

No. 696,054.

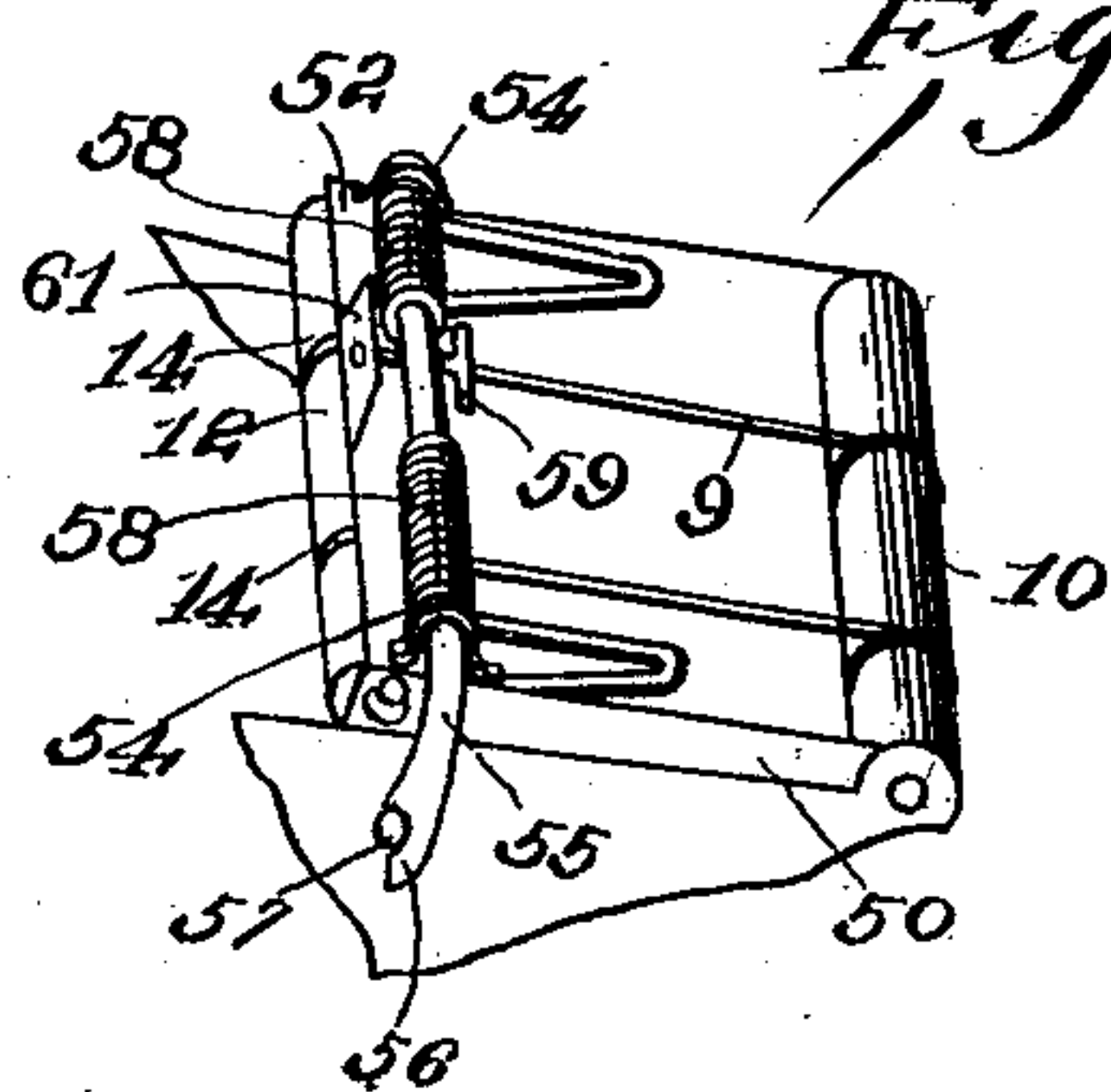
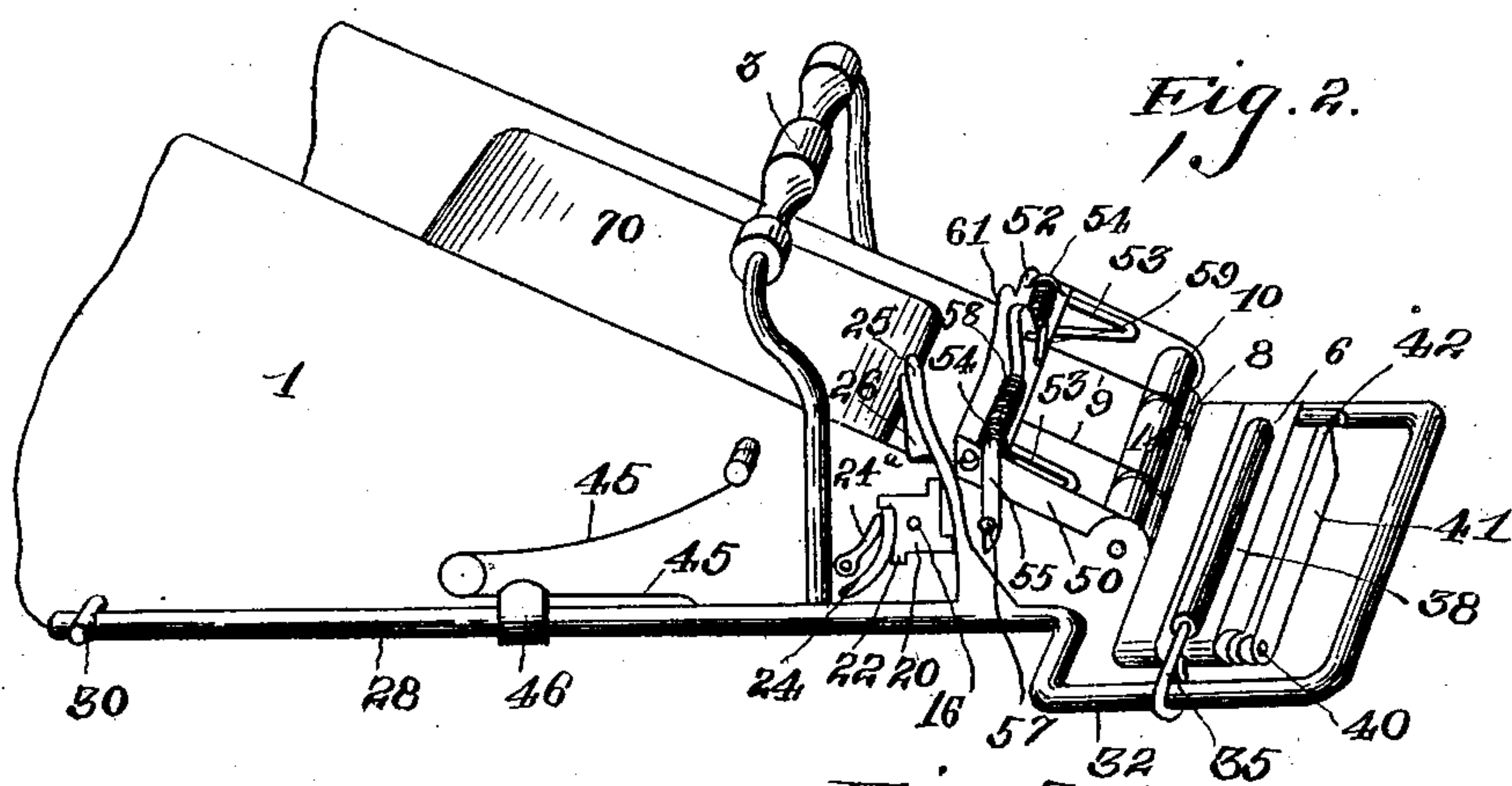
