

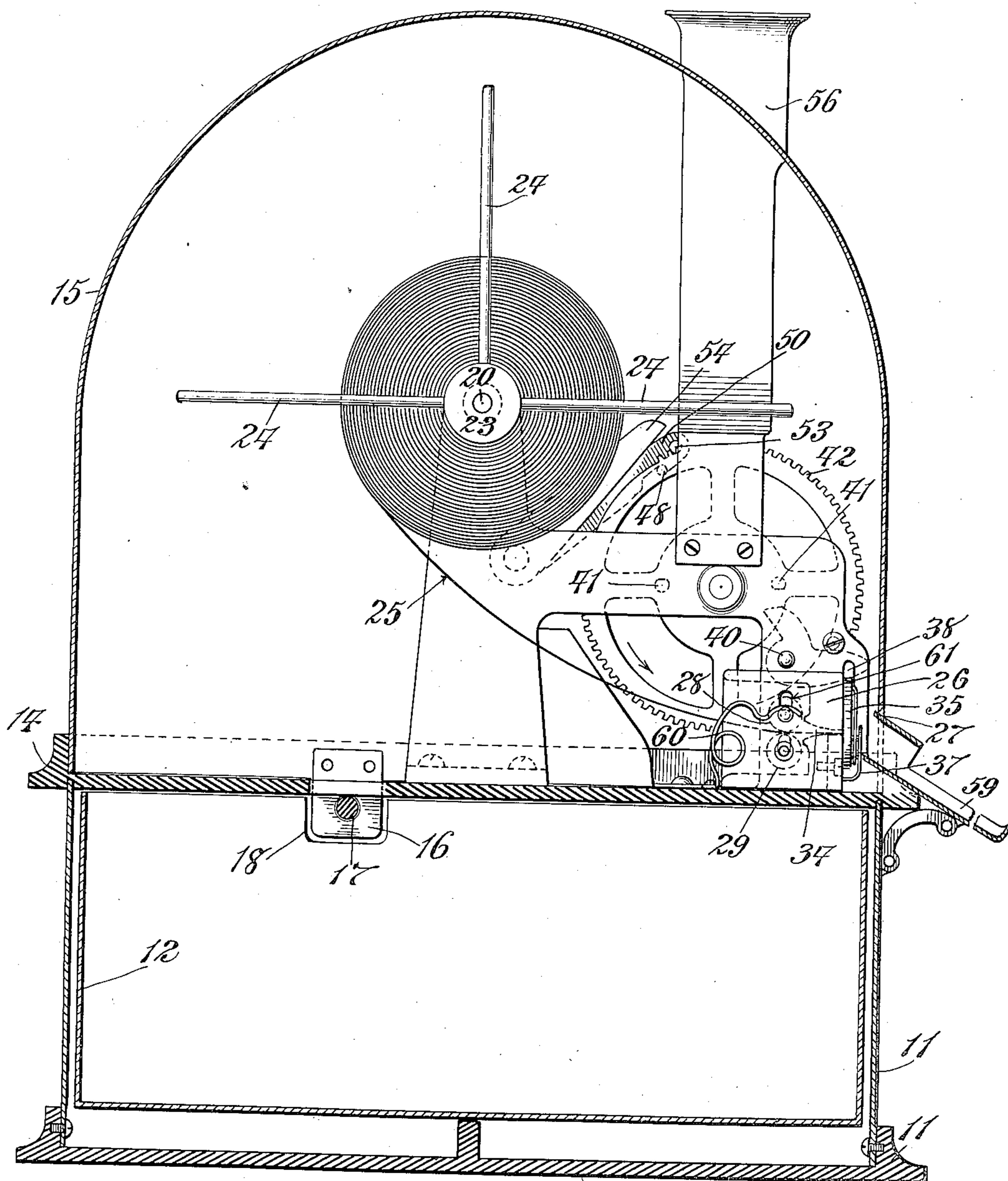
Z. G. SHOLES.
STAMP VENDING MACHINE.
APPLICATION FILED FEB. 19, 1909.

