

No. 791,589.

PATENTED JUNE 6, 1905.

G. T. STRITE.
STAMP VENDING MACHINE.
APPLICATION FILED OCT. 2, 1903.

3 SHEETS—SHEET 1.

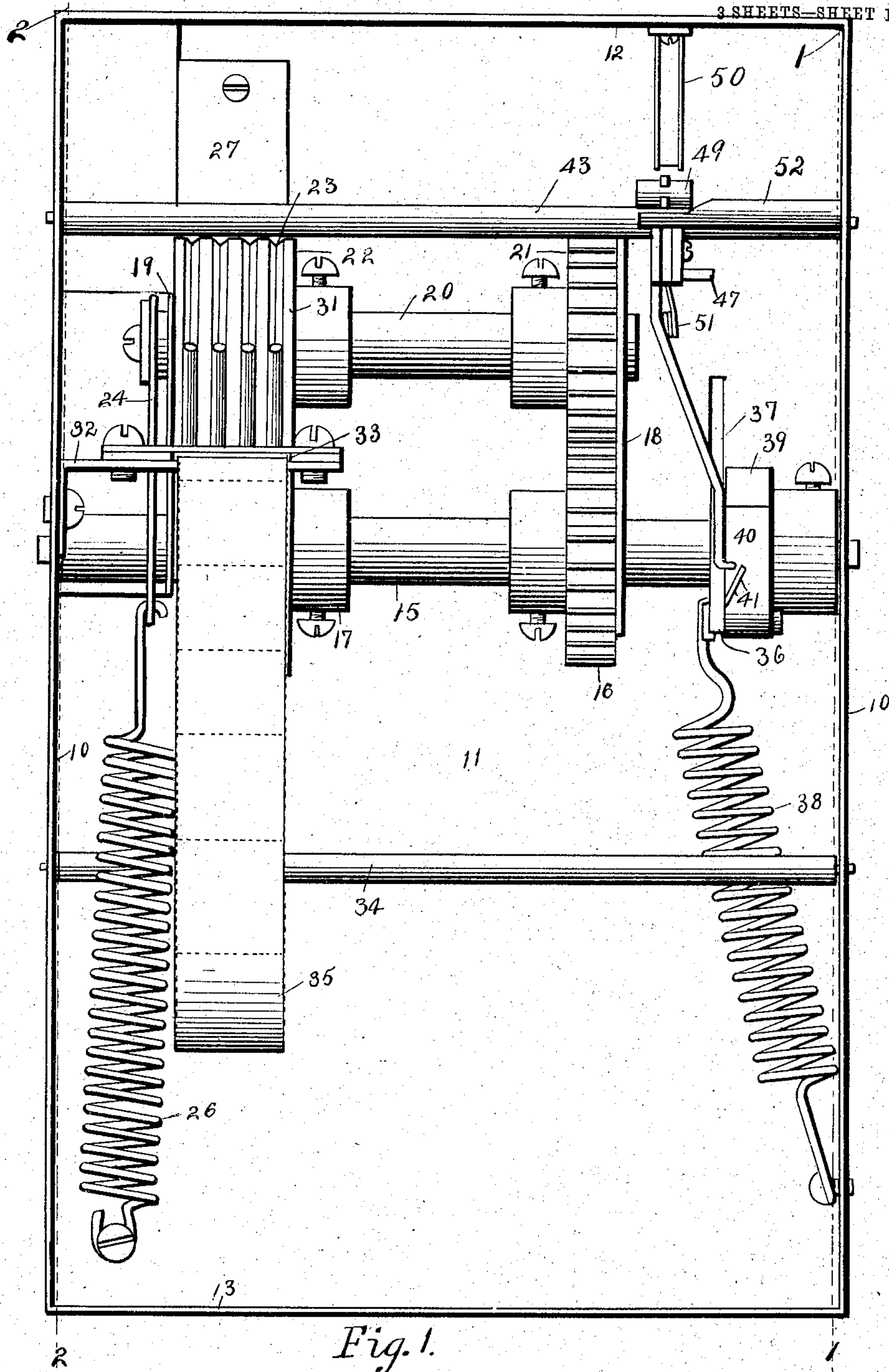


Fig. 1.

