

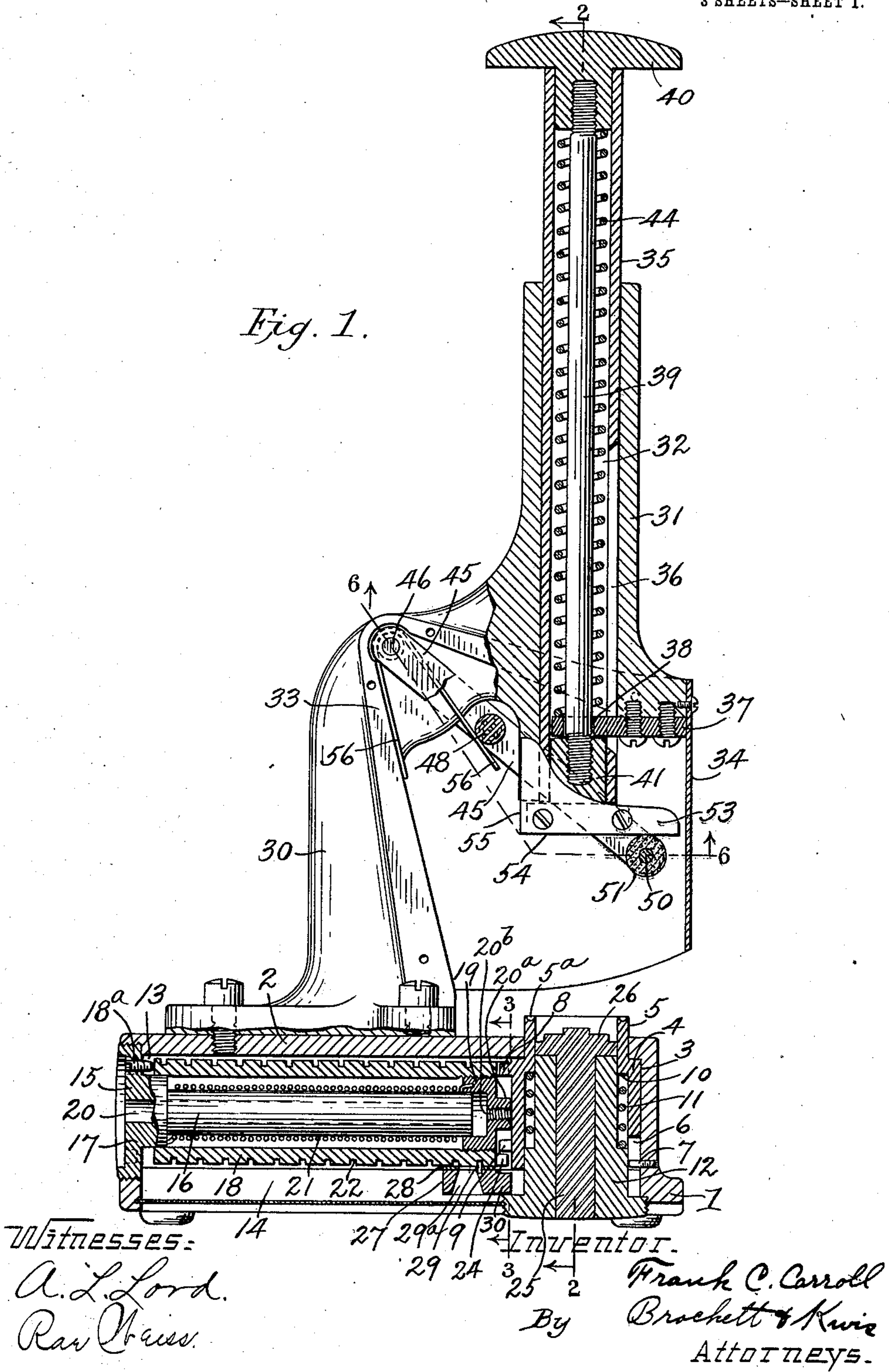
No. 889,357.

PATENTED JUNE 2, 1908.

F. C. CARROLL.  
STAMP PRINTING DEVICE.  
APPLICATION FILED MAY 11, 1907.

3 SHEETS—SHEET 1.

Fig. 1.

