

No. 834,929.

PATENTED NOV. 6, 1906.

J. A. NEWSOM.  
MAIL BAG PROJECTOR.  
APPLICATION FILED MAY 14, 1906.

3 SHEETS—SHEET 1.

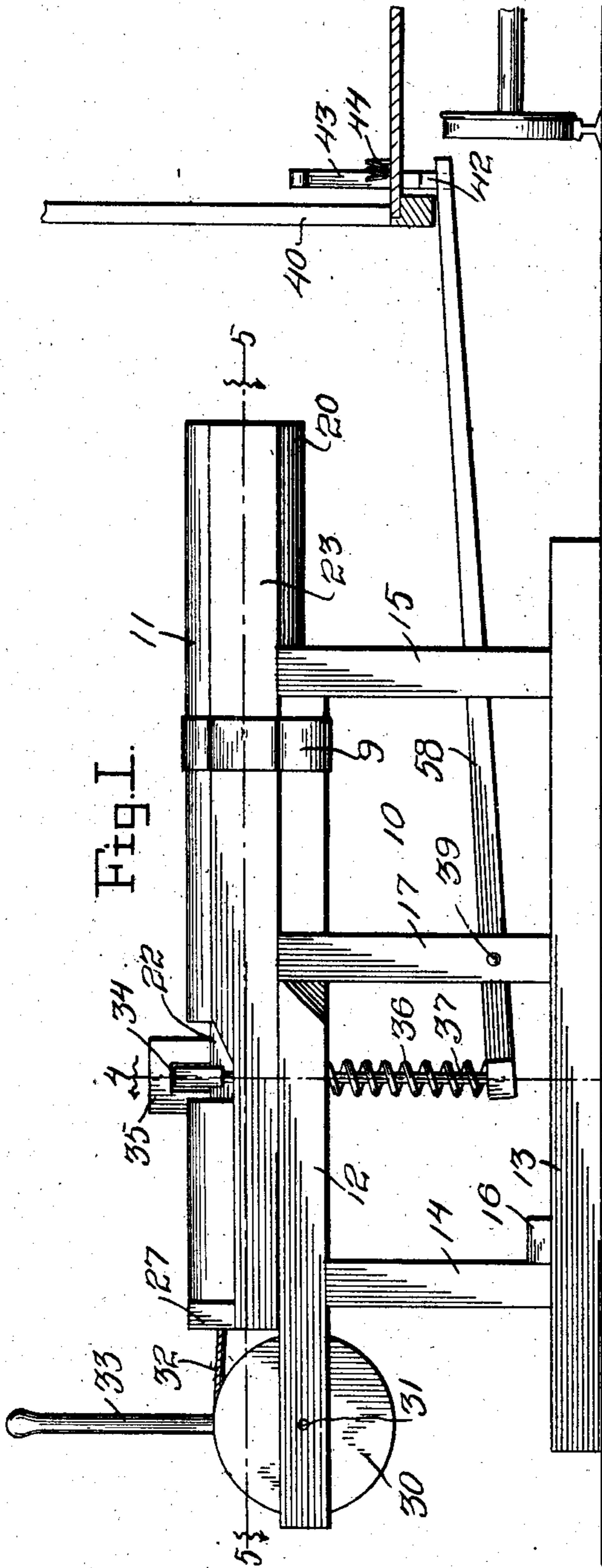


Fig. 1.

