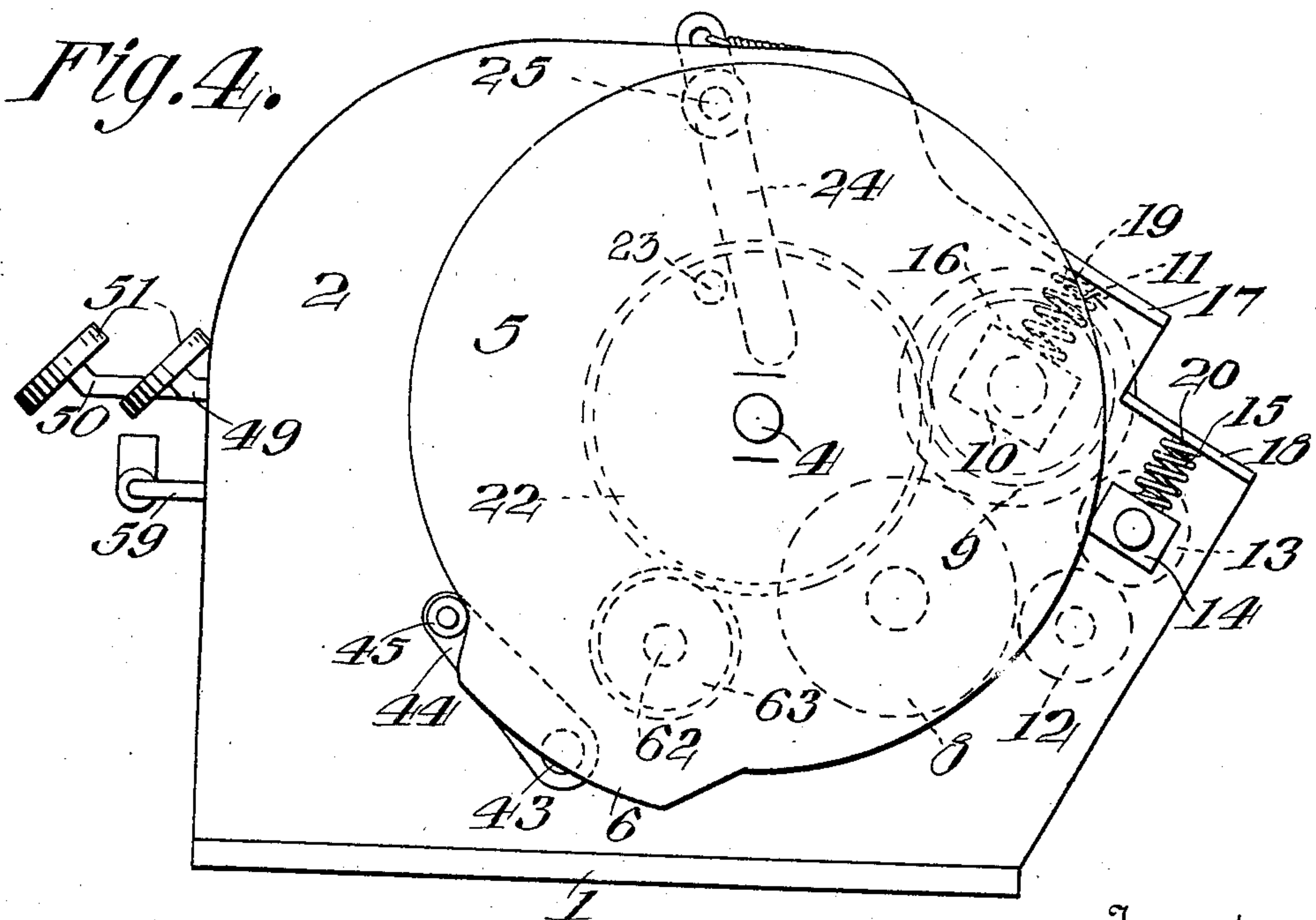
