Dec. 12, 1933. E. GRAF 1,938,834

COIN CONTROLLED VENDING MACHINE

Filed Dec. 17, 1931

Fig. 1

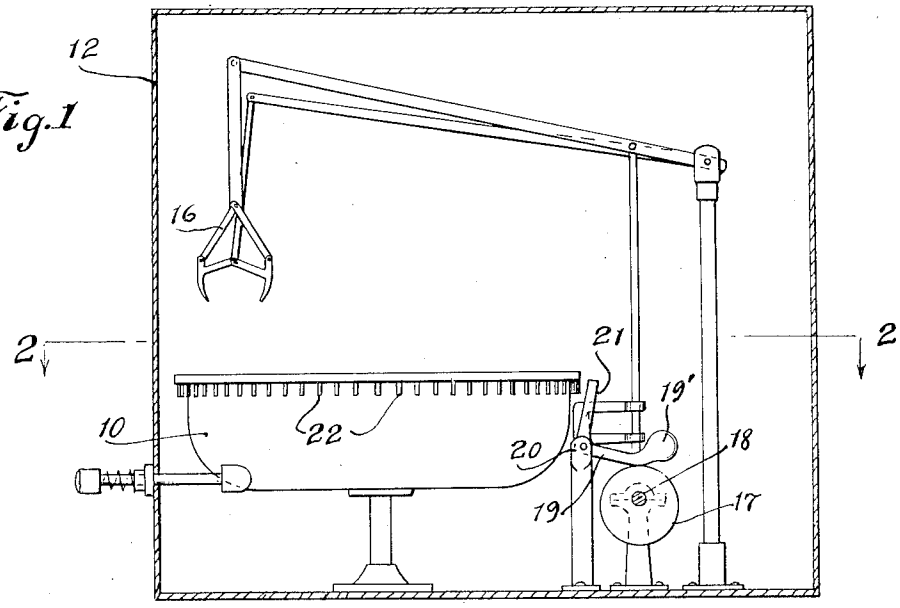


Fig. 2

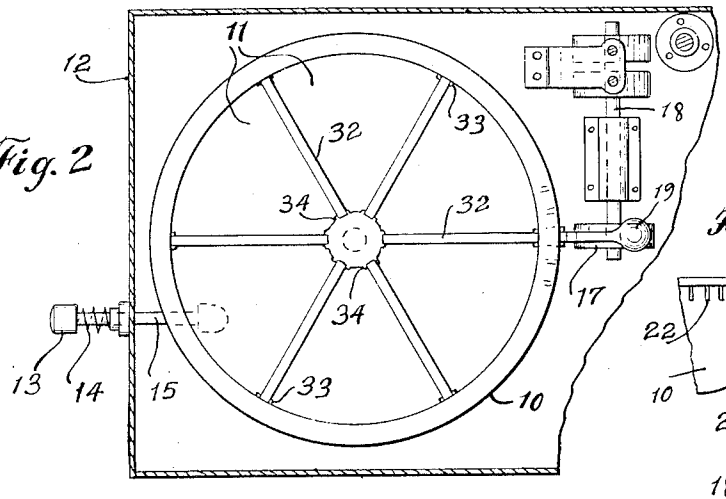
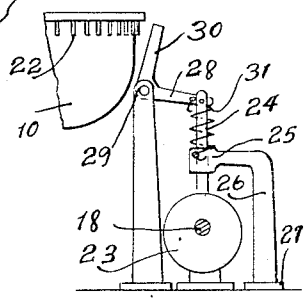


Fig. 3



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COIN-CONTROLLED VENDING MACHINE

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Serial No. 581,610

5 Claims. (Cl. 221—146)

This invention relates to new and useful improvements in coin-controlled vending machines, and has for its specific object to control and secure in a fixed position the member serving as a support for things or articles to be displayed for sale, whether these are toys, candy or the like, and without regard to whether the said member has the shape of a disk or a bowl.

As the construction is comparatively simple, the cost of adding this improvement to the vending machines, now commonly known, would be insignificant.

With the above and other objects in view, this invention consists of the novel features of construction, combination and arrangement of parts, hereinafter fully described, claimed and illustrated in the accompanying drawing forming part of this application, and in which similar characters of reference indicate corresponding parts in all views, and in which:

Figure 1 is a side elevational view of my device; while

Figure 2 is a top plan view of same; and

Figure 3 shows a modification of said device.

