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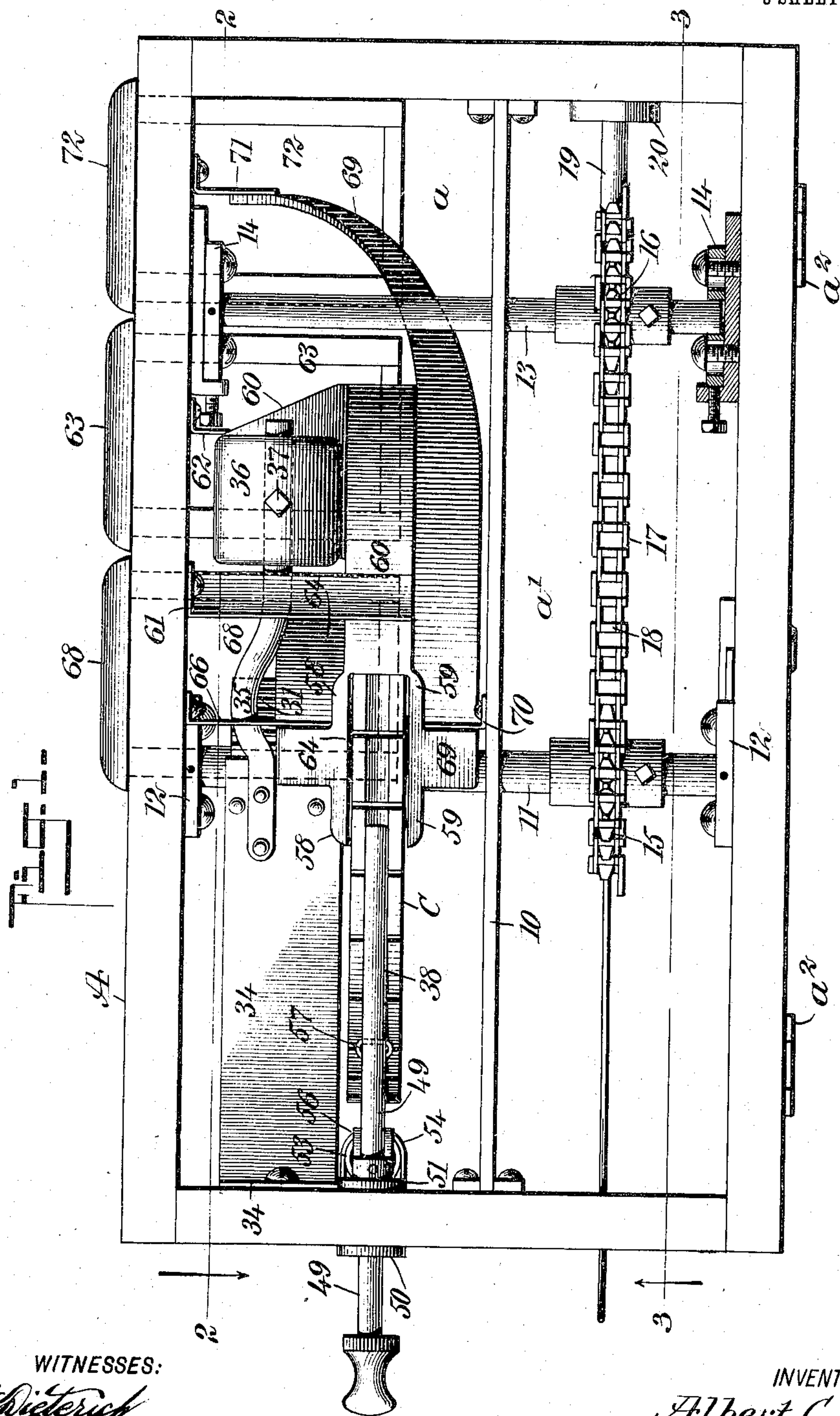
PATENTED JULY 2, 1907.

A. C. WAY.

COIN CONTROLLED VENDING MACHINE.

