K. A. OHMAN.

COIN CONTROLLED VENDING MACHINE.

APPLICATION FILED APR. 27, 1911.

1,034,027.

Patented July 30, 1912.

2 SHEETS—SHEET 1.

Fig. 2.

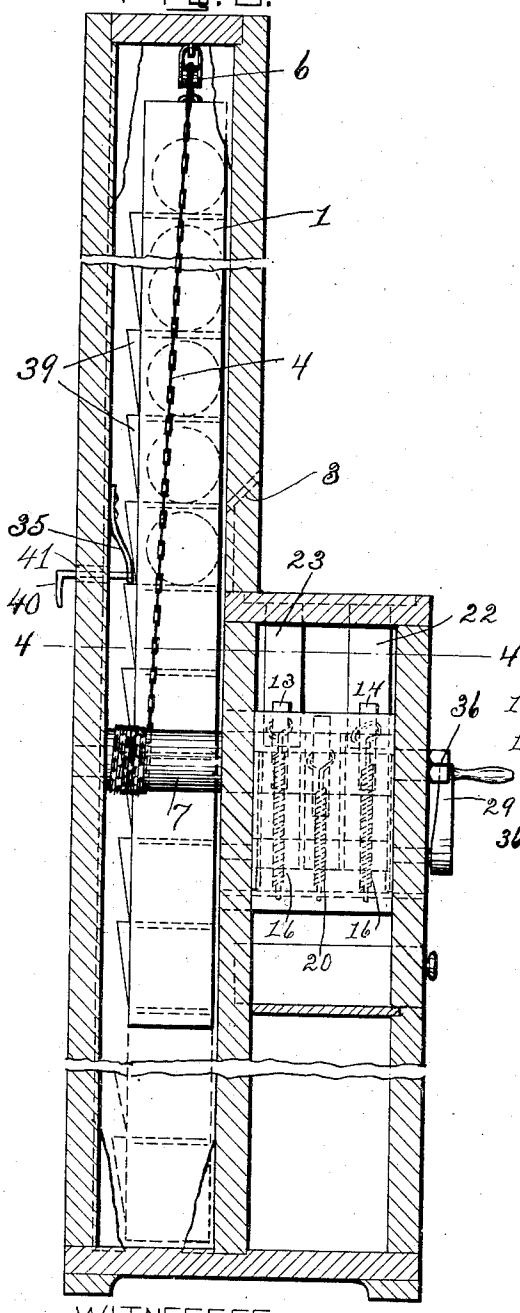
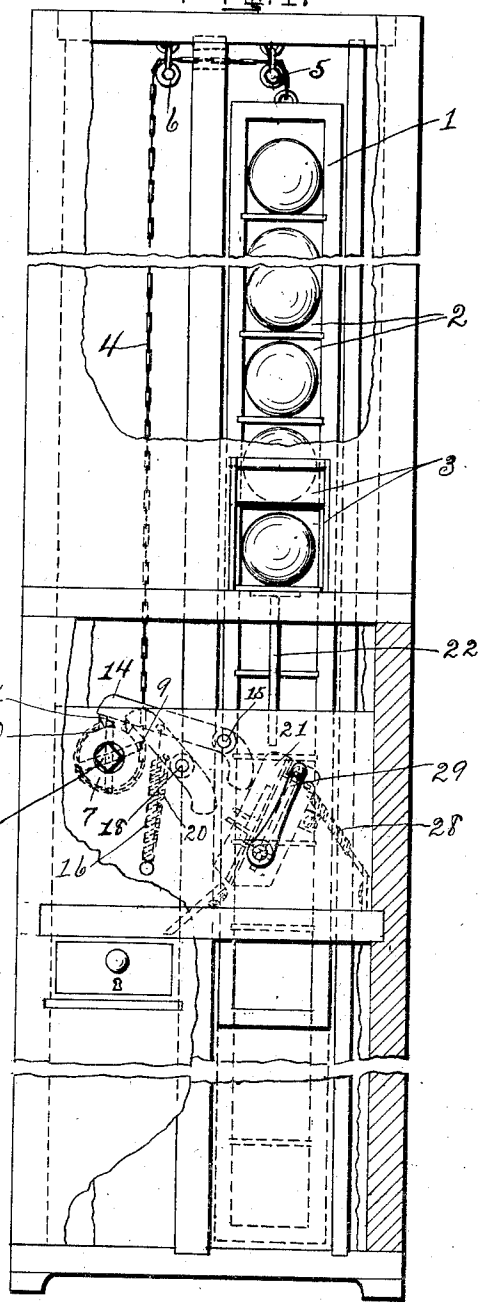


Fig. 1.