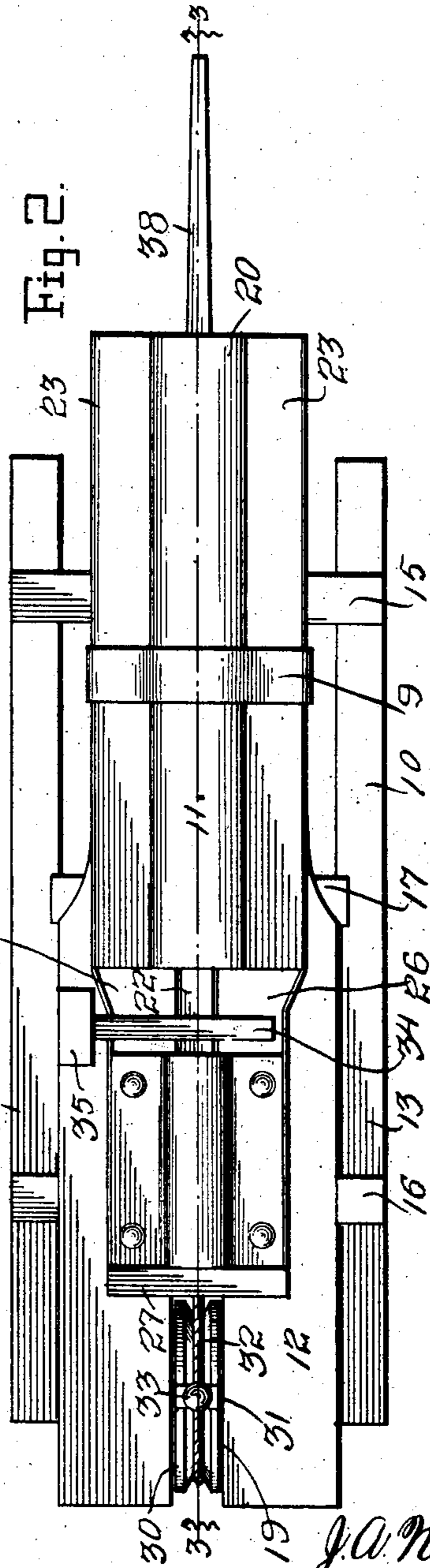


Fig. 2.

