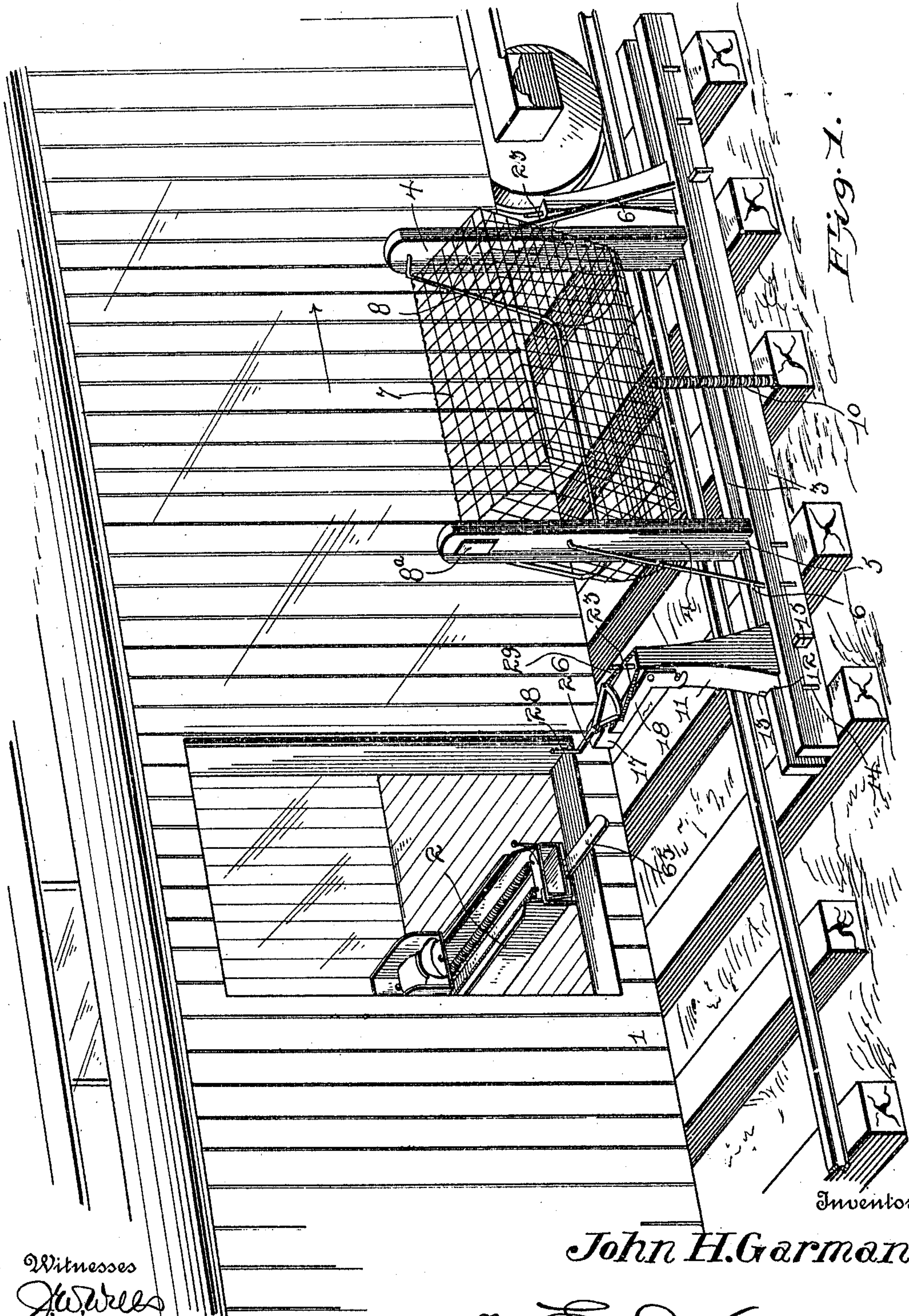


955,861.

J. H. GARMAN.
MAIL DELIVERING APPARATUS.
APPLICATION FILED JULY 17, 1909.

Patented Apr. 26, 1910.

3 SHEETS—SHEET 1.



Inventor

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his Attorney.

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3 SHEETS—SHEET 2.