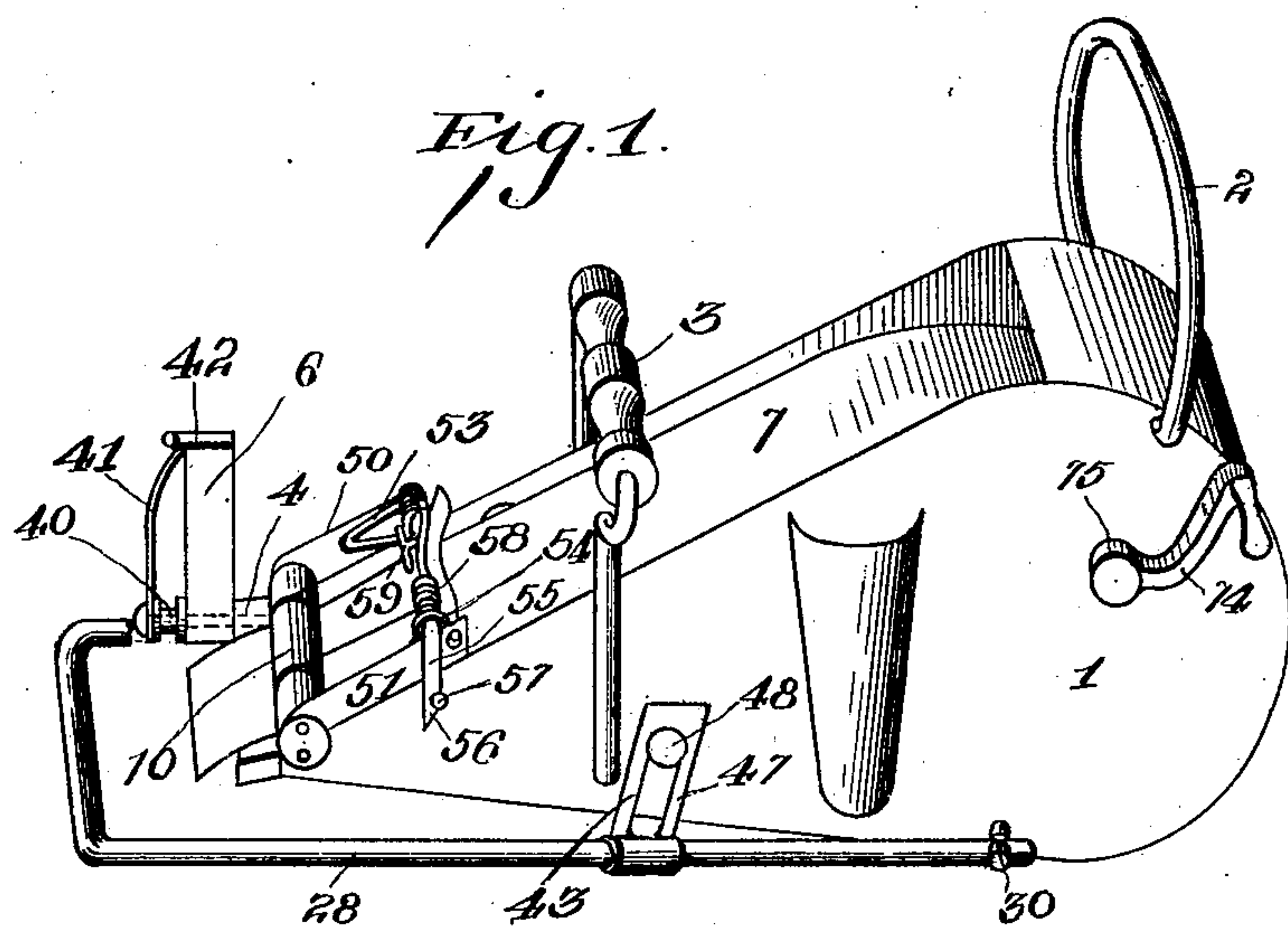
Patented Mar. 25, 1902.

