

No. 778,819.

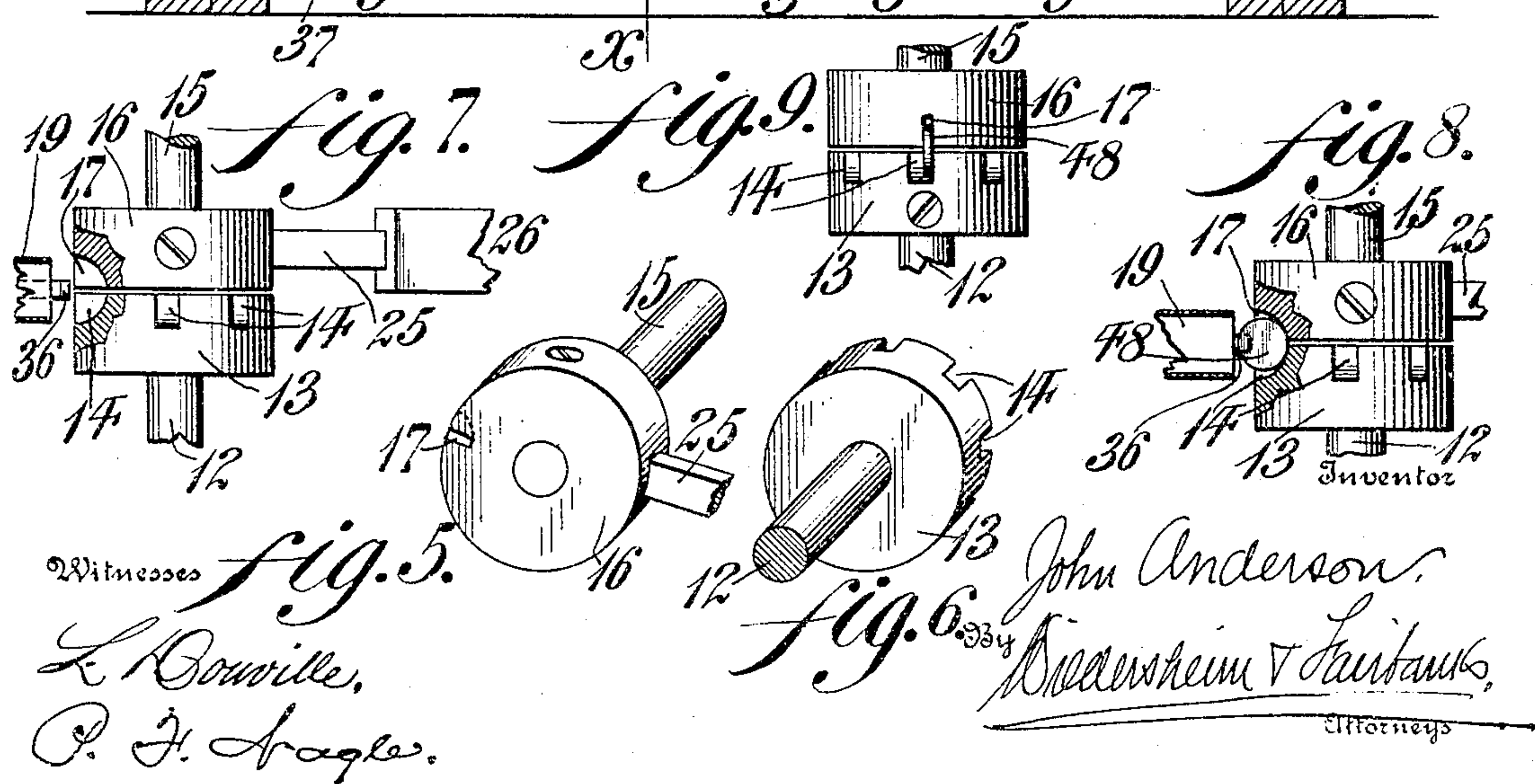
PATENTED DEC. 27, 1904.