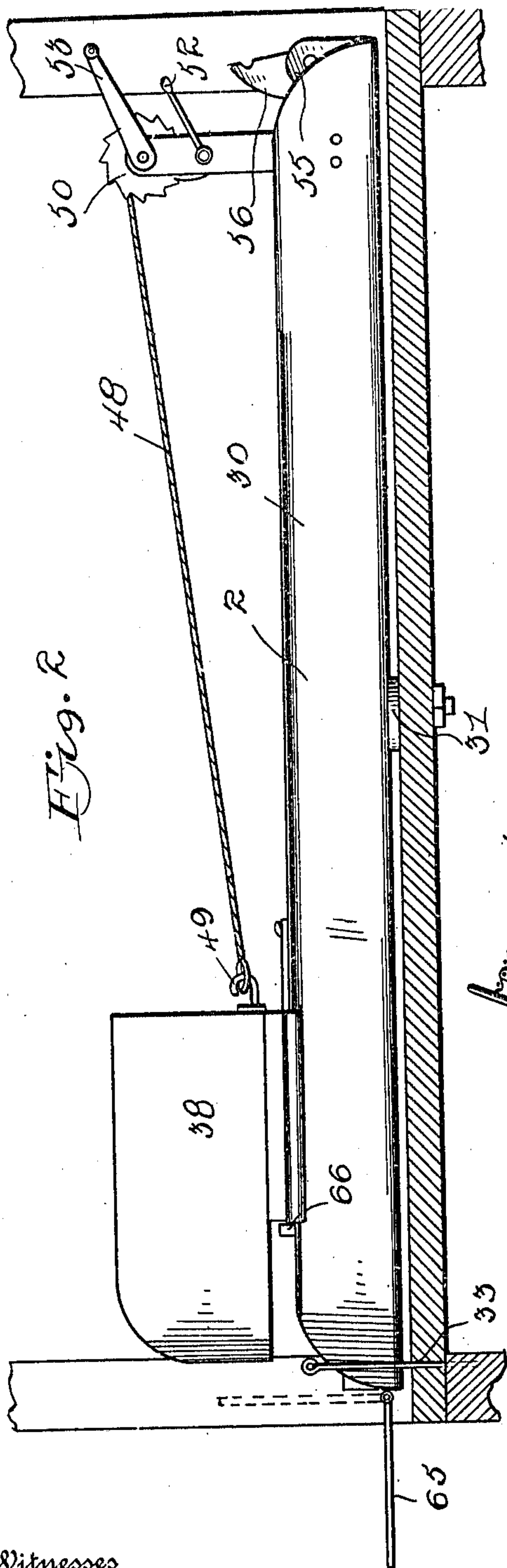


Fig. 2

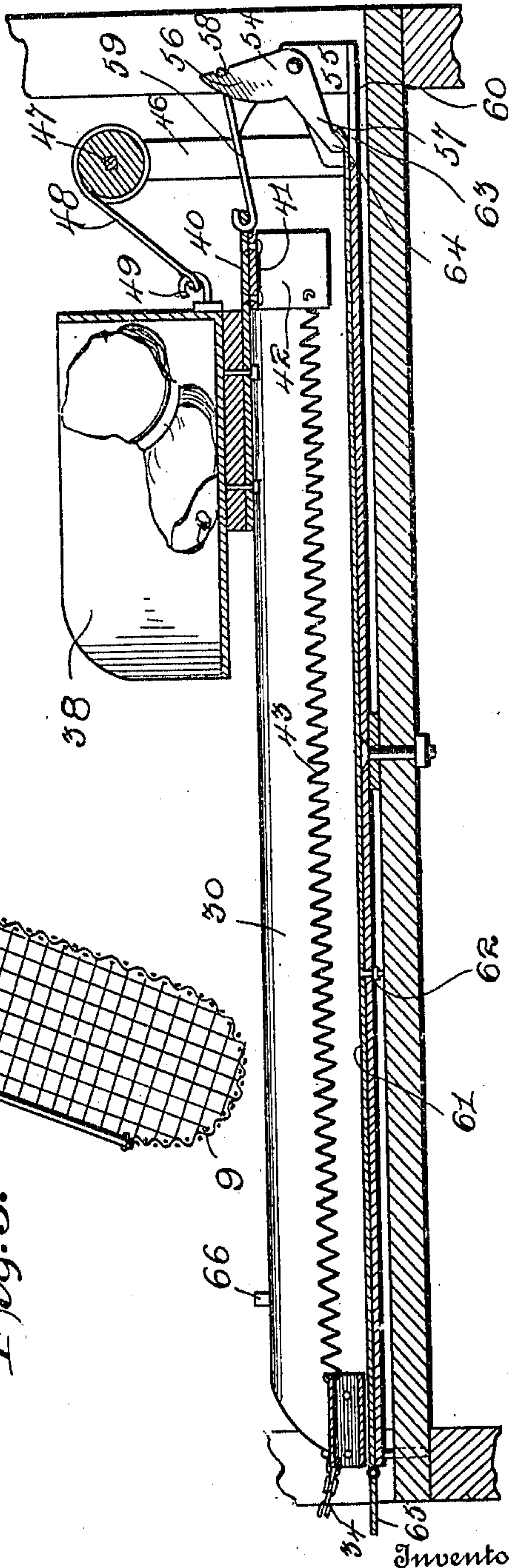


Fig. 3.

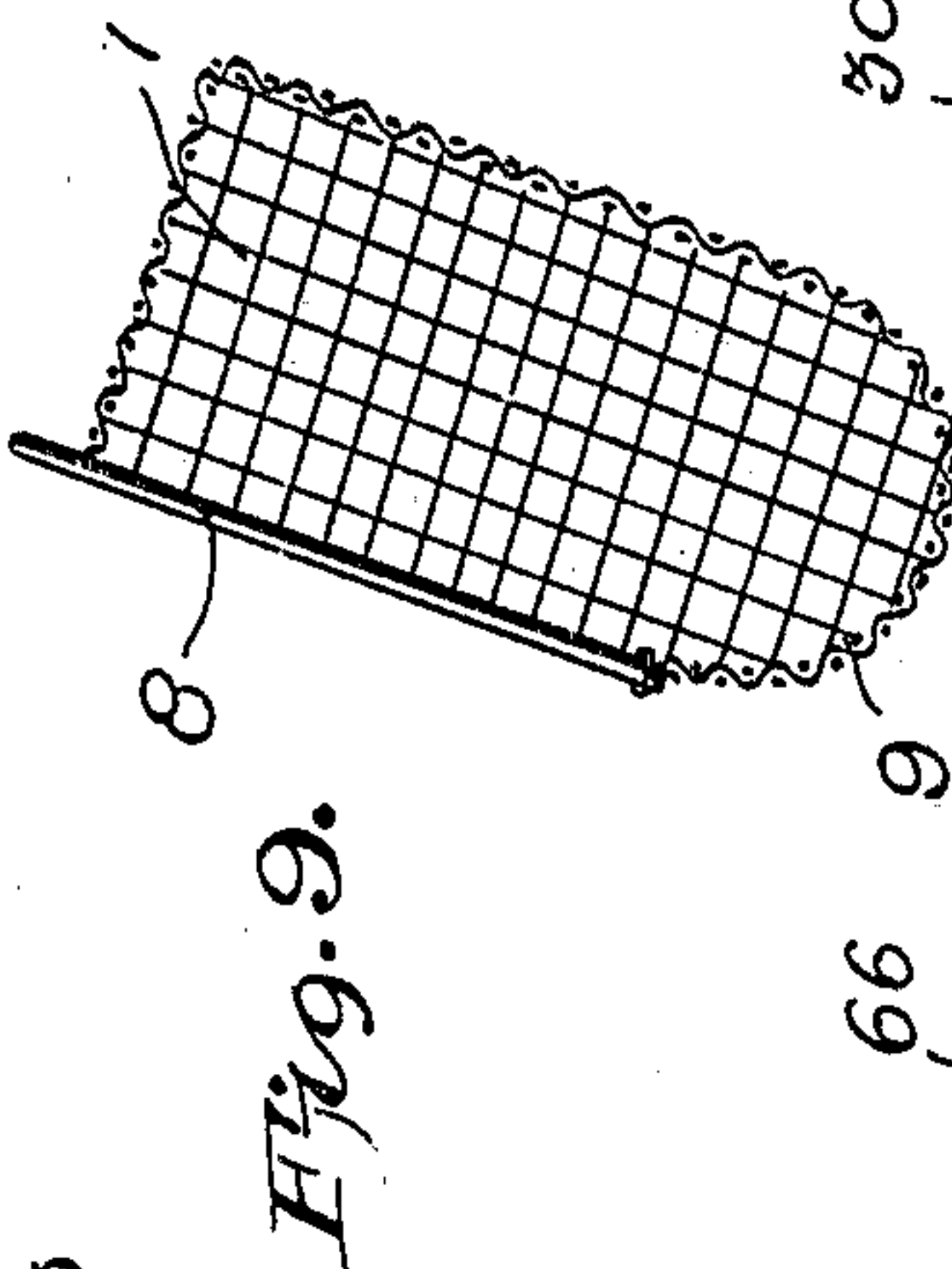


Fig. 9.