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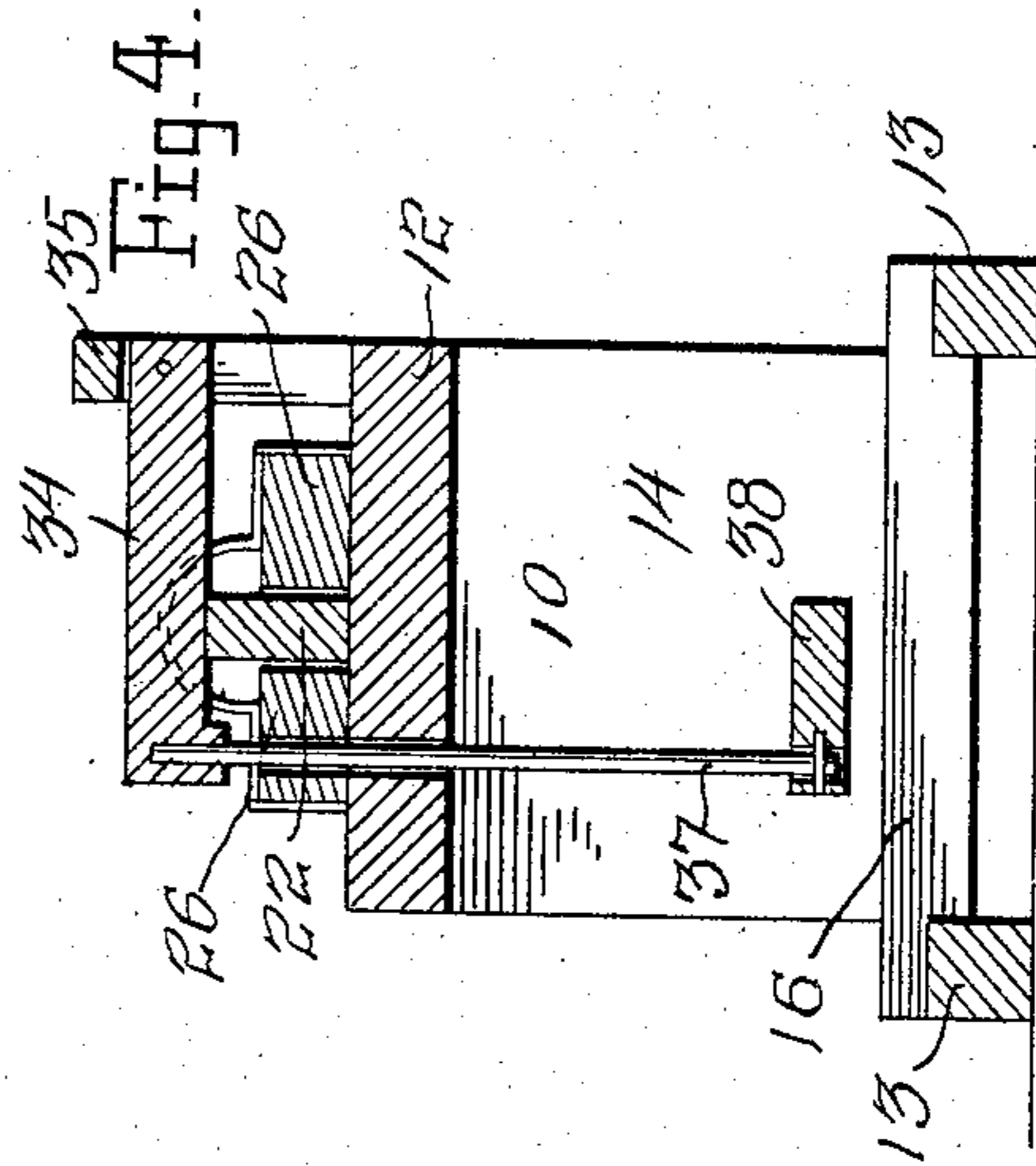
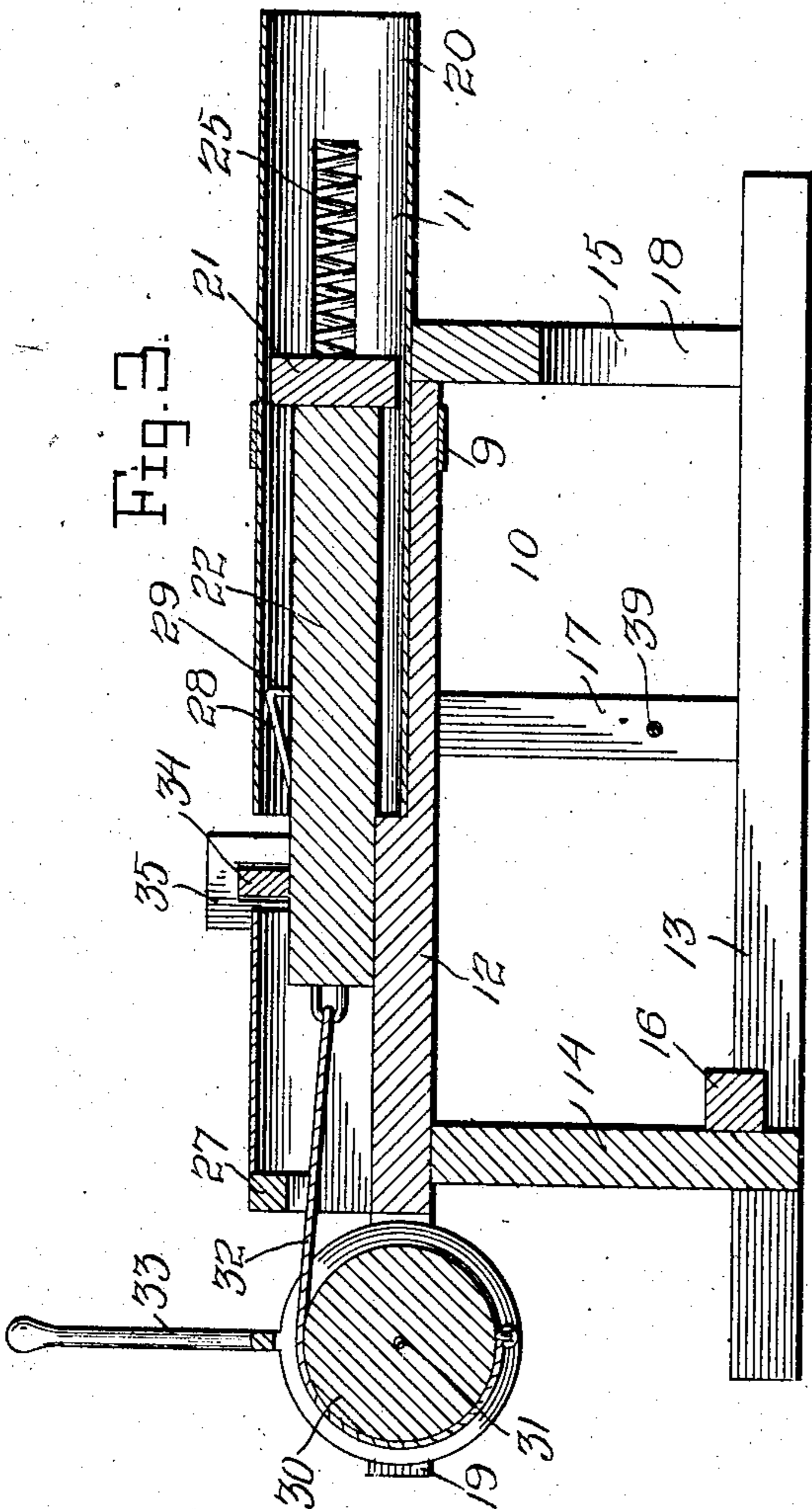
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3 SHEETS—SHEET 2.