J. ANDERSON.

COIN CONTROLLED VENDING MACHINE.

APPLICATION FILED FEB. 13, 1904.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 2.

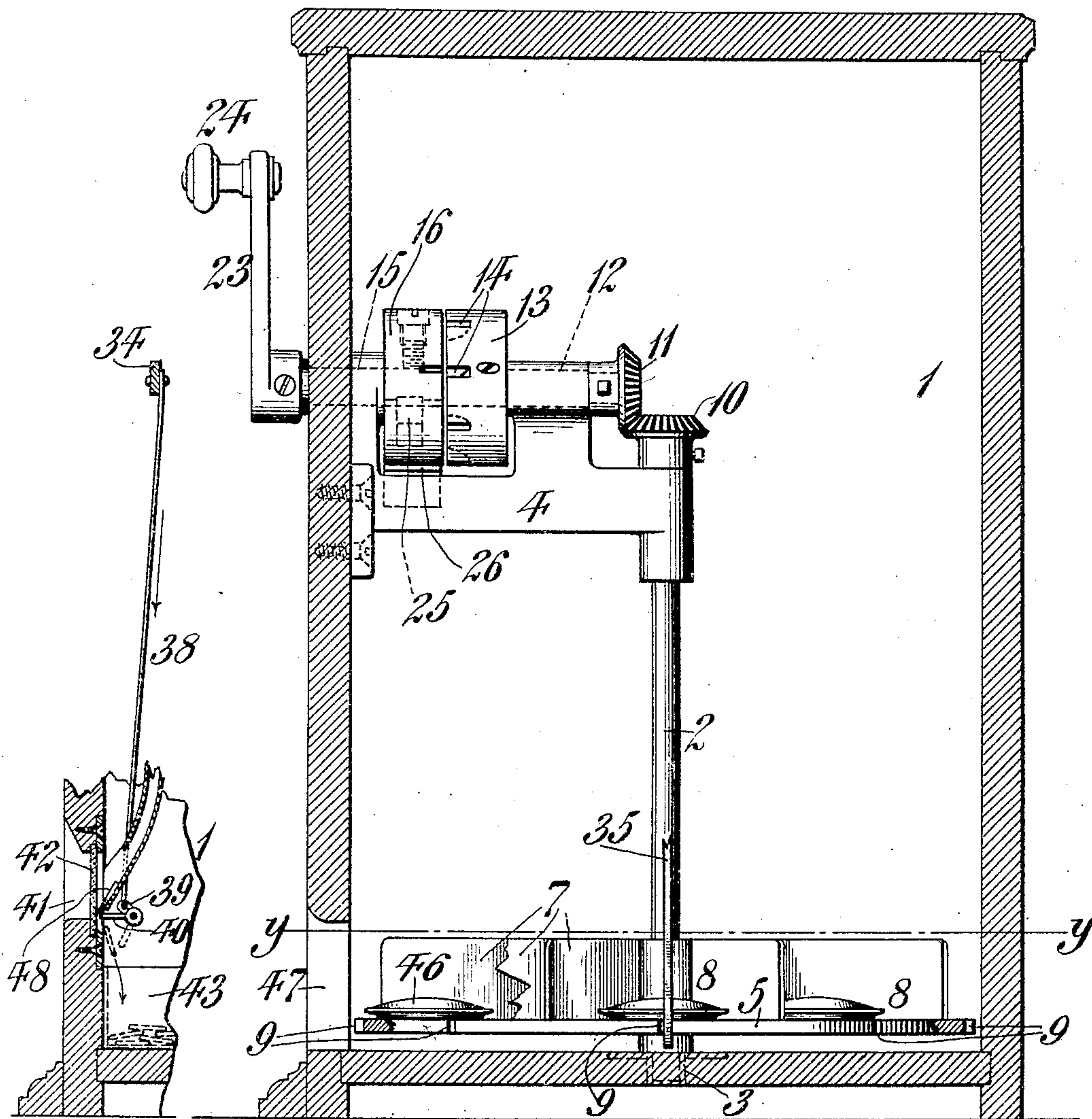


fig. 4.