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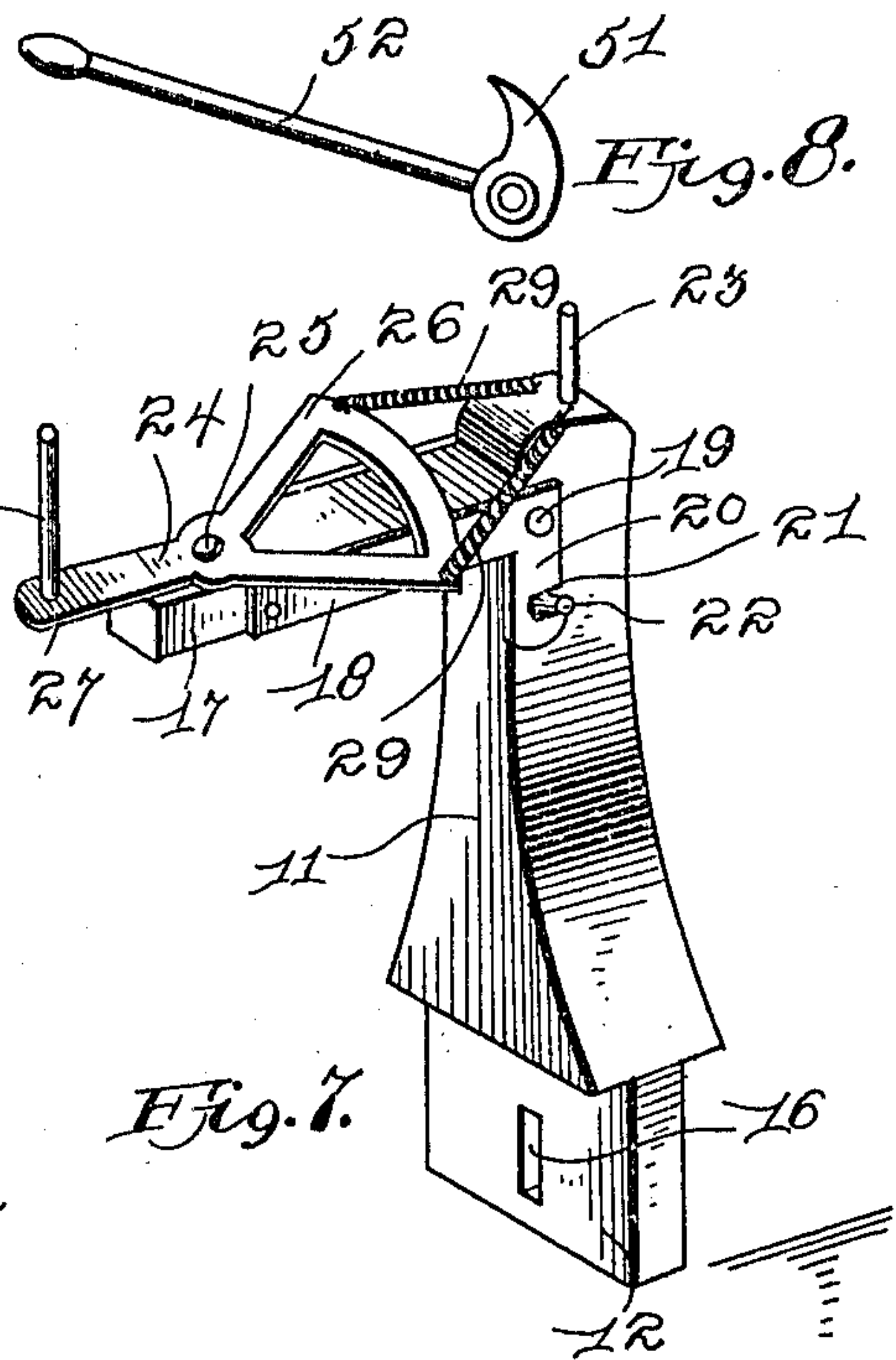