Witnesses

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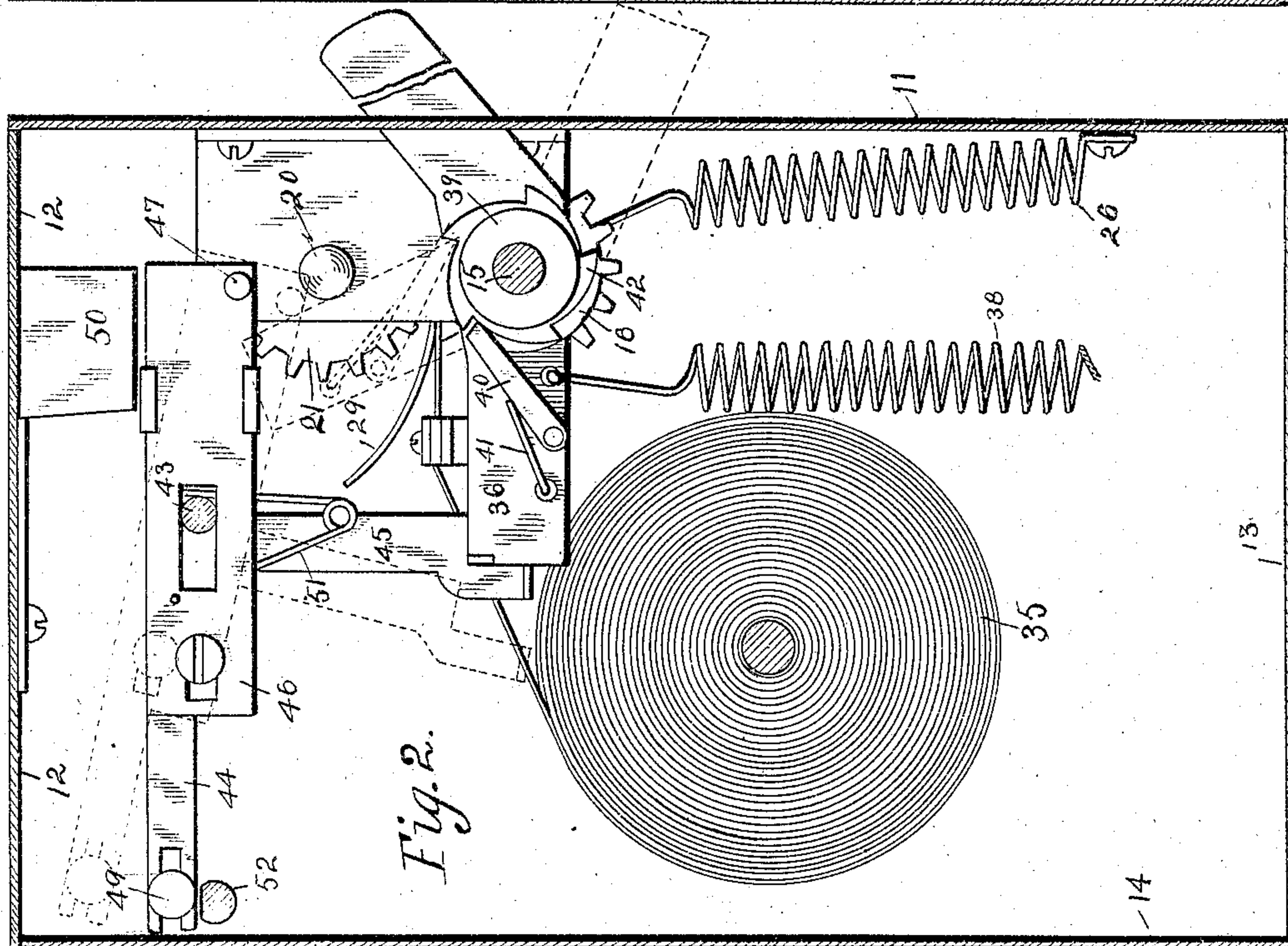
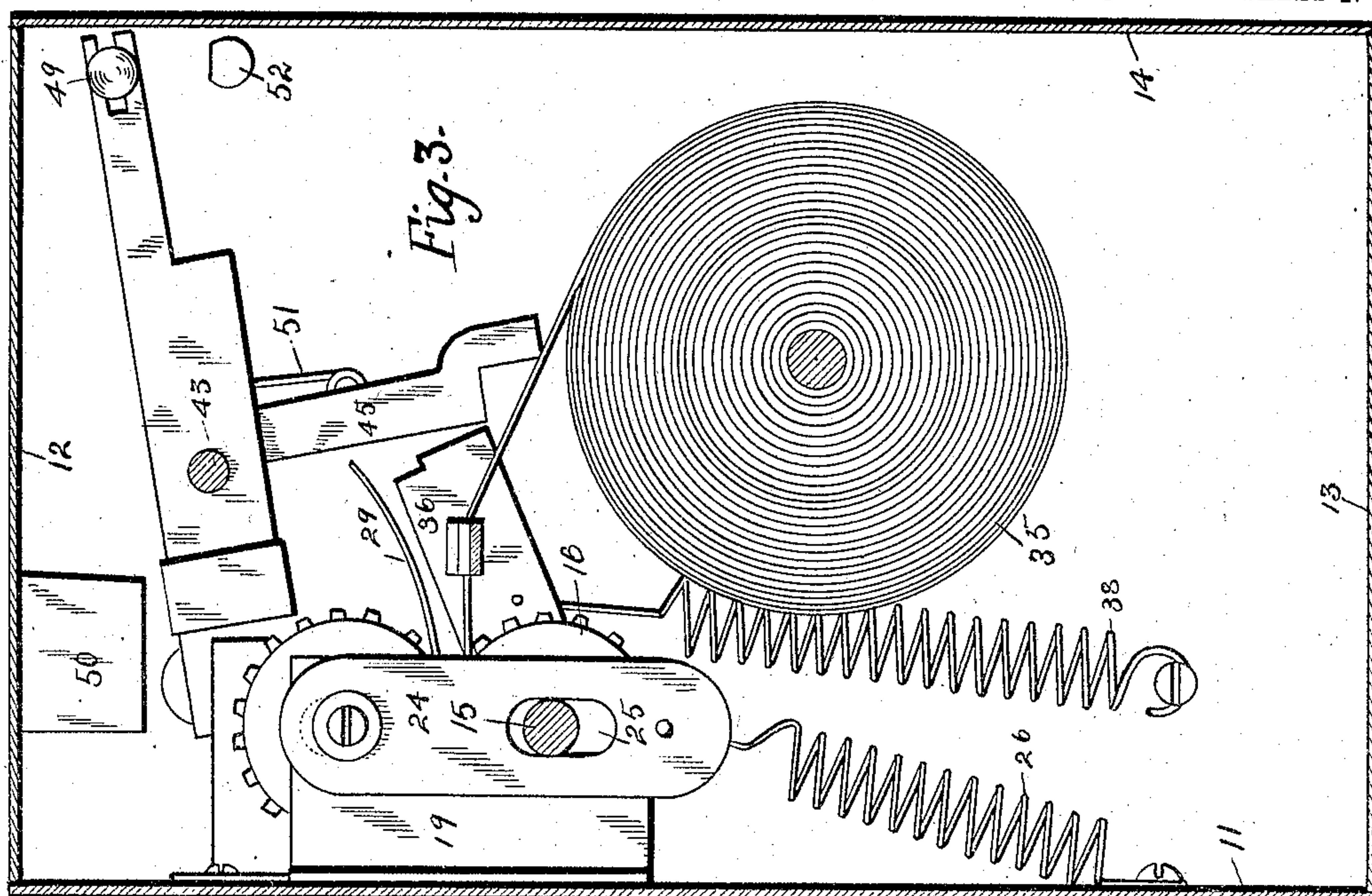