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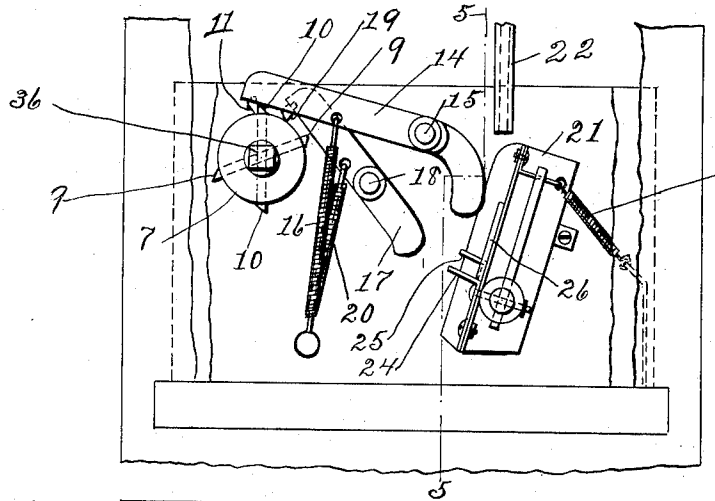

Fig. 3.

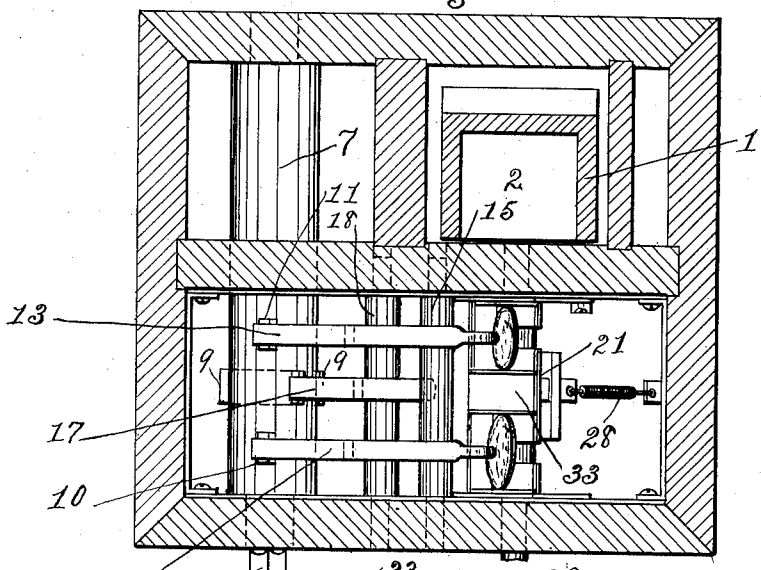

Fig. 4.

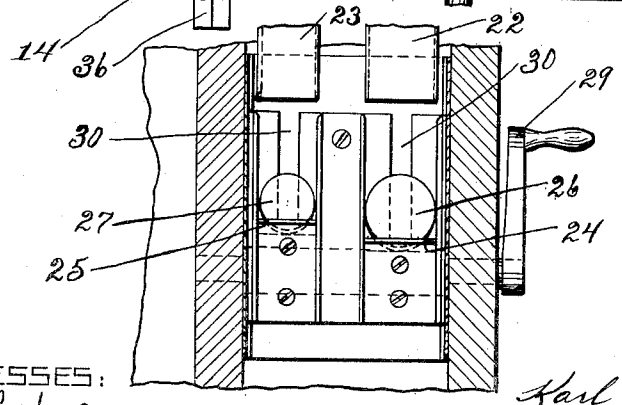

Fig. 5.

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UNITED STATES PATENT OFFICE.