M. P. KENNA.
ADDRESSING MACHINE.

(Application filed Apr. 24, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.

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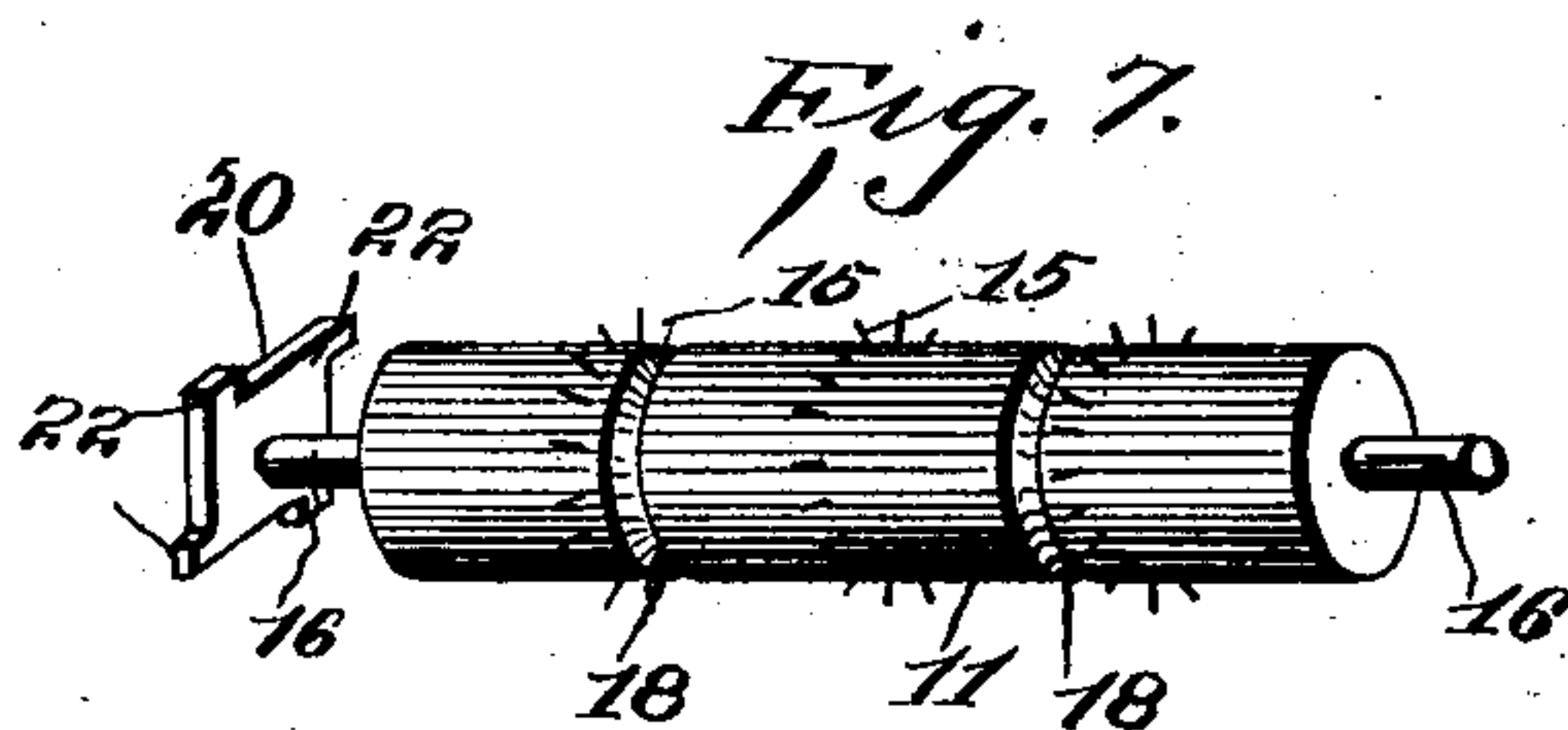
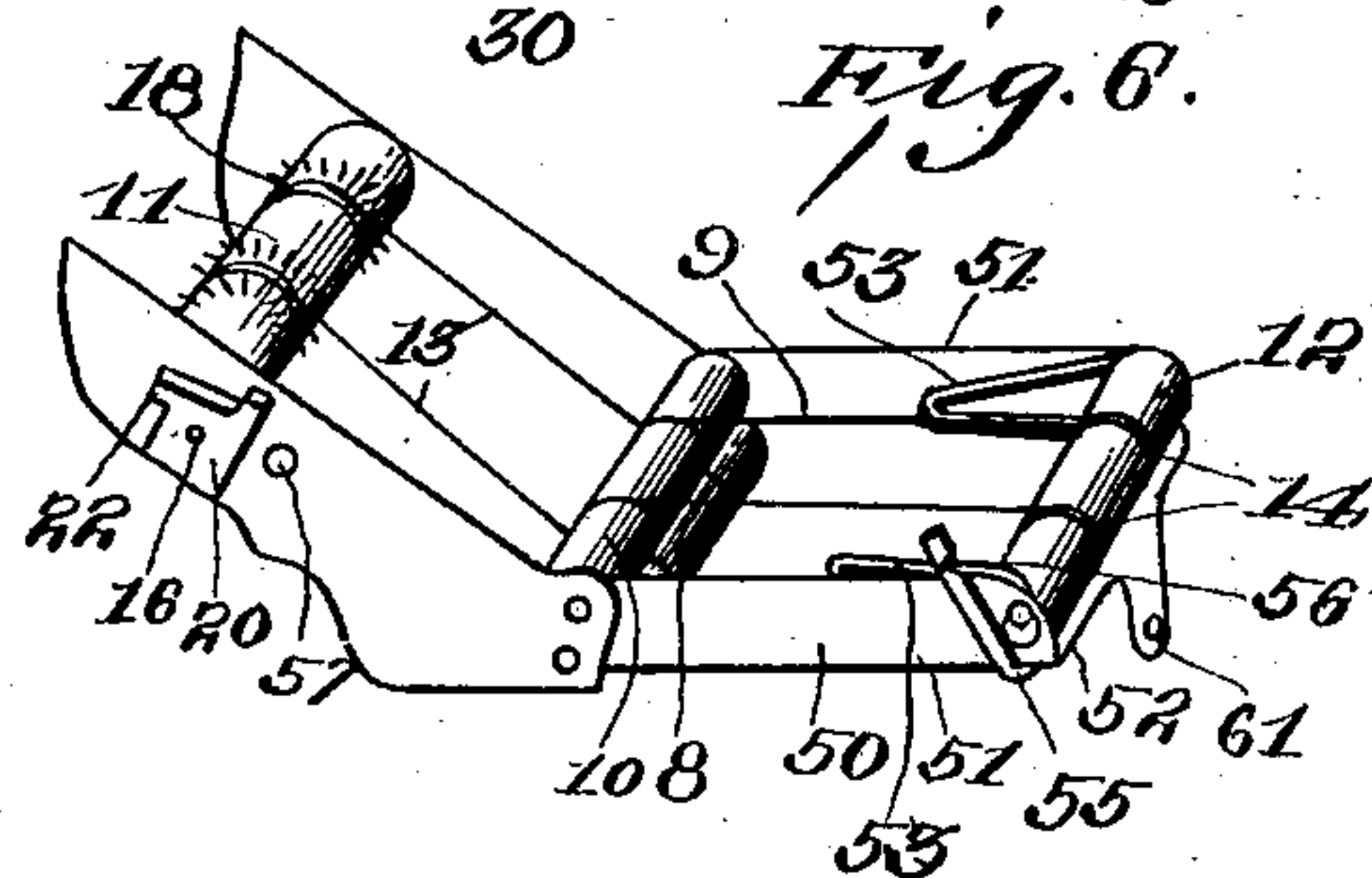
