

919,336.

G. M. FOLEY.  
MAIL POUCH CATCHING AND DELIVERY DEVICE.

APPLICATION FILED FEB. 5, 1908.

Patented Apr. 27, 1909.

3 SHEETS—SHEET 1.

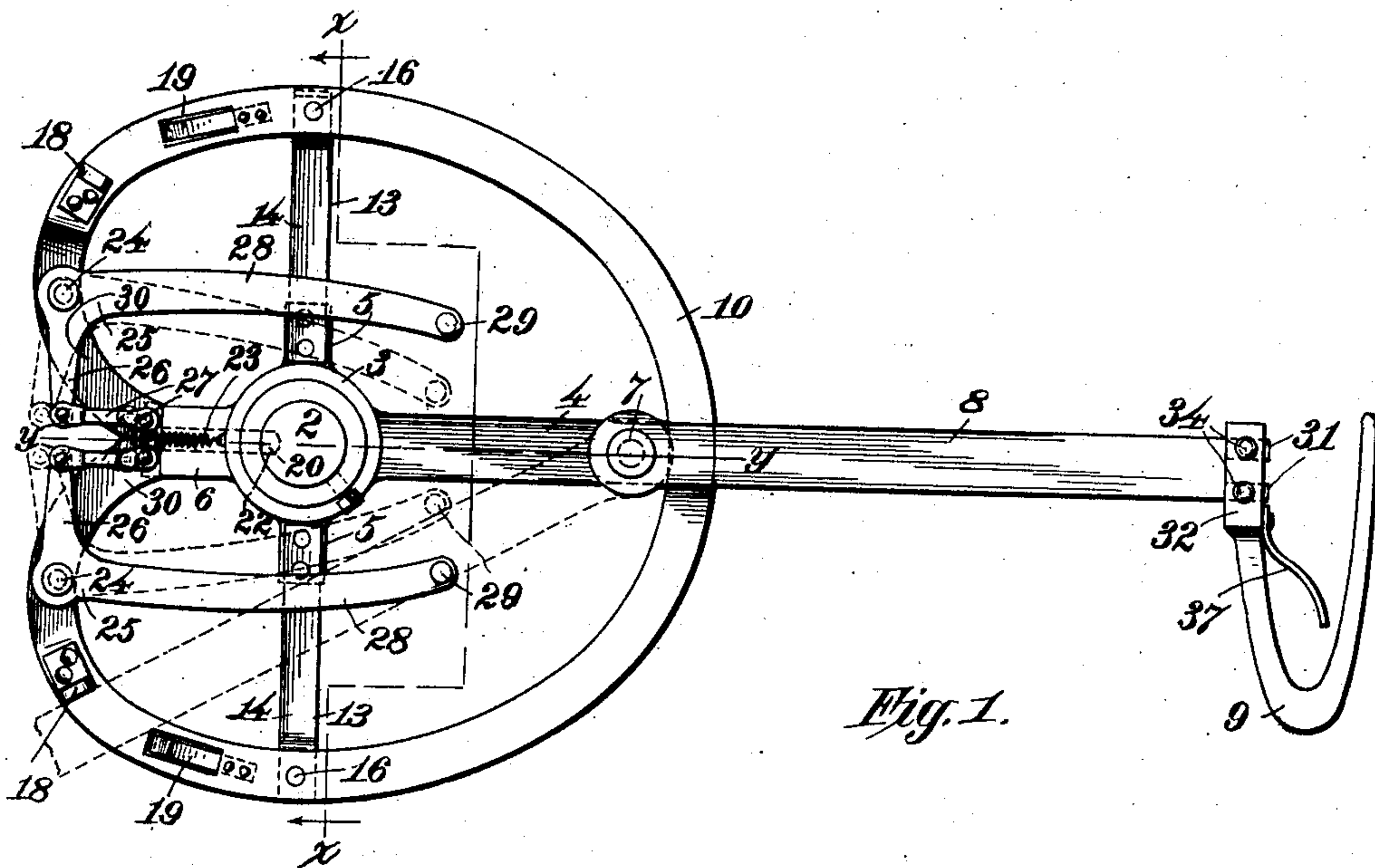


Fig. 1.

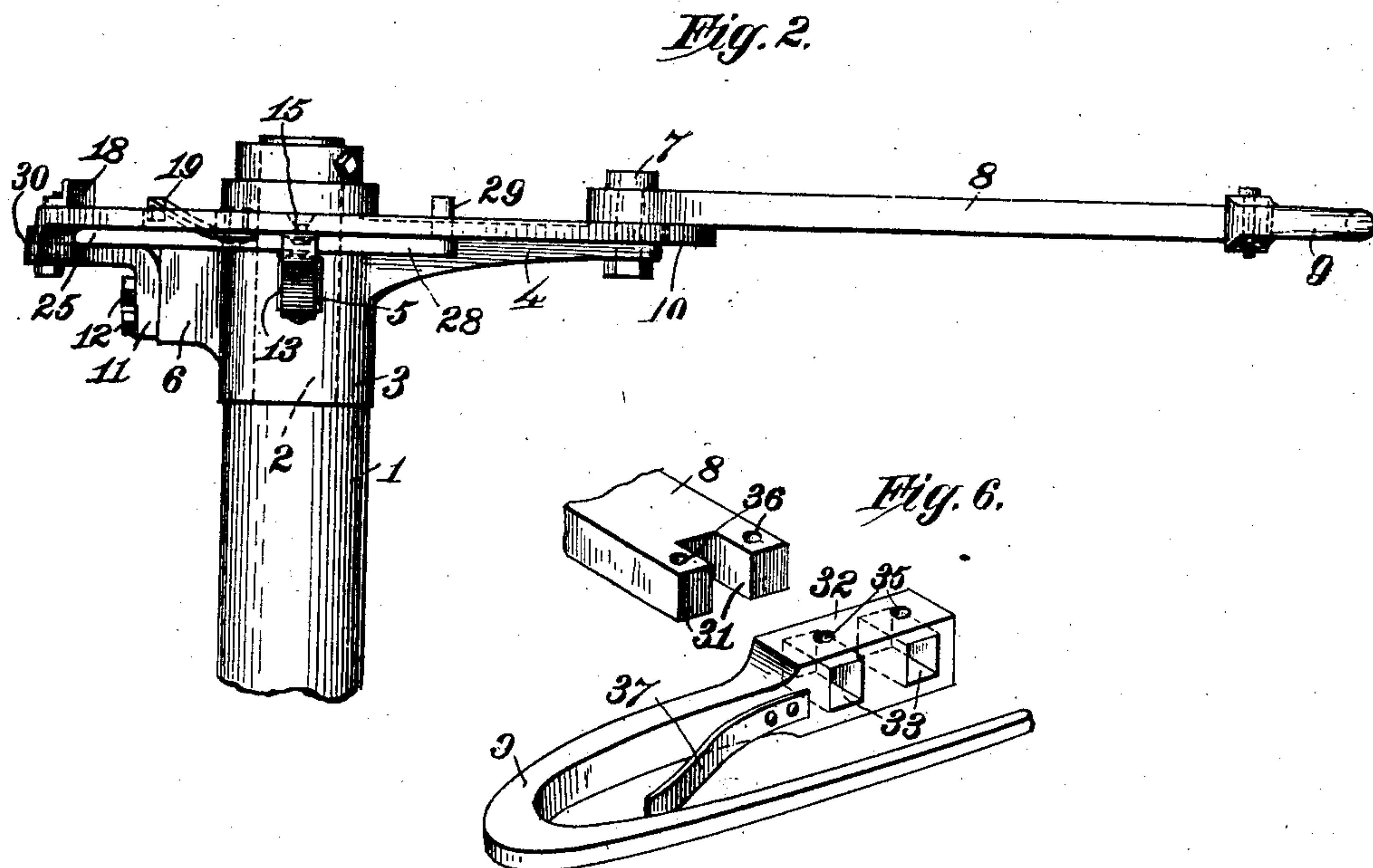


Fig. 2.