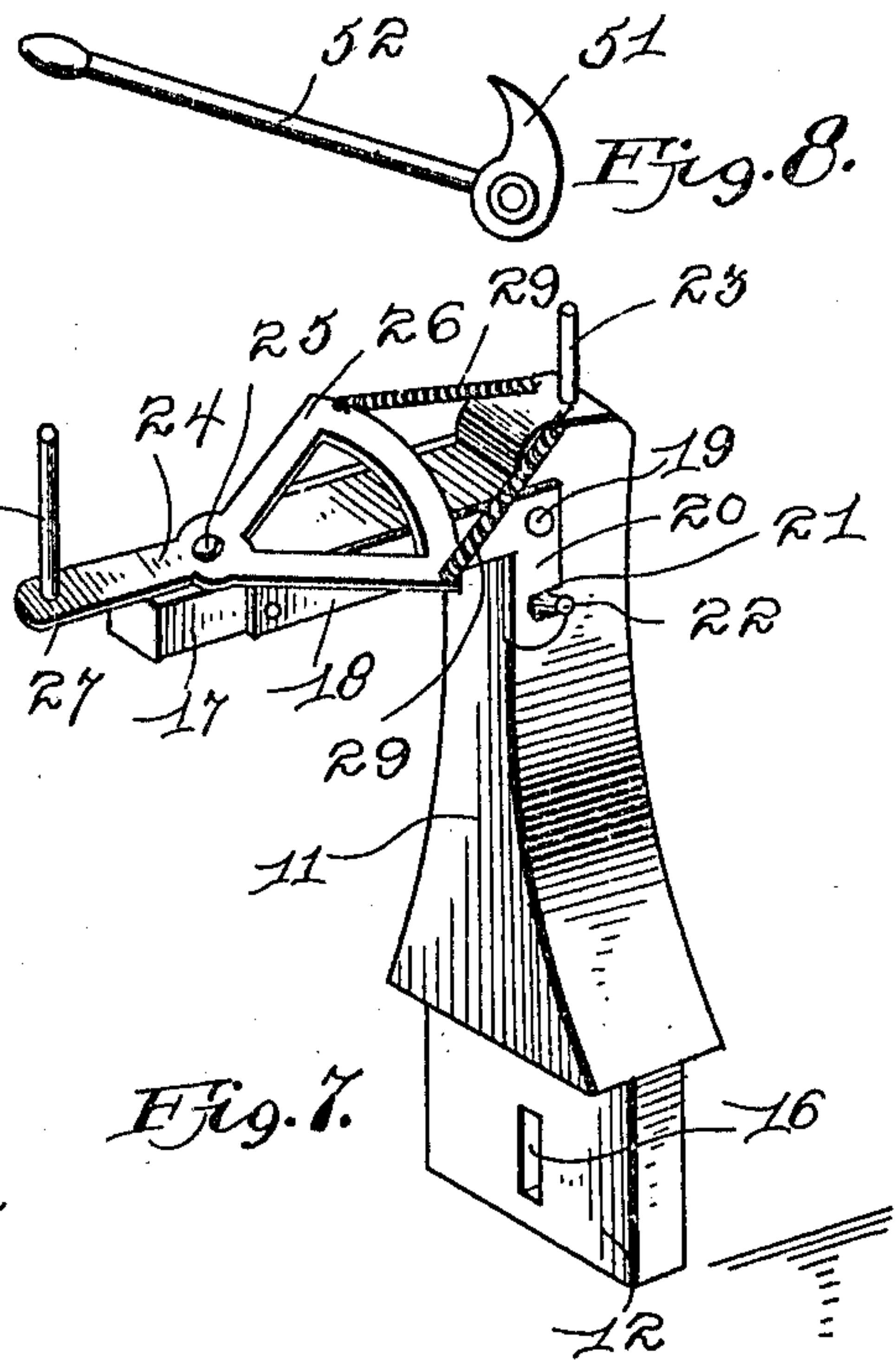
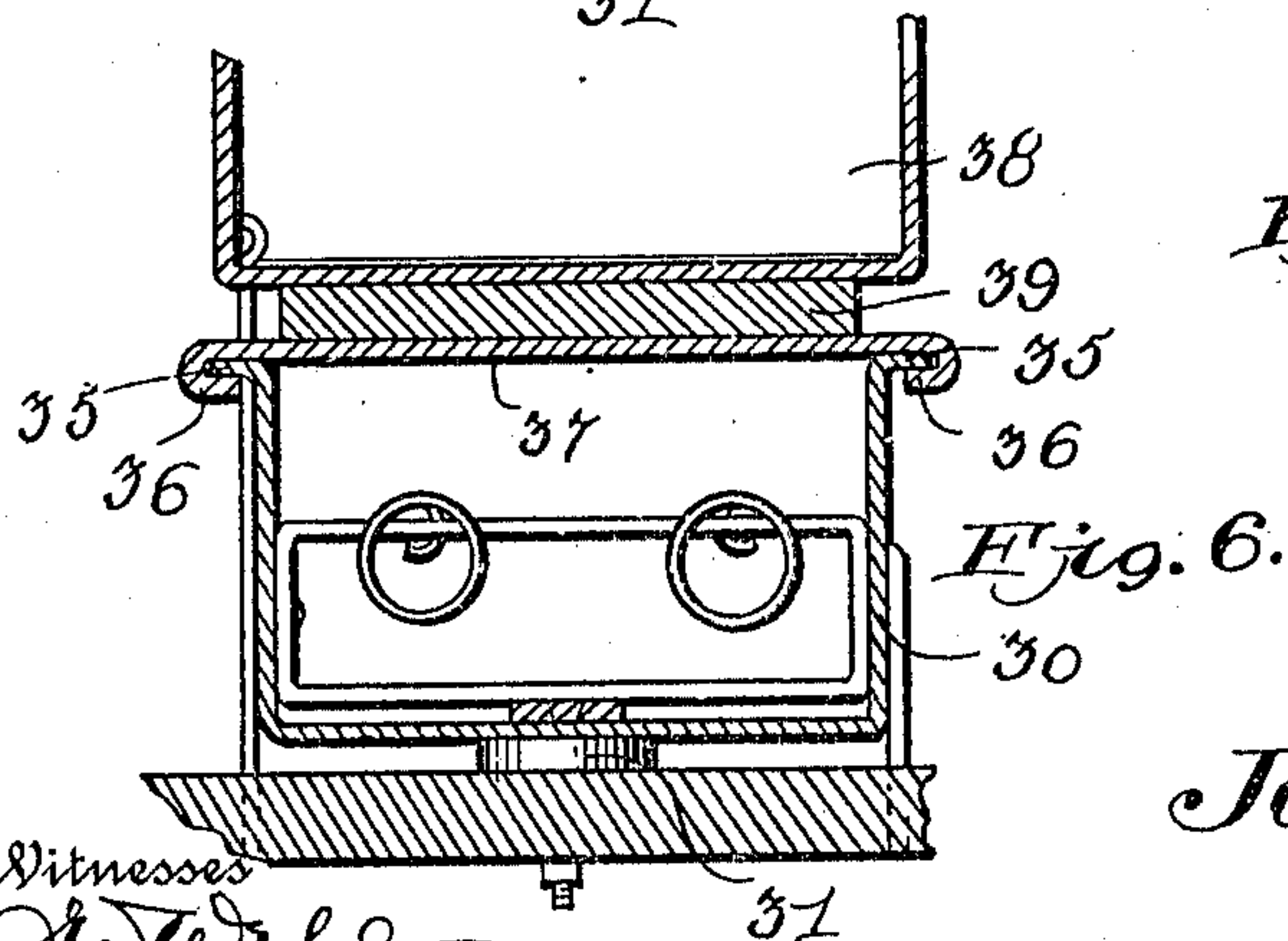