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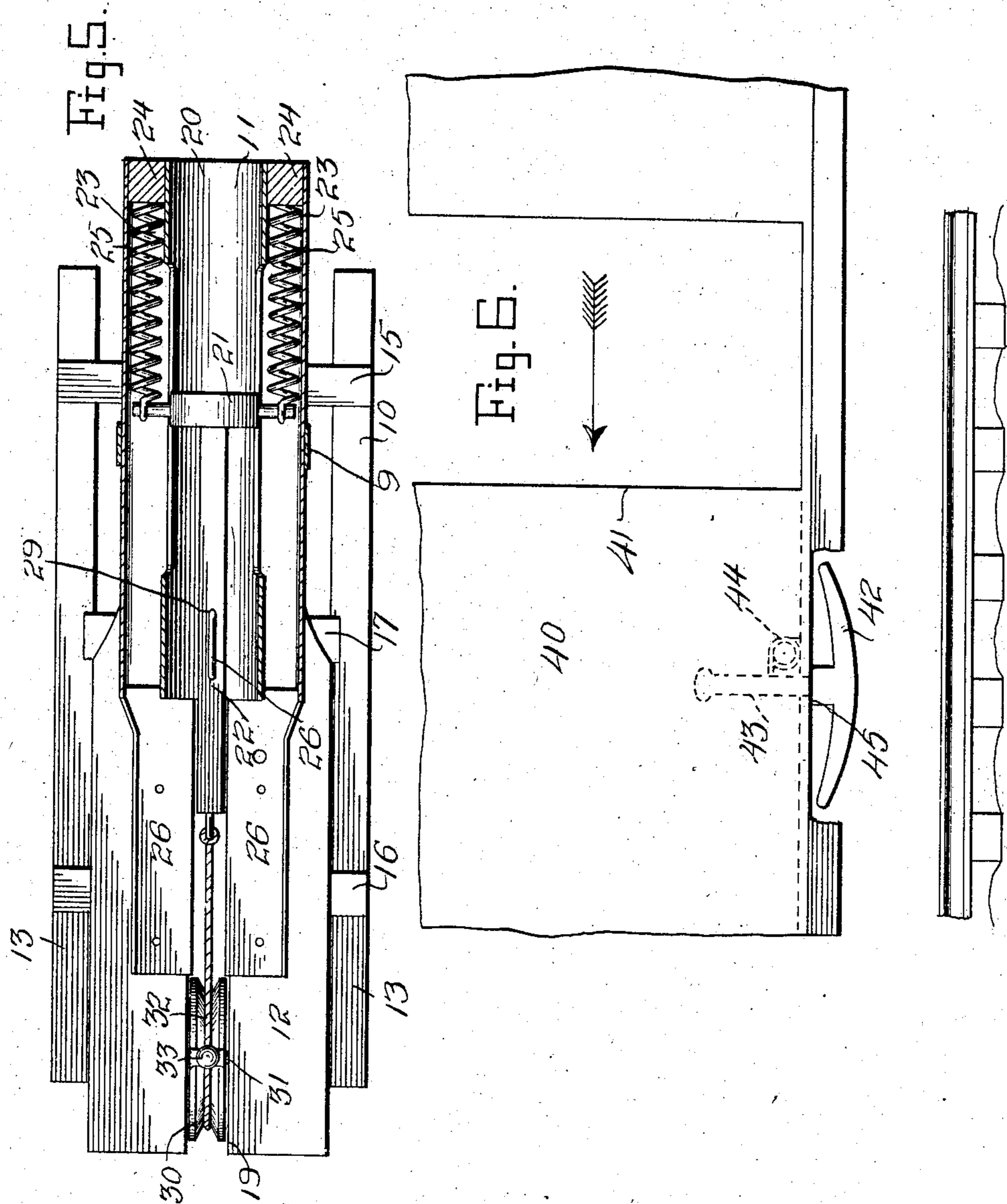
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