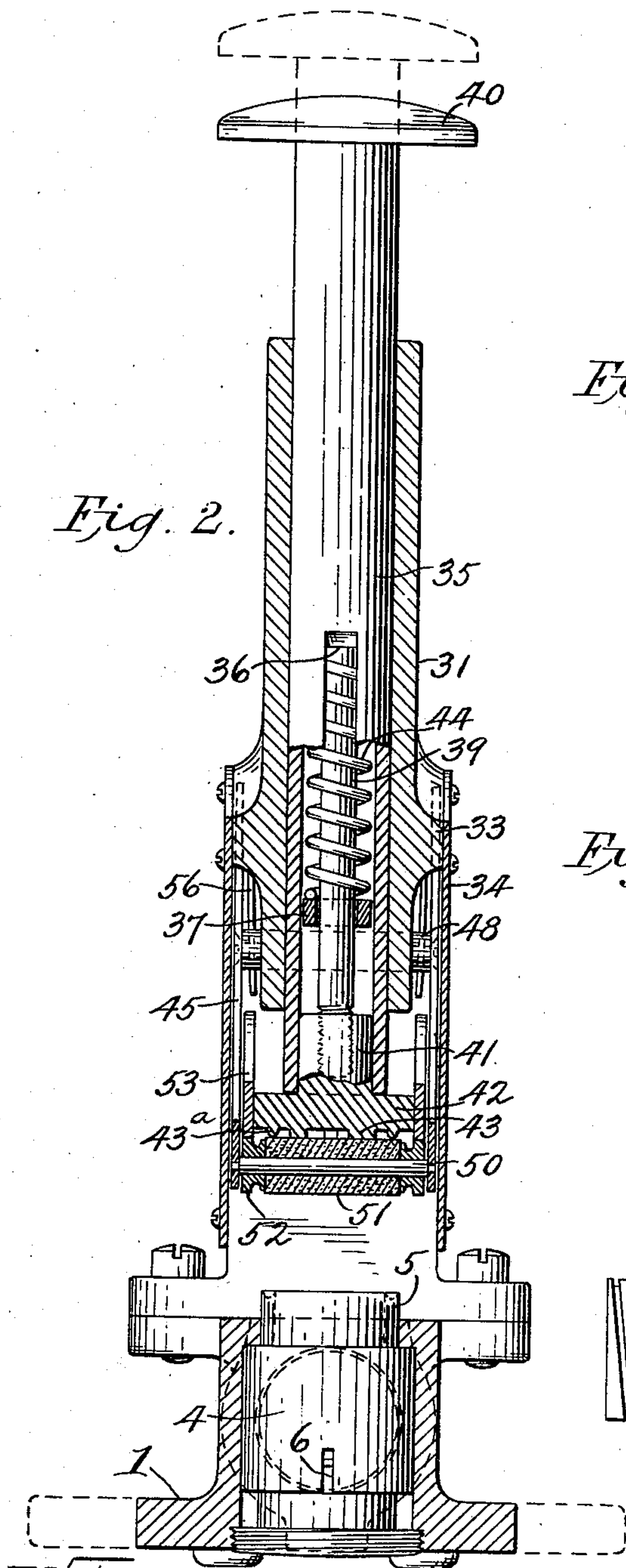


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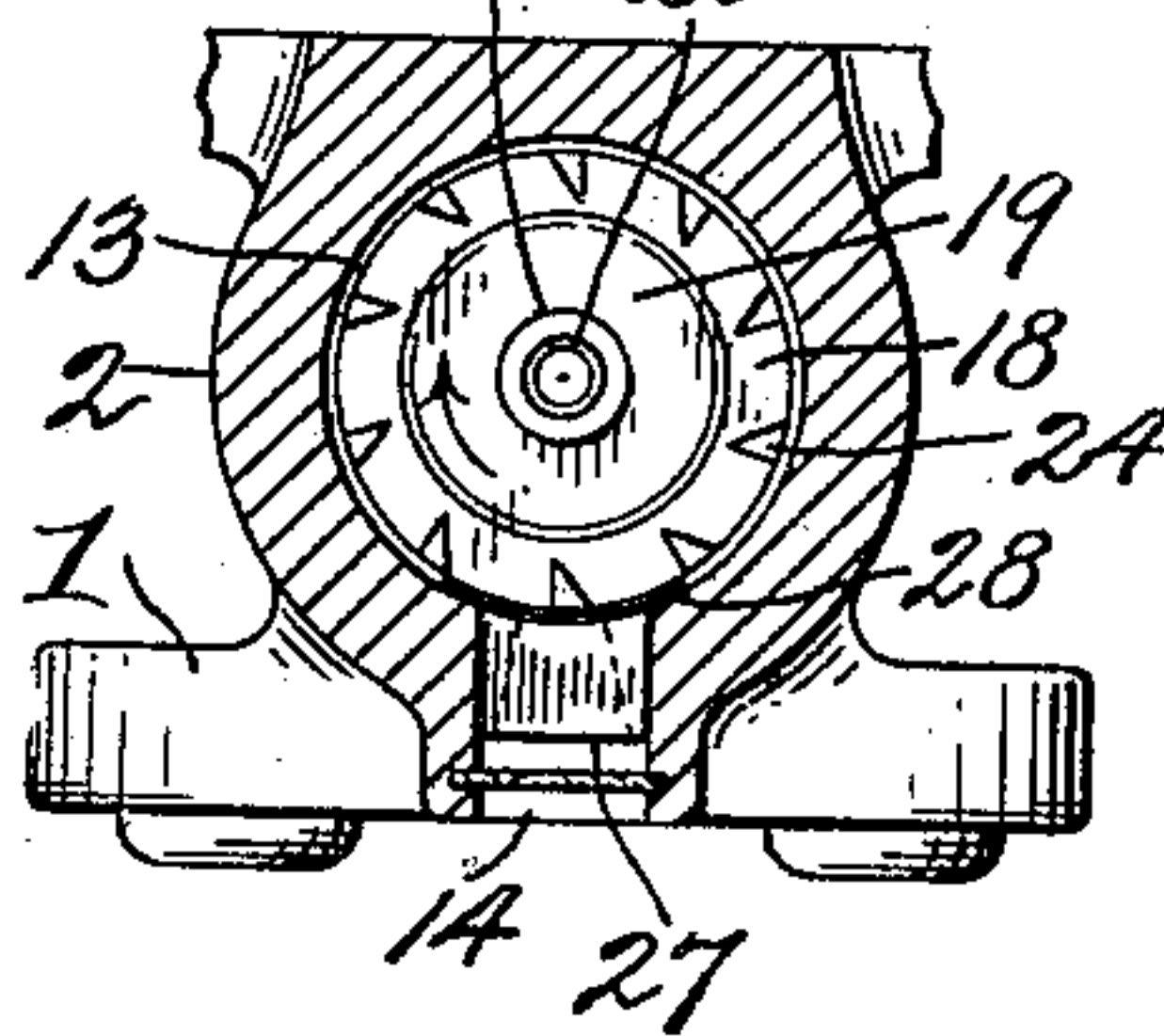
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