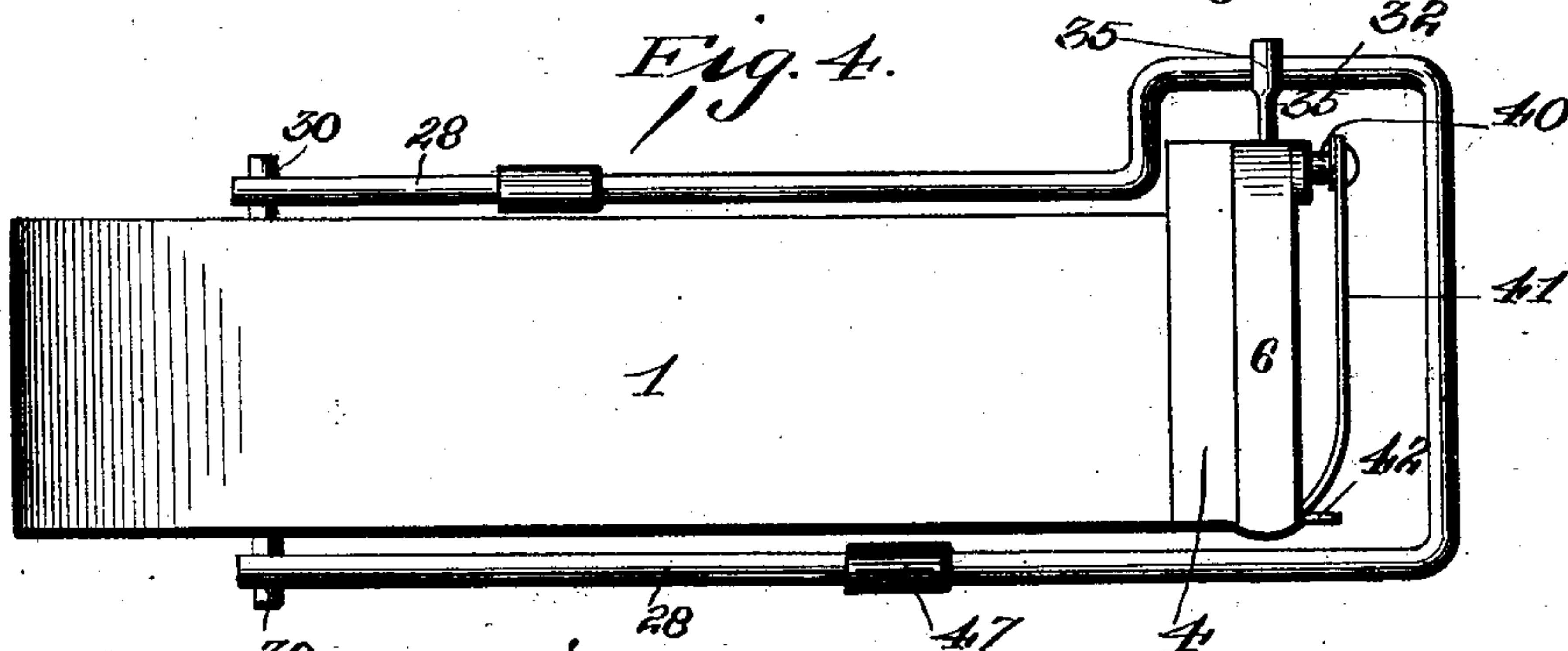
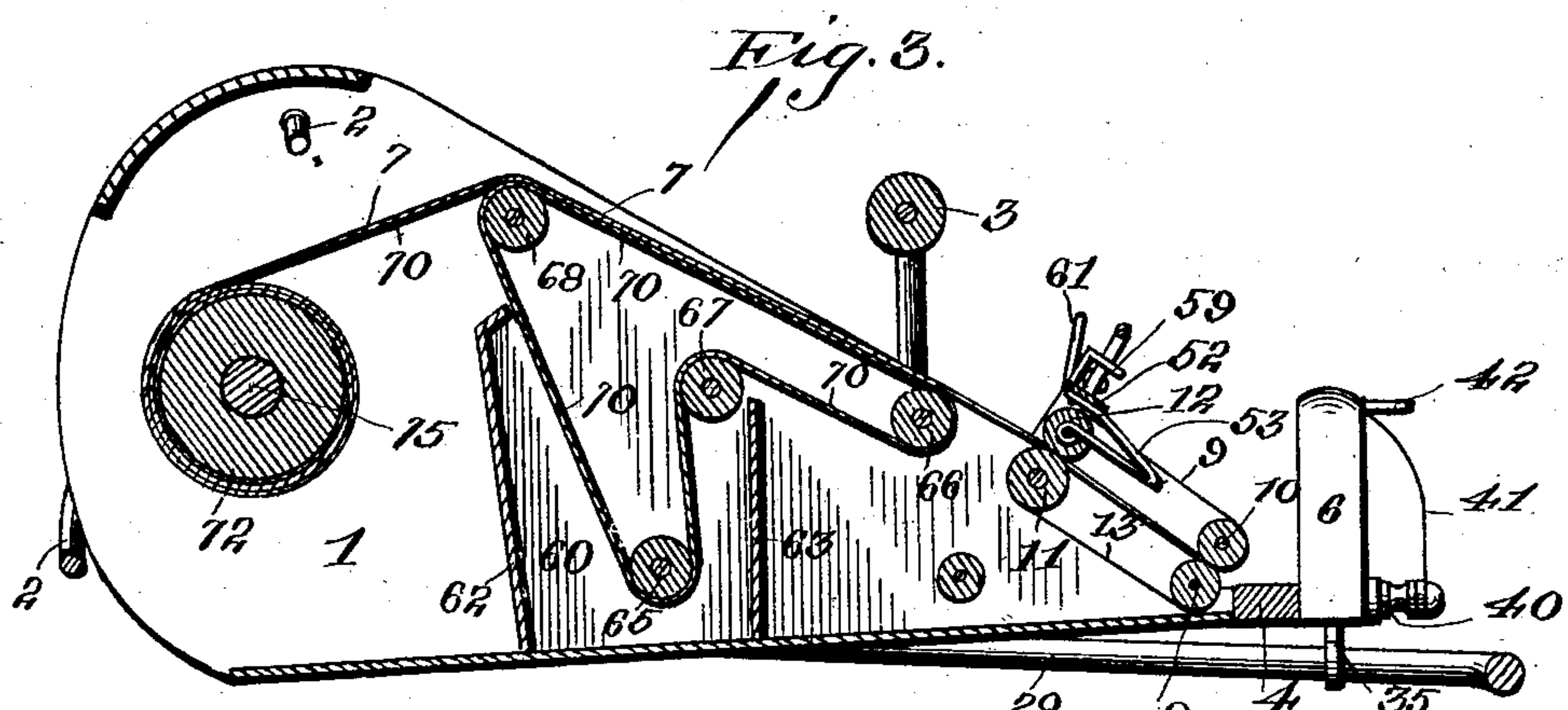
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Witnesses