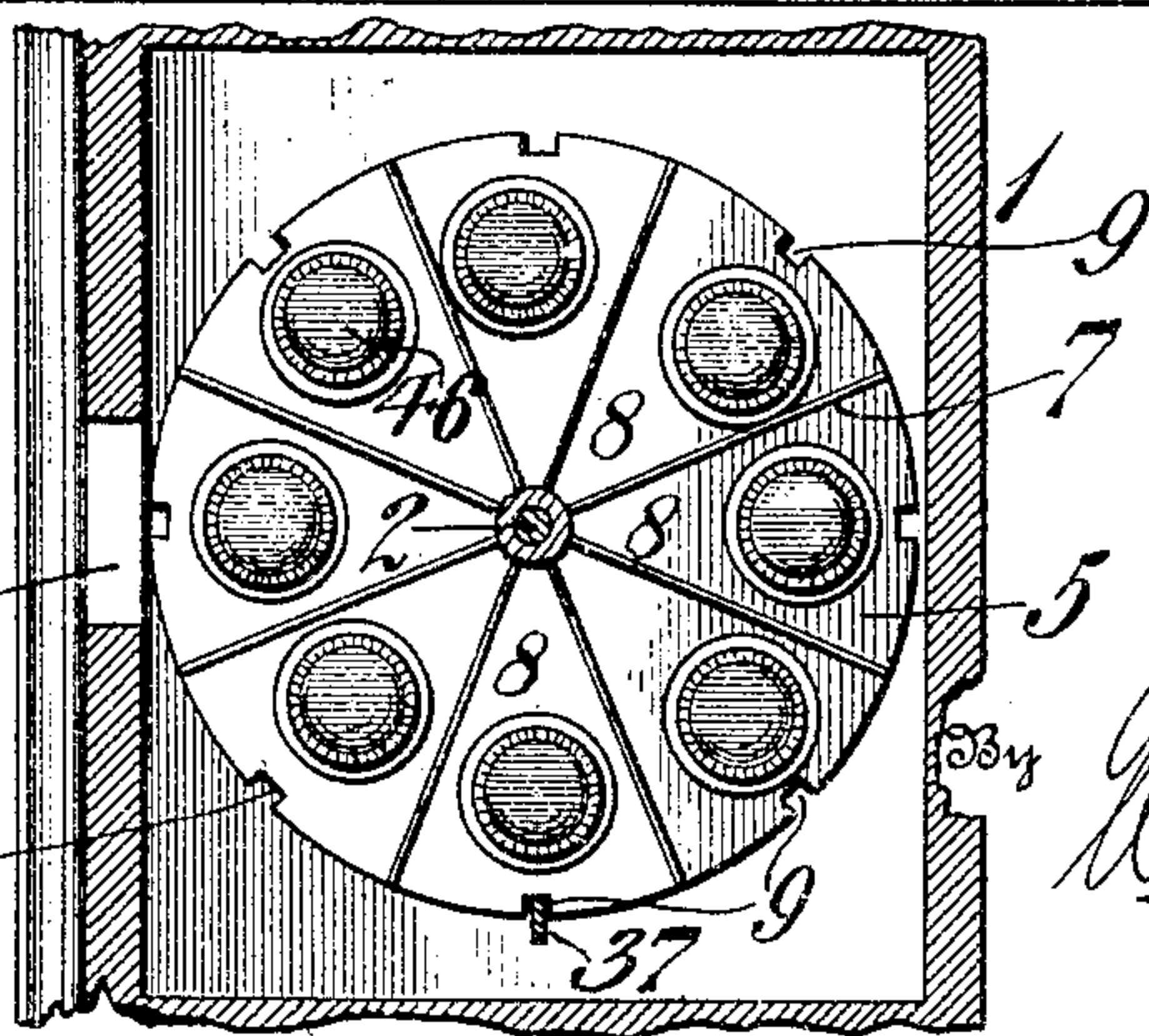


fig. 3.
 47
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UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF PHILADELPHIA, PENNSYLVANIA.