935,062.

Patented Sept. 28, 1909.

3 SHEETS—SHEET 1.

Fig. 1.



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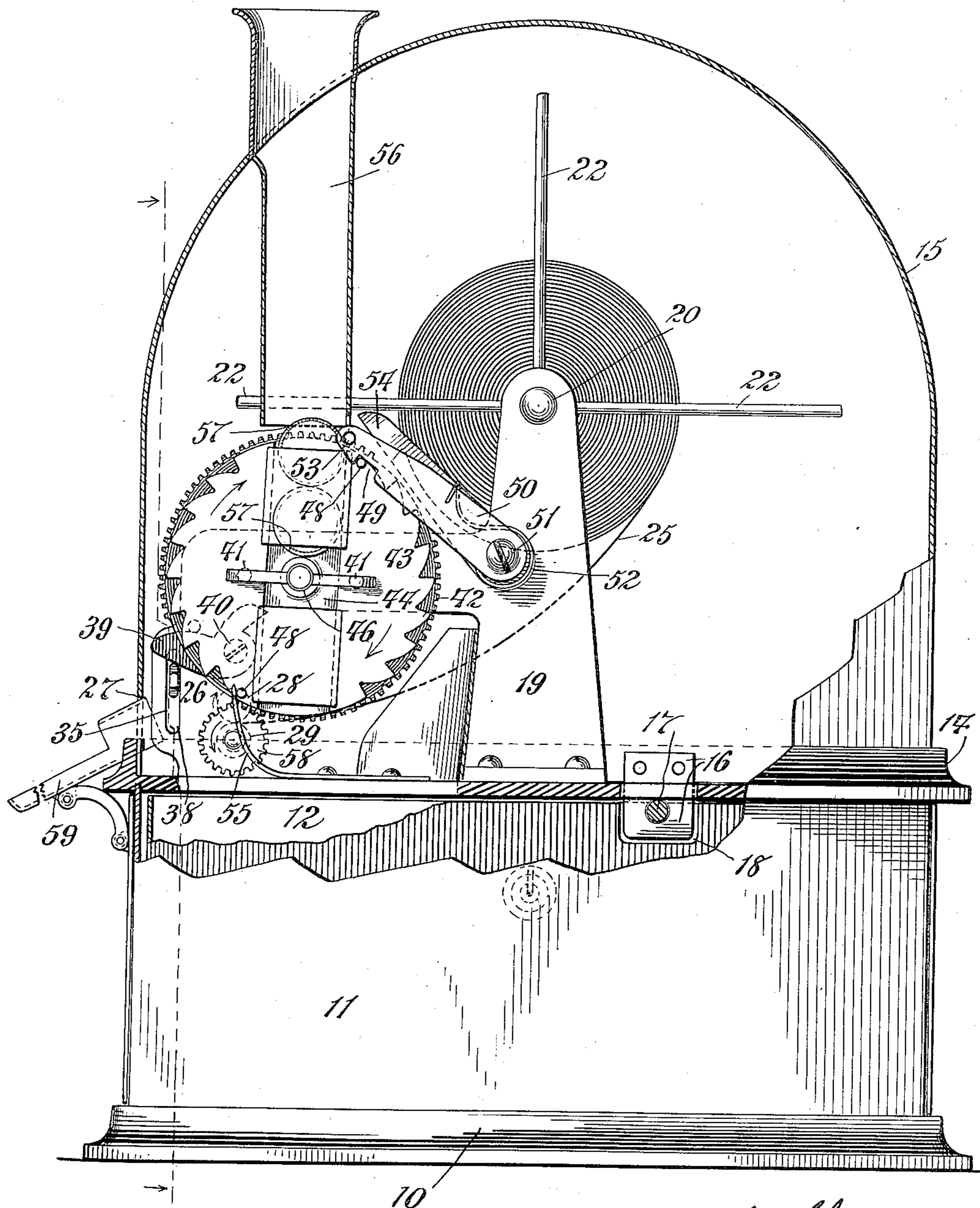
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3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3

Fig. 3.