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UNITED STATES PATENT OFFICE.

MICHAEL P. KENNA, OF DUBUQUE, IOWA.

ADDRESSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 696,054, dated March 25, 1902.

Application filed April 24, 1901. Serial No. 57,337. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL P. KENNA, a citizen of the United States, residing in the city and county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Addressing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to mailing or addressing machines in which the addresses are printed upon a strip of paper and cut off and pasted upon the mailing-matter to be addressed; and the leading object is to provide a new and novel attachment for such machines which can be made to operate automatically and without the aid of a skilled operator, whereby all the addresses shall be severed from the printed list at the same width and in this manner greatly facilitate the work of addressing newspapers and the like.

In what its novelty consists and the mode of operation will be fully set out and described in the following specification when taken in connection with the drawings accompanying the same.

Figure 1 is a perspective from one side with knife open. Fig. 2 is a perspective from the opposite side of Fig. 1 when knife is closed. Fig. 3 is a longitudinal section. Fig. 4 is a plan view of the under side. Fig. 5 is a perspective of the frame which carries one of the rollers when closed. Fig. 6 is a perspective of Fig. 5 when open. Fig. 7 is a perspective of the feed-roller and plate attached.

Like numerals of reference denote corresponding parts in all of the drawings.

Referring to the drawings, 1 designates the box or holder, in which is contained the usual paste-box, rollers, and the like, hereinafter to be described.

2 designates one of the handles for the arm of the operator; 3, a handle for grasping with the hand. At the forward end of the box is rigidly secured a bar of steel 4, provided with a cutting edge which forms one jaw of the knife with which the movable jaw 6, hereinafter to be described, engages for severing the various addresses from the printed strip 7. In the rear of the bar 6 is pivoted in the sides of the frame a roller 8 and above the same

another roller 10, between which the addressing-strip is passed to the knife. In the rear of rollers 8 and 10 is pivoted in the sides of the box a feed-roller 11 and in a frame presently to be described another roller 12. Around the rollers 10 and 12 in the grooves travel two endless rubber belts 9, and upon the rollers 8 and 11 also travel two endless belts 13. The roller 12 is covered with rubber or other flexible material and is provided with grooves 14, and in these grooves travel the endless belts 9. The feed-roller 11 is provided with teeth 15 and groove 18, in which the endless belts 13 travel.

The shaft 16 of the feed-roller 11 is screw-threaded, and a plate 20 is also screw-threaded and screwed rigidly upon the shaft. The plate 20 is formed with four edges of equal length and provided with lugs 22, projecting at right angles from each corner of the square, the object of which will presently appear.

It is of importance that the plate 20 be made with the four edges of the exact same length and the shaft on which it is set be in the center of the plate 20 and also that said plate be prevented from moving backward by pawl or some other stop, for if the edges were the fraction of an inch different in length or the plate was not stayed in a given position after advancement then the addresses, which are printed at the same distance apart on the addressing-strip, would be cut off at different widths, varying according to the variation of the length of the edges of the plate 20 and of the distance of the travel of the roller to which the plate 20 is attached. Even if the variation were slight at first the cut would each time approach nearer to the address, and finally after a large number of addresses were cut off the strip would be cut off in the address itself.

In each side of the box at its forward end is pivoted a dog or pawl 24, which is held in engagement with the lugs 22 by means of a spring 24^a and prevents any reverse movement of the roller 11. Upon the frame 28 is also affixed a spring 25, provided with a hook 26, which engages with the lugs 22 for the purpose of turning the roller around just one-quarter and also for forcing the plate 20 against the stop.

It is important that the spring 25 should be

exceedingly active from the fact that when the machine is raised and lowered in a rapid manner in cutting off the addresses and pasting them on the newspapers the hook 26 will sometimes in its downward movement revolve the roller 11 a trifle more than a quarter around by its contact with the lugs 22; but when the machine is pressed down the spring 25 will press against the edge of the plate 20 and force the plate back against the pawl 24, and thus turn the roller 11 back to just its quarter of a turn, and in this manner prevent the roller from delivering of the strip more than just one-quarter of the circumference of the roller 11.

The frame 28 is made exceedingly rigid and preferably of brass tubing in order that it may retain its position and hold and operate one jaw of the knife with accuracy. This frame is pivoted to the lower rear end of the box by the pivot-pins 30 and runs parallel with the sides of the box and also is bent outward at 32 for the purpose of operating the jaw 6 of the knife and, further, to present a broad surface upon the newspaper to be addressed. To the bent portion 32 of the frame is pivoted an arm 35, which operates the jaw 6 of the knife. Upon the top of the jaw 6 is a sleeve 38, through which the actuating-arm 35 moves, and whenever the machine is raised will draw open the jaw 6.

As the arm 35 is attached to the frame 28, the jaw 6 by reason of its fulcrum connection with the stationary cutting-bar 4 will be raised or lowered in the opposite direction with the machine, and the arm 35 being loosely journaled in the sleeve 38 it is free to move longitudinally therein as the jaw 6 is raised or lowered, and thus the arm 35 acts as a lever for the jaw.

For the purpose of holding the jaw 6 in continual engagement with the jaw 4 there is fastened to the pivot-pin 40 of the jaw 6 a spring 41, which engages at its outer end with a pin 42 on the outer end of the jaw 6. This spring 41 by pressing against the outer end of the jaw 6 insures the cutting contact of the jaws of the knife at all times and the severing of the addresses, which is of importance, as the addressing-strip is moistened by the paste upon its under side, and thus rendered more difficult to cut.