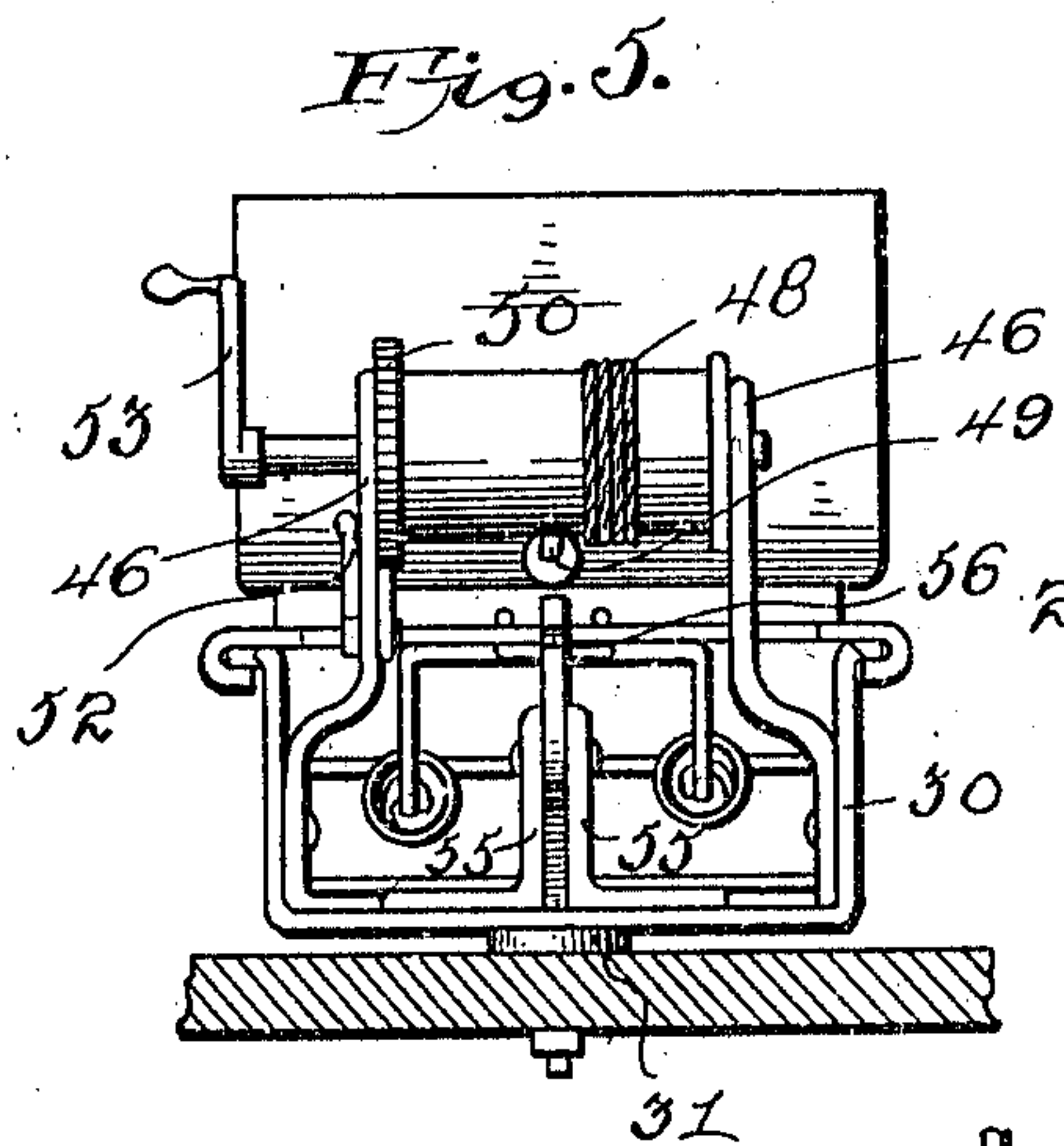
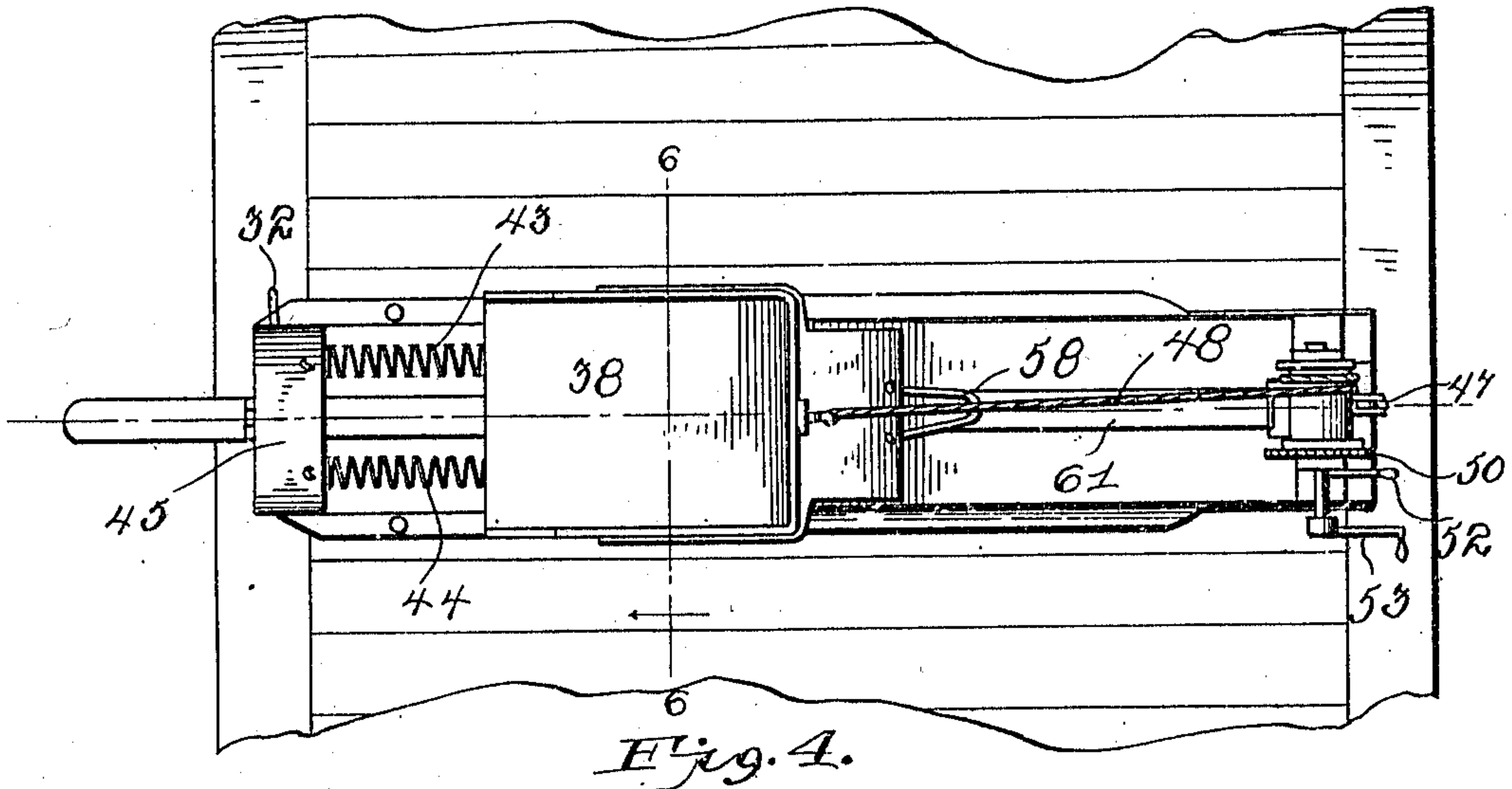
Attorney