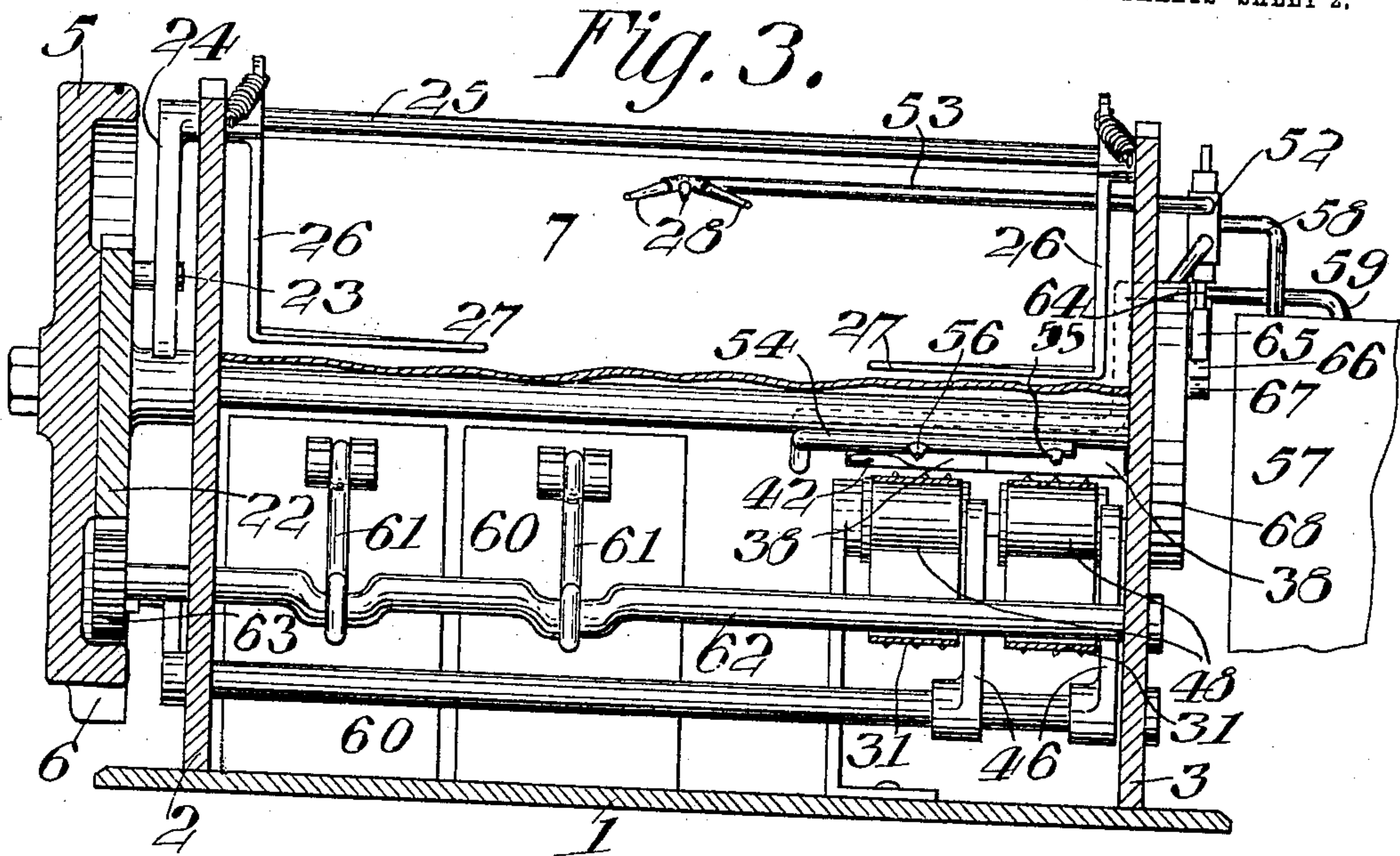