APPLICATION FILED MAY 26, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

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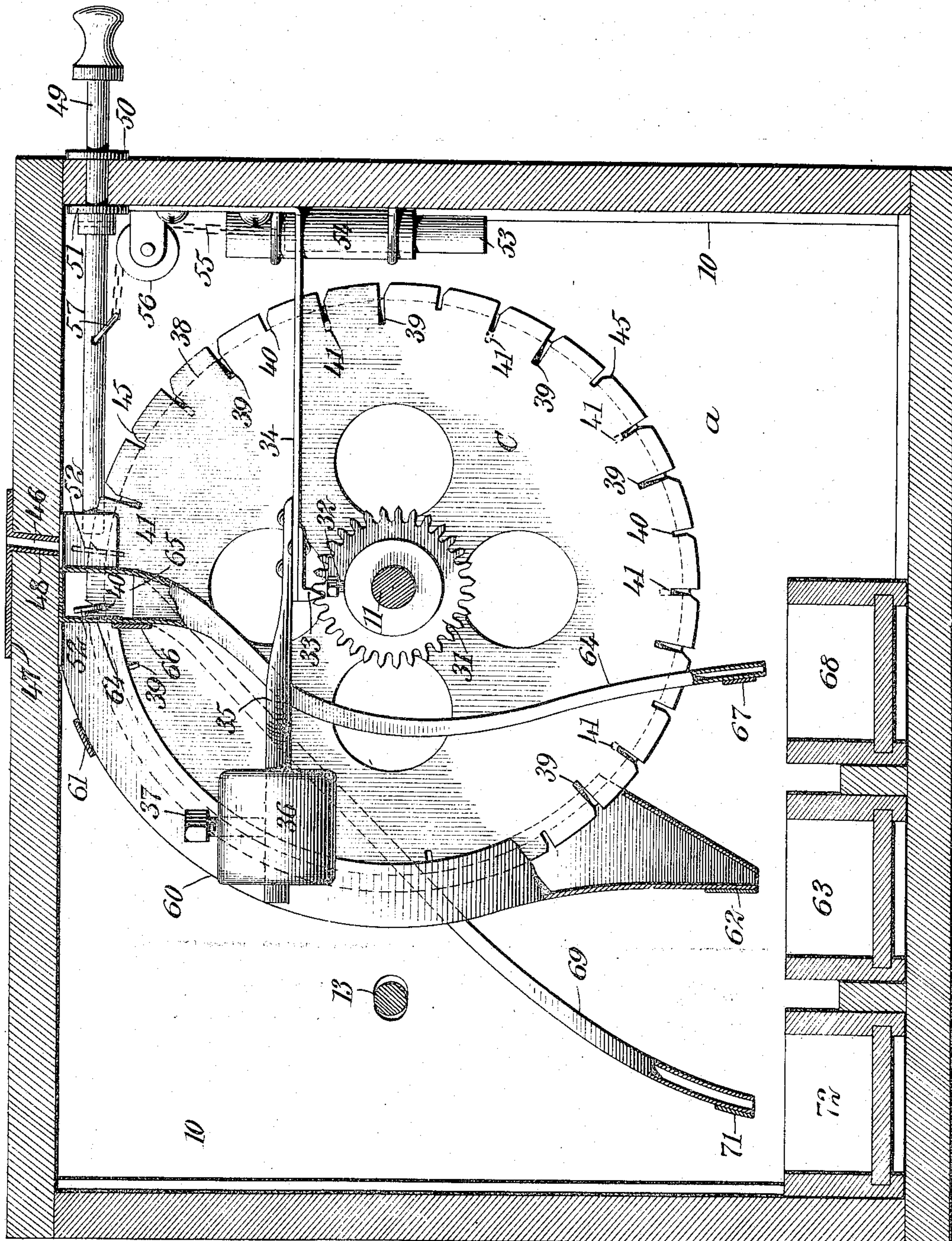