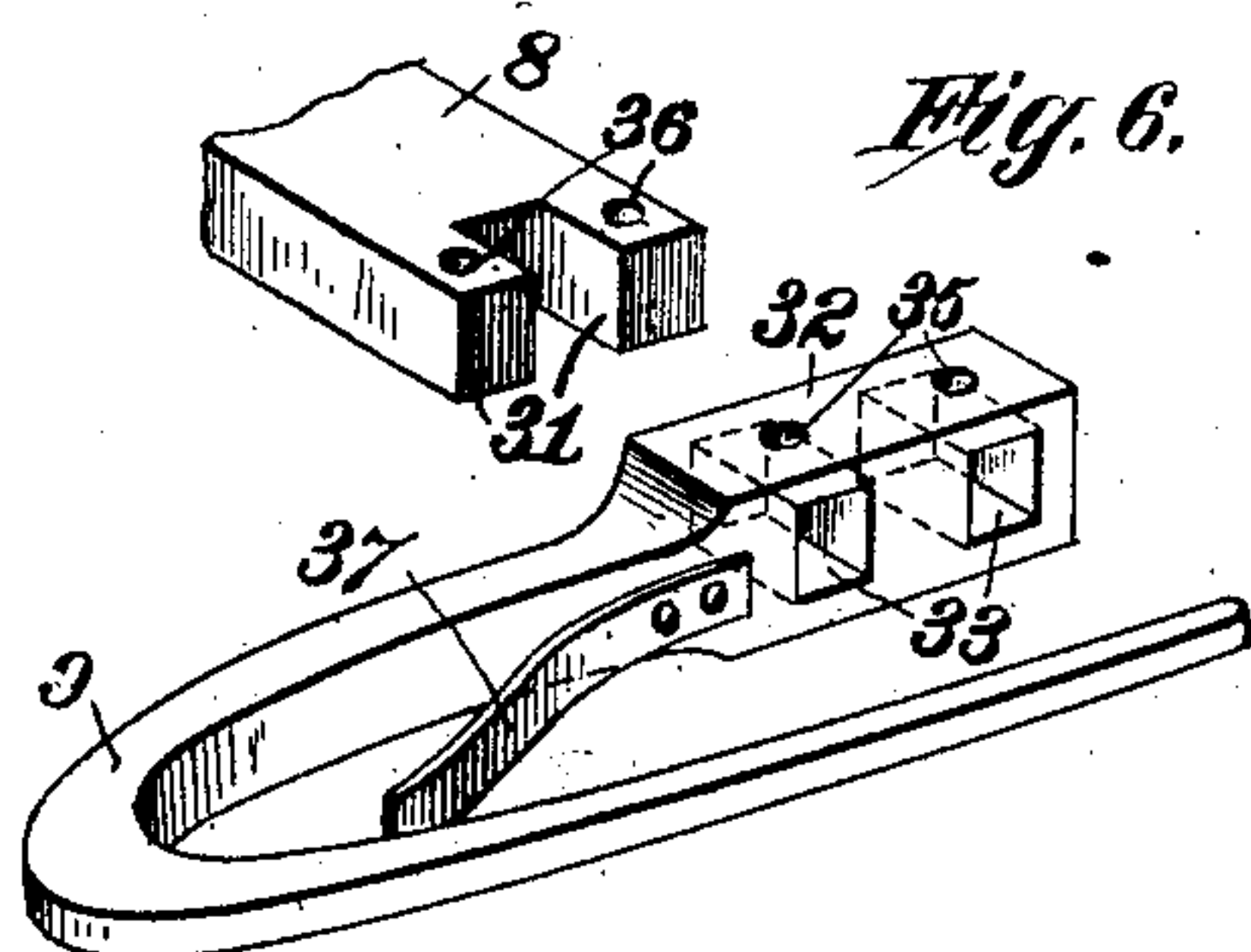


Fig. 6.

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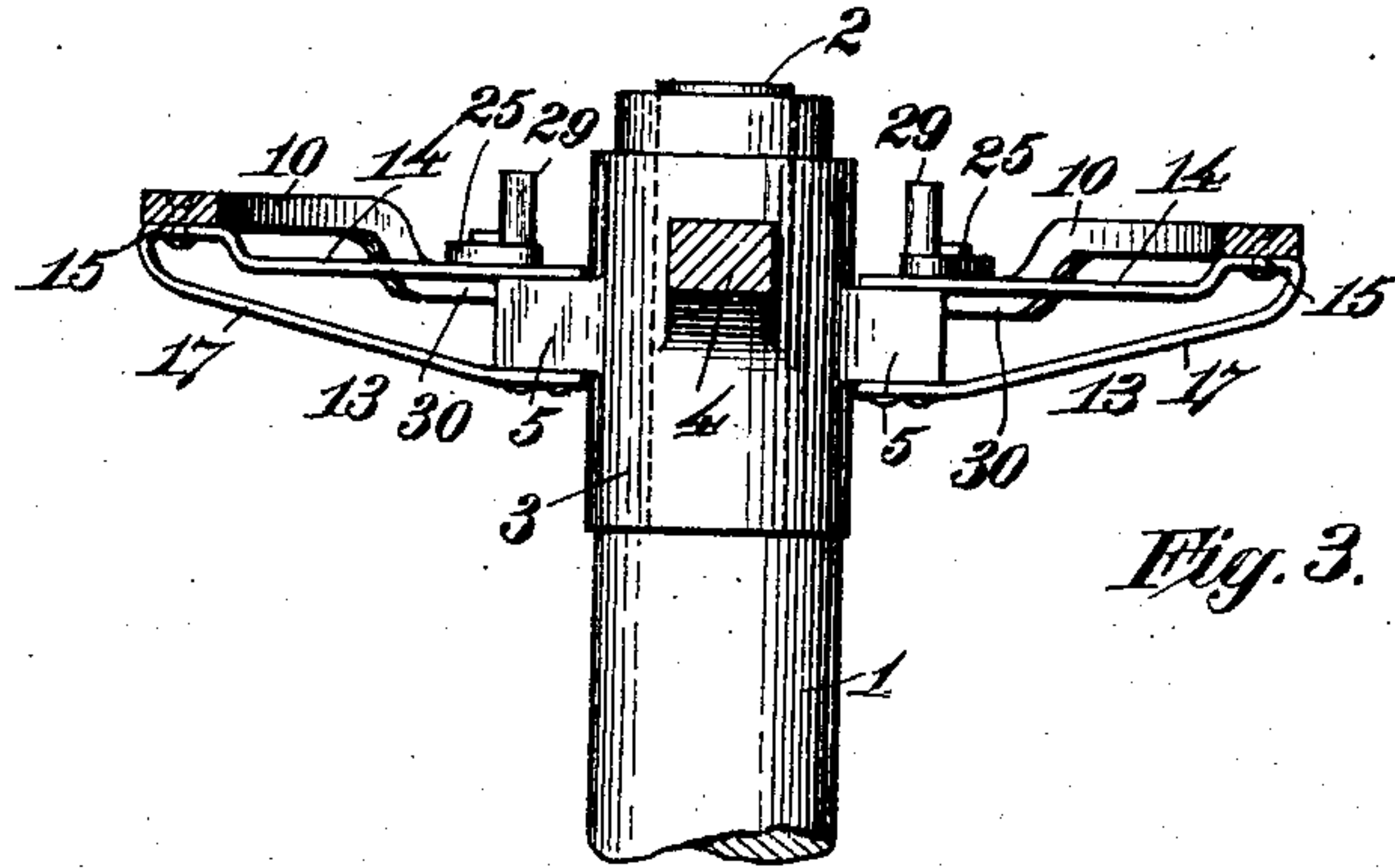