931,639.

Patented Aug. 17, 1909.

3 SHEETS—SHEET 2.



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Fig. 5.

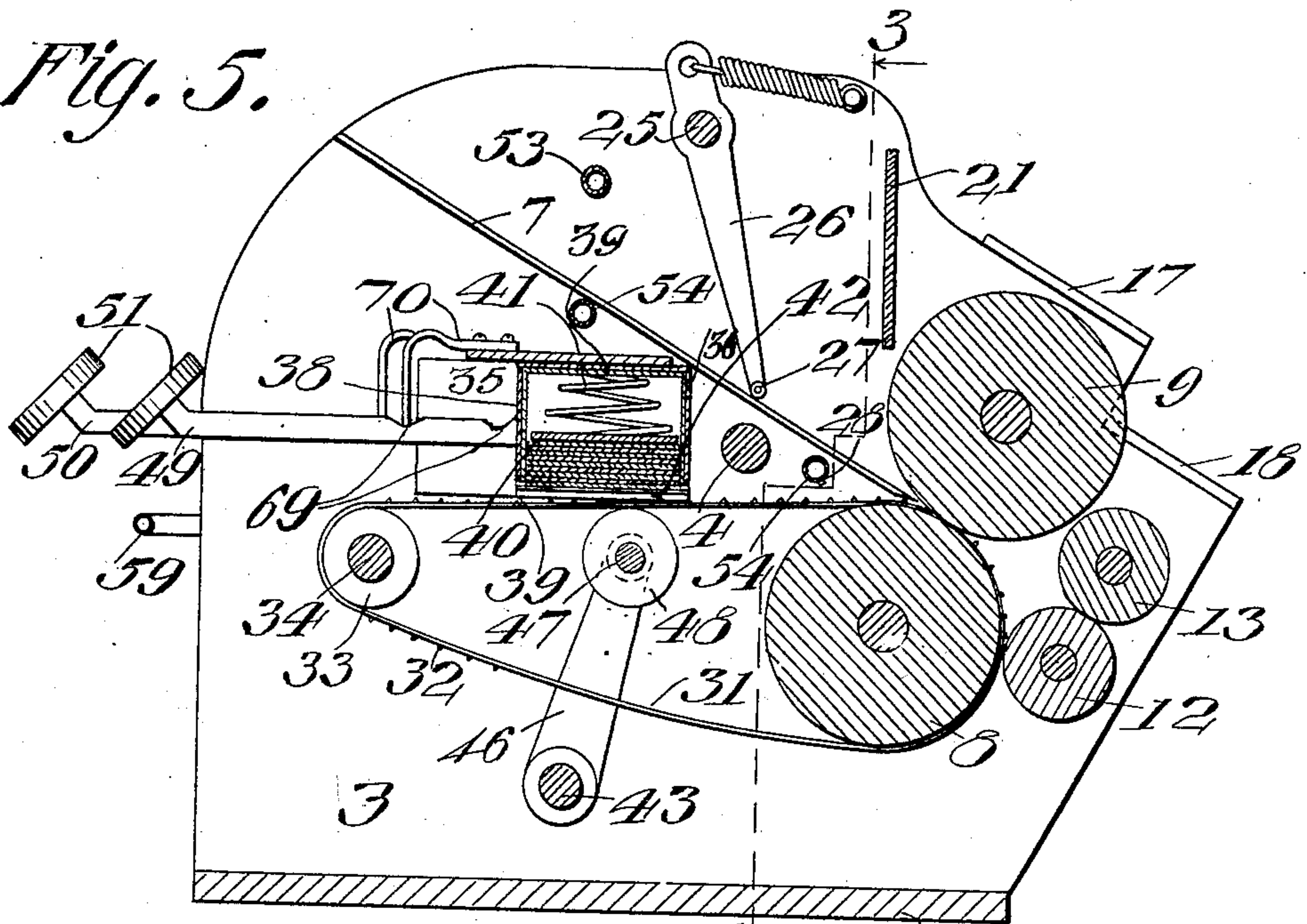
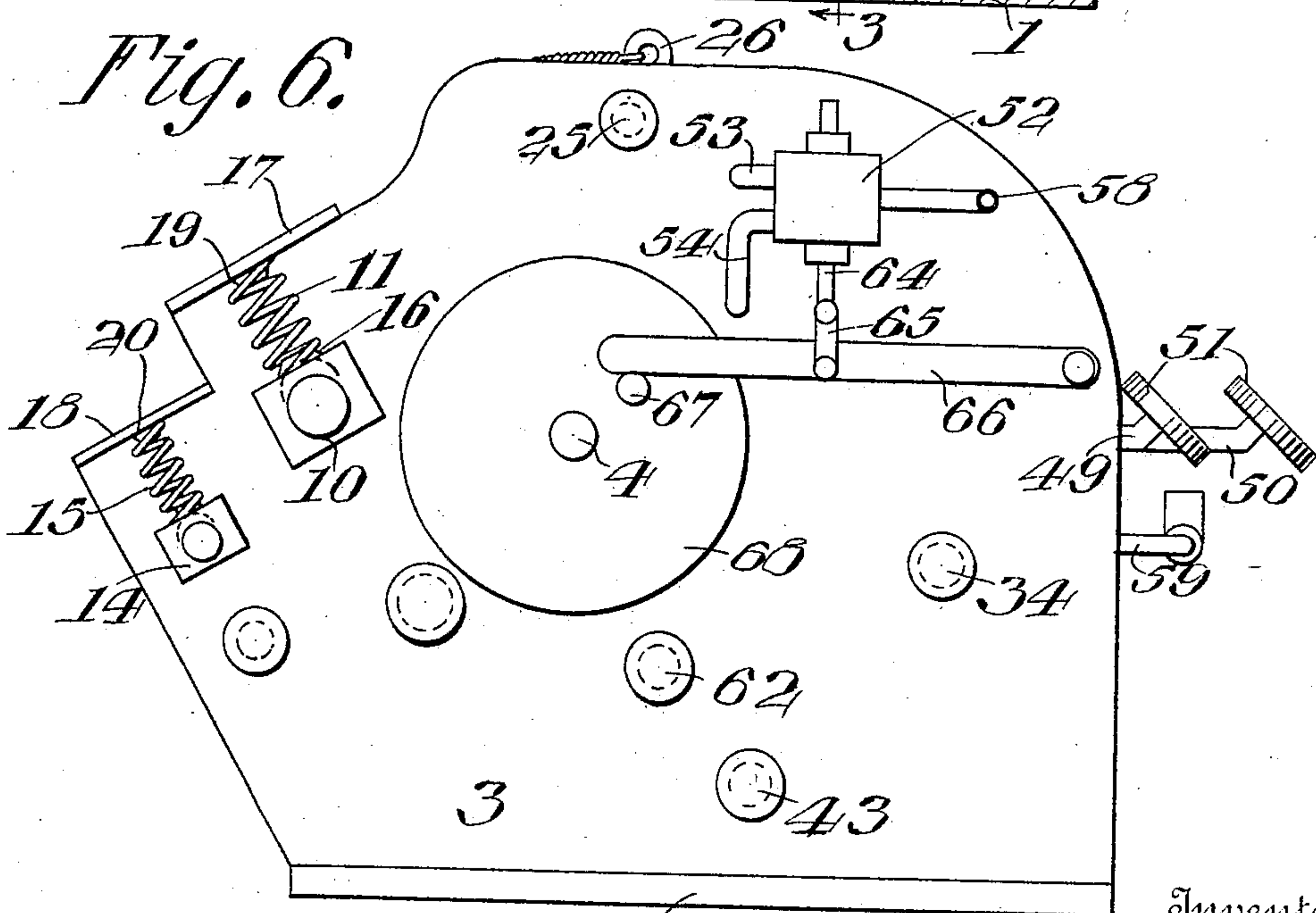