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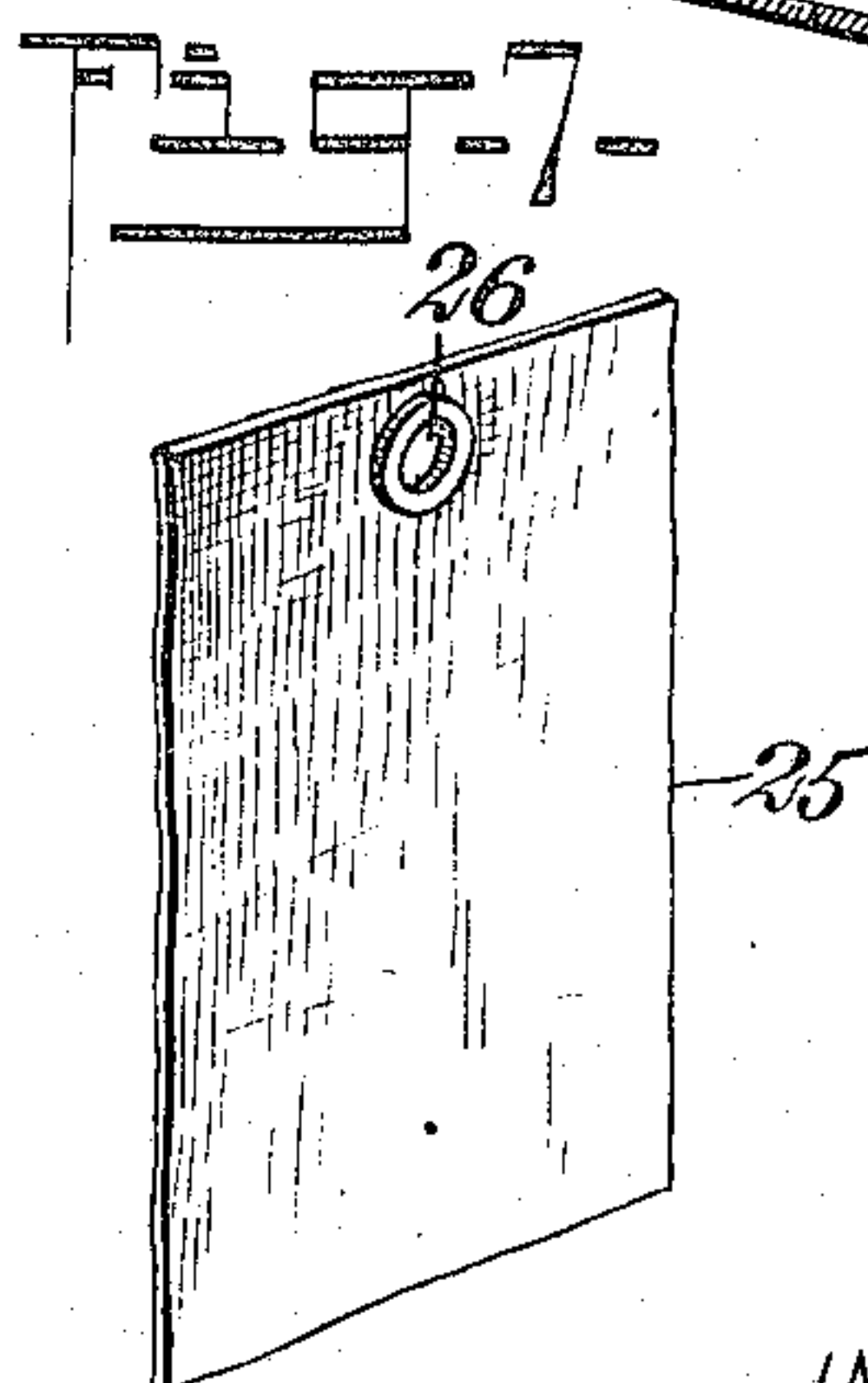
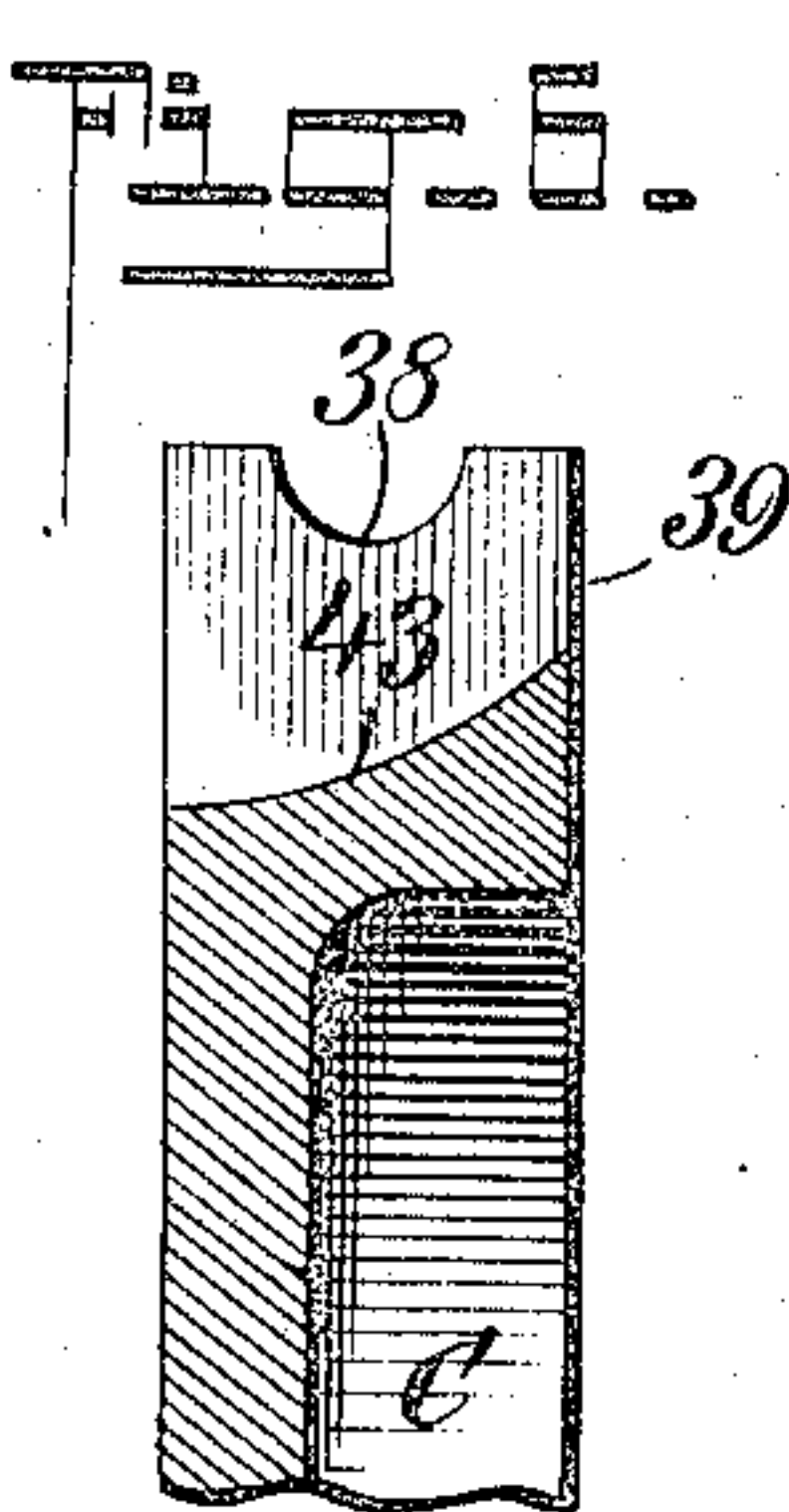
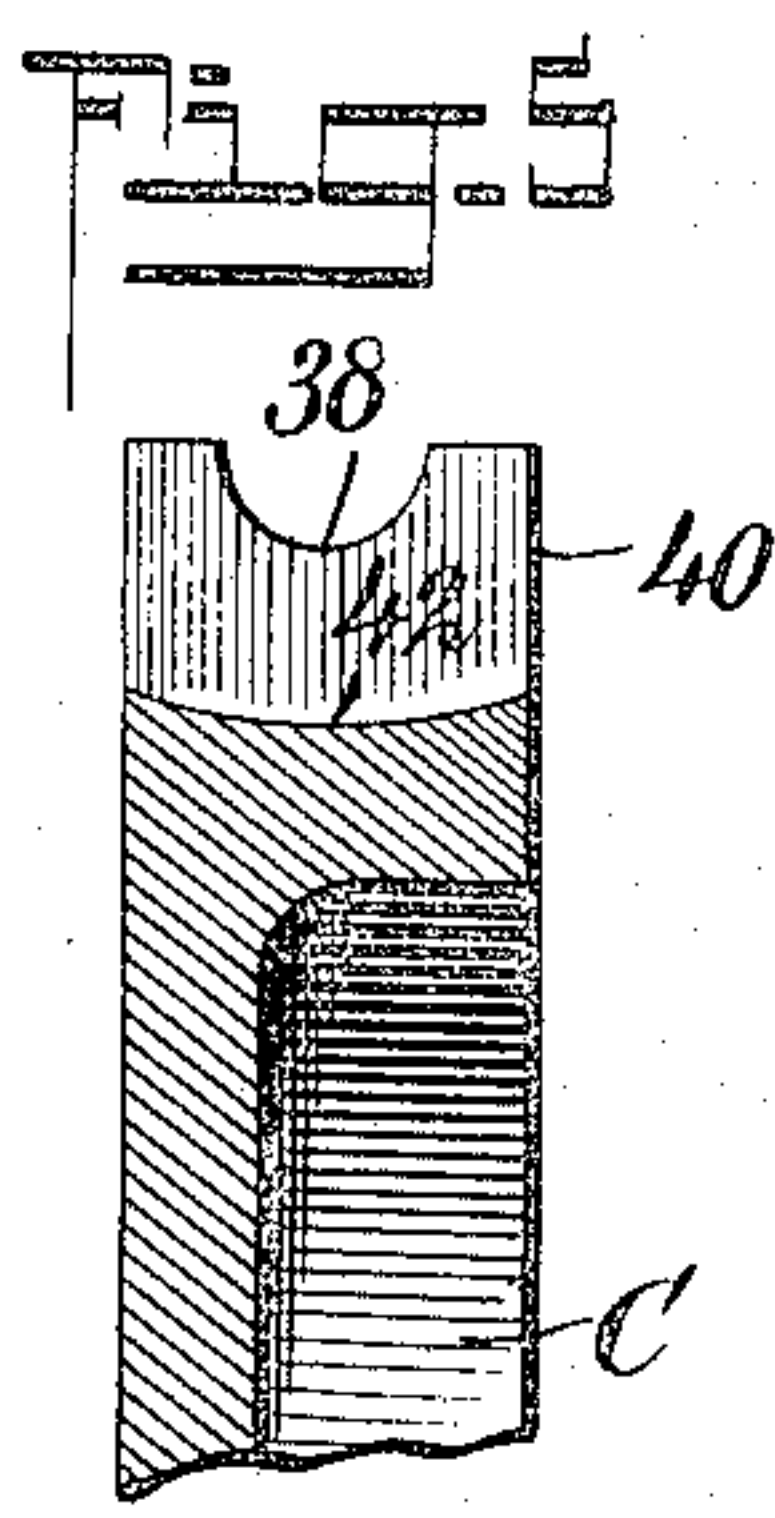