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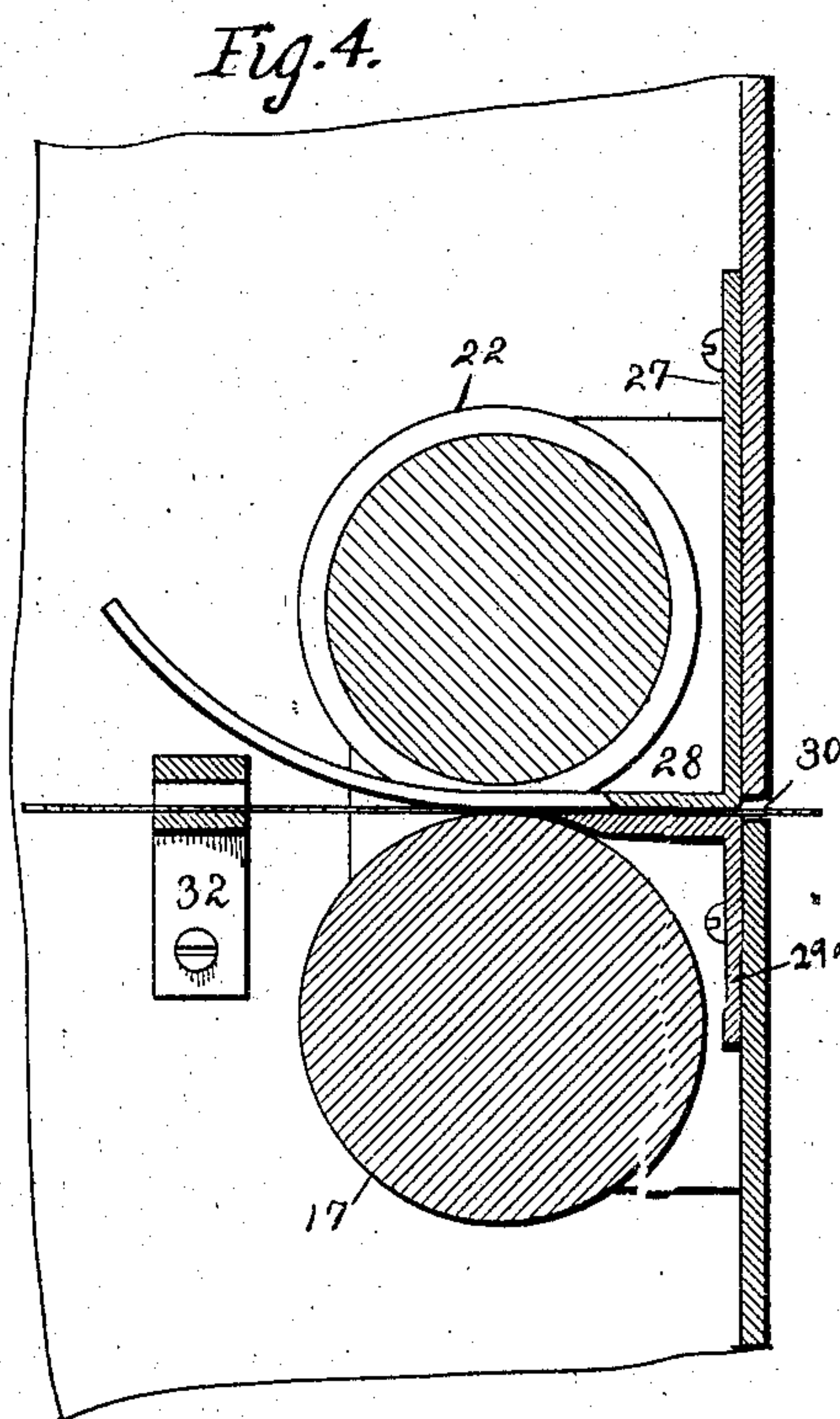
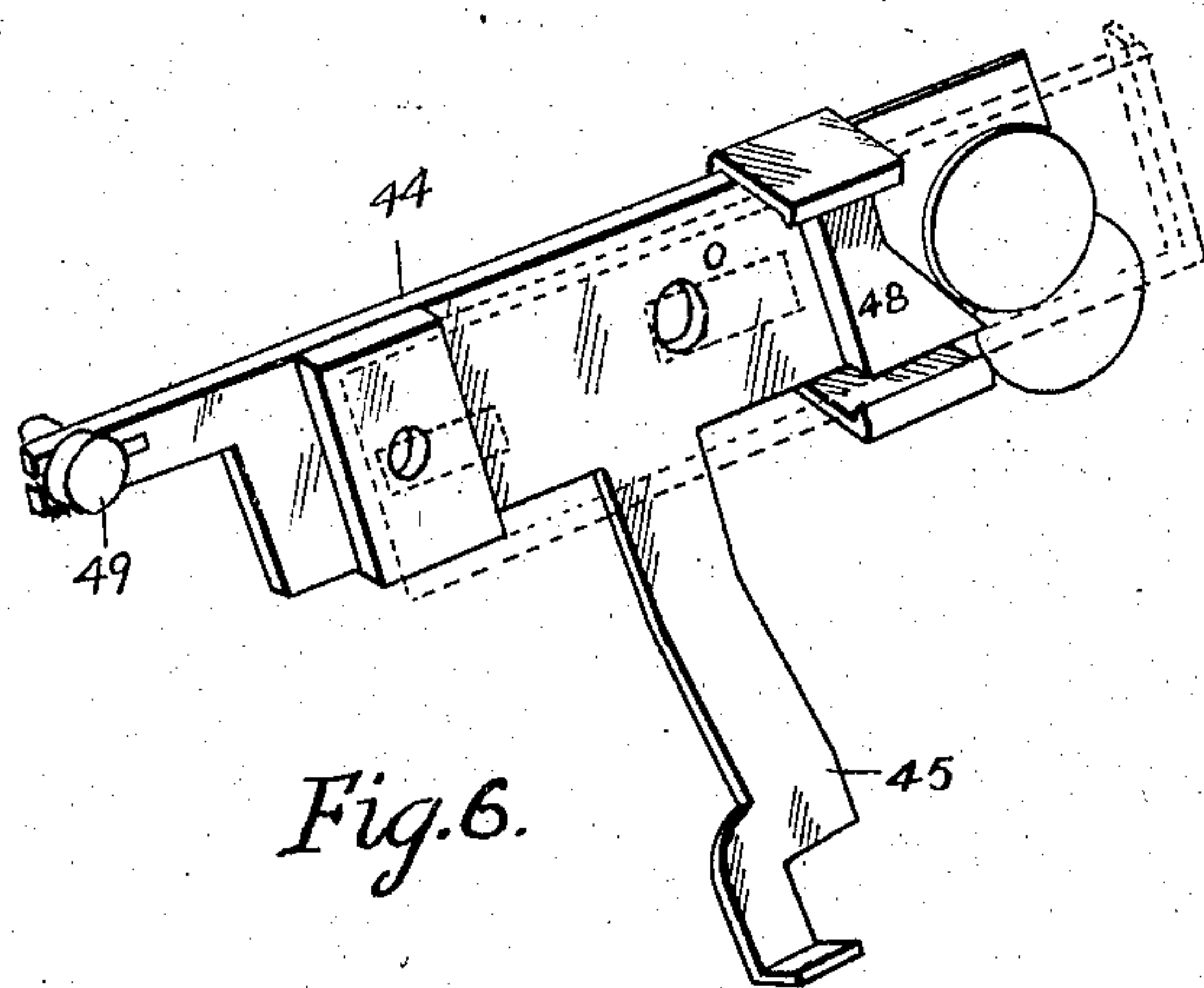