Fig. 6.



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# UNITED STATES PATENT OFFICE.

JOHN WILSON ORR, OF PHILADELPHIA, PENNSYLVANIA.

## MAILING-MACHINE.

No. 931,639.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed June 8, 1908. Serial No. 437,393.

*To all whom it may concern:*

Be it known that I, JOHN WILSON ORR, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Mailing-Machines; and I do 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.

My invention relates to mailing machines and particularly to that type which are adapted to seal and stamp previously filled envelopes, so that they are ready for the mail.

One object of the invention is the provision of means for automatically actuating the stamp belt so as to bring the same into engagement with the stamp feed boxes and to thereby draw off a single stamp from the supply and to wet same and paste it upon an envelop in the proper place.

A further object of the invention is the provision of means for injecting a supply of liquid against the stamp at the proper time, and also injecting a quantity of liquid against the flap of the envelop at the proper time and to firmly compress the stamp and the flap against the envelop so as to seal the same and fix the stamp simultaneously.

A still further object of the invention is the provision of means for automatically raising the flaps of the envelop and holding them against an abutment, whereby they may receive the aforesaid liquid, which may be either in the form of a sticking composition or pure water to wet the gummed edge of the envelop.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation of the machine; Fig. 2 is a top plan view thereof; Fig. 3 is a longitudinal section on line 3—3 of Fig. 2; Fig. 4 is an end elevation looking in the direction of the arrow 4 in Fig. 2 with some of the parts shown in dotted lines; Fig. 5 is a transverse section on line 5—5 of Fig. 1; and Fig. 6 is an end elevation looking in the direction of the arrow 6 in Fig. 2.

Referring more especially to the drawings, 1 represents a suitable base plate upon which project vertically the side plates 2 and 3, the former being on the left hand side and the latter on the opposite or right hand side. Journaled in a side plate and extending entirely across the machine is the main shaft 4, which is provided with the heavy fly-wheel 5, having at one portion of its periphery a suitable cam 6, which will be hereinafter described.

Bridged across the side plates is a supporting table or rack 7, upon which the envelopes are adapted to be received and which is inclined in such a position as to feed the envelopes to the feeding rollers 8 and 9, the former of which is mounted in rigid bearings in the side plates and extends parallel to the main shaft 4. The latter roller 9 is mounted in adjustable bearings 10 suitably mounted in the frame and held in operative position by the springs 11. Parallel with this roller and having their meeting edges in line with the platform are two compression rollers 12 and 13, the former being mounted in a similar manner to the roller 8, and the latter being held in adjustable bearings 14 which are held in position by the springs 15. Each bearing 10 or 14 is provided with an upstanding lug 16 which the springs 11 and 15 surround and the opposite end of the springs are adapted to bear against plates 17 and 18 which have similar lugs 19 and 20 formed thereon which keep the springs from displacement. A suitable bearing plate 21 is secured between the side plates and extends vertically from a point adjacent the horizontal center of the roller 9, so as to receive and hold the flaps of the envelopes, as they are moved into position thereagainst by mechanism, which I shall now describe. The wheel 5 is provided on its inner face with a pinon 22 having projecting from its inner face a stud or pin 23 which is adapted to engage the depending trip arm 24 carried upon the outer end of the shaft 25, which is journaled in the side plates approximately above the shaft 4. This shaft 25 carries upon its ends inside of the side plates 2 and 3 the depending arms 26 having horizontal flap engaging fingers 27, integrally mounted thereon, so as to be adapted to engage the flap of the envelop and throw it to vertical position along side



the plate 21, where it is adapted to receive a spray from the nozzle 28, to be hereinafter described.

Mounted upon the axle upon which the roller 8 is carried are a pair of pulleys 29 and 30 which carry suitable belts 31 having spurs 32 carried upon their face so as to engage the stamp when either belt is thrown into position. The opposite ends of the belts are carried upon pulleys 33 keyed upon a longitudinal shaft 34 journaled in the frame, and so positioned with respect to the pulleys 29 and 30 as to allow a slack in the belts 31.

In suitable guide-ways on the side member 3 are a pair of stamp boxes 35 and 36, which comprises an outer casing 38 and an inner receptacle 39 which holds a follower 40 which is actuated by a spring 41 to force the stamps beneath it into engagement with the overhanging flanges 42 of the casing 38.

The stamps are pressed downwardly within the casing and are picked up by the belt in its passage thereover when engaged by one of the spurs 32. As the belt is possibly an eighth ( $1/8$ ) of an inch away from the bottom of the stamp case it is necessary to provide some means for automatically throwing the belt into engagement with the stamps and as a simple illustration of this operation I have shown a shaft 43 journaled in a side frame and provided with a crank arm 44 having a friction roller 45 on its outer end adapted to be engaged and operated by the cam 6 upon the wheel 5. At the opposite end of the shaft there is provided crank arms 46 having a transverse pin 47 in their outer ends upon which are journaled the belt idlers 48. When the cam engages the friction roller 45 in the arm 44, the arms 46 are thrown upwardly with their rollers 48 into engagement with the stamp belts and if the boxes are so positioned as to be over the pulleys, a stamp is picked up by the belt and conveyed into stamping position. In order that the stamps from any one of the boxes may be moved to position over the belt idlers 48 I connect to the boxes separate button plungers 49 and 50 and having buttons 51 on their outer ends by which the plungers may be operated to force the stamp boxes over the belt idlers.