Fig. 3.

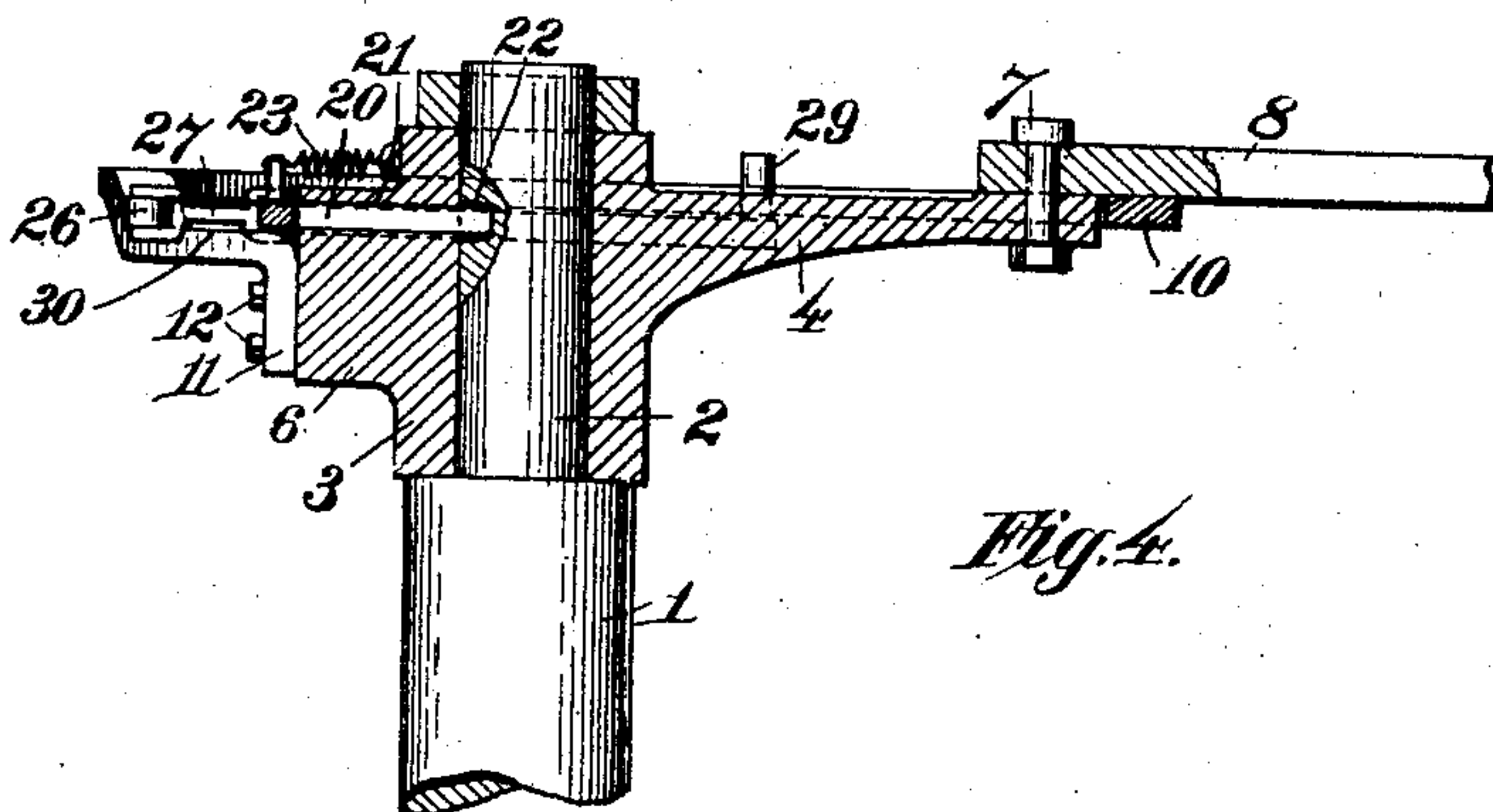


Fig. 4.