JAMES A. NEWSOM, OF EDEN, MISSISSIPPI.

## MAIL-BAG PROJECTOR.

No. 834,929.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed May 14, 1906. Serial No. 316,818.

*To all whom it may concern:*

Be it known that I, JAMES A. NEWSOM, a citizen of the United States, residing at Eden, in the county of Yazoo, State of Mississippi, have invented certain new and useful Improvements in Mail-Bag Projectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mail-pouch projectors; and the several objects thereof are to improve the construction of the gun-piston and of the trip for releasing the piston and to provide improved means for operating the trip-lever and for retracting the piston.

The particular improvement consists in the construction of the gun-barrel with oppositely-disposed casings, each of which contains a coil-spring, one end of which is attached to the piston of the gun and the other to a shoulder formed at the front end of each casing.

Further improvements consist in providing a spring-shoulder catch upon the upper surface of the piston-rod and a spring-operated latch upon the upper face of the gun-carriage coöperating with the catch to retain the piston in its retracted or operative position, the latch being operatively connected to a trip-lever actuated by a device carried upon the side of the mail-car adjacent the opening through which the pouch is to be shot.

With the above and other objects in view the invention consists in the construction, combination, and arrangement of parts, all as hereinafter fully described, pointed out in the claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a mail-pouch projector constructed in accordance with the invention and working in connection with a mail-car. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal section taken on the line 3 3 of Fig. 2. Fig. 4 is a transverse vertical section on the line 4 4 of Fig. 1. Fig. 5 is a horizontal section on the line 5 5 of Fig. 1. Fig. 6 is a front elevation of a portion of the side of a car provided with the releasing device.

Like parts are designated by similar numerals in the several views.

Referring to the drawings, 10 designates

as a whole the carriage for the gun 11, said carriage consisting of an upper or body portion 12, foundation-beams 13, and end pieces 14 and 15, the body and foundation beams being connected by braces 16 and 17. The forward end piece 15 is bifurcated, as at 18, for a purpose hereinafter described, while the rear end of the body portion is similarly formed, as shown at 19.

The gun 11, which is mounted upon the body portion of the carriage and held in place thereon by means of a metal strap 19, consists of a barrel proper, 20, containing a piston 21 and a piston-rod 22 and oppositely-disposed casings 23, located one on each side of the barrel proper and likewise embraced by band 9. Each casing is provided at its forward end with a shoulder 24, to which is connected one end of a coil-spring 25, the other end of which is attached to the piston. Each casing is provided at its rear with a wooden extension 26, there being a space between said extensions in which the piston-rod 12 travels during the movement of the piston. The rear end of said extensions are connected by a cross-beam or block 27, as shown in Fig. 1, and the upper face and outer sides of the extensions are covered by a metal casing, as shown also in Fig. 1, such casing extending across the space between the extensions 26 to prevent dirt or dust from entering thereinto.