Mounted on the side of the plate is a valve 52 which controls the outlet to the discharge pipes 43 and 54, the former leading to the discharge nozzle 28 and the latter leading to the discharge nozzles 55 and 56. This valve receives its water supply from a suitable tank 57 through a pipe 58, and its air supply from a pipe 59 which leads from the bellows 60 operated by the crank arms 61 which are connected to the crank shaft 62. This crank shaft is provided at its end with a gear which is in engagement with a pinion gear wheel 22, so as to be driven continuously thereby. The supply to the noz-

zles 55, 56 and 28 is governed by the valve 52 in the following manner; the valve stem 64 projects downwardly from the valve and is arranged to be engaged by a lever 65 which is controlled through a lever 66 operated by the pin 67 upon the crank wheel 68. When this pin engages the lever 66 the lever 65 is raised into engagement with the pin 64 to raise the same thus allowing the compressed air and water in the valve to escape to the nozzles 28, 55 and 56 at the proper moment.

In operation the envelop is placed upon the table 7 in any suitable manner and fed downwardly by gravity. One or both of the stamp boxes are now pushed forward so as to be arranged over the belt idlers 48. When the cam 6 on the wheel 5 moves into engagement with the friction roller 45 the arm 46 with its associated idlers 48 are thrown into engagement with the belt and the belt raised to pick off a stamp from the magazine 39. Subsequent to this action the pin 23 engages the crank arm 24 and throws the fingers 27 into engagement with the flap of the envelop thus raising same against the plate 21 at this time. The stamp is arranged over the roller 8 and approximately under the nozzles 55 or 56. Simultaneously, the pin 67 engages and operate the levers 66 and 65 thus opening the valve and permitting the pressure in the valve casing from the bellows 60 to force a jet or spray of liquid against the flap and upon the stamp. After this the feed rollers 8 and 9 and the pressure rollers 12 and 13 pick up the envelop released by the fingers 27 and compress the flap and the stamp upon the envelop so that it will be ready for the mail.

In the section shown in Fig. 5 I have shown the plungers 49 and 50 provided with suitable notches 69, which are adapted to be engaged by a spring 70 in order that the stamp boxes may be held in operative and inoperative positions.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described and ascertained the nature of my invention, what I claim as new and desire to secure by Letters-Patent, is:—

1. In a mailing machine, the combination with means for feeding an envelop there-through, of a flap spray and a stamp spray, means for simultaneously operating said sprays, means for feeding a stamp to the stamp spray, means for affixing the stamp



to the envelop, means for raising the flap of the envelop to be acted upon by the flap spray; said stamp affixing means adapted to seal the envelop, and means for rendering  
5 inoperative the stamp feeding means.

2. In a mailing machine, the combination with a stamp magazine, means for reciprocating the same of a continuously moving stamp feeding device, means for automatic-  
10 ally and intermittently throwing the stamp feeding device into feeding engagement with the stamp magazine, and means for affixing a stamp to an envelop.

3. In a mailing machine, the combination  
15 with a plurality of manually controlled stamp magazines, means for reciprocating the same of a plurality of stamp feeding devices, automatic means to throw the stamp feeding devices into engagement with the

stamp magazines, and means to affix a stamp  
20 to an envelop.

4. In a mailing machine, the combination with a plurality of stamp magazines, means for feeding stamps therefrom, means for rendering said feeding means inoperative, 25 a spraying device for the stamps, means to automatically and intermittently operate the spraying device subsequent to the feed of the stamp, and means for affixing a stamp  
30 to an envelop.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN WILSON ORR.

Witnesses:

FREDK. S. FOX.

ELIZABETH T. M. DOAK.