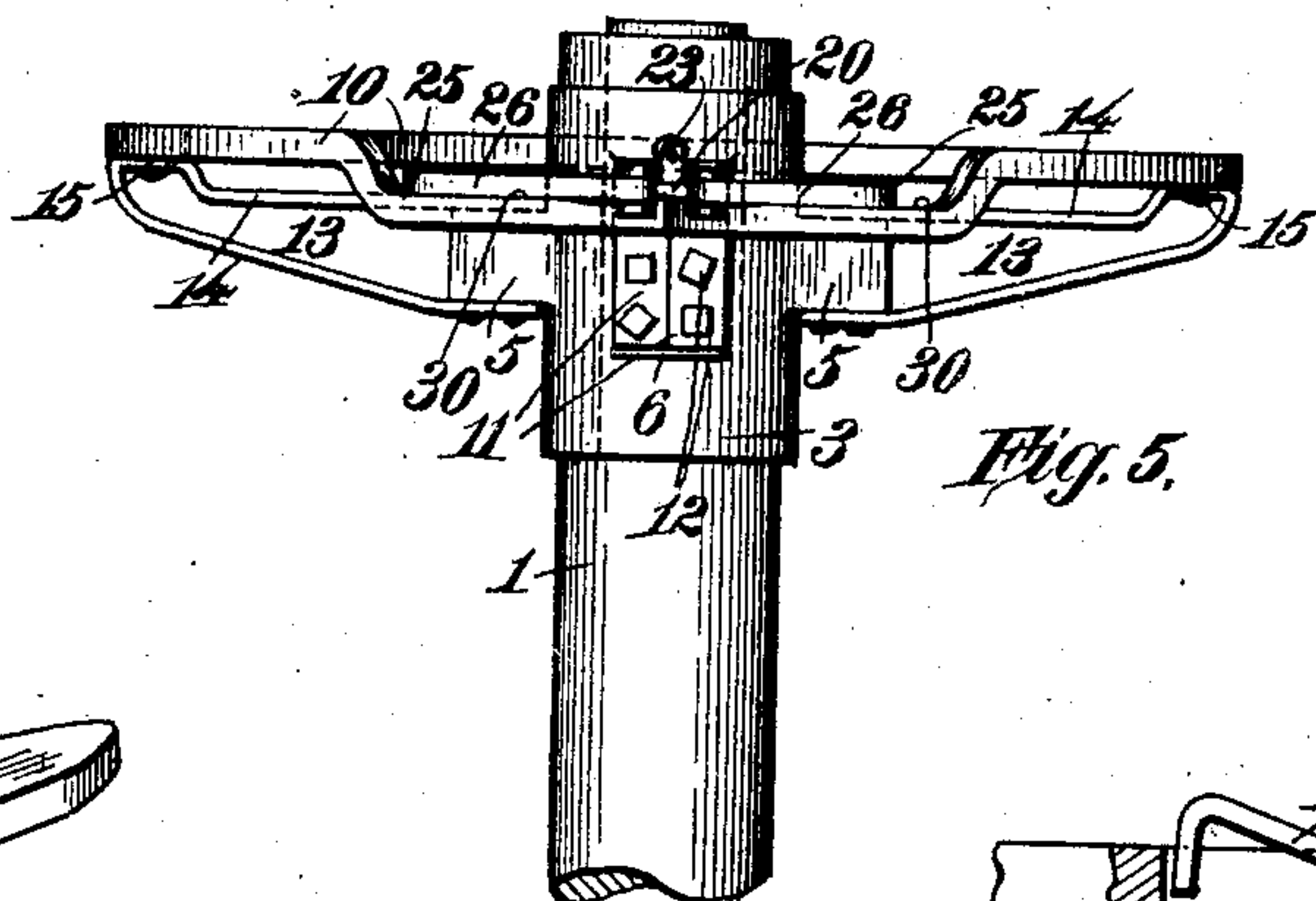


Fig. 5.

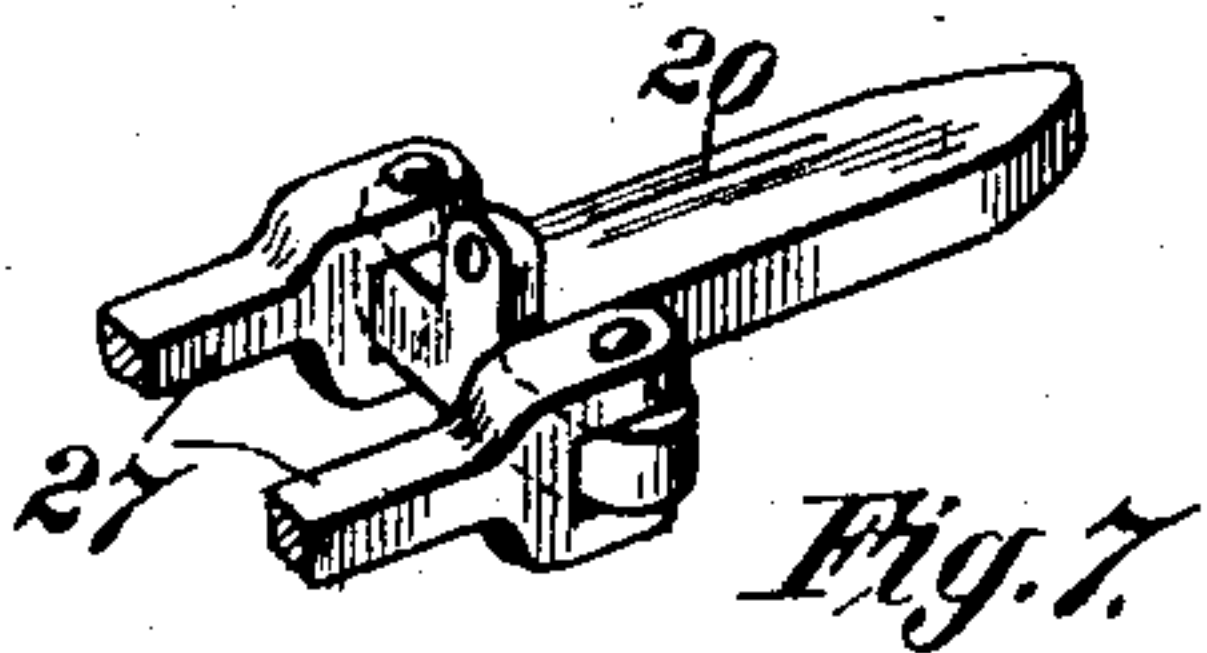


Fig. 7.

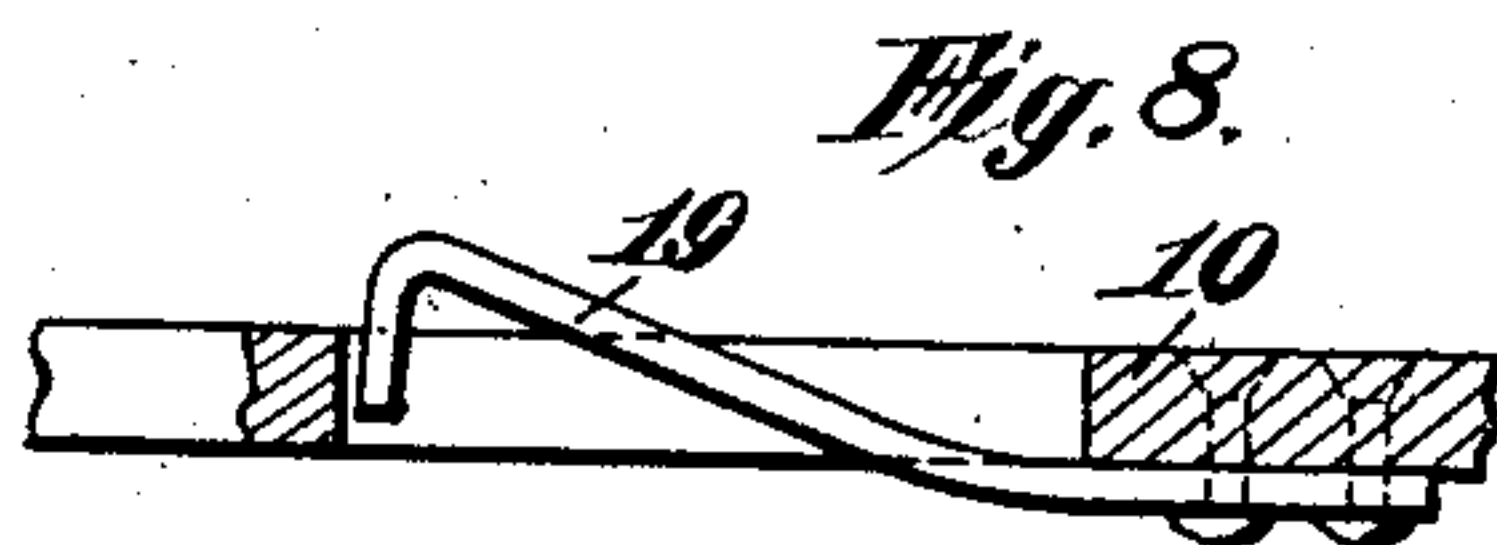


Fig. 8.

