C. W. MABEY.

NUT WARMING AND VENDING MACHINE.

APPLICATION FILED SEPT. 24, 1921.

1,425,531.

Patented Aug. 15, 1922.

2 SHEETS—SHEET 1.

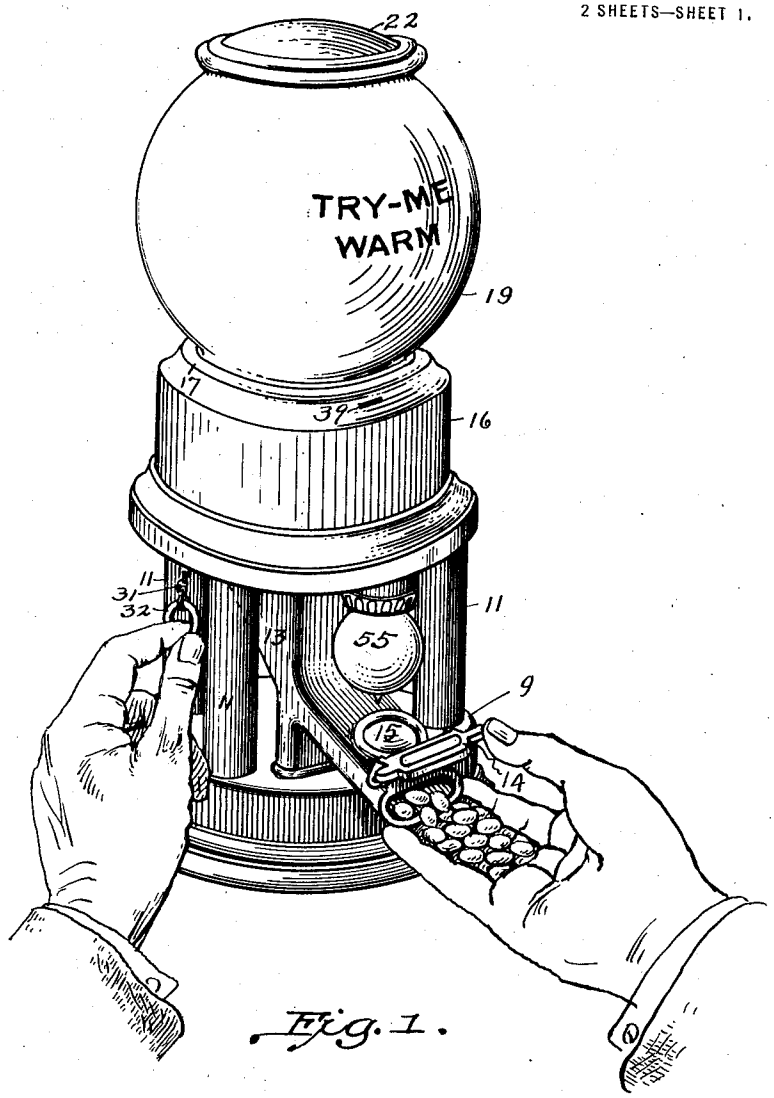

Fig. 1.

Inventor,
Charles W. Mabey,
By Joseph A. Minturn
Attorney.

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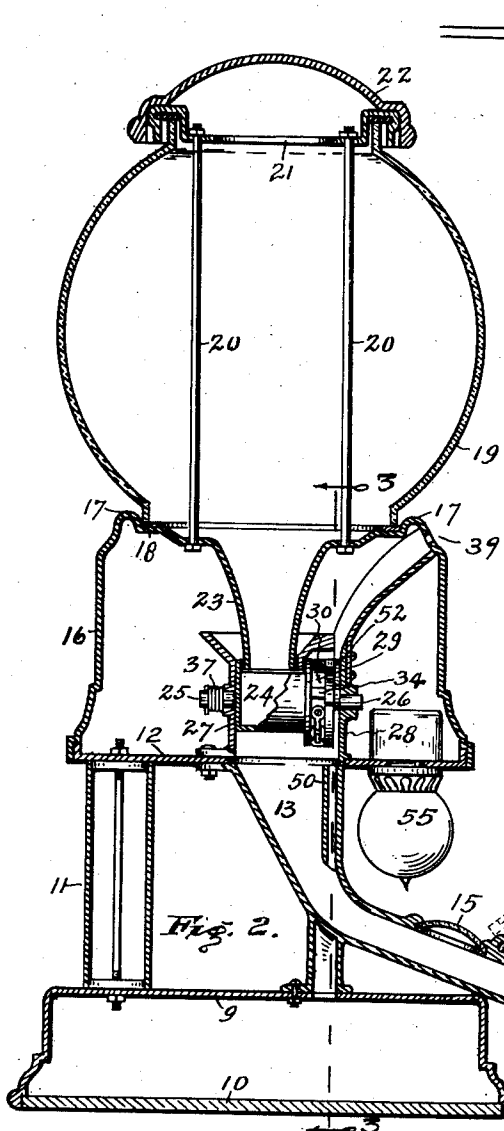

Fig. 2.