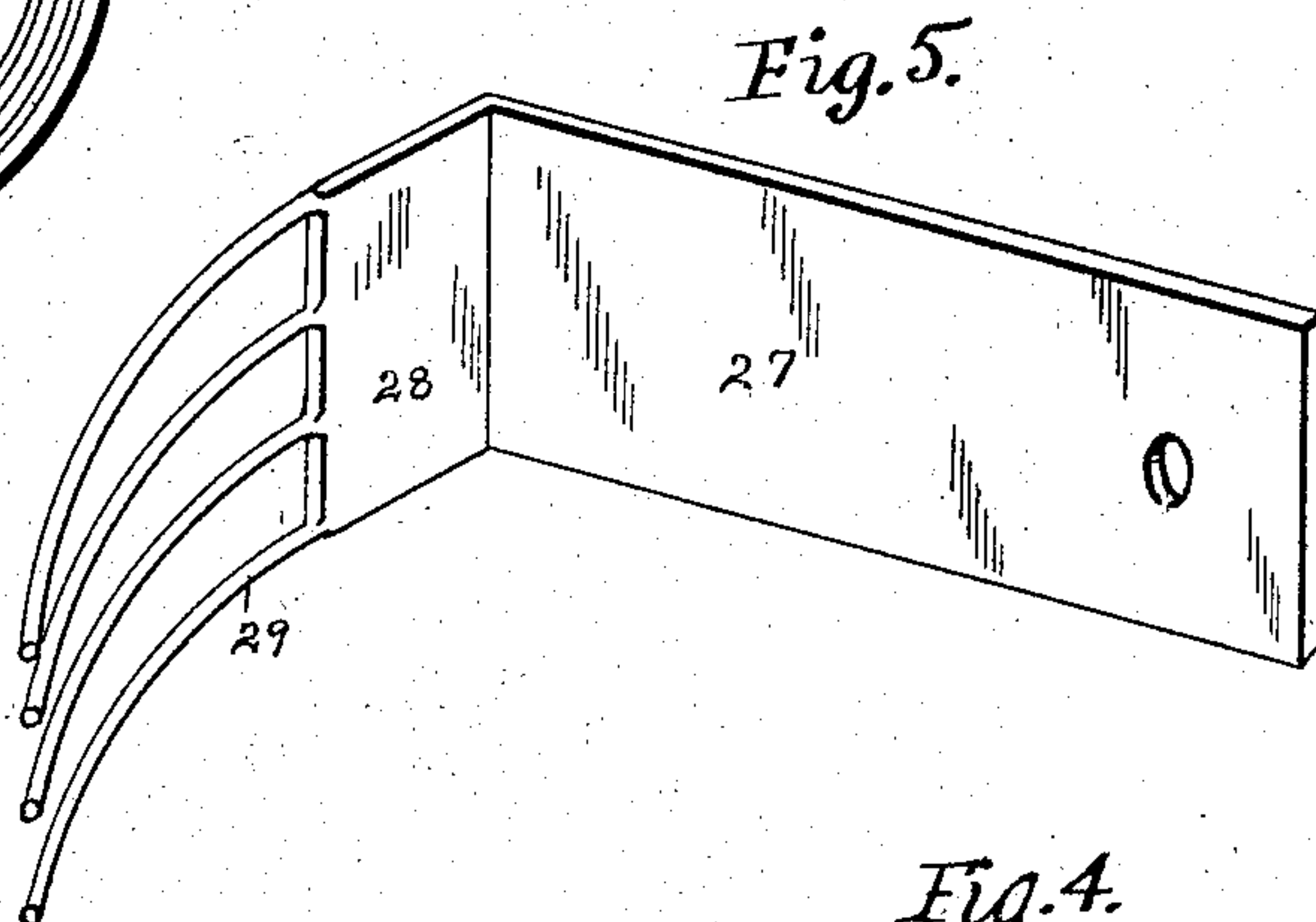
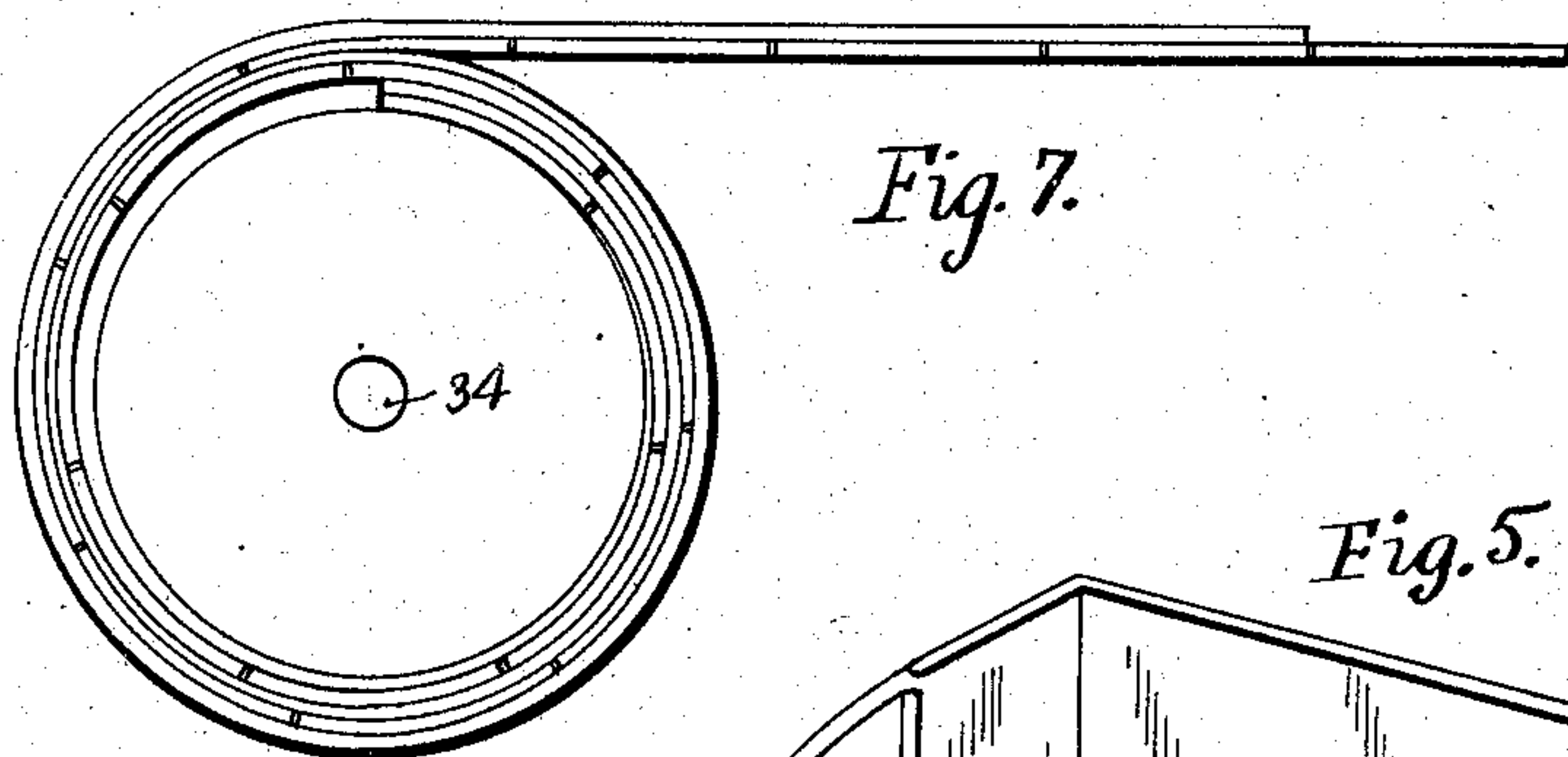
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3 SHEETS—SHEET 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE T. STRITE, OF TAMA, IOWA, ASSIGNOR OF ONE-THIRD TO A. E. JACKSON AND ONE-THIRD TO L. I. CARSON, OF TAMA, IOWA.