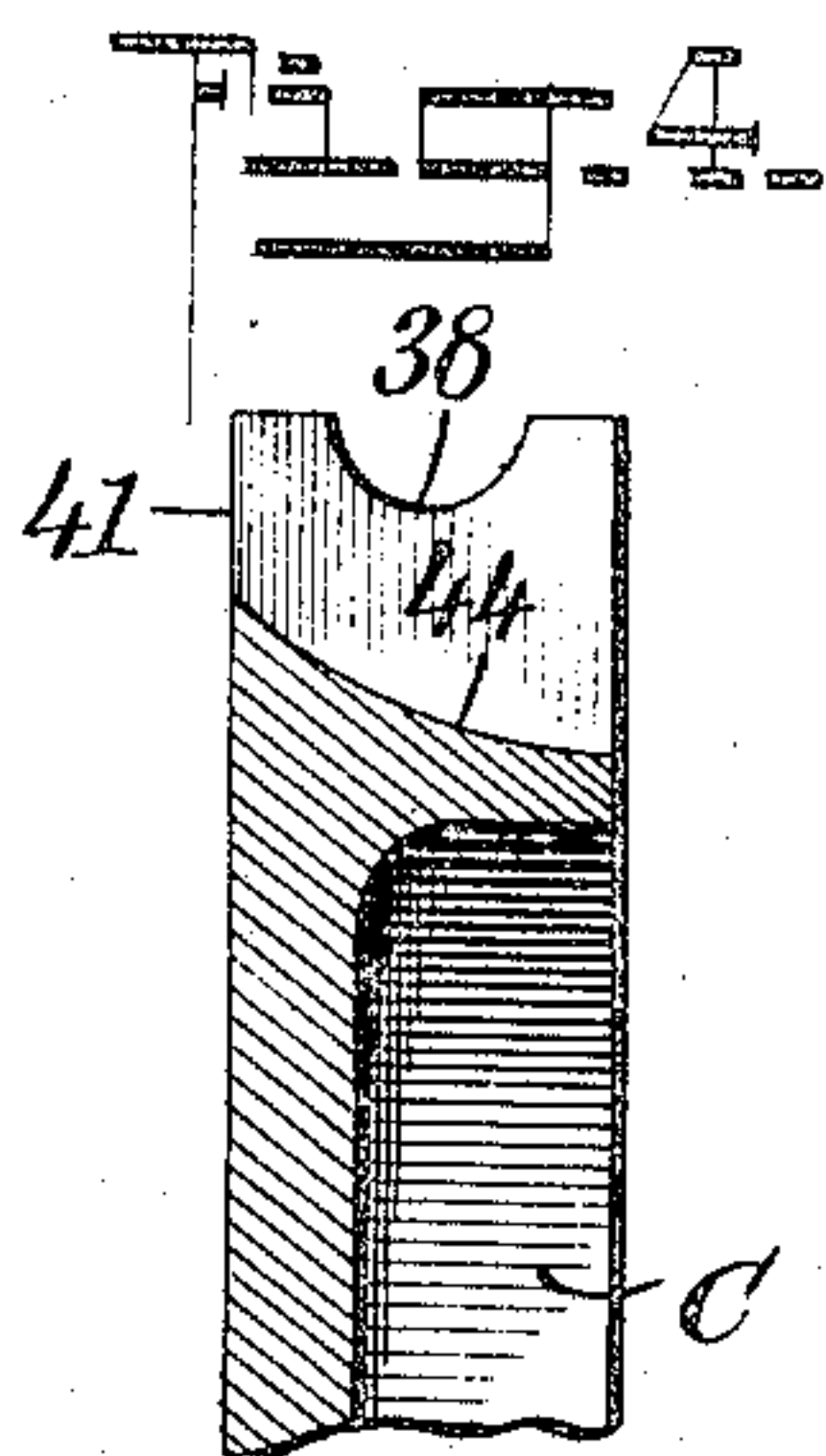
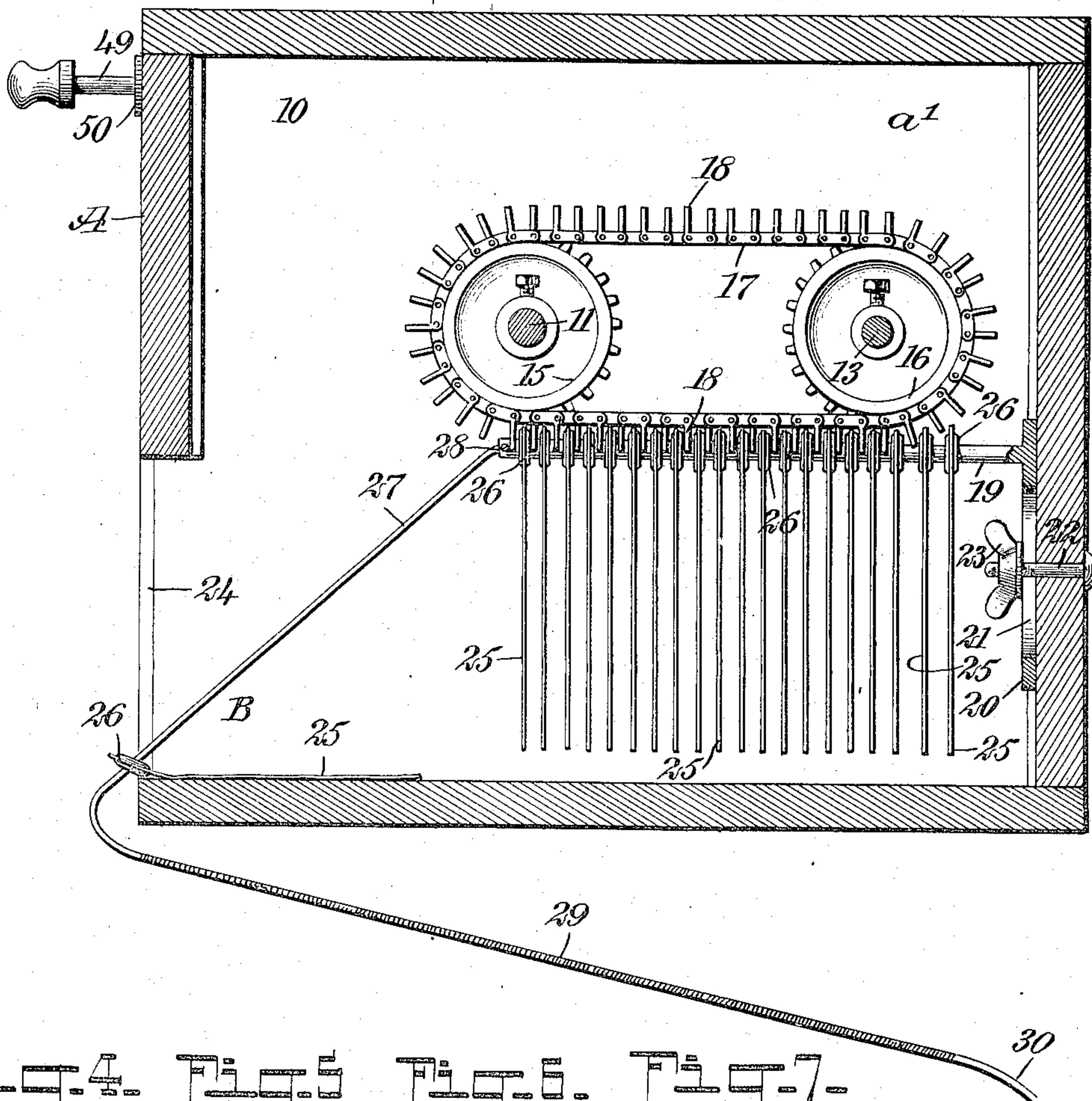
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3 SHEETS—SHEET 3.

