

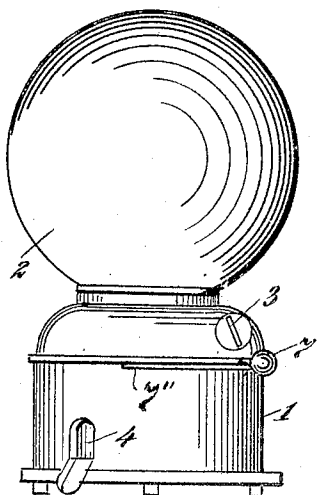
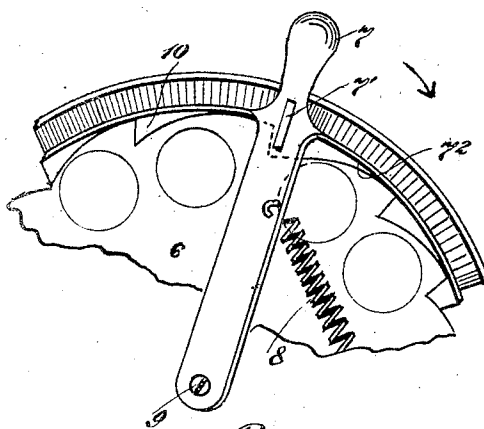
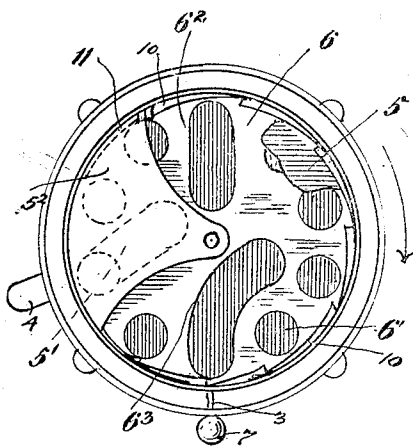
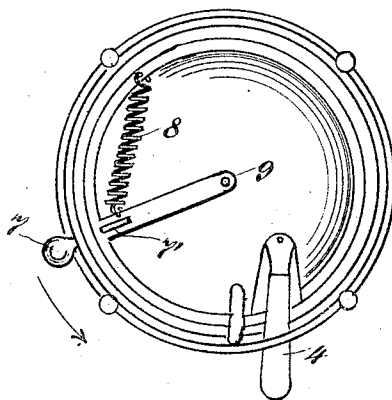
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1,475,730

J. H. WALTER

VENDING MACHINE

Filed Oct. 16, 1920



Inventor
John H. Walter.

By *his* Attorney *J. O. Fowler.*

UNITED STATES PATENT OFFICE.

JOHN H. WALTER, OF BROOKLYN, NEW YORK.

VENDING MACHINE.

Application filed October 16, 1920. Serial No. 417,475.

To all whom it may concern:

Be it known that I, JOHN H. WALTER, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Vending Machine, of which the following is a specification, the same being a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to coin controlled apparatus and particularly to an organization of that class which automatically, upon the deposition of a coin, delivers one or more articles that are stored in the machine, and particularly to a vending device constructed and arranged to dispense at the various operations thereof several and different numbers of the said articles upon the insertion of a coin of a given denomination.

One object of the invention is to leave it undetermined in the mind of the operator as to how many articles will be dispensed by the apparatus upon the insertion of a coin and the operation of a manually actuated device attached to the machine, which element of uncertainty causes added interest to be taken in the device.

Another object of the invention is to provide a new and improved vending machine which will be inexpensive in cost of manufacture, very simple and durable in construction and most reliable in its operation.

To attain the said desired and other ends, the invention consists in the construction, arrangement and operation of parts hereinafter more fully set forth and shown in the drawings, illustrative of one embodiment of the invention, which accompany and form a part of this specification, and in which—

Figure 1 represents an elevation of a machine constructed according to my invention;

Figure 2 is a view in detail of my manually actuated device;

Figure 3 is a plan view; and

Figure 4 is a view of the bottom of the machine.

Referring particularly to the drawings, the numeral 1 denotes the body of the machine which may have a magazine 2 of any desired or suitable construction to contain the articles to be dispensed. The said body preferably has a horizontal shelf or parti-

tion 5² projecting only part way into the mouth of the magazine, a coin chute 3 and a dispensing or discharge chute 4. Adjacent to and preferably above the said shelf is positioned a delivery tray or wheel 6 rotatable about the pivot 9 and having formed therein cells of varying dimensions, as 6', 6², 6³ communicating with the mouth or lower opening of the magazine or container, each cell being constructed and arranged, during the rotation of the wheel, to register serially with an opening 5' formed in the shelf 5, the latter communicating with the discharge chute 4. The cells 6' are preferably made of such a size as to hold a single vendible article, and the cell 6² to hold two articles, and the cell 6³ to hold three of such goods, the cells 6² and 6³ being spaced from each other.