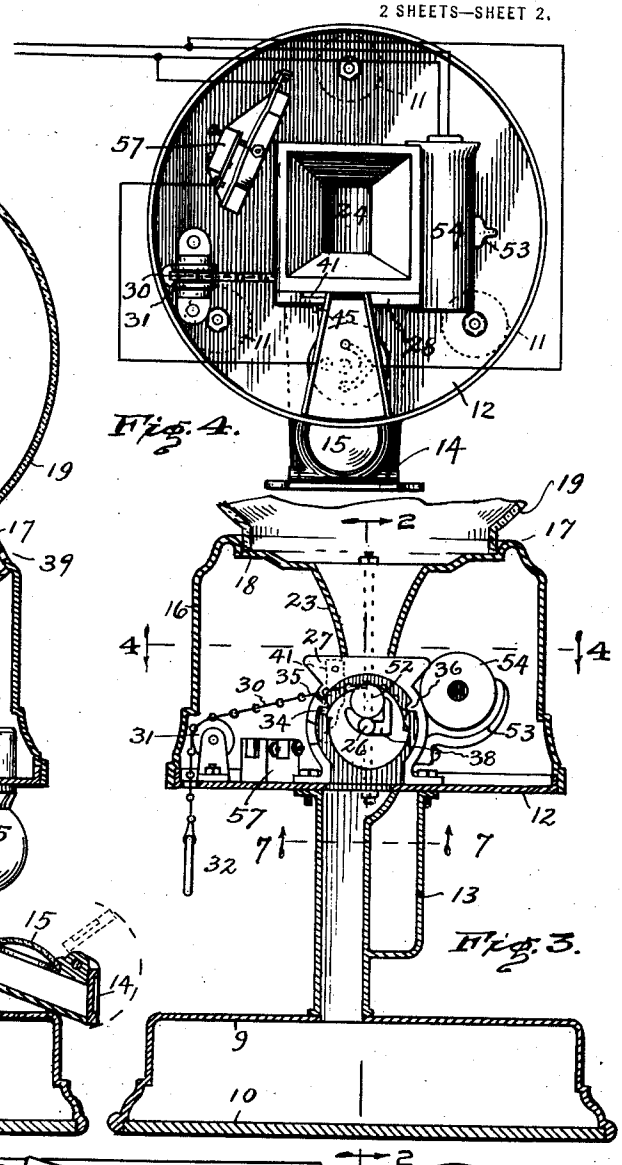

Fig. 3.

Fig. 4.

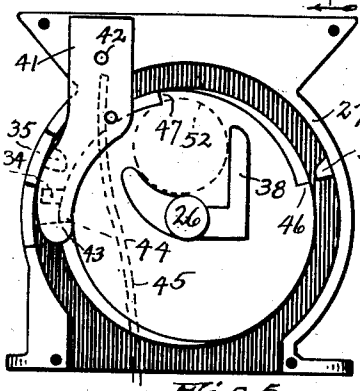

Fig. 5.

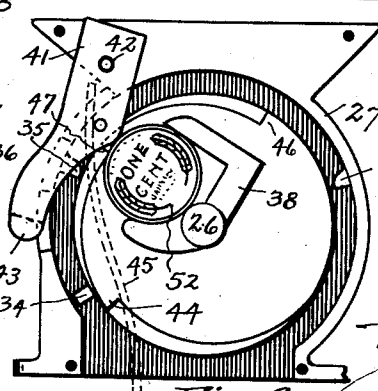

Fig. 6.

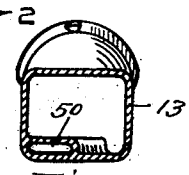

Fig. 7.

Inventor

Charles W. Mabey,

By Joseph A. Minturn

Attorney.

UNITED STATES PATENT OFFICE.

CHARLES W. MABEY, OF INDIANAPOLIS, INDIANA.

NUT WARMING AND VENDING MACHINE.

1,425,531. Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed September 24, 1921. Serial No. 502,952.

To all whom it may concern:

Be it known that I, CHARLES W. MABEY, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Nut Warming and Vending Machines, of which the following is a specification.

This invention relates to machines for vending peanuts and like commodities which are more appetizing when served warm, and an object of the invention is so to apply the heat that only the nuts about to be vended will be warmed while the bulk in reserve will remain cool and thereby kept from becoming rancid and deteriorated in quality.