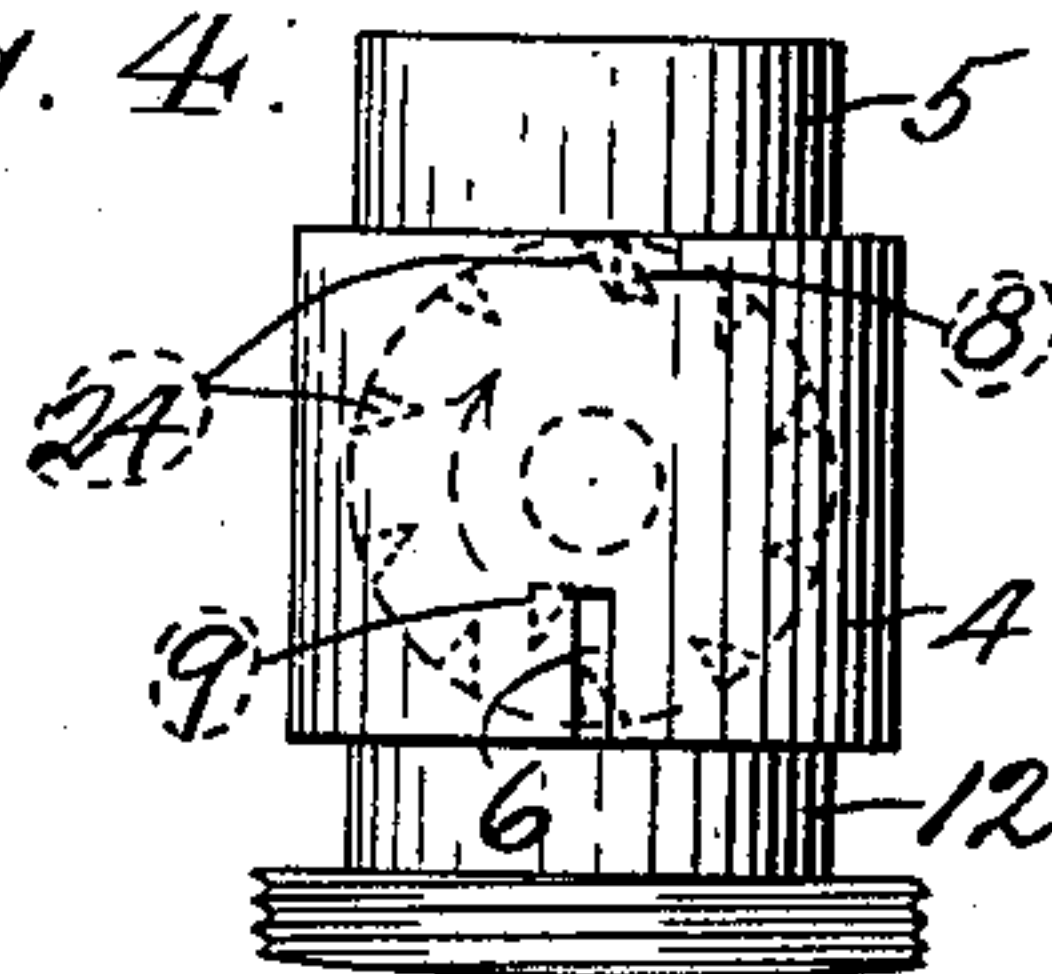
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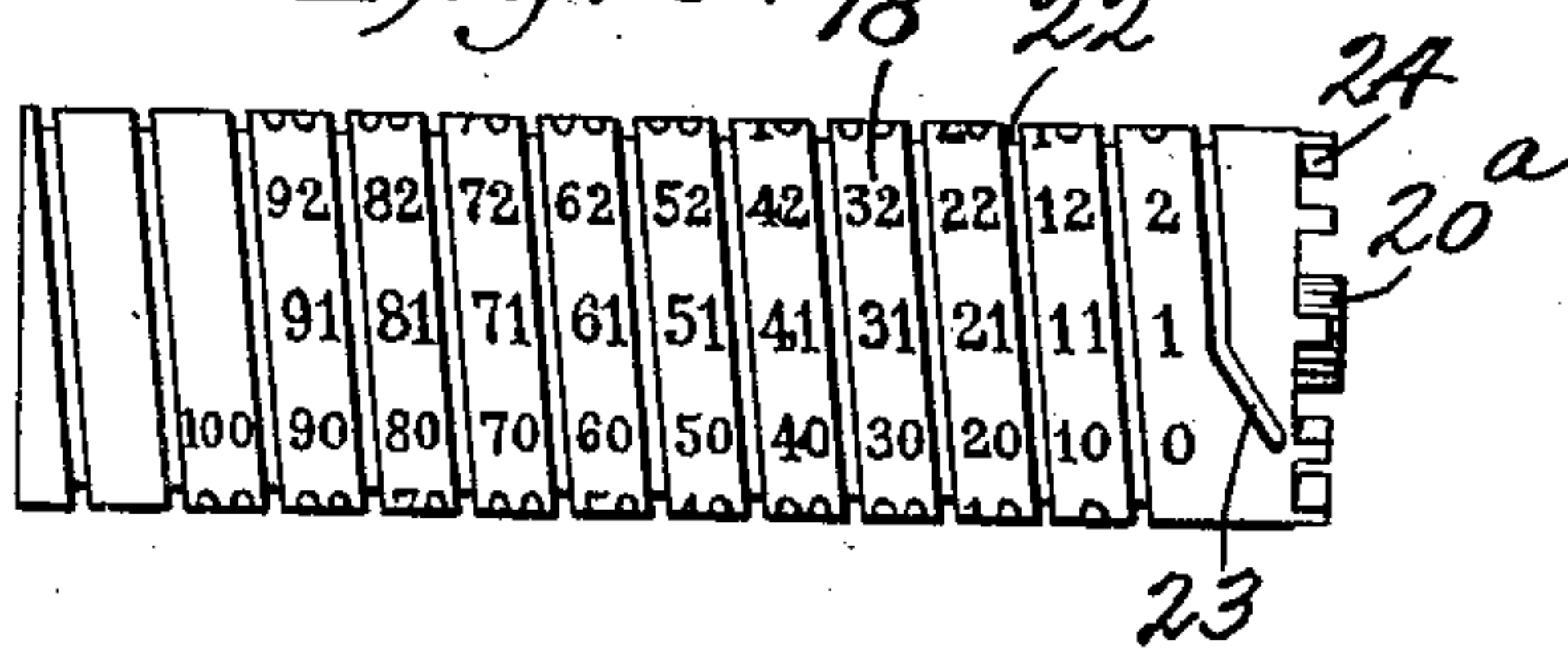
*Fig. 3. 20<sup>a</sup> 20<sup>b</sup>*