STAMP-VENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 791,589, dated June 6, 1905.

Application filed October 2, 1903. Serial No. 175,436.

To all whom it may concern:

Be it known that I, GEORGE T. STRITE, a citizen of the United States, residing at Tama, in the county of Tama and State of Iowa, have invented a certain new and useful Stamp-Vending Machine, of which the following is a specification.

The object of my invention is to provide a stamp-vending machine the mechanism of which is operated by the weight or size of the coin which is dropped into it releasing a certain part of the mechanism, and then by operation of a single lever the stamp which has been paid for by the coin is thrown to the exterior of the box incasing the mechanism, and thus allows the operator to obtain the stamp which he is desirous of obtaining.

A further object is to provide a vending-machine in which the material to be sold will be forced through a small opening in the front of the box which incases the mechanism of the device by means of the movement of a single lever when the locking mechanism is released from its locked position.

A further object is to provide rollers for drawing the material to be sold between them from the roll of material which is on the interior of the incasing box and out through an opening in the front of the box, so that a portion of the material can be easily severed from the body of it.

A further object is to provide means for throwing the material between the rollers out of engagement with these rollers, and I accomplish this result by means of disengaging-rods inserted between the rollers and into the grooves of the upper roller.

A further object is to provide means for holding the upper roller constantly in engagement with the lower roller, so that there will be a constant pressure exerted upon the material which is to be passed between these rollers.

A further object is to provide ordinary mechanism whereby the rollers are operated, and, further, to provide a roller for supporting the material which is to be vended by my mechanism. While it is my object to use my vending-machine for the sale of stamps, I desire to have it understood that street-car tickets

or any other things of a similar character can be sold by my machine.

My invention consists in certain details in construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a rear elevation of the complete machine. Fig. 2 is a vertical sectional view of the device cut through line 11 in Fig. 1. Fig. 3 is a vertical sectional view of the complete machine cut on the line 22 of Fig. 1. Fig. 4 is a vertical sectional view of the delivery portion of the machine, showing the rollers for forcing the material out of the machine in cross-section and also showing one of the disengaging-rods and a portion of the front of the containing-box. Fig. 5 shows in perspective the disengaging-rods and the support for said rods. Fig. 6 is a detail view of the lever-locking device, a portion of which is designed to engage a lever mounted on one of the rollers and prevent this lever from being moved upwardly or downwardly to rotate the rollers when the locking-lever is in engagement with the roller-operating lever. Fig. 7 is a side elevation of the roller upon which the material is to be vended is mounted and shows the oiled paper which is designed to be placed between the layers of material which is on the roller.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the side of the incasing box for my mechanism. This box has the front portion 11 and the top portion 12 and the bottom 13 and the detachable rear portion 14 therein.

Rotatably mounted between the sides and immediately at the rear of the front portion 11 of my box is the shaft 15, upon which the cog-wheel 16 is mounted and the roller 17 is also mounted. Attached to the rear surface of the front portion 11 are the supporting-pieces 18 and 19. The shaft 15 passes through the lower end of the supporting-pieces 18 and 19, and the supporting-piece 18 is on the outside of the cog-wheel 16, and the supporting-

piece 19 is outside of the roller 17. Rotatably mounted in these supporting-pieces 18 and 19 and above the shaft 15 is a shaft 20, said shaft 20 having a gear-wheel 21 thereon in mesh with the gear-wheel 16, and a grooved roller 22 is also mounted on the shaft 20 at the other end of said shaft from the gear-wheel 21. There are a series of grooves in this grooved roller, which I have designated by the numeral 23, for purposes hereinafter made clear. The shaft 20 is capable of slight vertical movement in its bearing in the supporting-piece 19, so that the material will be allowed to easily pass between the grooved roller 22 and the roller 17 when the material forces the disengaging-rods, hereinafter described, upwardly. The bearing in the supporting-piece 19 for the roller 20 is partially shown in dotted lines in Fig. 3.

Mounted on the shaft 20 and outside of the grooved roller 22 I have provided the link 24, said link having a slot 25 in it, through which the shaft 15 passes. Attached to the lower end of this link is a coil-spring 26, and said spring 26 is also attached to the front 11 of the incasing box, which is adjacent to the grooved roller. This spring is designed to act with the link 24 to constantly hold the grooved roller in engagement with the roller 17, which is immediately beneath it.

Attached to the rear surface of the front portion 11 of the incasing box in my device is the rod-supporting piece 27. Said supporting-piece has a right-angled extension at its lower end, which I have designated by the numeral 28. This right-angled extension has the rods 29 attached to its rear end, and said rods extend into the grooves 23 of the roller 22 and between the rollers 17 and 22. I have also provided a right-angled plate 29^a, which is attached to the rear surface of the front portion 11 of the box, which is slightly below the right-angled extension 28, so that there is a slight distance between the upper surface of the right-angled plate 29^a and the extension 28 to allow the material to pass between said portions. Immediately in front of the opening between the right-angled plate 29^a and the extension 28 is an opening 30 in the front of the box, through which the material is to be passed from the interior of the box to the exterior of it as the operator by moving the lever rotates the rollers 17 and 22. The rods 29 are curved from their point of attachment to the extension 28 upwardly, so as to allow their rear ends to be a considerable distance above the material which is to be fed between the rollers. It will be clearly seen that as the material is fed between these rollers the disengaging-rods 29 will cause the material to be forced away from the roller 22, and thus allow it to pass freely between said rollers. The projections 31 on the roller 22, which are formed by cutting away a portion of this roller to make the

grooves 23, engage the material sufficiently to cause it to be drawn between the rollers and forced out of the box when these rollers are rotated, and the disengaging-rods prevent the material from adhering to this roller in the slightest degree, so that the operation of the rollers will not be clogged in any way by the material being thrown out of its position between them.

Mounted at the rear of the rollers 17 and 22 is a slotted guide 32, having slot 33 therein, which slot is immediately at the rear of the point of contact of the rollers 17 and 22, and said slot is so arranged as to allow the material to pass through it and be maintained in position so that the material will be constantly fed between the rollers and not allowed to protrude over the sides of them, thus causing the material to be always forced through the opening 30 in the front of the box. Rotatably mounted between the sides at the rear of and below the shafts 15 and 20 is the shaft 34, designed to support a roll 35 of the material to be delivered from the machine.