Fig. 3.

A¹



WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT C. WAY, OF PERRY CENTER, NEW YORK.

COIN-CONTROLLED VENDING-MACHINE.

No. 858,931.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed May 26, 1906. Serial No. 318,841.

To all whom it may concern:

Be it known that I, ALBERT C. WAY, a citizen of the United States, and a resident of Perry Center, in the county of Wyoming and State of New York, have
5 invented a new and Improved Coin-Controlled Vending-Machine, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a coin-controlled vending machine especially adapted for
10 delivering towels, a towel being dispensed at the introduction of each coin into the machine, and to so construct said machine that while the towels delivered by it can be conveniently used for all legitimate purposes they can not be disconnected from the guide
15 element forming a portion of the machine after leaving the body of the latter, but wherein the towels when released after having served their purpose are automatically conducted to a locked receptacle to be removed therefrom for washing by an authorized person only.
20

A further purpose of the invention is to provide a machine of the character described which will be simple, durable and economic in construction and free from springs, and which will be automatic in operation after a suitable coin has been deposited and properly located in the coin-receiving section of the machine.

Another purpose of the invention is to provide a mechanism whereby the coins deposited in the machine during the operation of the machine will be
30 equitably divided in an automatic manner into two or more lots, usually three lots, the coin for each lot being delivered to independent receptacles to which access can be gained only by key or knowledge of a combination and supposedly only by a person interested in that particular lot, thus providing for an equitable division of the money received in the machine among persons interested in said machine, each person having individual access only to a receptacle
40 containing the lot intended for him.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which
45 similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the machine with the cover removed; Fig. 2 is a section taken practically
50 on the line 2—2 of Fig. 1; Fig. 3 is a section taken substantially on the line 3—3 of Fig. 1; Figs. 4, 5 and 6 are enlarged sections through the peripheral portion of the coin-receiving wheel, showing the different formation of the pockets therein for directing the coin
55 to different conductors; and Fig. 7 is a perspective view of a towel adapted to the machine.