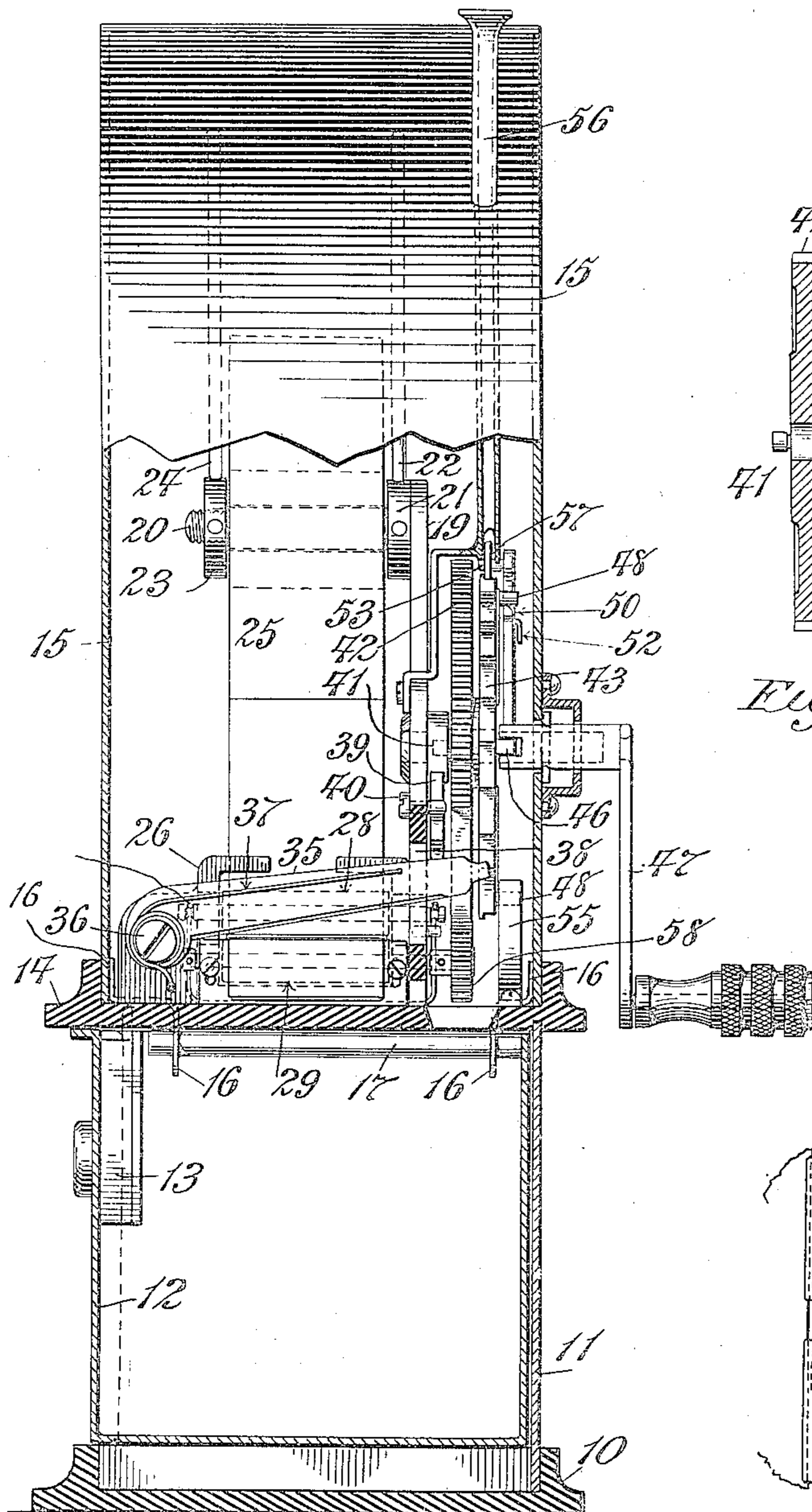


Fig. 5.