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3 SHEETS—SHEET 3.

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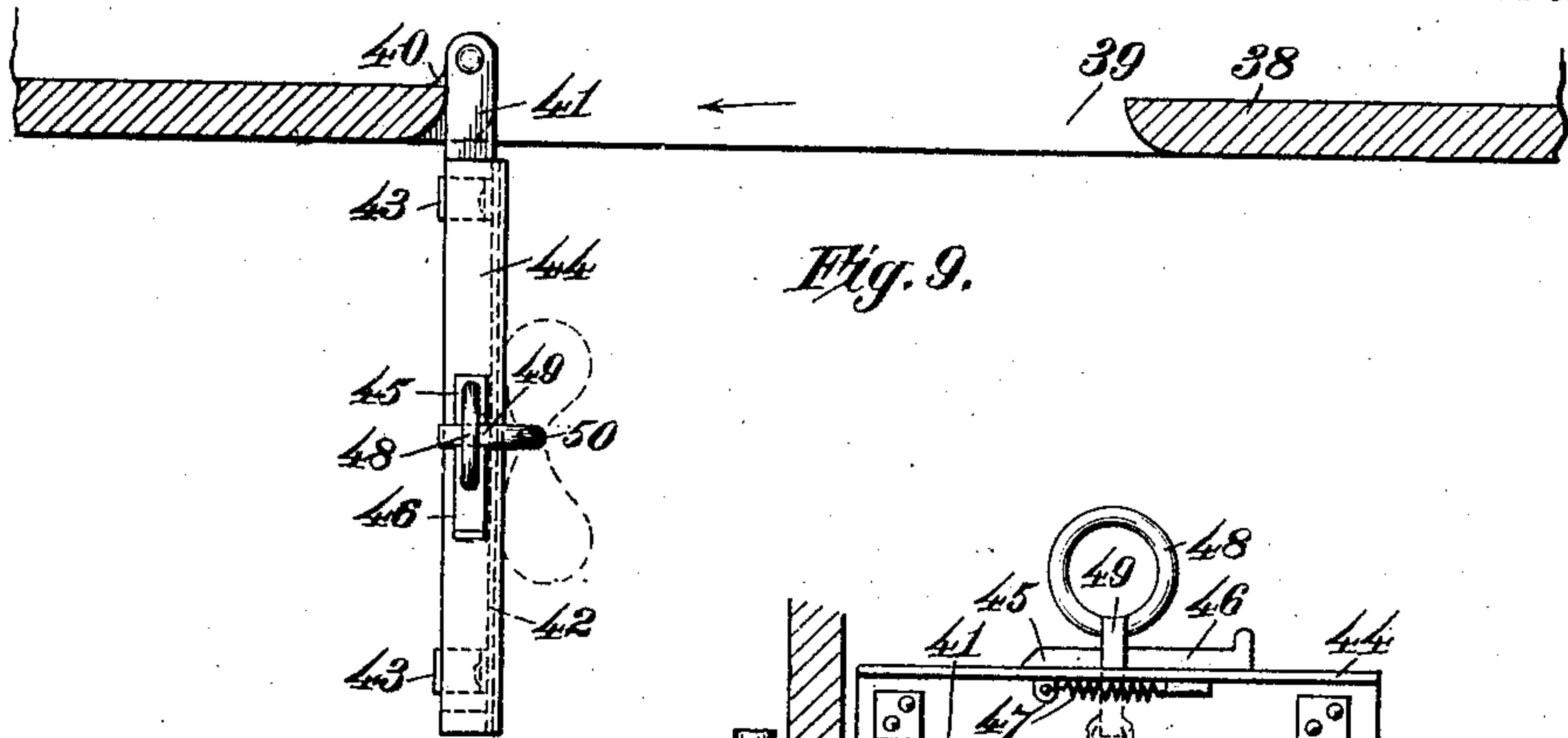


Fig. 9.