A further object is so to apply the manual force required to operate the vending mechanism that it will hold the machine down on its support and in the position which it is desired to have it occupy thereby making a heavily weighted machine unnecessary and permitting of a correspondingly lighter and cheaper construction.

An additional object is to deliver the vended product through a chute controlled by a door and discharging over a space sufficiently large and convenient for the positioning of the hand of the purchaser to catch it when the door is opened, thereby providing a more sanitary means than discharging the nuts into a cavity to be raked out by hand, as is the present prevailing method.

I accomplish the above, the other objects which will hereinafter appear, by the mechanism illustrated in the accompanying drawings, in which—

Fig. 1, is a perspective view of my complete invention showing the manner of its manipulation. Fig. 2, is a vertical central section on the line 2—2 of Fig. 3. Fig. 3, is a section of the lower major portion of the device on the line 3—3 of Fig. 2. Fig. 4, is a top plan view looking down from the line 4—4 of Fig. 3, with the glass globe and the housing on which the globe is supported, removed. Fig. 5, is a view on the dotted line 3—3 of Fig. 2, of the coin operated mechanism in its initial locked position with the coin indicated by dotted lines. Fig. 6 is a like view of the same part, with a coin inserted and the parts moved to an unlocked position of the mechanism, the last two figures being on a larger scale than the other figures of the drawings, and Fig. 7 is a cross section on the line 7—7 through the coin-passage and vending-chute, looking upwardly.

Like characters of reference indicate like parts throughout the several views of the drawings.

My improved vending apparatus is here shown as mounted on a spun metal base 9 having an underside cavity closed by a removable bottom 10 and forming a receptacle to receive the coins that are deposited in the machine. For the better safe keeping of the coins the parts 9 and 10 may be held together by any suitable lock (not shown). Supported on a plurality of vertical cylindrical columns 11, here shown as three in number which rest on the base 9, is a table 12, at a sufficient height above base 9 for the proper assembly of an oblique chute 13 through which the nut or other product will be discharged. This chute 13 takes from a suitable opening in the bottom of the table 12 at or near the center of the table and extends to and beyond the base 9 at the front of the machine as clearly illustrated in Fig. 2 to provide an overhanging discharge end under which the purchaser's fingers or hand may be placed to catch the vended product delivered through the chute. A spring closed door 14 closes the discharge end of the chute and is hinged at its upper edge to the chute in the manner illustrated in Figs. 1, 2 and 4. A spring (not shown) is wrapped around the pin of this hinge in the usual manner to normally close the door, and the door is opened by the operator in the manner shown in Figs. 1 and 2 to obtain the vended product delivered through the chute. A sight-opening is preferably provided in the upper wall of the chute, near the discharge end of the latter, to enable the purchaser to examine his purchase and to note the sanitary condition of the chute. This opening will preferably be closed by a glass 15.

Supported by the table 12 is a spun metal housing 16 the walls of which are continued inwardly to form a half-round annular flange 17, inwardly of which is a horizontal annular extension 18 forming the support for a glass globe 19. The globe 19 is the receptacle for the peanuts or other commodity in bulk to be vended. It is secured to the inward extension of housing 16 by bolts 20 which pass through a suitably formed metal ring 21 on the flange at the upper open end of globe 19. A removable metal

cap 22 is seated on the ring 21, and is taken off for supplying the globe 19 with nuts through the central opening in ring 21. The cap 22 will be provided with a suitable lock (not shown) for preventing the unauthorized removal of the cap.

The inward extension of the walls of the housing 16 terminate with a central hopper-shaped member 23 which discharges into a rocking drum 24. The drum 24 is formed with a trunnion 25 at one end and trunnion 26 at its opposite end, and the drum 24 is rotatably mounted on the trunnions 25 and 26, in a housing 27. An end 28 of the housing is removable for the assembly of the drum and associated parts in the housing. The end of the drum next to the trunnion 26 is increased in diameter and formed with an annular channel 29 in which the end of a chain 30 is fastened and in which the chain is wrapped nearly around the drum. It is continued through a suitable opening in the housing to and over a pulley 31 supported on a standard resting on the table 12. This chain is carried over the pulley and down through a hole in the table and terminates below the table with a ring 32 adapted to be grasped by the fingers in manually operating the device.