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COIN-CONTROLLED VENDING-MACHINE.

1,034,027. Specification of Letters Patent. Patented July 30, 1912.

Application filed April 27, 1911. Serial No. 623,620.

To all whom it may concern:

Be it known that I, KARL A. OHMAN, a subject of the King of Sweden, residing at Cohoes, county of Albany, and State of New York, have invented certain new and useful Improvements in Coin-Controlled Vending-Machines, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawing and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in front elevation of a coin-controlled vending-machine containing my invention. Fig. 2 is a vertical cross-section of the same taken just inside the end wall of the case of the machine. Fig. 3 is a view on an enlarged scale of the coin-holder and the coin-operated mechanism, showing the same in side elevation. Fig. 4 is a horizontal cross-section taken on the broken line 4—4 in Fig. 2, showing in top plan the operating mechanism which appears in Fig. 3. Fig. 5 is a vertical cross-section taken on the broken line 5—5 in Fig. 3, showing a front elevation of the coin-holder.

The operating mechanism of my improved machine is adapted for the delivery of merchandise of various kinds; and I have shown in the drawings my invention applied to a machine more particularly adapted for vending golf-balls or the like.

Referring to the drawings wherein the invention is shown in preferred form, 1, is a movable rack having a series of pockets, 2, each adapted to receive a golf-ball, and each opening on the front side whereat the pockets are adapted to successively register with an aperture, 3, in the front wall of the case as the machine is from time to time operated. As each pocket, 2, is brought opposite the aperture, 3, the ball is released from said pocket and can be delivered out through said aperture. The rack, 1, is supported in an elevated position by means of a chain, 4, which passes over pulleys, 5 and 6, and is connected with a drum, 7, upon which the chain is wound. The weight of the rack is sufficient to cause it to descend when the drum is left free to rotate.

Normally the drum is held against rotative movement by the engagement of stops, 10, on the drum with stops, 11, on the ends of the respective coin-actuated levers, 13 and 14, both pivotally mounted upon a cross-rod, 15, and normally held in engagement with the drum by means of the respective coil-springs, 16. An escapement lever, 17, fulcrumed at, 18, also has a stop, 19, which is normally held in the path of stops, 9, on the drum by means of a coil-spring, 20.

A movable coin-carrier, 21, is located beneath a pair of coin-chutes, 22 and 23, in position to receive therefrom in pockets, 24 and 25, coins, 26 and 27, of different values. The coin-carrier is held retracted by means of the coil-spring, 28, and is adapted to be moved toward the levers, 13, 14 and 17, by means of a crank-handle, 29, on one of the trunnions whereby the coin-carrier is rotatively mounted. The coin-carrier has in the back wall of each pocket, 24 and 25, a slot 30, adapted to receive the respective levers, 13 and 14, without engaging the same, should the coin-carrier be operated when there is no coin therein. The pockets, 24 and 25, are adapted to support the respective coins across the respective slots, 30, and in position to engage the respective levers, 13 and 14, when the coin-carrier is actuated by the crank-handle.

To operate the machine as shown, it is necessary to insert two coins of proper denomination in the respective chutes, 22 and 23. When these coins have entered the respective pockets, 24 and 25, the crank-handle, 29, is turned to bring the coins into engagement with the respective levers, 13 and 14, and the continued movement of the crank-handle will cause said coins to operate said levers until their stops are moved out of the path of the stops, 10, on the drum permitting the drum to respond to the pull of the chain, 4, and to partially rotate until the stop, 19, on the escapement lever, 17, is engaged by the next stop, 9, in rear thereof on the drum. A further movement of the