Rotatably mounted on the shaft 15 and outside of the cog-wheel 16 is the roller-operating lever 36. The front portion of said operating-lever extends outwardly through the slot 37 in the front 11 of the box of my device. The lever 36 extends rearwardly from the shaft 15, and the spring 38 is attached to the rear end of the said lever and also to the side 10, which is outside of said lever. This spring is designed to normally hold the rear end of the lever at its lower limit of movement and the outer end of the lever at its upper limit of movement. Firmly mounted outside of the lever 36 is the ratchet-wheel 39. Said ratchet-wheel is designed to be engaged by the pawl 40, which is pivotally attached to the outside of the lever 36 and which is normally held in position against the ratchet-wheel 39 by means of the spring 41, which is connected with the lever 36 at the rear of and slightly above the pawl 40. The operation of the operating-lever, the pawl mounted thereon, and the ratchet-wheel firmly mounted on the shaft is designed to rotate the shafts 15 and 20, upon which the rollers 17 and 22 are mounted. When the pawl 40 is in engagement with one of the ratchets 42 on the ratchet-wheel 39 and the outer end of the lever 36 is at its upper limit of movement and when the locking-lever, to be hereinafter described, is thrown out of engagement with the rear end of the said operating-lever, the operator simply moves the outer end of the lever downwardly and the ratchet-wheel is rotated slightly and the shaft 15 is correspondingly rotated, as is also the gear-wheel 16, which is mounted upon said shaft, and the roller 17, which is also upon said shaft. The rotation of this cog-wheel 16, which is in mesh with the gear-wheel 21, will cause said cog-wheel to be rotated in the opposite direction from the gear-wheel 16 as the outer end of the

lever 36 is pulled downwardly and will cause the grooved roller 22 to rotate in the same direction, and the cog-wheel 21 will cause the material for which my machine is used to be drawn between said rollers and forced through the opening 30 in the front of it. The spring 38 will then cause the rear end of the lever 36 to be drawn downwardly and the outer end of said lever to be forced upwardly to a normal position, and the pawl 40 will engage the next ratchet 42 in succession on the ratchet-wheel 39. The number of stamps or the length of material to be delivered can be determined by the regulation of the distance between the ratchets 42.

Extending transversely of the box and rotatably mounted between the sides at the rear of and above the shaft 20 is the lever-bearing shaft 43. Mounted on said shaft 43 is the coin-controlled lever-locking mechanism. This mechanism comprises the following parts: a T-shaped lever having the upper portion 44 and the lower portion 45 thereon. The lower end of the portion 45 is designed to normally engage the rear end of the lever 36 and maintain it at its lower limit of movement. Slidingly mounted on the upper portion 44 of the T-shaped lever is the slide 46, having a stud 47 mounted between it and the upper portion of the T-shaped lever, designed to be engaged by the rearward end of the lever 36 when said rear end is at its upper limit of movement and which is designed to allow the slide 46 to be drawn forwardly relative to the upper portion 44 of the T-shaped lever. Mounted between the portion 44 and the slide 46 is the coin-retaining lug 48, so that as the coins are dropped between the portions 44 and the slide 46 they will be maintained in position until the slide is moved forwardly relative to the portion 44 by means of the lever 36 being thrown into engagement with the stud 47. At the extreme rear end of the upper portion 44 of the T-shaped lever I have provided an adjustable counterbalancing-weight 49.

Extending downwardly from the upper portion 12 of the device is a coin-guide 50, said guide being designed to allow the coin to pass through it and enter the opening between the portion 44 and the slide 46 and at the extreme forward end of said T-shaped lever. Immediately above the guide 50 is a slot through which the coin for actuating the mechanism is to be inserted. I have provided a spring 51, which is designed to normally hold the slide 46 at its rearward limit of movement, and I have also provided a limiting-stop 52, which is attached to one of the sides 10 and is designed to prevent the rear end of the lever from passing below it.

In practical use and assuming that the device is in readiness for use and that the stamps or other material to be delivered have been placed in the box the operator inserts

the coin through the slot which is immediately above the coin-guide 50, and the coin passes into the opening between the portion 44 and the slide 46, the weight of the coin causing the forward end of the T-shaped lever to be forced downwardly and the lower portion 45 of said T-shaped lever to be thrown rearwardly and maintained in that position, thus causing the T-shaped lever to be in the position shown in dotted lines in Fig. 2 of the drawings. The operator then places his hand upon the forward end of the lever 36 and moves said lever downwardly, which causes the shafts 15 and 20 to be rotated and the material to be forced out through the opening 30, whereupon the operator can easily sever the portion delivered and the coin will be released from the T-shaped lever and allowed to drop into the bottom portion of the box on account of the rear end of the lever 36 engaging the lug 47 and forcing the slide 46 forwardly. The T-shaped lever will take its normal position as soon as the lever 36 is drawn to its normal position by means of the spring 38.

It will be clearly seen that on account of the particular arrangement of my delivering mechanism the stamp or other material to be delivered will be readily drawn from the roll of material forwardly by means of the rotation of the rollers 17 and 22 and will be forced outwardly through the opening 30, and the material will be prevented from adhering to the roller 22 by the disengaging-rods 29. These disengaging-rods are particularly desirable in delivering stamps or other material which has an adhesive substance on one surface of it. It will be also seen that in rolling up the material should an adhesive substance be on one of the surfaces of the material to be delivered an oiled paper or similar substance can be rolled between the sheets of material, and thus prevent them from adhering to each other. This will not in any way affect the delivery of the substance from the machine, as there can be sufficient space between the rollers to allow the material and the oiled paper to pass between them and out of the machine.

Having thus described my invention, what I now claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a device of the class described, an incasing box comprising a front, and top and bottom portions and a detachable rear portion, the front portion having a slot therein, supporting-pieces attached to the front portion and at each side of the slot, a roller mounted between said supporting-pieces, a gear-wheel for driving said roller, a grooved roller mounted between said supporting-pieces in engagement with said roller and capable of slight vertical movement in the supporting-pieces, a gear for driving said grooved roller in mesh with the gear-wheel on the first-mentioned roller, the

point of engagement between the rollers being immediately at the rear of the slot in the front portion, a springingly-maintained link connected with the grooved roller designed to normally hold the grooved roller in engagement with the first-mentioned roller and yet to permit said grooved roller of slight vertical movement, and means for rotating said rollers.