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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

JOHN H. GARMAN, OF BRISTOL, INDIANA.

MAIL-DELIVERING APPARATUS.

955,861.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed July 17, 1909. Serial No. 508,149.

To all whom it may concern:

Be it known that I, JOHN H. GARMAN, a citizen of the United States, residing at Bristol, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Mail-Delivering Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to mail bag receiving and delivering apparatus, and has for its object the production of means for discharging a bag from a moving car.

15 Another object of this invention is the production of novel means for catching the bag after the same has been discharged from the car.

20 Still another object of this invention is the production of novel means carried by the car for discharging the bag or delivering the same into the bag receiving device carried to one side of the car.

25 With these and other objects in view this invention consists of certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

30 In the drawings: Figure 1 is a perspective view of the device showing the same in connection with a car. Fig. 2 is a side elevation of the catapult. Fig. 3 is a longitudinal section of the catapult showing the same in a retracted position. Fig. 4 is a top plan view of the same. Fig. 5 is a rear view of the same. Fig. 6 is a section taken on line 6—6 of Fig. 4. Fig. 7 is a detail perspective of the trip lever post. Fig. 8 is a side elevation of the ratchet lever adapted to engage the ratchet wheel carried by the drum controlling the catapult. Fig. 9 is a transverse sectional view of the bag receiving basket or receptacle.

45 Referring to the drawings by numerals, 1 designates the car which carries in the door a catapult 2 and to one side of the track is adapted to be positioned the bag-receiving means, adapted to receive the bag after the same has been discharged from the catapult 2.

50 Adapted to be positioned to one side of the track is a pair of longitudinally-extending members 3, between which is adapted to be positioned a pair of vertically extending supports 4, which are provided with depending-reduced portions 5, which reduced portions are adapted to be positioned be-

tween the longitudinally-extending members 3. The vertically-extending brace members 4 are provided with overhanging portions adapted to engage the upper surface of the longitudinally-extending members 4 thereby relieving considerable of the strain from the depending portions 5. The vertically-extending members 4 are braced by means of diverging or downwardly-extending braces 6, which engage the sides of the upwardly-extending portions 4 and one of the longitudinally-extending members 3.

70 A bag-receiving basket or receptacle 7 is supported between the vertically-extending members 4 and the basket comprises a bracing or reinforcing member 8, which extends around the front edge of the basket and has its outer ends bent at an angle to the same, which ends are journaled in the upper ends of the vertically-extending members 4, thereby firmly supporting and pivotally mounting the basket upon or between the vertically-extending members 4. The laterally-extending ends, which are journaled in the upper ends of the vertically-extending members 4 extend through the members 4 and a plate 8^a is secured to the outer face of said vertically-extending members and prevents the lateral movement of the basket upon the support for the reason that the laterally-extending ends will engage the plates 8^a and thereby prevent any lateral movement of the ends within or upon the support. The basket or receptacle 7 comprises a substantial wire body portion having its bottom bowed downwardly, as at 9, so as to allow the bag delivered thereto to drop into the bowed bottom 9 and be prevented from being thrown out of the basket after the same has been delivered therein. A coil spring 10 is secured to the bottom or bowed portion 9 of the basket, at one end, and at the other end to one of the ties, and it will be obvious that when the bag is thrown into the basket that the movement of the basket will be limited through the medium of the spring 10, which will tend to retard the movement of the basket and quickly bring the same to rest.

105 Supported upon each side of the vertically-extending members 4 are positioned trip lever-supporting members 11, which are also provided, like the vertically-extending members 4, with depending portions 12, which portions fit between the longitudinally-extending members 3. The trip

lever-supporting members 11 are also provided with shoulders 13, which engage the upper surface of the longitudinally-extending members 3 and remove considerable of the strain from the depending portions 12. It is preferable to have one of these trip-lever-supporting members upon each side of the basket 7 so as to readily trip the catapult and allow the discharge of the mail into the basket in case the train should be coming in either direction. The longitudinally-extending members 3 are provided with a plurality of notches 14 in which are adapted to fit a key member 15, which also register with a notch 16 formed in the depending portion 12 of the trip-lever-supporting member 11. It will be obvious that by having the notches formed in the longitudinally-extending members that the trip-lever-supporting member can be adjusted relative to the distance between the same and the basket. It will be obvious that by having this adjustment the trip-lever-supporting member can be so positioned as to cause the mail to be delivered within the basket in accordance with the speed of the train from which the mail is to be delivered.

The trip-lever-supporting member has pivotally secured, at its upper end, an outwardly-extending member 17, and said outwardly-extending member has secured to each side, a bracket 18, which bracket is pivotally secured, near the upper end of the member 11 at 19. The bracket 18 is provided, near its outer or pivotal end, with a depending-integral portion 20, in which is formed a notch 21, which fits around a pin 22 thereby limiting the downward swing of said member 17. A vertically-extending pin or rod 23 is formed upon the top of the member 11, and as the member 17 is swung to a vertical position, so as to be out of the way of the passing train, the pin 23 will limit the movement of the member 17 in one direction. A trip lever 24 is pivotally secured, near the outer end of the member 17, at 25, and comprises a rearwardly-extending flared end 26, and a forwardly-extending end 27. The forwardly-extending end 27 is provided with a vertically-extending member or pin 28, which is adapted to engage the trigger of the catapult hereinafter described. Secured to the flared rear end 26 of the trip lever 24 are a plurality of coil springs 29, which are secured at their opposite ends to the upper end of the member 11. These springs 29 act as a retarding means for the trip lever 24, after the same has engaged the trigger of the catapult.