*Fig. 4.*



*Fig. 5. 18 22*



Witnesses:

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Rar Weiss

Inventor.

Frank C. Carroll  
By Brackett & Kwie  
Attorneys.

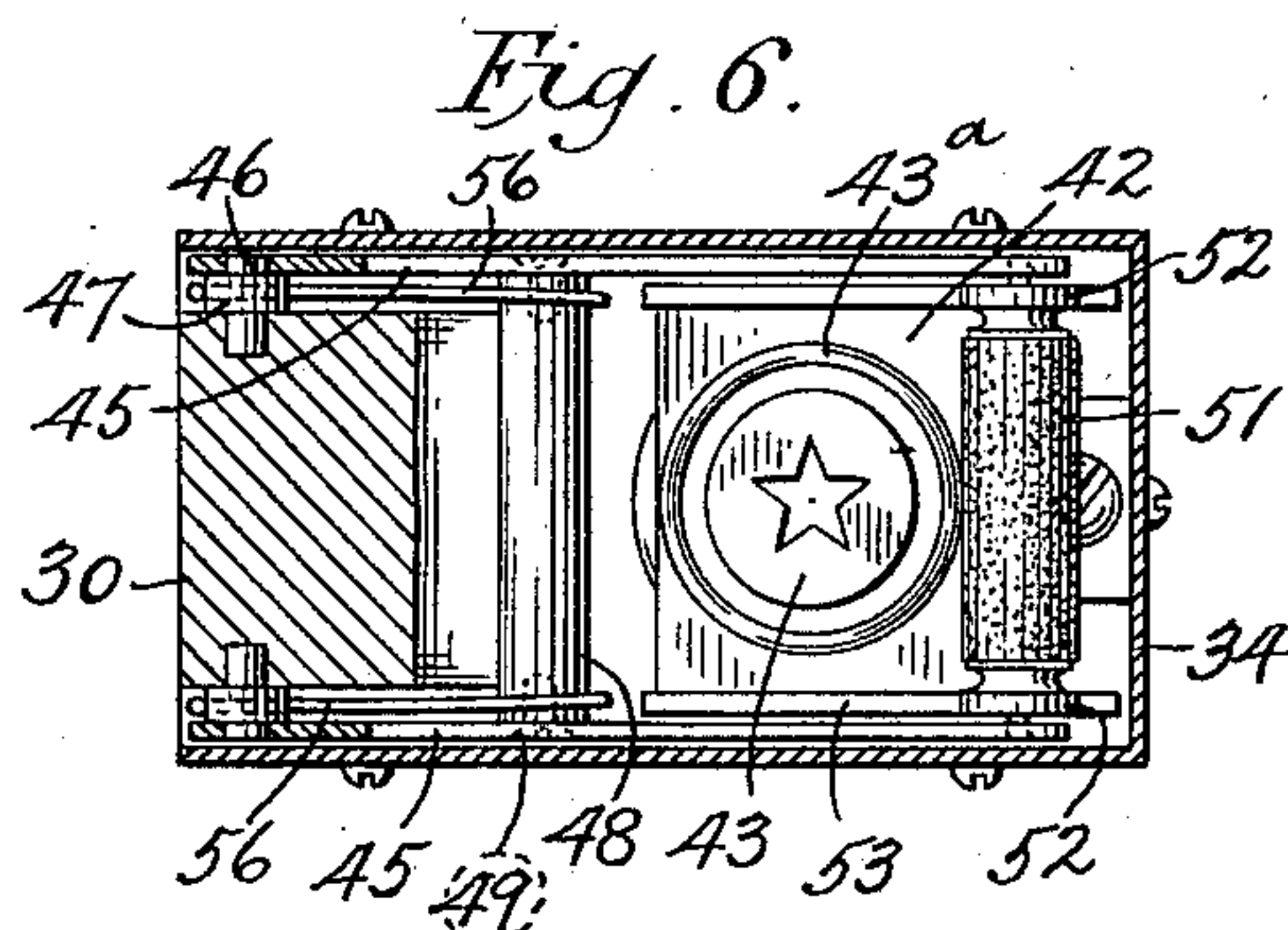


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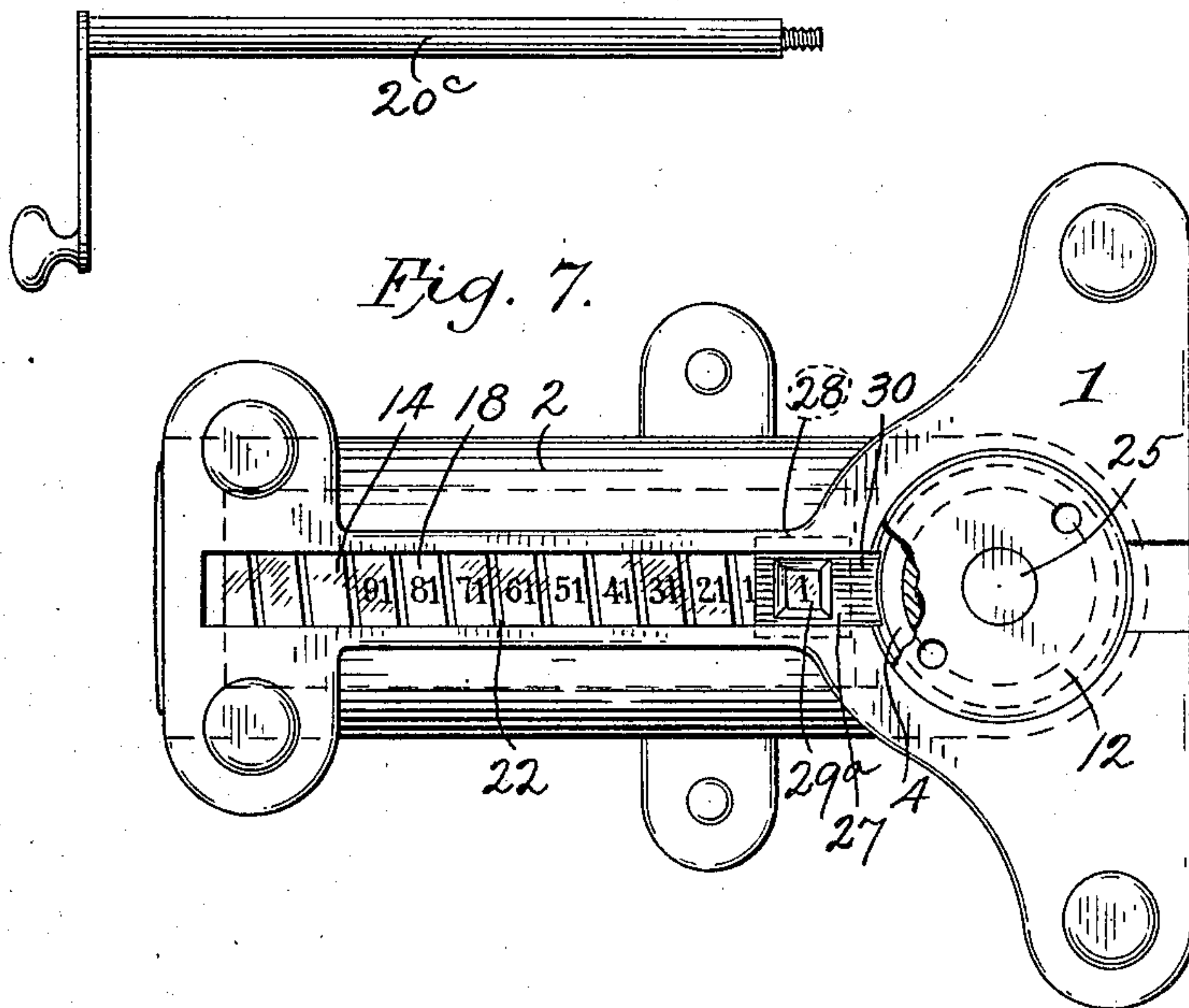
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APPLICATION FILED MAY 11, 1907.

3 SHEETS—SHEET 3.



*Fig. 8.*



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# UNITED STATES PATENT OFFICE.

FRANK C. CARROLL, OF PAINESVILLE, OHIO.

## STAMP-PRINTING DEVICE.

No. 889,357.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed May 11, 1907. Serial No. 373,170.

*To all whom it may concern:*

Be it known that I, FRANK C. CARROLL, residing at Painesville, in the county of Lake and State of Ohio have invented a certain new and useful Improvement in Stamp-Printing Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

It is the object of the present invention to do away, so to speak, with the present system of supplying postage stamps or in fact to do away entirely with the stamps themselves by the use of a hand operated device, which itself is adapted to print and emboss the postage stamps directly upon the mail matter.

In bringing about the above object a hand stamp is employed for the purpose of accomplishing the printing and embossing, and in order to prevent the promiscuous use of the device and to keep it under the control of the authorities means is provided whereby a predetermined number of stamps may be printed after which a further operation of device is prevented. It is necessary to then have the device wound up and set by the authorities before it may be used again. A suitable registering or recording device is arranged in conjunction with the device so that the user may know at any time how many operations may be had before a re-setting is necessary.

The invention may be further briefly summarized as consisting in the construction and combination of parts herewith set forth in the following drawings, description and claims.

Referring to the drawings Figure 1 is a vertical section through the center of the device showing portions thereof in elevation, Fig. 2 is a vertical section looking at the front of the device, Fig. 3 is a section on the line 3—3 of Fig. 1, looking to the left, Fig. 4 is a front elevation of the register operating plunger with the recording drum shown in dotted lines, behind it and showing the escapement teeth and dogs all in dotted lines, Fig. 5 is a plan view of the registering drum, Fig. 6 is a section upon the line 6—6 of Fig. 1 looking at the parts, Fig. 7 is a bottom plan of the device; and Fig. 8 is a view of the winding key.