crank, 29, causes the coins to pass beneath and past the engaged ends of the levers, 13 and 14; and as the coin-carrier becomes more inclined, the coins fall therefrom into a cash-drawer, 32, placed to receive them. The final movement of the coin-carrier, 21, which thus deposits the coins in the cash-drawer brings into engagement with the end of the lever, 17, an unslotted or solid portion of the coin-carrier whereby said lever is operated to cause its stop, 19, to be raised out of the path of the pin, 9, with which it is in engagement. Meanwhile, the levers, 13 and 14, have been released from engagement with the coins and have resumed their normal position with their stops, 11, in the path of the stops, 10, on the drum. It will thus be seen that each full inward movement of the coin-carrier, 21, will permit the drum to partake of approximately one-half of a complete rotation, the operation of the levers, 13 and 14, removing the stops, 11, from engagement with one set of stops, 10, on the drum whereby the drum is permitted to partially rotate until the next rearwardly located stop, 9, on the drum engages the stop, 19, on the lever, 17; and when the lever, 17, is operated to release the stop, 9, a further partial rotative movement of the drum is permitted until the next rearwardly located set of stops, 10, engages the stops, 11, on the levers, 13 and 14, which have meanwhile resumed their normal positions. The diameter of the drum, 17, is such that a half rotation thereof will permit the rack, 1, to descend a distance equal to the height of one of the pockets, 2.

The machine shown and described is particularly adapted for vending golf-balls at a price of seventy-five cents; the coin-chutes being adapted to receive half-dollars and quarter-dollars respectively.

For vending merchandise the price of which can be represented by a single coin, one of the levers, 13 and 14, with its corresponding coin-chute can be omitted.

When it is desired to elevate the rack, 1, the chain, 4, can be wound upon the drum, 7, by rotating the drum in the proper direction by means of a key or wrench applied to the angular end, 36, of the drum-trunnion, the several stops being beveled to permit them to ride past one another when the drum is rotated in the direction last referred to.

A spring, 35, engages a toothed rack, 39, on the back of the rack, 1, serving to steady the rack and prevent an unintentional upward movement thereof.

During the winding up of the drum, 7, as above described, the spring, 35, is held out of engagement with the toothed rack, 39, by hand, said spring having an arm, 40, projecting through an aperture, 41, in the end-wall of the case for that purpose.

What I claim as new and desire to secure by Letters Patent is—

1. In a machine of the class described, and in combination, a rotatively mounted drum; means tending to rotate by said drum; a pair of levers; stops on the respective levers and drum adapted to permit an escapement movement of the drum when said levers are successively operated; a coin-carrier by movement of which said levers are successively actuated, said carrier having means for supporting a coin in position to engage the first actuated lever; and external means for operating said coin-carrier.

2. In a machine of the class described, and in combination, a movable coin-carrier having a coin-pocket provided with an opening in the wall thereof; external means for moving said coin-carrier; a coin-chute leading to said pocket; a rotatively mounted drum; means tending to rotate said drum; a lever pivotally mounted opposite said pocket and adapted to play through the opening in the wall thereof and adapted to be engaged by a coin located in said pocket during the initial movement of said carrier, and to automatically release said coin before the final movement of said carrier; an escapement lever mounted in the path of said coin-carrier and adapted to be operated by the final movement thereof; and stops on the respective levers and drum to permit an escapement movement of the drum as said levers are successively operated.

3. In a machine of the class described, and in combination, a rotatively mounted drum; means tending to rotate said drum; a pair of levers; a third lever; stops on the respective levers and drum adapted to permit an escapement movement of the drum when said third lever is operated in alternation with said pair of levers; a coin-carrier by movement of which said levers are successively actuated, said carrier having means for supporting two coins in position to engage, respectively, said pair of levers; and external means for operating said coin-carrier.

4. In a machine of the class described, and in combination, a rotatively mounted drum; means tending to rotate said drum; a movable coin-carrier having a plurality of coin-pockets severally provided with an opening in the wall thereof; external means for moving said coin-carrier; a like plurality of coin-chutes for coins of different denominations leading to the respective pockets in the coin-carrier; a pair of levers pivotally mounted opposite the respective coin-pockets, and adapted to play through the respective openings in the walls thereof, and each to be engaged by a coin located in the respective pocket during the initial movement of said carrier, and to automatically release said coin before the final movement

of said carrier; an escapement lever mounted in the path of said coin-carrier, and adapted to be operated by the final movement thereof; and stops on the respective levers and drum to permit an escapement movement of the drum as said two levers and said escapement-lever are successively operated.

In testimony whereof, I have hereunto set my hand this 24th day of April, 1911.

KARL A. OHMAN.

Witnesses:
J. E. DONSBACH,
R. A. LEDUC.