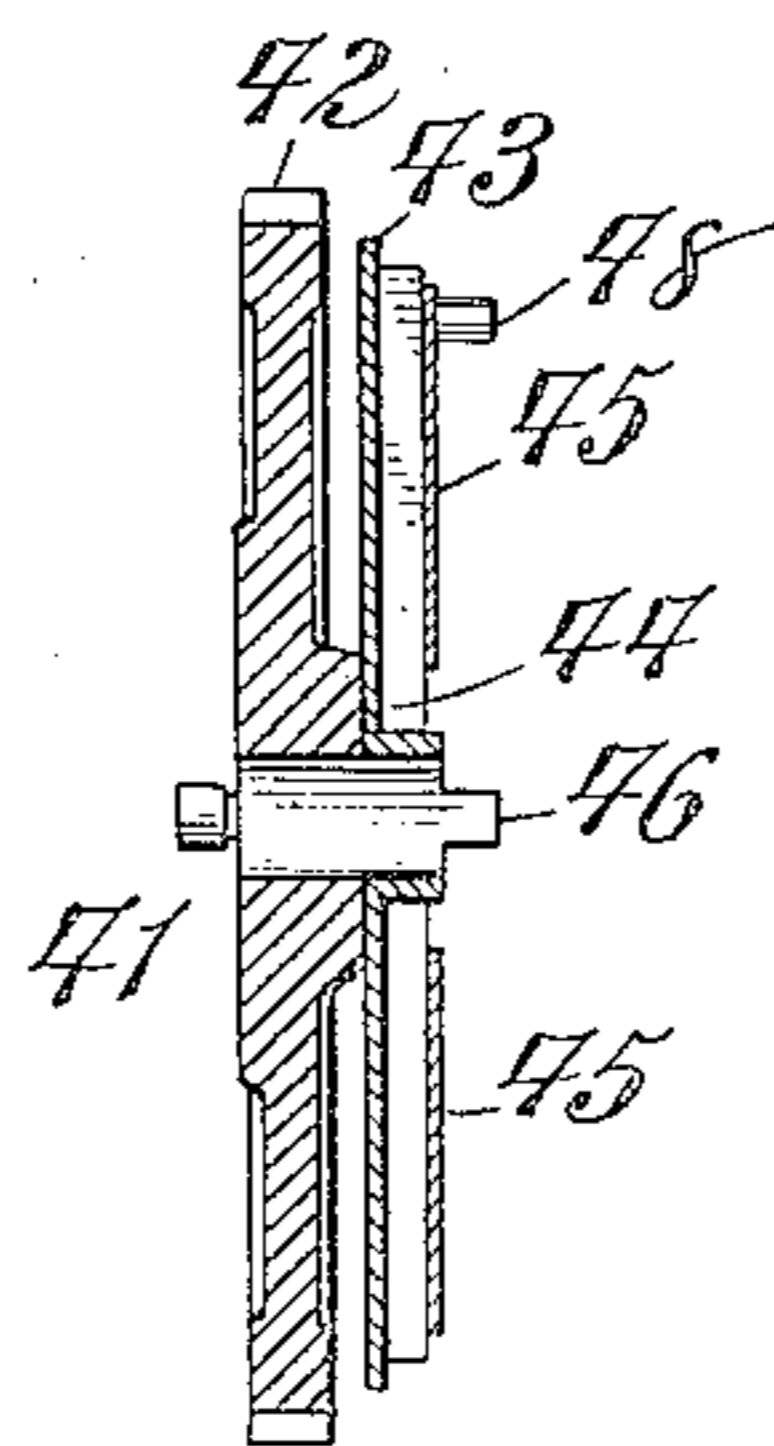


Fig. 4.