The rocking movement of the drum 24 is limited by a lug 34 in the channel 29 and lugs 35 and 36 from the housing which extend into the path of lug 34. A normal position of the drum with lug 34 in contact with lug 35 is obtained by a spring 37 (see Fig. 2) wrapped around the trunnion 25. In this position the drum 24 has an opening through its wall that registers with the discharge end of hopper 23, causing the drum to be filled with nuts from the globe 19, and a rotation of the drum to bring its opening to the bottom and cause it to discharge its contents by gravity into the chute 13 takes place by a downward pull on ring 32 attached to the chain 30 wrapped around the drum. The stop 35 arrests the drum 24 in the right position for the drum to fill through hopper 23 and the lug 36 arrests the drum in right position for its opening to discharge through chute 13 when inverted. The capacity of the drum measures the quantity of the vended product to be supplied to the customer at each operation of the machine, and I will now describe the mechanism by which the discharge of the machine is controlled by the insertion of a suitable coin.

Formed on the end of the drum next to the trunnion 26, is an approximately V-shaped flange 38, see Figs. 5 and 6, which acts as a holder for a coin 52, here shown as one cent, which is fed into the machine through a slot 39 in the wall of housing 16, and into an oblique slideway 40 which conducts the penny to a slot in the housing and deposits it in the fork of the V-shaped flange 38, in the manner shown in full lines of Fig. 3. A vertical lever 41 is pivoted at 42 to the end of housing 27 so its depending portion is in the path of the coin. The lower end of this lever 41 has an inturned lug 43 located in the annular space between the drum and housing, and the notch 44 in the adjacent end of the drum contacts lug 43 to prevent rotation of the drum by a pull on the ring 32 of chain 30. There is sufficient play and lost motion in this assembly for the coin to be brought into contact first with lever 41 to swing the lug 43 out of the path of notch 44 and allow the drum to rotate by a pull on ring 32, when a suitable coin is in the machine. When no coin is present the lock occurs between the lug 43 and notch 44. As soon as the drum has rotated far enough for the coin to pass the lower end of the lever 41, the coin discharges by gravity. The lever 41 is normally pressed towards the drum by a spring 45, and when the above coin release occurs the lever 41 is swung in by the spring bringing its lug 43 against the periphery of the drum to assist lugs 34 and 36 in arresting a further rotation of the drum by contacting a notch 46 on the periphery of the drum.

To prevent improper manipulation of the machine, as by holding the chain before the drum has returned to its normal filling position, and feeding nuts through by a series of short rocking movements of the drum, I provide a third notch 47 in the drum periphery between the notches 44 and 46 to lock on lug 43 of lever 41 before the drum filling opening has moved down far enough to dump.

When the coin is discharged from the V-shaped flange on the drum it drops into a small chute 50 that passes down through the chute 13, but so far to one side and so small as not to interfere with the discharge of nuts through the chute 13.

Supported by a bracket 53 alongside of the housing 27 is a metal cylinder 54 which contacts the housing 27 and contains an electrical heating unit of any usual and suitable construction (not shown), the purpose of which is to heat the housing and thereby heat the drum 24 and its contents, so that peanuts and the like, will be served to the customer in warm condition. It will be noted however that there is no contact between the cylinder 54 of the heating element and the hopper 23 supplying the vendable product from globe 19, and also that there is ample air-space around the hopper 23 to air-cool the contents of the hopper and keep the bulk of the product in reserve from being heated and spoiled by long and continued heating before being eaten.

Depending from the table 12, in front of the chute 13 and above the discharge from

the latter is an electric lamp 55, the prime purpose of which is to attract attention to the vending machine, and secondarily to warm the table and chute through which the vended product is immediately supplied to the customer. The attractiveness of the light is increased by automatically flashing it by passing the current to the lamp through a thermostatic flasher 57 supported on the table 12. The wiring for the heating-unit, lamp, and flasher is diagrammed in Fig 4.

Having thus fully described my invention, what I claim as new and wish to secure by Letters Patent of the United States is:—

1. In a vending machine, a rocking drum having an opening through which the drum is filled when the opening is at the top of the drum and through which the contents of the drum is discharged when the position of the opening is reversed, means for locking the drum in its filled position, means made effective by the presence in it of a coin for unlocking the drum, and manually operated means comprising a pull-chain wrapped on the drum for rocking the drum to empty it when unlocked.

2. In a vending machine, a rocking drum having an opening through which the drum is filled when the opening is at the top of the drum and through which the contents of the drum is discharged when the position of the opening is reversed, means for locking the drum in its filled position, means made effective by the presence in it of a coin for unlocking the drum, and manually operated means comprising a pull-chain wrapped on the drum operated by a vertically downward pull for rocking the drum to empty it when unlocked.

3. In a vending machine, a horizontally rotatable drum having an opening through its side through which it is filled and discharged by gravity, a pull-chain wrapped on the drum for manually rocking it to emptying position, spring means to return it to filling position, stops to determine the open and closed position of the drum, and coin controlled means for unlocking the drum for its discharge.

Signed at Indianapolis, Indiana, this the 20th day of September, 1921.

CHARLES W. MABEY.