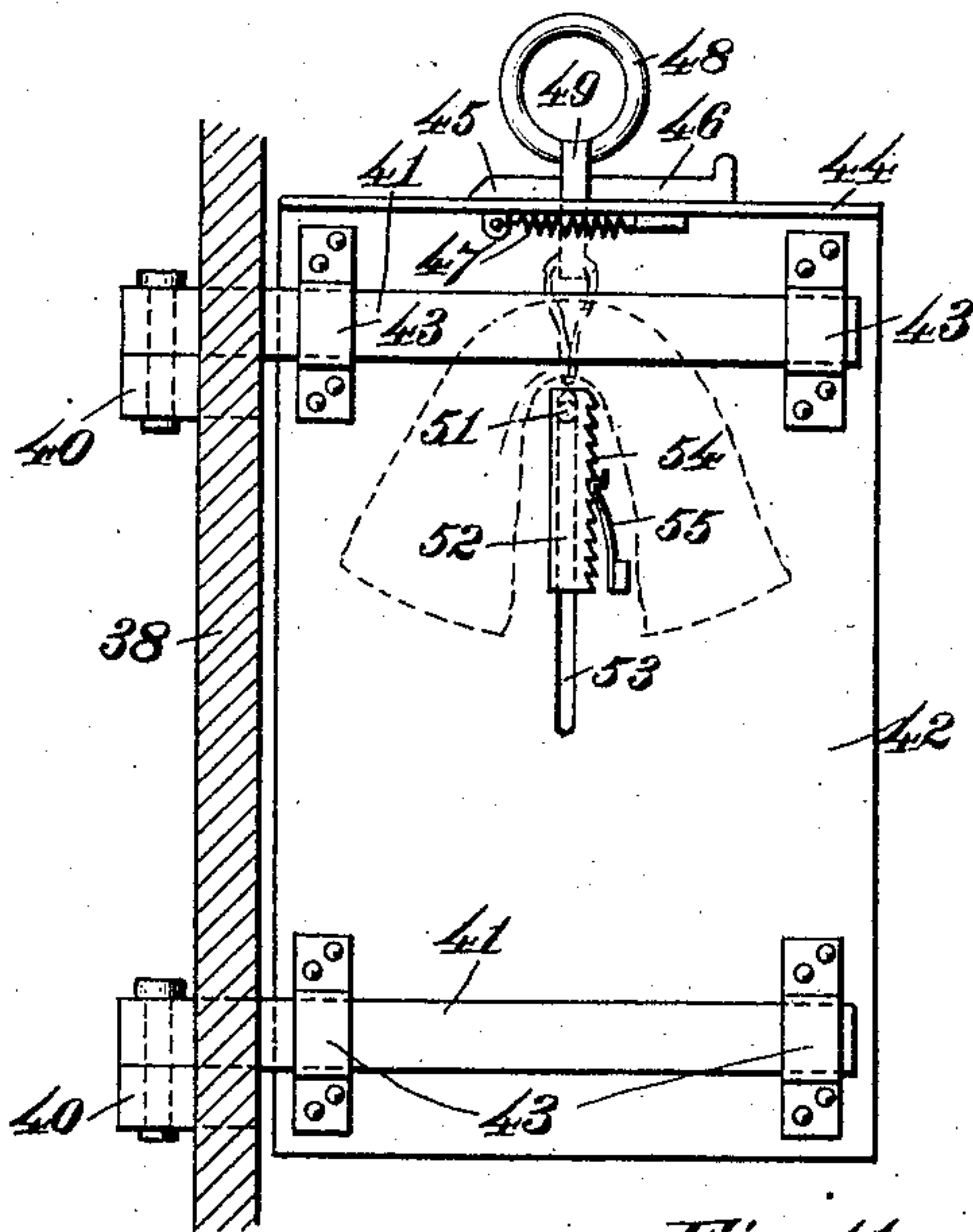


Fig. 11.

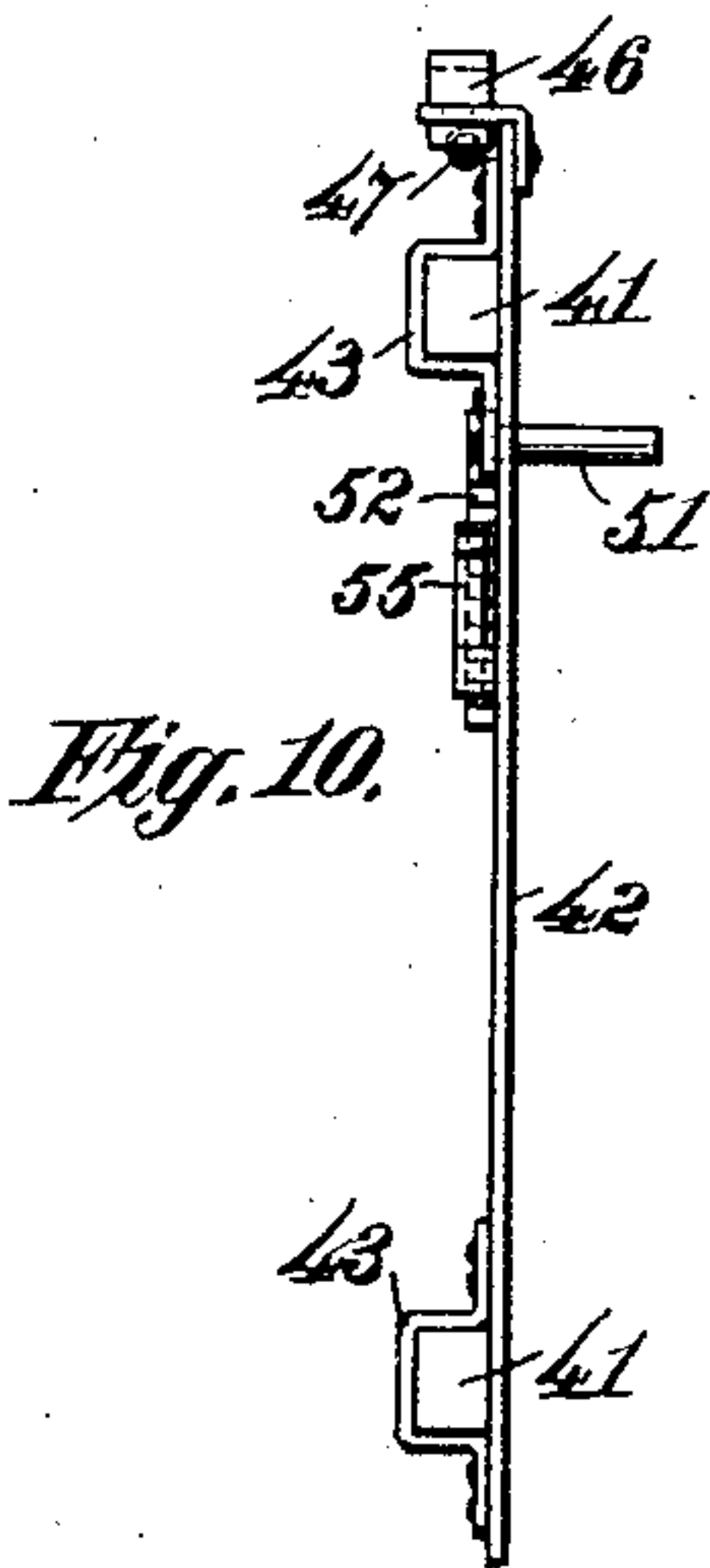


Fig. 10.