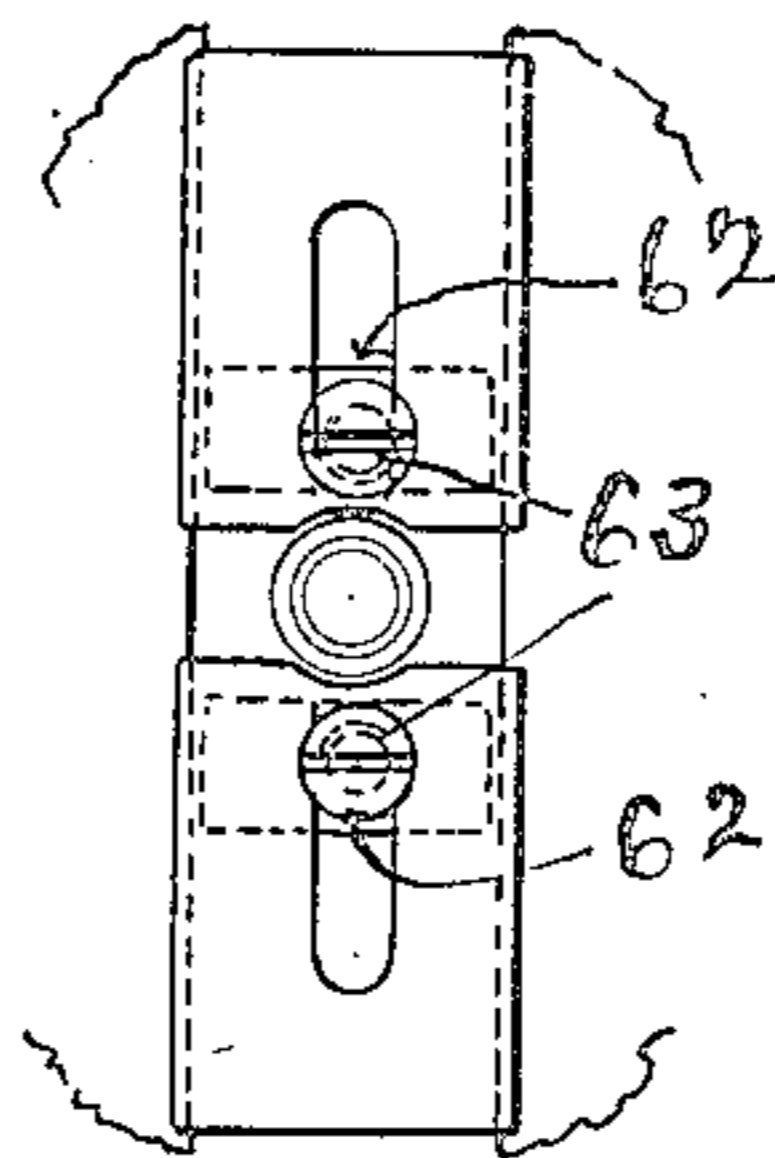
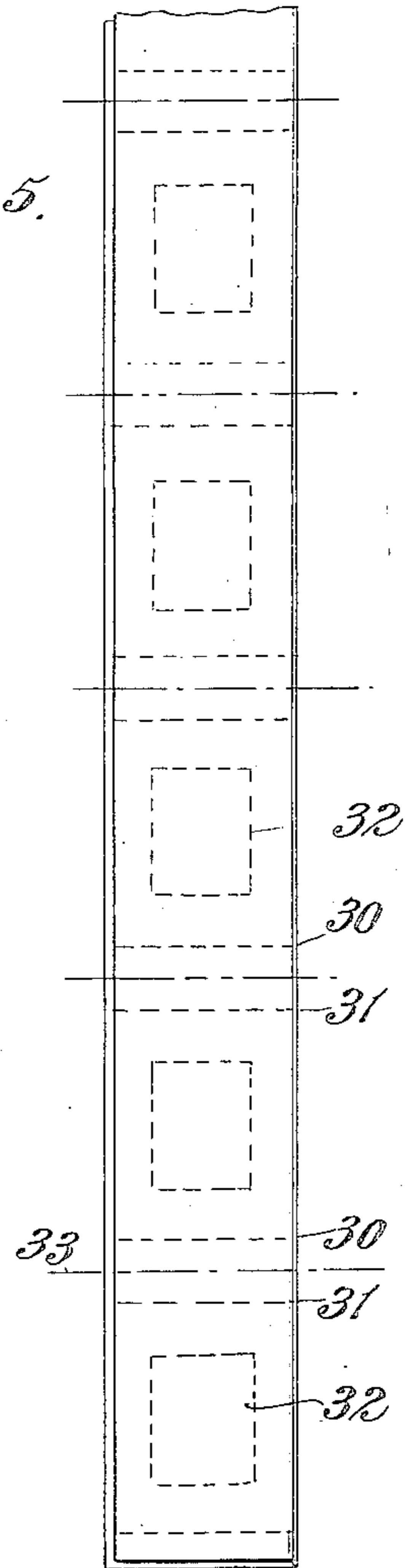