On the upper surface of the piston-rod is formed an extended spring-catch 28, the forward end of which is formed with a shoulder 29, as shown in Fig. 3.

The piston is retracted in the following manner: A grooved wheel 30 is pivoted upon a shaft 31, journaled in the bifurcated portion of the body 12, and has attached in its groove one end of a wire cable 32, the other end of which is connected to the rear end of the piston-rod. Wheel 30 is rotated by means of a handle 33, formed integral therewith, the inner end of which is provided with a perforation forming a continuation of the groove in said wheel and through which the cable 32 passes. In its normal position said handle will extend vertically and at approximately a right angle to the upper face of the body portion 12 of the gun-carriage. When, however, the wheel is rotated, the handle portion will be moved downwardly and the piston will be retracted by its connection with cable 32, attached to said wheel. Said piston is, however, normally moved for-

ward owing to the action of the coil-springs 25, located in the gun-barrel casings. To retain said piston in its retracted position, a latch 34 is pivoted in an extension 35 of the body portion 12, said latch extending across the space between the gun-barrel and the casing of extensions 26 and across catch 28. Said latch is normally lowered owing to the action of a spring 36, embracing a rod 37, the upper end of which is secured in a socket formed in the free end of the latch and extending through openings provided in the casing extensions and in the body portion of the gun-carriage. The lower end of said rod is connected with the enlarged inner end of the trip-lever 38, pivoted upon a rod 39, mounted in the braces 17. The upper end of the last-mentioned coil-spring is connected to and bears against the under face of body portion 12, while its lower end is connected to and bears against the upper face of the trip-lever, the normal action of said spring being to force latch 34 downwardly, as stated.

It will be obvious when the piston is retracted by means of its cable connection with wheel 30 and the shoulder 29 of catch 28 is retracted past the latch that said latch will have a downward movement, owing to the action of said spring, and will hold said piston in its retracted position against the action of springs 25 by its contact with the shoulder of catch 28.

The forward end of the lever 38 extends some distance beyond the front end of the machine, as shown, and into the path of a releasing device carried upon the side of a car 40, adjacent the opening 41 therein, through which the mail-pouch is to be shot. As seen from Fig. 6, the releasing device consists of a curved arm 42, to which is attached intermediate its ends a rod 43, extending through an opening in the floor of the car. The releasing device is held in position and prevented from dislocation with respect to the car by means of a coil-spring 44, the ends of which are respectively attached to rod 43 and to the car-floor and by the provision of shoulders 45 upon the lower portion of said rod to limit the upward movement thereof due to the action of the spring. By forming the arm 42 with oppositely-extending upwardly-inclined ends an increasing downward pressure will be exerted upon the forward end of the trip-lever with a corresponding upward movement of the inner end of said lever. For the same reason the trip-lever will be actuated by the releasing device without reference to the direction of movement of the mail-car.

The operation of the device is as follows: The piston-rod is drawn back and the piston retracted by moving the wheel-handle 33 downwardly until the shoulder on catch 28 is moved beneath the latch, when said latch

will immediately move downward, owing to the action of spring 36 on the trip-lever, thus holding said piston in retracted or set position. The mail-pouch is then placed in the gun-barrel in advance of the piston. When a mail-car provided with the releasing device passes by, the forward end of the trip-lever will contact with the arm of such device and be accordingly lowered, thus raising the upper end and forcing the latch upwardly against the action of spring 36. The shoulder on the spring-catch of the piston-rod will thus be freed from contact with said latch and said piston will be at once moved forward by means of the coil-springs in the barrel-casings, thus shooting the mail-pouch into the opening in the car.

Obvious modifications and changes may be made within the scope of the claims and without departing from the spirit of the invention, and it is therefore not intended that the invention should be limited to the exact construction shown and described.