2. In a device of the class described, an incasing box comprising a front, and top and bottom portions and a detachable rear portion, the front portion having a slot therein, supporting-pieces attached to the front portion and at each side of the slot, a roller mounted between said supporting-pieces, a gear-wheel for driving said roller, a grooved roller mounted between said supporting-pieces in engagement with said roller and capable of slight vertical movement in the supporting-pieces, a gear-wheel for driving said grooved roller in mesh with the gear-wheel on the first-mentioned roller, the point of engagement between the rollers being immediately at the rear of the slot in the front portion, a springingly-maintained link connected with the grooved roller designed to normally hold the grooved roller in engagement with the first-mentioned roller and yet to permit said grooved roller of slight vertical movement, means for rotating said rollers, and a rod-supporting piece attached to the front of the casing, and disengaging-rods connected with said rod-supporting piece and extending between said rollers and in the grooves of said grooved roller.

3. In a device of the class described, an incasing box comprising a front, and top and bottom portions and a detachable rear portion, the front portion having a slot therein, supporting-pieces attached to the front portion and at each side of the slot, a roller mounted between said supporting-pieces, a gear-wheel for driving said roller, a grooved roller mounted between said supporting-pieces in engagement with said roller and capable of slight vertical movement in the supporting-pieces, a gear-wheel for driving said grooved roller in mesh with the gear-wheel on the first-mentioned roller, the point of engagement between the rollers being immediately at the rear of the slot in the front portion, a springingly-maintained link connected with the grooved roller designed to normally hold the grooved roller in engagement with the first-mentioned roller and yet to permit said grooved roller of slight vertical movement, means for rotating said rollers, a rod-supporting piece attached to the front portion and above the slot therein, a right-angled extension at the lower end of the rod-supporting piece in line with the upper portion of said slot, rods extending rearwardly from said right-angled extension between the rollers, said rods and right-angled extension acting as a guide for

the material fed between the rollers to the slot in the front portion.

4. In a device of the class described, an incasing box comprising a front, and top and bottom portions and a detachable rear portion, the front portion having a slot therein, supporting-pieces attached to the front portion and at each side of the slot, a roller mounted between said supporting-pieces, a gear-wheel for driving said roller, a grooved roller mounted between said supporting-pieces in engagement with said roller and capable of slight vertical movement in the supporting-pieces, a gear-wheel for driving said grooved roller in mesh with the gear-wheel on the first-mentioned roller, the point of engagement between the rollers being immediately at the rear of the slot in the front portion, a springingly-maintained link connected with the grooved roller designed to normally hold the grooved roller in engagement with the first-mentioned roller and yet to permit said grooved roller of slight vertical movement, means for rotating said rollers, a rod-supporting piece attached to the front portion and above the slot therein, a right-angled extension at the lower end of the rod-supporting piece in line with the upper portion of said slot, rods extending rearwardly from said right-angled extension between the rollers, said rods and right-angled extension acting as a guide for the material fed between the rollers to the slot in the front portion, and a right-angled plate attached to the front portion and immediately below the slot, the rear end of which is in engagement with the first-mentioned roller and acts as a guide to prevent the material being fed between the rollers from passing between the rollers and the front portion.

5. In a device of the class described, an incasing box having a slot in the front portion thereof, supporting-pieces attached to the inner surface of the front portion and at each side of said slot, a roller mounted between said supporting-pieces, a grooved roller in engagement with said roller, means for springingly maintaining the grooved roller in mesh with the first-mentioned roller, disengaging-rods connected with the front portion at a point immediately above said slot extending between said rollers for guiding material which is passed between said rollers to the slot, a right-angled plate mounted on the front portion and beneath the slot and means for actuating said rollers.

6. In a device of the class described, an incasing box having a slot in the front portion thereof, supporting-pieces attached to the inner surface of the front portion and at each side of said slot, a roller mounted between said supporting-pieces, a grooved roller in engagement with said roller, means for springingly maintaining the grooved roller in mesh with the first-mentioned roller, disengaging-

rods connected with the front portion at a point immediately above said slot extending between said rollers for guiding material which is passed between said rollers to the slot, 5 a right-angled plate mounted on the front portion and beneath the slot, means for actuating said rollers and a stamp-roll mounted at the rear of said rollers.

7. In a device of the class described, an incasing box having a slot in the front portion thereof, a smooth roller mounted in said box and adjacent to the slot in the front portion thereof, a springingly-maintained grooved roller in engagement with said smooth roller 15 and mounted above it in such a way that the point of engagement between said rollers is in line with the central portion of said slot, disengaging-rods connected with the front portion immediately above the slot, extending 20 between said rollers and projecting rearwardly therefrom, so arranged that the disengaging-rods act as a guide from the rollers to the slot, a right-angled plate in front of the smooth roller and beneath said slot, and means for 25 actuating said rollers.

8. In a device of the class described, an incasing box having a slot in the front portion thereof, a smooth roller mounted in said box and adjacent to the slot in the front portion thereof, a springingly-maintained grooved 30 roller in engagement with said smooth roller and mounted above it in such a way that the point of engagement between said rollers is in line with the central portion of said slot, disengaging-rods connected with the front portion 35 immediately above the slot, extending between said rollers and projecting rearwardly therefrom, so arranged that the disengaging-rods act as a guide from the rollers to the slot, a right-angled plate in front of the smooth 40 roller and beneath said slot, means for actuating said rollers, a stamp-guide at the rear of the point of engagement between said rollers, and a stamp-supply roll mounted at the rear of and below said rollers.

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Witnesses:

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