Fig. 6.

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UNITED STATES PATENT OFFICE.

ZALMON G. SHOLES, OF NEW YORK, N. Y., ASSIGNOR TO EUGENE CROWELL, OF NEW YORK, N. Y.

STAMP-VENDING MACHINE.

935,062.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed February 19, 1909. Serial No. 479,003.

To all whom it may concern:

Be it known that I, ZALMON G. SHOLES, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented a certain new and useful Improvement in Stamp-Vending Machines, of which the following is a specification.

The present invention has relation to a simple form of vending machine, applicable to a variety of purposes, but particularly adapted to the automatic vending of postage stamps.

The invention is shown in a certain preferred embodiment in the accompanying drawings, wherein—

Figure 1 is a side view of the machine, with one side of the outer casing removed, Fig. 2 is a similar view from the opposite side, Fig. 3 is a front end view of the same, a portion of the outer casing being removed, Fig. 4 is a central vertical section of the coin wheel, Fig. 5 is a view of a portion of the continuous flexible envelop for the stamps, and Fig. 6 shows a detail hereinafter described.

The base 10, directly carries the cash box 11, containing the cash drawer, secured by a lock 13 to the top 14 of the cash box.

The vending mechanism proper rests, as shown, on the top of the cash box, and is concealed by a cover 15, having lugs 16 which pass through appropriate slits in the box top 14, said lugs being perforated to receive the locking bar 17, whereby removal of the cover is prevented. Access to the bar 17 can only be had by unlocking the drawer 12. Thus a single lock secures both the mechanism and the money. As shown at 18 in Figs. 1 and 2, the side of the cash drawer is suitably notched to allow it to pass the lugs 16, when the drawer is opened. Upon the standard 19, within the cover 15, there is mounted a fixed spindle 20, screwed into said standard 19 at one end. A nut 21 surrounds the spindle and rests against the face of the standard 19. Guide arms 22 extend radially from this nut. A similar nut 23 screws onto the outer end of the spindle 20 and carries similar guide arms 24.

The flexible stamp carrying envelop 25 (or other means for analogous purpose) is carried in a coil upon the spindle 20, between the arms 22 and 24 and extends downward through a guide box 26 (see Figs. 1 and 3)

and thence to the delivery opening 27. The guide box 26 contains two transverse horizontal rollers 28 and 29, preferably having rubber surfaces, between which the flexible member passes. The preferred form given to this flexible member, when used for selling postage stamps or the like, is shown in Fig. 5. In forming this device, a long strip of paper or other appropriate material is folded longitudinally to form a single undivided pocket open along one edge. This is then perforated along pairs of lines 30, 31, spaced so as to leave room for one or more postage stamps between successive pairs of rows of perforations.

The stamps are indicated in dotted lines at 32. Between the rows of holes 30 and 31, at each pair, the folded strip is pasted or otherwise fastened together, so that, as completed, the entire strip comprises a number of stamp pockets placed end to end, and open on one side only. The lines 33, midway between rows 30 and 31 of each pair of rows, indicate where the strip is divided by the machine in the course of its operation.