In carrying out my invention the various parts may be constructed in any desired manner, to meet the requirements, but I have shown a very effective embodiment in the drawings, wherein

1 represents a suitable base, which is provided with a cylindrical portion 2. These parts receive all of the recording mechanism. In the forward end of the base 1 is an opening 3 adapted to receive a recorder operating plunger sleeve 4 having a reduced portion 5 which projects above the surface of the base as shown in Figs. 1 and 2, and a slot 6 for the purpose of receiving a pin 7 projecting into the same. On the opposite side the sleeve is provided with a dog 8 and a holding dog 9 for a purpose to be described. Internally the plunger sleeve 4 has a shoulder 10 receiving the thrust of a spring 11 which bears upon a shoulder of a plug 12 threaded at its lower end into the base 1 and fitting nicely within the reduced portion 5 of the sleeve 4. From the construction of these parts it will be seen that the plunger sleeve 4 will always assume its uppermost position with the reduced portion 5 projecting above the base and also that it is held against rotation by reason of the engagement of the pin 7 in the slot 6. It is also quite obvious that the plunger sleeve may be moved down against the tension of its spring.

The cylindrical portion 2 of the base is provided with an opening 13 which extends from one end of such portion to the other and communicates with the opening 3. At the bottom of the cylindrical portion 2 of the base is a slot 14 which communicates with the opening 13 and extends almost the entire length of said cylindrical portion. Threaded into the end of the cylindrical portion 2 is a supporting plug 15, which has a cylindrical projection 16 extending well into the opening 13 and also has an enlarged portion 17 which extends to a less distance into the opening. Rotatably mounted upon the portions 16 and 17 is a recording drum 18 one end of the drum bearing directly upon the portion 17, and the other having a cup shaped plug 19 threaded into the same and having an opening therein which receives and bears upon the portion 16. The plug 15 is provided with a centrally located opening or passageway 20 extending from end to end, and the cup shaped plug 19 is provided with a reduced portion 20<sup>a</sup> extending beyond the forward end of the recording drum 18 and having a threaded opening 20<sup>b</sup> in line with the opening or passageway 20 but slightly smaller in diameter. The shank of the winding key 20<sup>c</sup>, shown in Fig. 8, is adapted to be inserted into the opening or passageway 20 and to be screwed into the



threaded opening 20<sup>b</sup>, as will be explained more fully. A coil spring 21 is secured at one end in the cup shaped plug 19 and at the other end in the enlarged portion 17 in a manner such that the drum 18 may be wound up and at the same time the spring will exert its tension in forcing the drum toward the plunger sleeve 4. The drum 18 is provided upon its periphery with a spiral groove or recess 22 which is continued substantially through the length of the same with uniform pitch except near the right end as shown in Fig. 5 at 23 where it is continued at a greater pitch for a purpose which will later appear. Upon that end of the drum which is nearest to the plunger sleeve are a plurality of teeth 24 having their points projecting inward as shown in Figs. 3 and 4. These teeth are adapted for engagement with the dogs 8 and 9 and their mode of operation is as follows: When the drum 18 has been wound against the tension of the spring by pulling it out to the left as will obviously follow from the construction shown in Fig. 1, so that the teeth and the dogs are out of engagement, and then is permitted to move back so that the teeth and the dogs are in engagement, then the drum is held against rotation by the engagement of the flat side of the uppermost tooth 24 with the flat side of the dog, 8, the holding dog 9 being then out of engagement on account of its being mounted on the plunger sleeve just a little above the path of the teeth 24, as clearly shown in dotted lines in Fig. 4. As the plunger sleeve 4 moves down, however, the dog 8 releases the tooth 24 with which it is in engagement, but before such release takes place the holding dog 9 has moved into the path of the nearest tooth and upon the complete release by the dog 8 will catch such tooth only permitting a slight rotation or escapement to the drum 18 just sufficient to carry the point of the upper tooth beyond the point of dog 8. Upon the return movement of the plunger sleeve 4 the holding dog 9 releases its tooth by moving up the inclined face thereof permitting the drum to rotate under the action of the spring until the dog 8 catches the next succeeding tooth to the one which it had previously engaged. A small set screw 18<sup>a</sup> passes through the supporting plug 15 and bears against the end of drum 18 so as to prevent an endwise movement of the drum.

The plug 12 is provided with an opening which receives the shank 25 of the lower die member 26. These parts are formed by bringing the upper die member to be described down against the plunger sleeve reduced portion 5, pressing it down in its lower position and then pouring molten metal through the opening in the plug 12 to fill up the opening and to form at the top an exact counterpart of the upper die member.

A suitable lock is provided for preventing

more than a predetermined number of operations of the device and it consists of a slide 27 which takes against the sides of the slot 14 and carries a plate 28, which extends from the same partly around the drum 18 and beyond the edges of the slot 14, as shown in dotted line in Fig. 7. This plate 28 forms a guide for the slide 27. A pin 29 projects from the slide and plate and into the spiral recess 22, whereby upon a movement of the drum there will be a shifting of the slide in the groove or recess. The slide 27 is further provided with a sight opening 29<sup>a</sup> through which suitable graduations or indications upon the drum 18 may be read, and with a projection 30, which is adapted to take under the lower edge of the plunger sleeve 4 when the pin 29 is moved by its engagement with the side of the cam groove 23, previously described. This final movement of the slide is more rapid than the previous movement on account of the increase in pitch of the groove 23 and is sufficient to bring the projection 30 completely under the lower edge of the plunger sleeve, thus preventing the same from being moved downward or in other words preventing any more impressions or stamps being printed by the device, until it has been rewound or reset by the proper authorities.

The stamping mechanism which actuates the recording mechanism and makes the impression is carried by a bracket 30 secured upon the top of the cylindrical portion 2. This bracket 30 has a tubular portion 31 which is arranged so that an opening 32 therein is directly over and in alinement with the reduced portion 5 of the plunger sleeve 4. It is also provided with a raised ridge 33 extending as is shown in full and dotted lines in Fig. 1 for the purpose of supporting a casing 34.