What is claimed is—

1. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon; oppositely-disposed casings attached to said gun; a piston movable in said gun; means disposed in each casing and connected with said piston for normally holding the same in a forward position in said gun; and means for retracting said piston against the action of said last-mentioned means.

2. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon; a piston movable in said gun; means for normally holding said piston in a forward position in said gun; a cable connected to the rear end of said piston; and an operating-lever journaled in said carriage, and to which said cable is also connected, for retracting said piston against the action of said above-mentioned means.

3. A mail-pouch projector comprising in combination a gun-carriage having a bifurcated rear end; a gun mounted on said carriage and provided with a piston and piston-rod movable therein; a cable connected to the rear end of said piston-rod; means for normally holding said piston in a forward position in said gun; a grooved wheel journaled in the bifurcated portion of said carriage and to which said cable is also connected; and a handle for rotating said wheel to retract said piston against the action of said above-mentioned means.

4. A mail-pouch projector comprising in combination a gun-carriage provided with a bifurcated rear end, a gun mounted on said carriage; a piston and a piston-rod movable in said gun; oppositely-disposed casings connected to said gun; a spring in each casing having its front end fastened to a shoulder therein and its rear end to said piston-rod for normally holding said piston in a forward po-

sition in said gun; a grooved wheel journaled in the bifurcated portion of said carriage; a cable having its ends attached to said wheel and piston-rod; and a handle for rotating said wheel, to retract said piston against the action of said springs.

5. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon; a piston-rod and piston movable in said gun; a longitudinally-extending spring-catch attached to the upper surface of said piston-rod; means for normally holding said piston in a forward position in said gun; means for retracting said piston against the action of said first-mentioned means; and means coöperating with said catch for holding said piston in such retracted position.

6. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon; a piston and piston-rod movable in said gun; means for normally holding said piston in a forward position in said gun; a longitudinally-extending spring-catch attached to the upper surface of said piston-rod; means connected to said piston-rod for retracting said piston against the action of said first-mentioned means; and means extending transversely across said carriage in coöperative relation with said catch and automatically operating therewith to retain said piston in such retracted position.

7. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon; a piston and piston-rod movable in said gun; means for normally holding said piston in a forward position in said gun; a longitudinally-extending spring-catch attached to the upper surface of said piston-rod and provided with a shoulder; means for retracting said piston against the action of said first-mentioned means; a latch extending transversely across said piston-rod; and means for automatically lowering said latch when the shoulder in said catch has passed therebeneath, to retain said piston in such retracted position.

8. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon; a piston and piston-rod movable in

said gun; means for normally holding said piston in a forward position in said gun; means for retracting said piston against the action of said first-mentioned means; a shouldered spring-catch attached to the upper surface of said piston-rod, and longitudinally extending thereon; an extension formed upon the upper face of said carriage; a latch pivoted therein, and extending transversely across said piston-rod; a rod connected to the free end of said latch, and passing through said carriage; a trip-lever pivoted in said carriage, and connected at its inner end to the lower end of said rod; and a spring embracing the lower portion of said rod and bearing against said trip-lever to automatically lower said latch when the shoulder on said catch has passed therebeneath to retain said piston in its retracted position.

9. A mail-pouch projector comprising in combination a gun-carriage; a gun mounted thereon, and provided with a piston and piston-rod movable therein; and with means for normally holding the same in a forward position therein; means for retracting said piston against the action of said first-mentioned means; a longitudinally-extending shouldered spring-catch carried upon the upper surface of said piston-rod; a latch pivoted in an extension of said carriage and extending transversely across said piston-rod and catch; a rod connected to the free end of said catch and passing through said carriage; a lever connected to the lower end of said rod, and having its free end extending beyond said carriage into position to be tripped by a passing car; and a spring embracing the lower portion of said rod and bearing against the inner end of said lever to automatically lower said latch when the shoulder on said catch has passed therebeneath to retain said piston in its retracted position.

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

JAMES A. NEWSOM.

Witnesses:

J. W. EVERETT,

W. B. NEATHERLAND.