COIN-CONTROLLED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 778,819, dated December 27, 1904.

Application filed February 13, 1904. Serial No. 193,379.

To all whom it may concern:

Be it known that I, JOHN ANDERSON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Coin-Controlled Vending-Machines, of which the following is a specification.

My invention relates to coin-controlled vending-machines.

It comprises novel means for unlocking the vending device, for rotating the device by means of a coin, for disengaging the coin after the device has been rotated, for exposing the coin after it has operated the machine, and for dropping the coin into the till at a subsequent operation of the machine.

It further consists of novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents, chiefly in vertical section, a device embodying my invention. Fig. 2 represents the device chiefly in vertical section through the line *xx*, Fig. 1. Fig. 3 is a horizontal section through the line *yy*, Fig. 2. Fig. 4 is a fragmentary vertical section of a portion of the device shown at the left of Fig. 1 and at a right angle therewith. Figs. 5 and 6 represent in perspective the coin-disks removed from the machine. Figs. 7, 8, and 9 are fragmentary elevations of the coin-receiving portions detached from the machine.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a casing in which is supported a vertical shaft 2, bearing in a step 3 at its lower end and in a bracket 4 at its upper end. At the lower end of the shaft 2 is a circular plate 5, divided by vertical partitions 7 into compartments 8 and having notches 9 in its periphery. At the upper end of the shaft 2 is a beveled gear 10, meshing in a similar gear 11, mounted on a shaft 12, also supported in the bracket 4. At its forward end the shaft 12 carries a disk 13, in the periphery of which is cut a plurality of quadrantal notches 14, of a radius substantially equal to that of the coin or disk by which the machine is to be operated and of a width substantially greater than the

thickness of said coin. Mounted on a shaft 15 in line with the shaft 12 is a disk 16, in which is formed a single quadrantal notch 17, corresponding in radius and thickness substantially to the coin to be inserted. In the wall of the casing 1 is a coin-receiving aperture 18, from which a chute 19, shown as of curved form, leads to a point adjacent the notch 17 in the disk 16. An aperture 20 in the lower side of the chute 19 leads by means of an auxiliary chute 21 to an aperture 22 in the casing. On the shaft 15 exterior of the casing 1 is a crank 23, terminating in a handle 24. Secured to the disk 16 is a bar 25, to which is attached a weight 26. Suitable stops 27 28, secured on the inner side of the casing 1, are adapted to engage with the bar 25, thereby limiting the travel of the disk 16. A chute 29 has its open mouth 30 adjacent the disks 13 and 16 below the mouth of the chute 19. Above the mouth 30 is a bent latch 31, normally held adjacent the periphery of the disks 13 and 16 by means of a spring 32.

Suitably supported within the casing 1 is a shaft 33, to which are secured levers 34 35. The lever 34 is shown as of curved form and has its nose 36 normally interposed between the inner end of the chute 19 and the periphery of the disks 13 and 16. The lever 35 has its lower end 37 normally engaged in one of the notches 9 in the plate 5. Pivoted to the lever 34 is a rod 38, connected by a bell-crank lever 39 to a plate 40 at the lower end of the chute 29. (Vide Fig. 4.) Opposite the lower end of the chute 29 and above the plate 40 is formed an aperture 41 in the walls of the casing 1, such aperture being closed by a sheet 42, of glass or other translucent material. A till 43 is placed within the casing 1 beneath the bottom of the chute 29. A door 44, secured by a lock 45, may be placed in the casing for convenient access to or the removal of the till 43.