The strip 25, after passing through the rollers 28, 29, is passed through a narrow tapering orifice 34 in the end of the guide box 26 (see Fig. 1). The lower edge of this orifice on the outer face of the box 26 is formed to act as a cutting edge in cooperation with the movable knife 35. The knife 35 is pivoted at 36 at one side of the opening 34, and is normally elevated by a coiled spring 37. The outer end of the knife 35 plays up and down in a slot 38 of a forward extension of the guide box 26, by which it is held in close engagement with the front of said box. The end of the knife projects beyond the slot 38 (see Fig. 3) so as to offer a point of engagement for the dog which operates it, as described below.

The mechanism for delivering and cutting off portions of the strip 25 is preferably constructed as follows:—The standard 19, carries a dog 39 pivoted at 40, whose forward extension impinges upon the top of the end of the knife 35 and whose opposite end (on the other side of the pivot 40) lies in the path of movement of pins 41 projecting from the inner face of the coin wheel 42. This coin wheel comprises a driving gear wheel 42 to the face of which is fixed a concentric ratchet wheel 43, interrupted by a diametrical cavity 44 which, with the cover-

ing plates 45 forms two coin pockets 180 degrees apart. The two parts of the coin wheel are mounted on a common spindle and an extension 46 from said wheels is arranged
 5 to receive the end of a removable handle 47, whereby the coin wheel may be turned in one direction from outside of the machine casing.

The coin wheel is intended to turn only as indicated by the arrows in Fig. 2, and to
 10 prevent opposite rotation thereof, the ratchet wheel 43 is provided with pins 48, diametrically placed, and arranged to come successively into engagement with the square-shouldered notch 49 of the check lever 50.
 15 This lever is pivoted at 51 and is normally held down by the spring 52. It is provided with a pin 53 which projects across the path of movement of the coin, as shown. I prefer to provide a stop lever 54 against which the
 20 pin 53 will strike to prevent the lever 50 from being thrown too far by sudden or violent action of the machine. I also prefer to place a spring 55 where it will be struck by a pin 48 at the end of each operation of the
 25 machine, thus lessening the noise and jar. This spring yields to let the pin 48 pass when the operating handle is pressed.

The normal position of the apparatus is shown in the drawings, and in this position,
 30 the coin chute 56 opens directly over one of the oppositely placed coin pockets. The form and depth of the coin pocket will, of course, be adapted to the kind of coin and the number of coins intended to be used in
 35 operating the device. In the form shown it is intended to sell a two cent stamp in each section or pocket of the flexible member 25, and two one-cent pieces are shown in place in Fig. 2, at 57.

40 The operation of the machine is as follows:—When the two coins 57 have been dropped through the chute 56 into one of the coin pockets on the coin wheel 42, the handle 47 is turned so as to revolve the coin wheel
 45 in the direction of the arrows in Fig. 2. During the time that the upper pin 48 is moving within the notch 49 in the check lever 50, the rounded top edge of the upper coin 57 acts like a cam upon the pin 53, thereby raising
 50 the lever 50 and liberating the wheel, which can then be given a half turn, during which the coins drop into the money box.

It is obvious that any suitably shaped check or medal may take the place of a coin
 55 in this connection, and the term "coin" as used in my claims is to be understood as including such equivalent means.

The coin pockets are preferably made adaptable to coins of different size or to different numbers of coins of the same size by
 60 the means shown in Fig. 6 wherein each pocket is shown provided with a coin-supporting-piece 62 adapted to slide within the pocket and capable of being fixed in any desired position by means of a screw 63 which

passes through a slot shown in the side of the pocket.