A represents a casing which may be of any shape, but which is usually rectangular as shown, which casing is permanently closed at the top and at the back, at a portion of its front at the bottom and at both sides, 60 except as hereinafter mentioned. The interior of the casing A is divided into two compartments *a* and *a'* by means of a partition 10 which extends from the top to the bottom of the casing, and a drive shaft 11 extends transversely of the said casing, having its 65 ends mounted to turn in bearings 12, suitably secured to the inner side walls of the casing, and the shaft 11 is located between the center of the casing and the front; and between the center of the casing and its back a parallel shaft 13 is mounted to turn, and this 70 shaft is mounted in adjustable bearings 14 secured to the inner side walls of the casing. The drive shaft 11, within the compartment *a'* is provided with a sprocket wheel 15, which is firmly attached to the shaft, as is shown in Fig. 3, and the shaft 13 carries a corresponding wheel 16. An endless chain belt 17 is passed 75 over the two wheels 15 and 16, the links of which chain have outwardly-extending fingers 18 which are at right angles to the links, as is clearly shown in Fig. 3. These fingers 18 are an equal distance apart, and are 80 for a purpose to be hereinafter set forth.

An arm 19 is located below and parallel with the lower stretch of the endless chain belt 17. This arm 19, at its inner end is attached to or forms a portion of the bracket 20, which engages with the rear wall of the 85 compartment *a'*, and said bracket is provided with a slot 21, and a bolt 22 is passed through the casing and the slot in the bracket, being provided with a wing nut 23 or its equivalent at the inner end of the bolt, whereby the arm 19 may be adjusted to or from the endless 90 chain belt 17.

The towels 25 adapted for use in this machine, are provided with metal eyelets 26 at the central portion of one of their ends, as illustrated in Figs. 3 and 7, and the arm 19 is made to pass through the eyelets 26 of the 95 towels, which towels hang from the said arm at regular distances apart, their lower ends being out of engagement with the bottom of the casing. In arranging the towels 25 on the arm 19 a finger 18 from the links of the lower stretch of the endless belt 17 is made to lie between the 100 eyelets 26 of opposing towels, as is clearly shown in Fig. 3, so that as the belt 17 is revolved the foremost fingers of the lower stretch of the belt 17 will carry the foremost towel 25 from off its supporting arm 19. Preferably the eyelets 26 are placed at each end of a towel to render 105 it reversible.

A guide arm or element B is used in connection with the forward end of the towel supporting arm 19. This guide arm or element B consists of an upper rigid section 27, which is removably attached to the forward end 110 of the towel supporting arm 19 by means of a screw 28 or its equivalent, and said section 27 is carried down-

ward at an inclination and out through the bottom portion of an opening 24 in the lower front portion of the casing, which opening 24 remains normally unclosed, and where the inclined rigid section of the guide arm or element B passes out from said opening 24 it is bent upon itself and carried rearward beneath the casing, and is attached to a flexible section 29, and this flexible section 29 is given a downward as well as a rearward inclination and is usually attached at its rear end to a rigid section 30, which section is carried into a locked receptacle, not shown, adapted to receive the towels after they have been used, and from which receptacle the towels are removed only when they are to be washed. But the flexible section 29 may be continued to the aforesaid receiving receptacle.

It will be observed that when a towel is removed from its supporting arm 19 it slides down the rigid inclined section 27 of the guide arm or element B, and when it reaches the lower portion of said section 27 the towel will lie flat upon the bottom of the casing as shown in Fig. 3, whereupon the user by introducing the hand into the opening 24 may withdraw the delivered towel from within the casing, and turning it to the front the eyelet 26 will slide down from the rigid upper section 27 of the guide arm on to the flexible section 29, and the flexibility of the said section 29 is sufficient to permit a convenient use of the towel for legitimate purposes. As soon as the towel is released it will slide down the section 29 to the receiving receptacle above referred to.

The drive shaft 11 is turned through the medium of a coin-receiving wheel C of desired diameter, located in the compartment *a*, the said wheel being securely fastened to the said shaft, and adjacent to a side of the said wheel a ratchet wheel 31 is secured to the shaft by a set screw 32 or its equivalent. The teeth of this ratchet wheel are engaged by a tooth 33 carried by a pawl 34 secured to the front wall of the casing as is best shown in Fig. 2; and the tooth 33 is held constantly in engagement with the teeth of the ratchet wheel 31 by means of an attached arm 35, which extends rearwardly and at its rear free end is provided with an adjustable weight 36 held in adjusted position by a set screw 37 or the like. This pawl and ratchet wheel serve to prevent the coin-receiving wheel from turning in a forward direction, since in operation the said wheel should turn only in direction of the rear of the machine. This coin-receiving wheel C is provided with a central peripheral groove 38, and the peripheral portion of the said wheel C is further provided with coin-receiving pockets which are in repeated groups of two or more, preferably three, as illustrated. Each group consists of a pocket 39, a pocket 40 and a pocket 41, the pocket 40 being the intermediate pocket of a group. As is shown in Fig. 5 the intermediate pocket 40 of a group is provided with a concaved bottom 42, and consequently this pocket is of the same depth at each side of the wheel. The pocket 39 is provided also with a concaved bottom 43, but the said bottom 43 has a decided downward inclination in direction of the right-hand side of the wheel C, so that this pocket 39 is of much greater depth at the right-hand side of the wheel than at the left. The pocket 41 is just the reverse of the pocket 39 and its bottom 44 is concaved and has a decided inclination in direction of the left-

hand side of the wheel, so that the left-hand side of a pocket 41 is much deeper than its right-hand side. Consequently if a coin is deposited in a pocket 40 the coin will remain in said pocket until the pocket is practically inverted, and then the coin will drop out from said pocket in direction of the rotation of the wheel; whereas, if a coin is deposited in a pocket 39, as the wheel rotates and the coin is released at the right-hand side of the wheel the coin would naturally roll out from the pocket 39 at the right-hand face of the wheel; in the same manner, if a coin is deposited in a pocket 41 and is not protected at the left-hand side of the wheel, the coin would naturally roll out from the pocket at that side of the wheel.