Referring more particularly to the drawing, which illustrates a vending machine in part only, or to the extent of showing my improved device in relation thereto, 10 indicates a rotating member, in this instance a bowl, divided into interchangeable compartments 11, by means of a system of removable partitions 32, which are inserted and held between the lugs 33 and 34, respectively. The said member is enclosed in a casing 12, of the usual kind, in front of which is the ordinary push-button 13, which is connected to a rod 15, and held in normal or inactive position by means of a coiled spring 14. The said rod has at its inner end provided means usually in form of a rubber pad, for rotating the said member 10, for the purpose of bringing the article selected upon the said member in front of the usual discharge opening.

When a coin is deposited in the slot of the vending machine the usual operation, or relative movements of the mechanisms, takes place with the result that the gripping members 16 are lowered and made to pick up the article selected from the member or bowl 10, for delivery to the purchaser, or depositor of the coin.

However, it is essential that during such latter movement the member, or bowl, 10 is made to stand still, or becomes arrested, so that no further turning movement can be imparted to the said bowl by means of operating the outside knob 13.

This is accomplished by adding to the usual mechanism, the following new features or elements:

An eccentric disk 17 is mounted upon a rotating rod 18, which forms part of the now commonly used mechanism; the said disk 17 is made to operate a lever 19, terminating in a weighted portion 19', and pivotally arranged upon an upright, as shown at 20; the said lever actuating in turn an arm 21, that engages the member or bowl 10 by means of a gearing 22 formed upon the edges of the latter, and thereby secures a stop of said bowl. It is evident that such arresting movement of the bowl must be timed to co-operate with the action of the gripping members 16.

Thus, once the mechanism of the vending machine is set in motion by depositing a coin, the member, or bowl, 10 will stand still during the mechanical function of the gripping members 16.

A modification of my actual device is shown in Figure 3, where an eccentric disk 23 is mounted upon a rotating rod 18, as shown in Figure 1; the said disk is made to operate a plunger 24, which is guided in a tube 25 secured to a framework 26, the latter being fastened to the bottom of the casing, as shown at 27; the upper end of the said plunger is in turn connected to an arm 28 of a bifurcated lever, which is pivotally mounted, as shown at 29, and which has its other arm 30 adapted to engage with a gearing 22, formed upon the edges of the bowl 10, and arrest the latter, when the said plunger is acted upon by the eccentric disk 23. When the said plunger is not pushed upwardly by the said disk, the coiled spring 31, mounted upon the upper end of the plunger 24, will urge the latter downwardy with the result that the arm 30 becomes disengaged from the gearing 22 of the member or bow 10, and the latter will again be free to move.

This arrangement naturally again presupposes a proper timing for the sake of securing an exact co-operation of the different elements, as formerly stated.

It is obvious that changes may be made in the form, construction and arrangement of the several parts, as shown, without departing from the spirit of the invention, and well within the scope of the appended claims, and I do not therefore desire to limit myself to the exact construction and arrangement, shown and described herein.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

1. In a coin-controlled vending machine, a centrally mounted, rotating bowl, interchangeable partitions arranged in the latter, and means for securing said partitions in place, a gearing

upon the edges of the said bowl, an eccentric disk mounted upon a rod, a plunger arranged in a knee-bent frame-member and adapted to cooperate with the said disk, a bifurcated lever turnably mounted upon an upright and having one arm pivotally connected to the said plunger, the other arm of the said lever being adapted to engage and arrest the said bowl in timed cooperation with members adapted to remove and discharge articles from the said bowl, and a spring mounted upon the said plunger and coacting with the latter.

2. In a vending machine, a commodity container, manually operable means for adjusting the position of the container, and automatic grappling means for picking up and removing commodities located in the container.

3. In a vending machine, an article container, grappling means for grasping articles located in the container which means is adapted to move in a fixed path to a point within the container, and manually operable means for adjusting the position of the container, whereby certain articles in the container may be placed in position to be grasped by the grappling means.

4. In a vending machine, an enclosed cabinet, an adjustable commodity container mounted in the cabinet, means extending externally of the cabinet for moving the container in circular directions, and means in the cabinet for grasping and removing commodities located in the container.

5. In a vending machine, an enclosed cabinet, an adjustable commodity container mounted in the cabinet, means extending externally of the cabinet for moving the container in circular and horizontal directions, and means in the cabinet for grasping and removing commodities located in the container.

EMIL GRAF.