Upon the side of the frame is fastened an upright guide 47. This guide is provided with a slot 43. To the side of the box 1 is secured a headed pin 48, which engages with the slot 43 and insures a direct upward and downward movement of the box with relation to the frame 28 whenever the box is raised from or lowered to the table on which it is operated. To the side of the box 1 is also fastened a spring 45, which engages with and is attached to the frame 28 and assists to force downward the frame whenever the box is raised. In order that the spring may always have a direct downward pressure upon the

frame, there is attached to the frame 28 a guide 46.

For the purpose of more conveniently introducing the addressing-strip between the feed-rollers 11 and 12 and the rollers 8 and 10 there is pivoted upon the shaft of the roller 10 a frame 50. This frame is composed of the two side pieces 51 and cross-piece 52, and there is pivoted in the rear end of the frame the roller 12. For the purpose of holding the roller 12 in close contact with the roller 11 the bearings in the frame 50 are made somewhat larger than the shaft of the roller 12, and to the cross-piece 52 is secured one end of each of the two springs 53. The other ends of the springs 53 are attached around the shaft of the roller 12, and these springs have a constant tendency to draw the roller 12 down firmly against the roller 11, as more clearly shown in Fig. 3. In order that the frame 50 may be held when desired down upon the roller 11 and also turned forward over the front of the knives, there is attached to the cross-piece 52 loops 54, and through these loops is passed the bent rod or handle 55, which is bent downward and provided with hooks 56, which engage with pins 57 in the sides of the box. This handle is supplied with a coil-spring 58, which holds the hooks 56 in engagement with the pins 57. To the rear of the cross-piece 52 is attached a thumb-piece 61, and into this thumb-piece is screwed a pin 59, widened at its outer end and passed through the slot or hole in the handle, and thus prevents the handle from turning backward when the frame is opened to introduce the strip. This frame is exceedingly convenient, as it may be turned forward over the knife and the addressing-strip delivered between the rollers 8 and 10 without inconvenience; also, if the addressing-strip for any reason becomes crimped or is not being delivered in the proper manner the roller 12 may be readily removed from its contact with the roller 11 and furnish an open space to handle the addressing-strip.

Referring now to Fig. 3, within the box 1 is set the partitions 62 and 63, which form a receptacle for the paste, (designated as 60.) In the lower part of the box is a roller 65, and at the top are three other rollers 66, 67, and 68, around which the endless belt 70 travels and carries the paste to the under side of the addressing-strip. In the rear of the box is a reel 72, around which the addressing-strip is rolled. This reel is operated by a handle 74, attached to the shaft 75 of the reel.

The manner of operating my device is as follows: Starting with the addressing-strip wound on the reel 72 and just at the outer edge of the cutting-jaw 4, the newspapers upon the table under the machine, and the usual paste in the box, the operator passes his hand through the handle 2 and grasps the handle 3, then raises the machine, and the gravity of the frame 28, together with the force of

the spring 45, forces down the frame 28 until it is arrested by the guide 47 engaging with the pin 48. The upward movement of the machine draws the spring 25 downward until
 5 the hook 26 engages with one of the lugs 22 upon the plate 20, and as the plate 20 is rigidly affixed upon the shaft of the feed-roller 11 and said roller is caused to revolve one-quarter of the distance around and as it is
 10 turned it draws the addressing-strip the distance of one-fourth of the circumference of the roller 11. If at any time the hook 26, which engages the lugs 22, should turn the plate, and with it the roller 11, a trifle more
 15 than one-fourth around when the machine is pressed down to cut off the address, the spring in its upward movement will press against the edge of the plate and force the roller 11 back till the lug 22 shall be forced firmly
 20 against the pawl 24, and thus there will never be delivered to the cutter any wider strip of the address than just one-fourth of the circumference of the feed-roller. If it is desired to cut off a wider or narrower address than
 25 one-fourth of the circumference of the feed-roller, then the roller may be increased or diminished accordingly. When the frame has reached its lowest position and the roller 11 has been advanced a quarter of its cir-
 30 cumference, it is prevented from any further movement forward by the dog 24 engaging with the under side of one of the lugs 22. The operator then presses down the machine upon the newspaper, which forces the arm 35 in
 35 through the loop 38 upon the jaw 6 and forces the jaw 6 down past the jaw 4 and severs the addresses and at the same time presses the address down upon the paper and, as it is covered with paste upon its lower side, affixes
 40 it upon the newspaper. This movement downward of the box drives the hooked end of the spring 25 up past the lug 22 and in position for another turn of the rollers 11 and 12. It will be seen that the rollers 11 and 12 will
 45 not be turned so as to advance the addressing-slip until after the jaw 6 has been thrown nearly as wide open as possible and the jaw 6 will not interfere with the advancing of the addressing-strip. It will also be noticed
 50 that the roller 10 will be revolved by the endless belts 9 passing around the roller 12 and the roller 8 will be advanced by the endless belt 13 by its contact with the roller 11 and also that the addressing-slip will travel along
 55 down the endless belt 70 over the rollers 66 and 68 and receive its paste.

It will be seen that the addresses are printed on the addressing-strip 7 at the same distance apart or the same width from center to center
 60 of the space between the addresses.