The pockets in the coin-receiving wheel C are an equal distance apart, and the forward wall of each pocket at its outer end is more or less outwardly inclined as is shown at 45 in Fig. 2, so as to facilitate the ready entrance of a coin to the bottom portion of a pocket; and it may be here stated that the number of teeth in the ratchet wheel 31 corresponds to the number of pockets in the coin-receiving wheel C, and in the operation of said wheel the wheel is moved at each time a distance equivalent to the distance between adjoining pockets, and at such movement of the wheel the teeth 33 of the pawl 34 will move from one tooth in the ratchet wheel 31 to an adjoining tooth, and thus lock the wheel C in position for the proper discharge of the deposited coin from the wheel, and to bring another pocket immediately below the coin slot 46, which is produced in the top portion of the casing A, and this coin slot 46 is surrounded by an outer plate 47, and a sleeve 48 extends down from said coin slot 46, so as to insure the direct passage of the coin to the pocket in the wheel C presented to receive it.

The coin-receiving wheel C is moved the distance of the space between opposing teeth at each inward movement of a plunger 49, the inner end of which plunger at such time is brought into engagement with the coin just deposited in the pocket beneath the coin slot 46. The plunger 49 is entered through an opening in the upper front portion of the casing A, the opening being protected at the front and at the rear by suitable plates 50 and 51, and the inner end of the plunger 49 is moved or has movement in the peripheral slot 38 of the coin-receiving wheel C, as is shown in Figs. 1 and 2, in the following manner:

A weight 53 is mounted to slide in the casing 54 secured to the inner face of the front end portion of the casing A, and a chain 55 is secured to this weight, which chain is carried over a pulley 56 above the cylinder, and is attached to a ring 57 or its equivalent loosely passed through the plunger 49 as best shown in Fig. 2. Thus it will be observed that no springs are employed in the construction of the machine.

At the upper central portion of the coin-receiving wheel C two opposing guide plates 58 and 59 are located, one at each side of the wheel, and these guide plates extend from a point forward of the coin-receiving slot 46 to a point to the rear of the same, which plates are best shown in Fig. 1. These plates form extensions of the upper end of a chute 60, which chute follows the peripheral portion of the wheel C, extending down at both sides thereof in a forward direction, and when the said chute 60 leaves the wheel C it is closed except at its

outer end. The said chute 60 is held in position by an upper brace 61, attached to its upper portion and to the left-hand side wall of the casing, and a lower brace 62 likewise secured to the left-hand wall of the casing.

5 The lower or delivery end of the chute 60 is over a drawer or receptacle 63 as is shown in Fig. 2. This chute 60 is adapted to receive the coins which are placed in the pockets 40, since as the wheel is revolved by the action of the plunger 49 and the coin
10 just entered, all of the coins in the pockets 40 when said pockets are practically inverted, drop from said pockets 40 into the chute 60 and fall into the aforesaid drawer or receptacle 63.

A second chute 64 is located at the left-hand side of
15 the wheel C, and its upper end is connected with the guide plate 58, which plate has an opening 65 therein communicating with the upper portion of said chute 64. This chute 64 is carried downwardly and usually forwardly as is shown in Fig. 2, the arm 35 attached to the
20 pawl 34 being bent to admit of such passage. This chute 64 is closed on all sides, being open at the top and bottom only, and is braced by plates or bars 66, secured to its upper portion and to the left-hand wall of the casing A, and by a lower brace 67 also secured to the
25 left-hand wall of the casing. The lower or delivery end of the chute 64 is immediately over a receptacle or drawer 68, as is shown also in Fig. 2.

When a coin is received in a pocket 41 and the wheel C is turned rearwardly the distance between opposing
30 pockets, the coin will roll from the left-hand end of the pocket, will be received in the chute 64 and will be conducted to the drawer or receptacle 68. A third chute 69 is also employed. This chute is located at the right-hand side of the coin-receiving wheel C, and
35 is connected at its upper portion with the right-hand guide plates 59, which latter plates have an opening therein leading into the upper portion of the chute 69, corresponding to the opening 65 which leads into the chute 64. The chute 69 is shown as being carried down-
40 wardly and rearwardly, and this chute is also closed except at its top and at its bottom, and as shown is held in position by an upper brace 70 secured to the partition 10, and a lower brace 71 which is secured to the left-hand side of the casing A. The lower or de-
45 livery end of the chute 69 is immediately over a drawer or receptacle 72 as is shown in Figs. 1 and 2.

The outer ends of the drawers or receptacles 63, 68 and 72 are without the left-hand side of the casing, and each of these drawers is locked by a different key, so
50 that each drawer is accessible only to an individual holding the special key to the drawer.

When a coin is placed in a pocket 39 and the wheel C is revolved by the plunger 49, the coin will roll out of the pocket 39 and will find its way into the chute 69
55 and from thence into the receptacle 72.

The compartment α' containing the towels is rendered accessible by producing a door, preferably a drop door into the right-hand side of the casing, the hinges α^2 of which door are shown in Fig. 1.