The wheel 6 preferably has on its periphery a series of inclined teeth 10 equal in number to the adjacent cells, the said wheel being held from backward rotation by a spring detent 11 constructed and arranged to ride over the inclined portions of the said teeth and to successively rest against the radial edges of the same. The said teeth serve to provide an abutment for an inserted coin and also for the detent 11 to prevent undue rearward movement of the said wheel or tray.

I also provide means to operate the machine comprising a handle 7 in which is formed a slot 7' the said handle being pivoted at 9 between the shelves 5 and 5² and held in normal inoperative position by a spring 8, in which position the slot 7' registers with the coin chute 3 and also with and lies in front of the radial edge of one of the teeth 10, in which position the handle may be turned without operating the dispensing mechanism of the apparatus, and turns on its axial pivot 9 and has guide arms 7² diverging from the said handle and registering with the curvature of and working along the interior wall of the machine which guide arms serve to cause the handle to work with a steady and uniform movement. The step or length of the stroke movement of the handle equals the length of the slot 7' formed in the body 1 and that of one of the teeth 10.

Upon the insertion of a coin, however, a locking connection is made by the latter between the slot 7' and the registering radial edge of one of the teeth 10 whereby the

movement of the said handle will feed the wheel 6 along one notch or tooth by a step by step motion. The cells are kept filled by the entrance therein of the articles in the magazine 2 and a partial rotation of the wheel 6 intermediate the shelf 5 and the magazine 2 will cause one of the cells, as for example 6', charged with an article to move over the incline 5' and pass over the inclined edge of the latter and fall between the shelf 5 and superposed shelf 5² and the said article will be discharged into the chute 4.

In case the wheel 6 happens to be rotated a sufficient distance for either of the cells 6² or 6³ to register with the opening or port 5' upon the operation of the apparatus by the handle 7, either two or three of the articles, as the case may be, will be dispensed, whereby various and different numbers of the said articles will be dispensed at different operations of the machine upon the insertion of coins preferably of a given denomination.

The shelf 5² serves to enter the massed articles to be vended falling from the magazine 2 on the slotted wheel 6 and to permit them to lie in one plane only as they approach the discharge chute 4. The side curvature of the edges of the shelf 5² are made so as to conform with the curvature of the cells or slots 6² and 6³ formed in the said wheel or tray 6. The said shelf 5² extends only part way over the wheel 6 in order that the slots of the latter—which lie directly below the mouth of the magazine—will be filled by the articles falling down from the magazine. The shelf 5² is, however, made wide enough to cover the long slots or cells 6² and 6³, and although the port 5' is shorter in length than the long slot 6³ yet the inclined edges of the same cause the articles filling the inner part of the slot 6³ away from the port to successively follow those in the outer part of the cell above the port and to roll and follow each other into the said port and thereafter to fall into the discharge chute 4. The width of the port 5' being approximately only that of the cells, any danger of simultaneous registration of a long cell and a short cell with the port is obviated, the small slots or cells and the outer portions of the large ones being arranged in a circle and at least one long slot being bent behind an adjacent short one.

Obviously the number, size and position of the cells may be changed in order to suit the requirements of any given case, the fundamental idea of the invention consisting in the dispensing of different numbers of articles by the same movement of the manually actuated device and the insertion of coins of preferably the same denomination.

I wish it to be understood that I do not

desire to be limited to the particular use or the exact details of construction shown and described, for obvious modifications will occur to persons skilled in the art.

What I claim as my invention is:—

1. In a vending machine, a magazine to contain articles and having an opening at the bottom of the same, a stationary shelf in said opening having a continuously open tangential delivery orifice, a superposed relatively rotatable delivery wheel with a plurality of equally spaced axially disposed peripheral cells one being longer than the radius of the wheel to contain a plurality of articles and curved behind adjacent smaller cells so that different portions of the same shall consecutively register with the delivery orifice to prevent choking of the same by dropping the articles with which it is charged seriatim, a stationary supplemental shelf above the said wheel and extending over the centre of the magazine opening and positioned above the delivery orifice and curved so as to conform in contour with the said curved cell to cover an aligned cell and also to prevent more than a single layer of articles from passing between the said shelf and the delivery orifice the length of which is intermediate the diameters of the small and curved cells.

2. In a vending machine, a magazine to contain articles and having an opening at the bottom of the same, a stationary shelf in said opening having a continuously open tangential delivery orifice, a superposed relatively rotatable delivery wheel with a plurality of equally spaced axially disposed peripheral cells one being longer than the radius of the wheel to contain three articles and curved behind adjacent smaller cells so that different portions of the same shall consecutively register with the delivery orifice to prevent choking of the same by dropping each of the three articles with which it is charged seriatim, a stationary supplemental shelf above the said wheel and extending over the centre of the magazine opening and positioned above the delivery orifice and curved so as to conform in contour with the said curved cell to cover an aligned cell and also to prevent more than a single layer of articles from passing between the said shelf and the delivery orifice the length of which is intermediate the diameters of the small and curved cells, and means by a single operation to periodically impel the delivery wheel a distance equal to that between the centre of two adjacent cells to cause each cell to register with the delivery orifice consecutively.

Signed at New York, in the county of New York and State of New York, this 11th day of October, A. D. 1920.

JOHN H. WALTER.