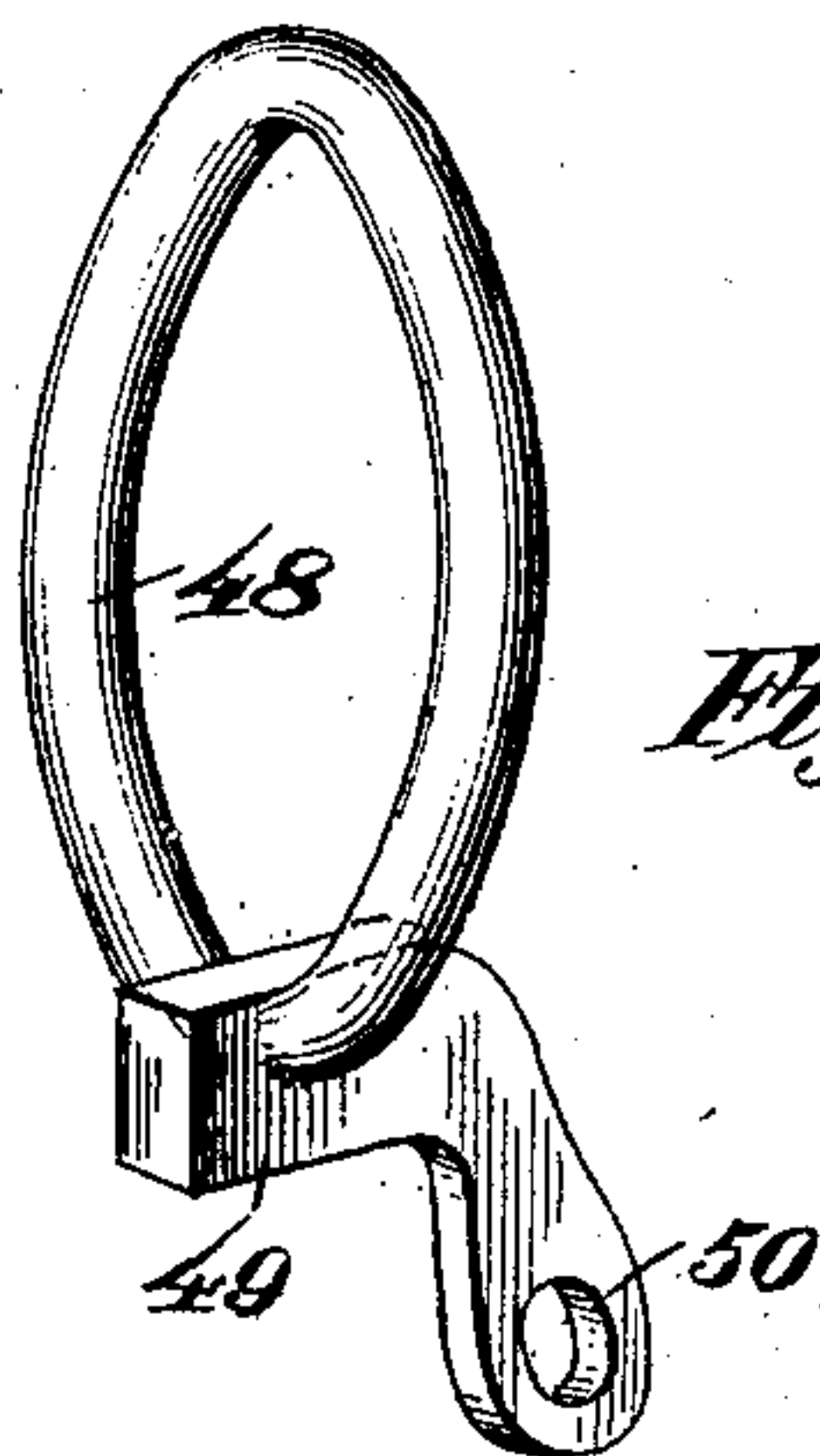


Fig. 12.

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# UNITED STATES PATENT OFFICE.

GEORGE M. FOLEY, OF CHICAGO, ILLINOIS.

## MAIL-POUCH CATCHING AND DELIVERY DEVICE.

No. 919,336.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed February 5, 1908. Serial No. 414,346.

*To all whom it may concern:*

Be it known that I, GEORGE M. FOLEY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Mail-Pouch Catching and Delivery Devices, of which the following is a specification.

My invention relates to mail catching and delivery devices, and the object of my invention is to provide a device for delivering a mail pouch from a rapidly moving train and for catching the same in such a manner as to avoid undue strain or shock to the pouch.

A further object of my invention is to provide a device as mentioned, which may be readily reversed in order to deliver and receive a pouch from a train moving in either direction.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in a delivery device arranged upon the train in combination with a receiving device arranged beside the track and comprising a member rotatably mounted upon a suitable support, a locking device normally holding said member against rotation, a receiving arm pivotally connected to said rotary member and adapted to extend radially therefrom when in receiving position and to be swung back upon said member by the momentum of the pouch, said arm in swinging backward retracting said locking device and setting the rotary member to turning, thereby bringing the pouch to rest gradually and without undue shock.

My invention further consists in a receiving device characterized as above mentioned and provided with means for locking the arm with relation to the rotary member after having been swung backward thereon, to hold the pouch close to the support and prevent it and the arm from swinging back into an extended position where it might cause serious accidents.

My invention further consists in a delivery device arranged upon the train and comprising a reversible wind guard, hingedly connected to the mail car and means on said wind guard for supporting thereon the pouch to be delivered.

My invention further consists in various details of construction and arrangements of parts all as will be hereinafter fully described and particularly pointed out in the claims.

My invention will be more readily under-

stood by reference to the accompanying drawings forming a part of this specification and in which,

Figure 1 is a plan view of a mail catching device embodying my invention in its preferred form, Fig. 2 is a side elevation thereof, Fig. 3 is a section on the line  $x-x$  of Fig. 1, Fig. 4 is a vertical section on the line  $y-y$  of Fig. 1, Fig. 5 is a rear elevation of the catching device, Fig. 6 is a detail perspective view, of the reversible hook at the end of the receiving arm, Fig. 7 is a detail perspective view of the locking member which normally locks the rotary member against turning, Fig. 8 is a detail of the latch for locking the arm in backward or retracted position, Fig. 9 is a plan view of the delivery device illustrating the same mounted upon a car, Fig. 10 is an edge view thereof, Fig. 11 is a face view of the delivery device and, Fig. 12 is a perspective view of the transfer device.

As before stated, the receiving device comprises a rotary member mounted upon a suitable support and an arm pivotally mounted upon said rotary member and adapted to extend radially therefrom when in receiving position and means normally locking said member against rotation when the arm is extended and means for retracting the locking device when the arm is swung inwardly.

Referring to Figs. 1 to 8 inclusive 1 indicates the support which consists of a vertically arranged post having the upper end reduced in diameter forming a vertically disposed journal, 2 upon which the rotary member is mounted. The rotary member comprises a cylindrical hub or sleeve, 3 mounted on the journal, 2 and provided with the radial arm, 4 and lugs 5, 5 and 6.

Pivotally connected to the end of the arm, 4 as at 7, is the receiving arm, 8, to the outer end of which is connected the receiving hook, 9. When the arm is in receiving position, it extends radially from the rotary member, as illustrated in full lines in Figs. 1 and 2, and at such times the device is locked against rotation in a manner hereinafter described. When the arm is extended in receiving position, suitable means must be employed for holding the same against turning upon the pivot 7 until engaged by the pouch. Suitable means may be employed for positively locking the arm in extended position at such times, but I prefer to employ a frictional device in order to avoid any possibility of breaking the same. To this end I provide



the spring member, 10. This comprises a strip of flat spring steel bent into the shape shown and having its free ends secured to the lugs, 6. The ends may be secured in any  
5 suitable manner, but I prefer to bend them downwardly and parallel with each other as at 11 and secure them to the lugs, 6 by the tap screws, 12.

The lugs, 5 are diametrically opposite  
10 from each other and extending radially from said lugs are the supporting arms, 13, said arms being at substantially right angles to the arm, 4 and the lugs, 6. The arms, 13 each comprise the horizontal top portion, 14 ex-  
15 tending from the upper face of the lugs, 5 and impinging against the underface of the member, 10 at 15 and preferably secured thereto as by the rivets, 16, and the bottom portion  
20 17, the end of which is secured to the underface of the lugs, 5. The arms, 13 are formed of a strip of spring steel and press the member, 10 upwardly against the under face of the arm, 8 with sufficient force to prevent  
25 accidental movement of the arm. It should be noted that the member, 10 is arranged in a horizontal plane and constitutes a track for the arm, 8 to swing upon. When a pouch  
30 is delivered to the hook, 9, the momentum of the pouch swings the arm into the position shown in dotted lines in Fig. 1, a stop, 18 limiting the inward swing thereof, and a spring latch, 19 preventing the arm from  
35 returning to extended position.