Slidably mounted in the tubular portion 31 is a tubular member 35 provided with a slot 36, adapted to receive a stop 37 secured to the bracket 30 and having an eye 38 on the inner end fitting loosely within the tubular portion 35 and taking around the rod 39, secured in the hand piece 40 at the top and in the shank 41 of the upper die plate 42 which die plate 42 has on the under side thereof a die 43. Between the rod 39 and the inner wall of the tubular member 35 is a coiled spring 44, which takes at the top against the hand piece 40 and at the bottom against the eye 38 carried by the stop 37. This spring normally holds the tubular portion 35 with the die plate and its die in their uppermost position.

The arrangement of the parts thus described is such that when a pressure is brought to bear upon the hand piece the tubular member 32 moves down within the tubular portion 31 and a ring 43<sup>a</sup> upon the lower face of the die plate 42 engages in an annular recess 5<sup>a</sup> in the edge of the reduced



portion 5 of the plunger sleeve 4 and causes the same to move down until the upper die engages the lower die member carried by the plug 12.

5. The downward movement of the plunger sleeve 4 brings about the shifting of the dogs 8 and 9 among the teeth 24 carried by the registering or recording drum 18, and when the tubular member 35 is released and moves upward by the action of the spring 44 and the plunger sleeve 4 returns to normal position, the recording drum 18 has escaped one step, as previously described.

- 15 Suitable mechanism is provided for inking the upper die member and it consists of a pair of links 45 pivoted on pins 46 which are rigidly secured in the bracket 30 and have bosses 47 thereon, which space the links from the bracket, as shown in Fig. 6. These links 20 46 are coupled together by a cross piece 48, which is secured thereto by means of screws 49. The free ends of these links carry a shaft 50, upon which is mounted an inking roll 51 adapted to ride over the die and a pair of rollers 52, which are adapted to ride 25 upon a pair of plates 53 secured to the sides of the die plate 42. The lower edges 54 of these plates 53 are straight and extend parallel with the plane of the die. The rear edges 55, however, extend at right angles to the edges 54, whereby the rollers 52 travel along the edges 54 in the process of inking the die upon the downward movement of the same and may then move up along the rear 35 ends 55. A suitable spring 56 is provided for holding the links with inking roller and the rollers 52 against the die and against the edges of the plates 53.

- 40 After the printing device has been set by the proper authorities having the control or custody of the resetting or winding key, the opening in which the key is inserted may be sealed in any desired manner so that it can not be tampered with or reset by one without 45 authority. When the device has been operated the predetermined number of times, it must be taken to the authorities and reset or rewound before it can be used again. To reset the device the key 20<sup>c</sup> is inserted in the passageway 20 and screwed into the threaded opening 20<sup>b</sup>. After the small set screw is unscrewed or withdrawn the drum is pulled outward until the teeth on the forward end thereof are free of the dogs 8 and 9, and is 55 then turned or wound by the key against the tension of the spring until the locking device has been moved away from the plunger a certain distance depending upon the number of stamping or printing operations desired 60 before another resetting is necessary. The drum can then be permitted to move forward with the teeth in engagement with the dogs after which the key can be removed.

Having described my invention, I claim:

- 65 1. In a printing device, a traveling locking

member adapted to be set at different initial positions so as to permit predetermined numbers of operations of said printing device.

2. In a printing device, printing or stamping mechanism, a locking device adapted to 70 be moved by each operation of the printing mechanism, and means for setting said locking device for a predetermined number of operations.

3. In combination, printing or stamping 75 mechanism, a movable locking device for limiting the number of printing or stamping operations, and means for setting said locking device at different initial positions to permit predetermined numbers of operations of 80 said printing or stamping mechanism.

4. In combination, printing or stamping mechanism, means for limiting the number of operations of said mechanism, said means comprising a movable member adapted to be 85 set in an initial position and to be moved at each operation of the printing or stamping mechanism until it reaches a position where it prevents further operations of the printing or stamping mechanism. 90

5. In a printing device, printing or stamping mechanism, a longitudinally movable locking member adapted to be moved at each operation of the printing mechanism, and means for setting said locking member at different 95 positions for different numbers of operations of the printing mechanism.

6. In combination, printing or stamping mechanism, means for limiting the number of operations of said mechanism, said means 100 comprising a longitudinally movable locking device and means for moving said device forward a fixed distance for each operation of said mechanism until it reaches a certain position when further operations of said mechanism are impossible until said device is reset. 105

7. In combination, printing or stamping mechanism, means for limiting the number of operations of said mechanism, said means comprising a movable locking member and 1 an escapement device for permitting a step by step movement of said locking member at each operation of said mechanism until said locking member reaches a certain position when further operations are rendered impos- 1 sible.

8. In combination, printing or stamping mechanism adapted to be operated a predetermined number of times, and a traveling locking member adapted to be shifted at each 1 operation of the device and finally to engage a movable member of the device so as to prevent further operations.

9. In a printing device, printing or stamping mechanism, and means comprising a spring pressed rotary member for governing the number of operations of said mechanism.

10. In a printing device, printing or stamping mechanism, and means comprising a spring pressed rotary member for govern-



ing the number of operations of said mechanism, and an escapement device operable at each operation of said mechanism.

11. In a printing device, printing or stamping mechanism, and means comprising a spring pressed rotary drum governing the number of operations of said mechanism, and an escapement device operable at each operation of said mechanism.

12. In a printing device, printing or stamping mechanism, means comprising a spring pressed rotary member for governing the number of operations of said mechanism, and a locking member movable longitudinally of said member.

13. In a printing device, printing or stamping mechanism, adapted to be set for a predetermined number of operations, and means comprising a spring pressed rotary drum and a locking member movable longitudinally thereof for controlling the number of operations of said mechanism.