60 In the general operation of the machine, when a coin is dropped into a pocket of the receiving wheel C, the plunger 49 is pressed inward to an engagement with the said coin, thereby turning the wheel a proper distance to bring the coin opposite the upper receiving ends of the chutes 60, 64 and 69, and if the coin is in a

pocket 39 it will roll out at the right-hand side of the wheel into the chute 69; if the coin is in the pocket 41 it will roll out at the left-hand side of the machine into the chute 64, and if the coin is in a pocket 40 it will be carried down by the wheel into the chute 60 when
70 dropped by the said pocket. In this manner there is an equitable distribution of the coin and this distribution takes place simultaneously with the immediate operation of the machine. As the wheel C revolves the endless distributing chain 17 is revolved and the
75 towels 25 on the supporting arm 19 are moved forward, and at each movement of said wheel the foremost towel 25 is carried from its supporting bar 19, travels down the inclined section 27 of the guide arm or element B, and drops to the bottom of the casing, as is
80 shown in Fig. 3, from which the towel may be drawn, but the towel is still around the guide arm or element B, and when the towel is to be used it is permitted to slip to the elastic or yielding section 29 of the guide arm, and when used and released the towel passes, as
85 has been stated, from the guide arm or element to any sealed receptacle placed to receive it.

This machine is exceedingly simple, and is durable and economic. It is well adapted for the purpose intended, positive and reliable in its action, and the
90 distribution of the coin relatively to the number of parts or lots desired is automatically and accurately accomplished.

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

1. In coin-controlled vending machines, a coin-receiving wheel, a device for intermittently operating the coin-receiving wheel through the medium of a received coin, a merchandise distributing mechanism operated by the wheel, and means in connection with the wheel for divid-
100 ing the coins into a plurality of lots.

2. In coin-controlled vending machines, a coin-receiving wheel provided with groups of pockets, each constructed for delivery in a different direction, a device for inter-
105 mittently turning the wheel a certain distance at each operation, a merchandise distributing mechanism operated by the wheel, and a coin distributor for each representative of a group.

3. In coin-controlled vending machines, a coin-receiving wheel provided with groups of pockets, each pocket of a group being constructed for delivering in a different direc-
110 tion, a manually operated device for turning the wheel the distance between pockets at each operation, chutes corresponding in number to the number of pockets in a group and adapted to individually receive coins from indi-
115 vidual pockets of the groups during the rotation of the wheel, and a merchandise distributing mechanism operated by the said wheel.

4. In a coin-controlled vending machine, means for receiving the coins, means in connection with the receiving means for dividing the coins into a plurality of lots, means for operating the receiving means, and a mer-
120 chandise dispensing mechanism operated from and simultaneously with the coin receiver and the dividing means.

5. In a coin operated vending machine, a coin receiving wheel having peripheral pockets for the reception of coin, sundry of said pockets having side outlets and others a peripheral outlet.

6. In a coin-controlled vending machine, a coin receiving wheel having peripheral pockets arranged in groups, each group of pockets comprising a pocket having a deliv-
130 ery at one side of the wheel, a pocket having a delivery at the opposite side of the wheel, and a pocket having a delivery at the peripheral portion of the wheel.

7. In a coin-controlled vending machine, a coin receiving wheel having peripheral pockets arranged in groups, each group of pockets comprising a pocket having a deliv-
135 ery at one side of the wheel, a pocket having a delivery

at the opposite side of the wheel and a pocket having a delivery at the peripheral portion of the wheel, means for turning said wheel, and an independent coin-conducting chute for each representative pocket of a group, which
5 chutes receive the coin from the pockets of the wheel as the said wheel revolves.

8. In a coin-controlled vending machine, a coin receiving wheel having peripheral pockets arranged in groups, each group of pockets comprising a pocket having a delivery at one side of the wheel, a pocket having a delivery at the opposite side of the wheel and a pocket having a delivery at the peripheral portion of the wheel, means for turning said wheel, an independent coin-conducting chute for each representative pocket of a group, which chutes
10 receive the coin from the pockets of the wheel as the said wheel revolves, and a pawl and ratchet mechanism for regulating the extent of the revolution of the wheel and for locking the wheel when said limit is reached.

9. In a coin-controlled vending machine, a coin receiving and dispensing wheel having a series of pockets arranged in groups, one pocket of a group having an inclination at its bottom in direction of one side of the wheel, another pocket of a group having an inclination at its bottom in direction of the opposite side of the wheel, and
15 a third pocket of a group having a concaved transverse bottom portion.

10. In a coin-controlled vending machine, a casing, a coin-receiving and dispensing wheel mounted to turn in said casing, a shaft on which the said wheel is mounted,
20 the wheel being provided with peripheral pockets ar-

ranged at equal distances apart, the pockets being in groups, one pocket of each group having a discharge opening at one side of the wheel, another pocket having a peripheral discharge opening and a third pocket having a discharge opening at the opposite side of the wheel, a
35 plunger operatively mounted in the casing, one end of which has movement over the peripheral portion of said wheel, means for returning a plunger to its normal position, a ratchet wheel secured to the shaft of the coin receiving and distributing wheel, the teeth on the ratchet
40 wheel corresponding to the number of pockets in the coin receiving and distributing wheel, and a pawl normally in engagement with the teeth of the ratchet wheel, for the purposes set forth.

11. In coin-controlled vending machines, a coin receiving wheel provided with groups of pockets, each constructed for delivery in a different direction, a device for intermittently turning the wheel a certain distance at each operation, a merchandise distributing mechanism operated by the wheel, independent coin-distributing chutes
45 arranged one to receive coin from each representative pocket of a group of pockets on the wheel, and independent receivers for the coins at the discharge ends of the said chutes.

In testimony whereof I have signed my name to this
55 specification in the presence of two subscribing witnesses.

ALBERT C. WAY.

Witnesses:

ROBERT A. COPELAND,
FRED. KRUPP.