One of the advantages of this machine is the absolute accuracy of the advancement of the addressing-slip, which cannot be advanced more or less than a quarter of the circumfer-
 65 ence of the feed-roller 11, and hence purely automatic, and all the operator is required to

do is to raise and lower the machine and withdraw the addressed papers from beneath the machine. Another feature is that the machine can be used with equal convenience by
 70 either hand and arm of the operator, which is a great advantage over machines which must be used wholly with the same hand.

Having now described my invention, what I claim, and desire to secure by Letters Pat-
 75 ent, is—

1. In an addressing-machine, a box, a feed-roller journaled in the box, means to impart a partial revolution to the feed-roller, means to reset the roller to insure the delivery of
 80 strips of uniform length, a cutting device mounted at one end of the box and means to operate the feed-roller and the cutting device synchronously and conjointly.

2. In an addressing-machine, a box, a feed-roller journaled in the box, a plate carried by the feed-roller, means to engage the plate and impart a partial revolution to the roller, and mechanism to reset the feed-roller should the
 85 same be turned too far, whereby strips of uniform length are delivered.

3. In an addressing-machine, a box, a feed-roller, journaled in the box, a frame pivotally secured to the box, a spring-arm carried by the frame to impart a partial rotation to the
 90 feed-roller, said arm also serving to reset the roller when it is turned too far, a stop to limit the backward movement of the roller when reset by the arm, and a cutting mechanism operated by the frame for severing the strips.

4. In an addressing-machine, the combination with a box having a feed-roller journaled therein, and a plate carried by said roller extending on the outside of the box, of a frame pivotally attached to the box and enveloping
 105 one end thereof, said frame provided with means to engage the plate to rotate the feed-roller, and to engage the plate to reset the roller when the latter has been turned too far, and a cutting mechanism for the strips.

5. In an addressing-machine, a box adapted to hold an addressing-strip, a reel on which the strip is rolled, a feed-roller, a plate having four equal sides attached to the roller, means for turning said roller one-fourth
 110 around, a stop for preventing further movement of the roller, a frame pivoted to the upper portion of the box a roller having a yieldable bearing in said frame, springs for holding said roller in contact with the feed-roller,
 115 a knife, a frame pivoted to the box and means connected with the frame for operating the knife, as and for the purposes shown.

6. In an addressing-machine, a box carrying an addressing-strip, a feed-roller, means
 120 for operating the feed-roller, a frame pivoted in the upper portion of the box, a roller having a yieldable bearing in the frame, a hook for holding the frame in engagement with the box, one or more springs for holding said
 125 roller in engagement with the feed-roller a knife for severing the strip and means for

operating said knife, as and for the purposes shown.

7. In an addressing-machine, a box, a feed-roller pivoted to the box, a plate having four equal edges secured to one of the feed-rollers, lugs upon the said plate, a frame pivoted to the box, a spring carrying a hook adapted to engage the plate upon the roller, and a spring-actuated pawl secured to the box, and adapted to engage said plate to prevent its reverse movement, and means carried by the frame and engaging the plate to prevent excessive rotation of the feed-roller, as and for the purposes shown.

8. In an addressing-machine, a box, a cutting device comprising a stationary jaw secured to the end of the box and a movable jaw pivoted to the stationary jaw and provided with a sleeve thereon, a frame pivoted to the side of the box, an arm pivoted to the frame and extended into the sleeve for operating the pivoted jaw, two feed-rollers pivoted in the box, a plate attached to the shaft of one of the feed-rollers, said plate having four equal sides which are provided with lugs at their ends, and a hook attached to the frame and engaging said plate for operating said feed-rollers.

9. In an addressing-machine, a box, a cutting device secured to the forward end of the box, feed-rollers pivoted in the box, carrying-rollers pivoted in the box forward of the feed-rollers, a frame pivoted to the sides of the box, a plate having four edges secured to one of the feed-rollers, a spring carrying a hook attached to the frame, said hook adapted to engage the plate and revolve the feeding-rollers one-fourth of a revolution, a spring-pressed pawl on the box to prevent backward movement of the rollers, and means whereby

the roller is reset when the same is turned more than one-fourth of a revolution.

10. In an addressing-machine, a box, one jaw of the knife, rigidly secured to the end of the box, a second jaw of the knife pivoted to the first, a frame pivoted to the sides of the box, means connected with the frame for operating the pivoted jaw, feed-rollers pivoted in the sides of the box, a plate having four equal edges rigidly fixed upon the shaft of the feed-roller, a spring-actuated hook attached to the frame and adapted to engage the plate for advancing the roller, said spring also serving to reset the roller to insure the delivery of strips of the proper length, and a spring-actuated pawl adapted to engage the opposite edges of the plate, to prevent the reverse movement of the roller, as and for the purposes shown.

11. In an addressing-machine, a box, a cutting device comprising a stationary jaw and a pivoted jaw mounted on one end of the box, a feed-roller journaled in the box and provided with teeth upon its periphery, a frame pivoted to the top of the box behind the cutting device and provided with an upper set of feed-rollers, means to hold the frame and upper set of feed-rollers in operative relation to the lower feed-roller, a frame pivoted to the bottom of the box, and means on the frame to operate the feed-rollers and the pivoted jaw conjointly, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two witnesses.

MICHAEL P. KENNA.

Witnesses:

M. M. CADY,
R. S. DIKE.