As previously stated, the catapult 2 is adapted to be positioned within the car, so as to discharge the mail bag from the door thereof. The discharge device of the catapult 2 comprises a track portion 30, which

is rotatably mounted upon the floor of the car, as at 31, thereby allowing the catapult 2 to be swung upon the pivot 31, so as to allow the device to discharge from either side of the car. Upon each side of the car is provided a substantially inverted L-shaped bracket 32, which has its upper end adapted to overhang one side of the track portion 30 thereby holding the catapult against rotation in one direction. When the frame or catapult has been turned to the desired position, so as to discharge the mail from one side of the car, the same is held in its place by means of a pin or locking member 33, which engages the opposite side of the track portion 30, and is inserted in the bottom of the car, and which will prevent the rotation of the catapult in the opposite direction thereby holding the same firmly in a set position. The pin or locking member 33 is connected to the track portion 30 by means of a chain 34, so as to prevent the pin 33 from being lost. The track portion 30 is provided upon its upper edge with flared ends 35, which are adapted to be engaged by the depending or overlapping ends 36 of the plate 37 carried by the bottom of the car or bag discharging receptacle. The bag discharging receptacle 38 is supported above the plate 37 by means of an intermediate member 39 and the plate is provided with a rearwardly-extending portion 40. To the bottom of the rearwardly-extending portion 40 is secured a substantially inverted U-shaped bracket 41 and to the depending ends 42 thereof are secured one end of the respective coil springs 43 and 44. The coil springs 43 and 44 are connected, at their outer or opposite ends, to the track portion 45 carried by the outer end of the track portion 30 thereby normally exerting pressure upon the car for drawing the same toward the outer end of the track portion 30.

Supported upon one end of the track portion 30 are a pair of brackets 46, which support the windlass 47, around which is adapted to be wound a cable or chain 48, which is adapted to be connected at its free end to a hook 49 of the discharge receptacle or bag holding receptacle or car 38. The windlass or drum 47 carries, at one end, a ratchet wheel 50, which is adapted to be engaged by a pawl 51 for preventing the rotation of the drum in one direction while the same is being wound. The pawl 51 is provided with a handle 52, which allows the pawl to be readily withdrawn from the ratchet wheel for allowing the free operation of the same, after the car has been brought to a set position. Connected to the drum 47, at one end, is a crank arm 53 for facilitating the winding of the drum and the drawing of the car 38 to a retracted position.

A trigger member 54 is pivotally mounted between brackets 55 carried by the rear end

of the track portion 30 and said trigger member is provided with an upper portion 56 and a lower portion 57. The upper portion 56 is provided upon one side with a notch 58, which is adapted to receive a link member 59, which link member is connected to the rear end 40 of the car 38. The track portion 30 is provided near its rear end with a longitudinally-extending slot or notch 60, in which is adapted to work the lower end 57 of the trigger member 54, after the same has been released. A pivoted lever member 61 is pivotally secured to the bottom of the track 30, at 62, and is provided at its rear end with an upturned portion 63, which is adapted to engage the angularly-disposed end 64 of the lower portion 57 of the trigger 54. The member 61 is provided at its outer end with a hinged section 65, which is adapted to normally extend in a longitudinal plane so as to be engaged by the vertically-extending pin 25 carried by the trip lever, which is supported to one side of the track. The outer hinged end 65, when it is not desired to engage the vertically-extending pin 28 of the trip lever, may be swung to the position shown in dotted lines in Fig. 2, and thereby be held out of the way of the passing objects.

When the car passes in the direction shown by the arrow, the outer hinged end 65 will engage the vertically-extending pin 28 of the trip lever 24, which will cause the member 61 to swing upon its pivot 62 thereby releasing the upwardly-extending end 63 from the depending end 64 of the trigger member 54 and allowing the downwardly-extending portion 57 to swing in the slot 60, thereby releasing the link 59 from the notch 58, and allowing the car to be drawn to its forward position through the medium of the springs 43 and 44. The track portion 30 is provided, near its front end, with a plurality of stops 66, which will engage the front plate 37 and limit the forward rushing movement of the discharging car 38, which will cause the bag to be discharged from the car by reason of the suddenness with which the car is brought to rest and the bag will be discharged into the basket 7, which basket will also be brought to rest through the medium of the spring 10.

From the foregoing description, it will be readily seen that I have prepared novel means for discharging a mail bag from the car and it will also be obvious that the catapult 2, which is carried by the car would be readily swung from one side of the car to the other, so as to discharge the bag from either side thereof and can also be swung to a position, so as to extend longitudinally of the car and be out of the way when the same is not in use.

Although the metallic springs have been shown in the drawings for actuating the

catapult, if it is so desired steam, compressed air, electricity, or any other suitable power may be used in place of said springs.

What I claim is:—

1. In a device of the class described the combination with a car, of discharge means carried thereby, a stationary support positioned to one side of said car, object receiving means supported by said support, trip means positioned upon each side of said object receiving means, said trip means comprising a pivotally mounted trip lever, and said trip lever adapted to engage said discharge means carried by said car for causing the same to actuate and causing an object to be delivered into said object receiving means.

2. In a device of the class described the combination with a stationary support, of a trip lever supporting member, an outwardly-extending arm pivotally mounted upon said support and adapted to be swung to a vertical position when not in use, a trip lever carried by said outwardly-extending arm, and spring means engaging one end of said trip lever and adapted to retard the rotary movement of the trip lever after the same has been actuated.

3. In a device of the class described the combination with a support, of a trip lever supporting device supported thereby, said trip lever supporting device provided with an outwardly-extending arm, brackets secured to the side thereof and pivotally secured to said supporting device, and means formed upon said brackets and supporting device and adapted to limit the movement of said outwardly-extending arm in one direction.

4. In a device of the class described the combination with a trip lever supporting device, of an outwardly-extending arm pivotally secured thereto, brackets secured to said arm, said brackets provided with an integral-depending portion, provided with a notch formed in one side thereof, a lug formed upon one side of said support and adapted to engage said notch for limiting the downward swing of said outwardly-extending arm.

5. In a device of the class described the combination with a trip lever support, of an outwardly-extending arm, and brackets secured thereto and pivotally mounted upon said support for pivotally securing said arm to said support, said brackets provided with an integral-depending portion, means formed upon said support and adapted to engage said brackets for limiting the outward movement of said arm, and means formed upon the top of said support and adapted to limit the movement of said arm in an upward direction.

6. In a device of the class described the combination with a trip lever support, of a

trip lever pivotally mounted thereon, said lever provided with an outwardly-extending portion, a vertical extension formed near the outer end thereof, spring means engaging the inner end of said trip lever and secured to said support for normally holding the same in an operative position and adapted to retard the swinging motion thereof when being actuated, and mail delivering means adapted to be actuated thereby.

7. In a device of the class described the combination with a trip lever support, of a trip lever pivotally mounted thereon and provided with an upwardly-extending portion, a vertical extension formed near the outer end of said outwardly-extending portion, said lever provided with a plurality of inwardly-extending portions, a coil spring engaging the respective ends of the inwardly-extending portions for normally holding the trip lever in an operative position.