14. In a printing device, printing or stamping mechanism, adapted to be set for a predetermined number of operations, and means comprising a spring pressed rotary drum and a locking member movable longitudinally thereof for controlling the number of operations of said mechanism, and an escapement device permitting a movement of the drum at each operation of the printing mechanism.

15. In a printing device, printing or stamping mechanism, adapted to be set for a predetermined number of operations, and means for controlling the number of operations of said mechanism, said means comprising a rotary drum having a spiral groove and a locking device engaging said groove and movable longitudinally of said drum.

16. In combination, printing or stamping mechanism, comprising cooperating stationary and movable members, a plunger normally extending above said stationary member and means for limiting the number of operations of said mechanism comprising a device adapted to hold said plunger in its upper position.

17. In combination, printing or stamping mechanism adapted to operate a predetermined number of times, a plunger adapted to be moved at each operation of said mechanism, a spring actuated rotary member controlled by said plunger and means controlled by the movement of said member for locking the plunger against movement.

18. In combination, printing or stamping mechanism adapted to be operated a predetermined number of times, a plunger adapted to be moved at each operation of said mechanism, a rotary drum controlled by said plunger, and a locking device adapted to be moved by said drum toward said plunger.

19. In combination, printing or stamping mechanism, adapted to be operated a pre-

termined number of times, a plunger adapted to be moved at each operation of said mechanism, a rotary spring actuated drum controlled by said plunger and a locking member adapted to be moved longitudinally of said drum at each movement thereof.

20. In combination, printing or stamping mechanism, and a registering or recording device comprising a spring actuated drum, said drum being capable of two distinct movements for unlocking and winding the same.

21. In combination, printing or stamping mechanism, a registering or recording device comprising a spring actuated drum, and means for unlocking said drum and winding it.

22. In combination, printing or stamping mechanism, a registering or recording device comprising a spring actuated drum, an escapement device therefor, means for moving the drum in one direction to separate the parts of the escapement device, and means whereby said drum may be moved.

23. In combination, printing or stamping mechanism, and a registering or recording device comprising a rotary spring actuated drum, said drum being adapted to be set or wound by first moving the same longitudinally and then rotatively.

24. In combination, printing or stamping mechanism, and a registering or recording device comprising a rotary drum having a threaded opening at one end to receive a winding key.

25. In combination, printing or stamping mechanism, and a registering or recording device comprising a spring actuated drum having escapement teeth and means to receive a winding key.

26. In combination, printing or stamping mechanism, adapted to be operated a predetermined number of times, a registering or recording device comprising a spring actuated rotary drum and an escapement mechanism therefor comprising a dog or projection adapted to be actuated by the printing mechanism.

27. In combination, printing or stamping mechanism, a rotary drum adapted to move at each printing or stamping operation, and an escapement therefor comprising cooperating teeth and dogs.

28. In combination, printing or stamping mechanism adapted to be set for a predetermined number of operations, a rotary spring actuated drum, and an escapement therefor comprising teeth on the drum, and a dog or projection adapted to be actuated by the printing mechanism.

29. In combination, printing or stamping mechanism adapted to be set for a predetermined number of operations, a rotary drum having teeth on the end thereof, one or more teeth or dogs adapted to be actuated by the



printing mechanism to cause a movement thereof.

30. In combination, printing or stamping mechanism a rotary spring actuated drum 5 having escapement teeth, and a plunger adapted to be actuated by the printing mechanism and having one or more teeth or dogs adapted to cooperate with the escapement 10 teeth on the drum to permit a movement thereof at each printing or stamping operation.

31. In combination, printing or stamping mechanism, a rotary spring actuated drum, 15 a plunger adapted to be moved at each printing or stamping operation, an escapement for said drum comprising cooperating teeth and dogs carried by the drum and plunger, and means for moving the teeth and dogs 20 out of engagement to permit the drum to be wound.

32. In combination, printing or stamping mechanism, a rotary spring actuated drum 25 having teeth on the end thereof, a plunger adapted to be actuated at each printing or stamping operation, said plunger having dogs or teeth cooperating with the teeth on the drum to permit a movement of the drum at each printing or stamping operation, and 30 means for moving the teeth out of engagement with the dogs or teeth on the plunger to permit the drum to be wound or set.

33. In a printing device, printing or stamping mechanism, a rotary member adapted to 35 be given a predetermined movement at each printing or stamping operation, said member having a spiral groove or slot, a movable member engaging said groove and adapted to be moved thereby and means for increasing the throw or movement of said member 40 after a predetermined movement of said rotary member, so as to lock said rotary member.

34. In a printing device, printing or stamping mechanism, a rotary drum adapted to be 45 rotated at each printing or stamping operation, said drum having a spiral groove or slot, and a traveling locking device engaging said groove and means for increasing the throw or movement of said locking device 50 after it has been moved a predetermined distance so as to lock said drum against further movement.

35. In a printing device, printing or stamping mechanism, a rotary member adapted to 55 be moved at each printing or stamping operation, said member having a spiral groove, one portion of said groove having a greater pitch than the remainder, and a movable member engaging said groove.

36. In a printing device, printing or stamping mechanism, a rotary drum adapted to be 60 moved at each printing or stamping operation, said drum having a spiral groove or slot, one end of said groove or slot having a greater pitch than the remainder, and a movable 65 member engaging said groove or slot.

37. In a printing device, printing or stamping mechanism, a plunger actuated thereby, 70 a rotary drum adapted to be moved at each printing or stamping operation, said drum having a spiral groove, a portion of said groove adjacent the plunger having a greater pitch than the remainder, and a movable 75 locking device engaging said groove and adapted to be moved in the path of movement of said plunger by said portion having a greater pitch.

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

FRANK C. CARROLL.

Witnesses:

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RAE WEISS.