At the end of the half turn, the second pin 48 enters the square-shouldered notch 49, thus preventing further motion, and, when
 70 pressure upon the handle 47 is released, the spring 55 acts to throw the pin 48 back against the outer shoulder of the notch 49, as shown in Fig. 2, thus insuring proper location of the coin pocket under the chute.
 75 The half turn of the wheel 42 thus produced operates through the pinion 58, which meshes with the wheel 42, to revolve the rollers 28 and 29 just sufficiently to protrude one section of the flexible member 25 through
 80 the guide opening 34, thus bringing one of the lines 33 under the knife 35. Just as this motion is completed, one of the two smooth portions of the periphery of the wheel 42 comes opposite the pinion 58, thus causing
 85 movement of the rollers 28, 29 to be interrupted during the remainder of the movement of the wheel 42. During this remainder movement, and while the flexible member 25 is consequently at rest, the dog
 90 39 is actuated by one of the two pins 41 on the face of the wheel 42, and acts to depress the outer end of the knife 35, which shears off the protruded section of the flexible member, causing it to drop upon the delivery
 95 tray or chute 59. In the meantime the pin 41 slips by the inner extremity of the dog 39 so as to release it, whereupon the knife 35 and the dog 39 are both restored to normal position by the spring 37. The machine is
 100 then ready for another operation. During operative movement of the coin wheel, the pin 53 drops behind the successive teeth of the ratchet wheel 43, thus preventing backward movement of the mechanism.
 105

It is obvious that this machine is adaptable to the automatic vending of any article capable of delivery between rollers within a flexible member, or of such sale of any flexible material of suitable shape, and I do not
 110 limit myself to a machine for selling postage stamps.

The guide box 26 should be very slightly wider than the flexible material delivered, so that it acts to guide it to the rollers 28,
 115 29. These rollers may be made to grip the material by use of any suitable device, but I prefer to use springs 60, bearing upon the journals of the upper roller, which journals turn in elongated bearings 61 (see Fig. 1).
 120 The pressure thus created is sufficient to grip the member 25 between the rollers and draw it forward.

For placing a new coil or roll of material 25 in place upon the spindle 20, it is only
 125 necessary to remove the outer nut 23 with the attached arms 24, whereby the end of the spindle is left free.

A variety of changes may be made in this device without departing from my inven-
 130

tion and I am not to be limited to the details herein shown and described.

What I claim is—

1. A device of the class described comprising in combination with delivering means, a wheel for actuating said means, a coin operated check lever therefor, and a spring independent of and detached from said wheel adapted to act as a buffer-stop at the end of each operative movement of said wheel, substantially as described.

2. A device of the class described comprising in combination with delivering means, a wheel for actuating said means, a pin on said wheel, a check lever having a notch for engaging said pin, means dependent for operation upon the presence of a coin for disengaging said lever and pin, and a detached spring adapted to act as a buffer-stop by contact with said pin, substantially as described.

3. A device of the class described comprising in combination with delivering means, a wheel for actuating said means, a pin on said wheel, a check lever having a notch for engaging said pin, means dependent for operation upon the presence of a coin for disengaging said lever and pin, and a detached spring so placed in the path of movement of said pin as to act as a buffer-stop when the pin is brought into contact with said spring, and to yield to permit passage of the pin when further pressure is applied, substantially as described.

4. A device of the class described comprising in combination with delivering

means, a wheel for actuating said means, two pins on said wheel; a check lever having a notch placed so as to engage with said two pins successively, a spring engaging with one of said pins while the other is in said notch and adapted to press said latter pin against one shoulder of said notch, and means dependent for operation upon the presence of a coin for disengaging said lever and pin so as to permit the pin which is in contact with the spring to be forced past it, substantially as described.

5. A device of the class described comprising in combination with delivering means, a wheel for actuating the same, a pin on said wheel, a ratchet wheel turning with said first named wheel, a notched lever adapted to engage said pin and means fixed to said lever for engaging said ratchet wheel, substantially as described.

6. A device of the class described comprising in combination with delivering means, actuating means for the same, a checking device, a coin pocket on said actuating means having a slotted side, a coin-supporting piece adapted to slide within said pocket and means projecting through the slot in said pocket for holding the coin-supporting piece in any desired position, substantially as described.

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