The operation is as follows: The articles to be vended, shown as pies or tarts 46, are placed in the compartments 8 on the plate 5. It is obvious that a door or aperture 47 is cut through the front wall of the casing 1 opposite one of the compartments 8 and immediately below the crank 23, which also projects

through the front wall of the casing. A coin or disk of the proper size is passed through the aperture 18 and moves down the chute 19 and is delivered partially into the slot 17 and partially into one of the slots 14 adjacent thereto. As shown in Figs. 7 and 8, the edge of the coin projects beyond the periphery of the disks 13 and 16. The crank 23 is then turned in the direction of the arrow shown in Fig. 1. It is obvious that the rotation of the disk 16 caused by the movement of the crank 23 will bring the projecting edge of the coin 48 against the nose 36 of the lever 34. This will rotate the shaft 33, and thereby move the lever 35 to bring its lower end 37 out of engagement with the notch 9 in the periphery of the plate 5, thereby interlocking the plate. A further rotation of the disk 16 will bring the coin 48 into contact with the side of the notch 14 in the disk 13 and cause the disk 13 to rotate. This movement will be communicated through the shaft 12, gears 11 and 10, and vertical shaft 2 to the plate 5, which will be moved so as to bring its next compartment 8 opposite the aperture 47 in the casing 1. The further movement of the parts will be stopped by the impingement of the lever 25 against the stop 27. The vendee may then remove the pie or other article from the plate 5 through the aperture 47. When he has released the handle 24, it is obvious that the weight 26 will act to bring the disk 13 and connected parts to the position shown in Fig. 1 of the drawings. In the meantime the coin 48 has been brought down to the mouth 30 of the chute 29, through which it will pass until it rests on the plate 40 at the bottom of the chute. In this position it is visible through the sheet of glass 41 in the aperture 42. If the coin should be accidentally retained in the notches 14 and 17 during the return movement of the disk, it is obvious that it will in its upward passage strike the free end of the latch 31 and be thereby dislodged, falling into chute 29, as before. It is clear that the downward movement of the coin is not obstructed by the latch 31, the spring 32 yielding to permit its passage. Should a coin of less than the designated diameter be passed throughout slot 18 into the chute 19, it will in its passage therethrough fall through the opening 20 into the chute 21, by which it will be delivered through the aperture 22 in the casing to the

person by whom it was deposited. When a second coin is deposited, the operation above described is repeated, the end 37 of the lever 35 having been engaged by springs 35^x in another of the notches 9 in the plate 5. It will be noted that each movement of the lever 34 acts through the rod 38 and lever 39 to drop the plate 40, as shown in dotted lines, Fig. 4, so that the previously-deposited coin passes into the till 43 and that the return movement of the lever 35, which occurs as soon as the coin 48 has passed the nose 36 of the connected lever 34, will return the plate 40 to its operative position before the coin then engaged in the slots 14 and 17 passes therefrom into the chute 29. Any convenient means, as a door, (not shown,) may be provided for replenishing the stock of articles 46 to be vended.

It is evident that various changes may be made by those skilled in the art which will come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A vending device comprising a casing, a vertically-disposed shaft in said casing, a horizontal plate mounted on said shaft and provided with partitions forming a plurality of compartments, a manually-operated disk having a coin-receiving slot, a disk adjacent said first disk and having a plurality of coin-slots of greater width than that in said first disk and operatively connected to said shaft, coin-chutes leading from a coin-entrance to said disks and from said disks to a till, a glazed aperture in said casing adjacent to the lower end of said last-named chute, means for supporting a coin adjacent said aperture, a lever for locking said plate against rotation, a rod connecting said lever with said coin-supporting means and a nose on said lever interposed between such first-named coin-chute and said disks and engageable with a coin in said disks for releasing said locking-lever and said coin-supporting means.

JOHN ANDERSON.

Witnesses:

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