When the arm, 8 is extended in position, to  
35 receive the pouch the rotary member upon which it is mounted is locked against rotation. The locking member comprises a bolt,  
40 20 which extends through an opening, 21 in the lug, 6 and sleeve, 3 into a recess, 22 in the journal, 2. The end of the bolt is normally held in the recess by a spring, 23. Pivotally mounted as at 24 are a pair of bell  
45 crank levers, 25, one being arranged upon each side of the device. The short arm, 26 of each lever is connected by a link, 27 to the bolt, 20 so that by pressing the long arm, 28 inwardly, that is, toward the center of the  
50 device, the bolt will be retracted against the tension of the spring. Extending upwardly from the end of the arm, 28 is a lug or pin, 29 which extends into the path of the arm, 8 as it swings rearwardly.

If preferred the bell crank lever, 25 may be arranged in a plane with the arm, 8 and  
55 said arm may actuate the lever by contacting the arm, 28 directly. However I prefer the construction described and illustrated, the levers being located in a plane below that of the arm 8. It is for this reason that the por-  
60 tion 14 of the arms 13, and the rear portions 30 of the member 10 are depressed as shown. It should be noted that the portion 14 serves as a support or guide for the arm 28.

In order that the device may be used for  
65 catching mail from trains passing in either

direction the hook, 9 is made reversible. To this end the outer end of the arm, 8 is provided with the parallel lugs or tongues, 31 and the shank, 32 of the hook is provided with corresponding apertures 33 to receive  
70 them. The lugs, 31 and the apertures, 33 are each of the same size, hence the hook may be reversed as desired either of the lugs, 31 fitting in either of the apertures. When the hook is in position on the arm, pins or bolts,  
75 34 are dropped through the holes 35 and 36 in the shank, 32 and the lugs, 31 respectively, preventing accidental removal of the hook. 37 indicates a spring to prevent accidental separation or disengagement of the pouch  
80 from the hook.

Referring to Figs. 9 to 12 inclusive, 38 indicates the side of a car having the door-way,  
39. Hingedly connected to lugs, 40 upon one side of the door frame are a pair of par-  
85 allel arms, 41. Detachably mounted upon the arms, 41 is a wind guard, 42. This comprises a plate, preferably of iron and provided upon one face with the loops or eyes,  
90 43, formed of strap iron and constituting means by which it is mounted upon the arms, the arms being slid or passed through the loops as shown in Figs. 10 and 11. It is ob-  
95 vious that the device may be arranged upon either side of the arms as desired, according to the direction in which the train is moving, the arms being upon the forward face. Se-  
cured to the upper edge of the plate, 42 is a plate 44 which overhangs the arms, and upon  
100 said plate is arranged a clamp for holding the transfer device and the mail pouch. This comprises a block, 45 rigidly fixed to the plate 44 and a block, 46 slidably mounted thereon, a spring, 47 drawing the blocks together.

The transfer device which I employ com-  
105 prises a ring, 48 adapted to be engaged by the hook, 9, and provided with an integral block, 49 from which depends the eye por-  
tion, 50.

In using the device the mail pouch is  
110 strapped or otherwise secured to the eye, 50 and the block, 49 is placed between the blocks, 45 and 46 which clamp it in position, the ring, 48 then being parallel with the arms. When the device is swung outwardly into de-  
115 livery position the ring lies at right angles to the track in proper position to be engaged by the hook, 9.

To assist in supporting the weight of the pouch I provide the bar or rod, 51 which ex-  
120 tends outwardly from the plate, 42 beneath the pouch. In order to support pouches of different sizes, that is, pouches which are more or less full, the bar, 51 is vertically ad-  
125 justable upon the plate, 42. To this end, it is secured to a block, 52 slidably mounted on said plate and extends through a slot, 53 therein. A suitable ratchet device is provided for holding the bar, 51 and the block,  
130 52 in proper position. To this end, one edge



of the block, 52 is serrated as at 54 and is engaged by a spring member, 55. After the pouch is suspended upon the device the bar, 51 is raised up close beneath it. When approaching the receiving station, the delivery device is swung outwardly into the position shown in Fig. 9. The hook, 9 enters the ring, 48 and removes the transfer device together with the pouch from the delivery device on the train. The momentum of the pouch swings the arm, 8 into the position shown in dotted lines in Fig. 1 releasing the bolt, 20 and starting the rotary member to turning. It is obvious that this will bring the pouch to rest without undue shock or strain thereon. The arm, 8 is locked between the members, 18 and 19 preventing it from being extended while the device is rotating, thus avoiding serious accidents which might otherwise occur.

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

1. In a device of the class described, a delivery device arranged upon a car, in combination with a receiving device arranged beside the track and comprising a member rotatably mounted upon a suitable support, a locking device normally holding said member against rotation, a receiving arm pivotally connected to said rotary member and adapted to extend radially therefrom when in receiving position and to be swung back upon said member by the momentum of the pouch and means automatically operable by the swinging of said arm for unlocking said rotary member as and for the purpose specified.

2. A mail catching device comprising a rotary member mounted upon a suitable support, in combination with a locking device normally holding said member against rotation, a receiving arm pivotally connected to said rotary member and adapted to extend radially therefrom when in receiving position and to swing back upon said member by the momentum of the pouch, means for locking the arm with relation to the rotary member after having been swung backward thereon and means automatically operable by the swinging of said arm for unlocking said rotary member, substantially as described.

3. A mail catching device comprising a ro-

tary member mounted upon a suitable support, in combination with an arm pivotally mounted upon said member and adapted to extend radially therefrom when in receiving position and to swing back upon said member by the momentum of the pouch, said arm having a receiving hook at the free end thereof, and a spring member forming a track or slide for said arm and adapted to press against the underface thereof, as and for the purpose specified.

4. A mail catching device comprising a rotary member mounted upon a suitable support in combination with an arm pivotally mounted on said member and adapted to extend radially therefrom when in receiving position and to swing back upon said member by the momentum of the pouch, said arm having a receiving hook at the free end thereof, a bolt normally locking said rotary member against rotation and means for retracting said bolt to release said member as the arm swings backwardly thereon, substantially as described.

5. A mail catching device comprising a rotary member mounted upon a suitable support, in combination with a receiving arm pivotally mounted upon said member and adapted to extend therefrom when in receiving position and to swing back upon said member by the momentum of the pouch, a bolt normally locking said rotary member against rotation and a bell crank lever operable by the swinging of said arm for retracting said bolt as and for the purpose specified.

6. A mail catching device mounted upon a suitable support and comprising a rotary member, in combination with a receiving arm pivotally mounted upon said member and adapted to extend therefrom when in receiving position and to swing back upon said member by the momentum of the pouch, said arm having a receiving hook at the free end thereof, said hook being reversible as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE M. FOLEY.

Witnesses:

A. VAN BERGEN,  
HELEN F. LILLIS.