8. In a device of the class described the combination with a stationary support, mail bag receiving means supported thereby, a plurality of trip lever supports supported by said first-mentioned support, and means formed upon said trip lever support and said first-mentioned support for allowing the trip lever supports to be adjusted upon said first-mentioned support.

9. In a device of the class described the combination with a plurality of longitudinally-extending braces adapted to be positioned to one side of the track, said braces provided with transversely-extending slots formed therein near each end, mail bag receiving means supported by said longitudinally-extending braces intermediate the ends thereof, trip lever supports carried by said longitudinally-extending braces upon each side of said mail receiving means, said trip lever support provided with a depending portion adapted to fit between said longitudinally-extending braces, a pin adapted to pass through said mentioned slots and through the depending portions of said trip lever supports and adapted to hold the same in an adjusted position upon said longitudinally-extending braces.

10. In a device of the class described the combination with a pair of longitudinally-extending members, of a plurality of vertically-extending braces provided with a depending portion upon the lower ends thereof, said depending portions adapted to be positioned between said longitudinally-extending members, diverging braces secured to said vertically-extending brace and said longitudinally-extending members for bracing said vertically-extending braces, a bag receiving receptacle pivotally mounted near the upper ends of said vertically-extending braces, resilient means engaging said bag

receiving means and adapted to retard the swinging movement thereof.

11. In a device of the class described the combination with a plurality of longitudinally-extending members adapted to be positioned to one side of the track, of a plurality of vertically-extending braces supported by said longitudinally-extending members, a bag receiving basket, said basket comprising a substantial wire frame work, a bracing rod passing around the outer edge thereof and provided with laterally-extending ends, said ends journaled upon said vertically-extending braces, for supporting said bag receiving basket between said vertically-extending braces, and a coil spring engaging the lower end of said mail receiving basket and one of the ties and adapted to retard the swinging movement of said basket after the mail bag has been delivered thereto.

12. In a device of the class described the combination with a car, a catapult rotatably mounted therein, and means engaging the outer end thereof and adapted to normally hold the same in a set position.

13. In a device of the class described the combination with a mail discharging apparatus, said apparatus rotatably mounted within said car and adapted to be swung so as to discharge mail from either side thereof, of a bracket provided with an inwardly-disposed upper end carried by said car and adapted to engage one side of the mail discharging apparatus, and a pin adapted to engage the other side thereof and be positioned in the car and adapted to hold the discharge apparatus in a set position.

14. In a device of the class described the combination with a track adapted to be rotatably mounted upon a support, of a car adapted to travel thereon, said car provided upon its under surface with a plate having its outer edges folded under the same and adapted to engage said laterally-extending flanges of said track for holding said car against displacement from said track, and said folded ends adapted to act as a guide for said car upon said track.

15. In a device of the class described the combination with a track adapted to be rotatably mounted upon a support, of a car adapted to travel thereon, said track provided upon its sides with laterally-extending flanges, said car provided with means adapted to engage said flanges for holding said car against displacement therefrom, steps provided with flanges near one end thereof and adapted to engage said car for limiting the forward movement thereof, and means adapted to engage said car for drawing said car upon said track to a set or retracted position.

16. In a device of the class described the

combination with a track adapted to be rotatably mounted upon a support, a pivoted lever member secured to said track and extending from one end thereof, of a trigger member pivotally mounted upon said track and adapted to be engaged by said pivotally mounted member, said trigger member adapted to engage said car for holding the same in a retracted or set position, and means adapted to be positioned to one side of said support and adapted to engage said pivotally mounted member for releasing the same from said trigger member and allowing the car to actuate.

17. In a device of the class described the combination with a support, of a track rotatably mounted thereon, a pivotally mounted lever member secured to said support and provided at its rear end with an upwardly-extending portion, a trigger member carried by said track and provided with a depending portion adapted to engage said upwardly-extending portion of said pivotally mounted lever member, said trigger provided with a notch, means carried by said car and adapted to engage said notch for holding the car in a retracted position when said trigger is in engagement with said lever member, and means adapted to engage the outer edge of said lever member for swinging the same upon its pivot and releasing the upwardly-extending end from said downwardly-extending end of said trigger member for actuating and allowing the car to discharge the mail or object carried thereby.

18. In a device of the class described the combination with a support, of a track carried thereby, said track provided with a longitudinally-extending slot or notch near one end thereof, tracks secured to said support, a trigger member pivotally mounted between said tracks and provided with a depending portion adapted to work within said notch or slot, of a pivotally mounted lever member carried by said track and adapted to engage said depending portion of said trigger member for holding the same in a set position, a car adapted to travel upon said track, means carried by said car and adapted to engage said trigger for holding the same in a set position, and means adapted to engage the outer end of said lever member for releasing the same from said lever member and causing the car to actuate.

19. In a device of the class described the combination with a support, of a track, a lever member pivotally mounted upon said track and provided with a forwardly-extending portion, said lever member provided at one end with a forwardly-bent portion, a trigger member pivotally mounted upon said track near the inner end thereof, said trigger member adapted to engage the forwardly-bent end of said lever member and adapted to be held in a set position thereby, a car adapted to travel upon said track, a link member connected to said car and adapted to engage said lever member for holding said car in a set position.

20. In a device of the class described the combination with a track, of a car adapted to travel thereon, said car comprising a body provided with a rearwardly-extending portion, a substantially inverted U-shaped portion secured to the bottom of said rearwardly-extending portion, a coil spring connected at one end to the substantially inverted U-shaped portion and at the other end to the front end of said track for normally exerting a forward pull upon said car, a trigger carried by said track, and means engaging said rearwardly-extending portion and said trigger and adapted to hold the car in a set position.

21. In a device of the class described the combination with a track, a car carried by said track, a windlass carried by said track, a cable positioned upon said windlass adapted to engage said car for allowing the same to be drawn to a set position, of a trigger member carried by said track, means carried by said car and adapted to engage said trigger member for holding said car in a set position after the same has been drawn to a retracted position by means of said windlass.

22. In a device of the class described the combination with a track, of a pivoted lever member carried thereby, said lever member provided with a hinged end adapted to normally extend outwardly therefrom and adapted to be swung when not in use to a vertical position so as to be out of the way of passing objects, a trigger carried by said track, said lever member adapted to engage said trigger for holding the same in a set position, a car adapted to travel upon said track, and said trigger adapted to engage said car for holding the same in a set position.

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

JOHN H. GARMAN.

Witnesses:

MELVIN H. MILLER,
EARL MERRITT.