Feb. 20, 1923. 1,446,381

G. H. DENT

COMBINED BOTTLE VENDING MACHINE AND REFRIGERATOR

Filed June 22, 1922 2 sheets-sheet 1

Fig. 1.

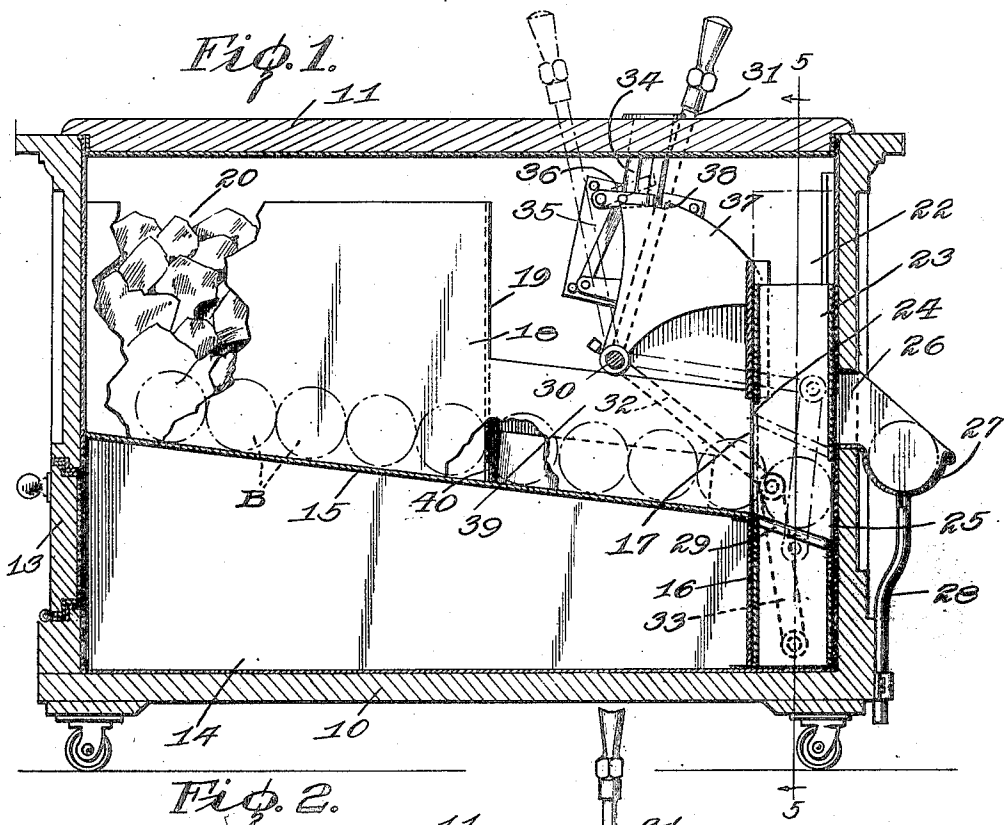


Fig. 2.

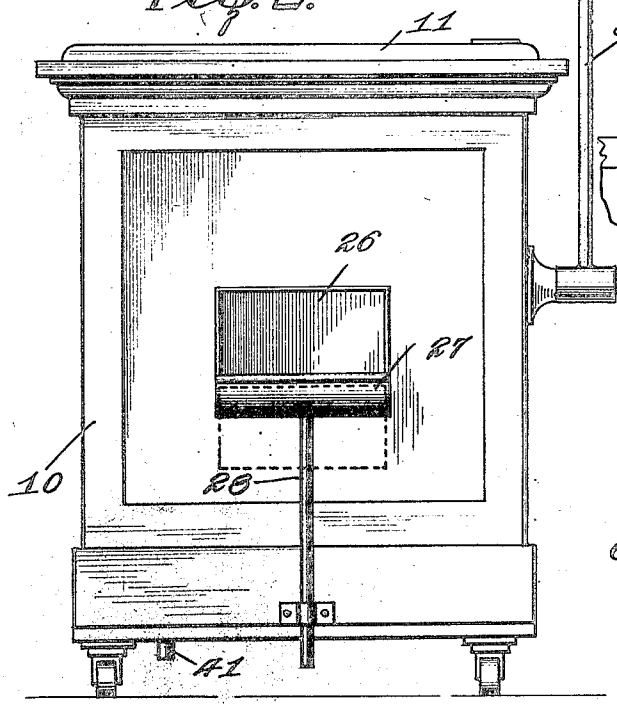
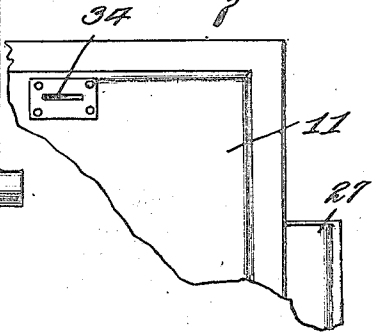


Fig. 3.



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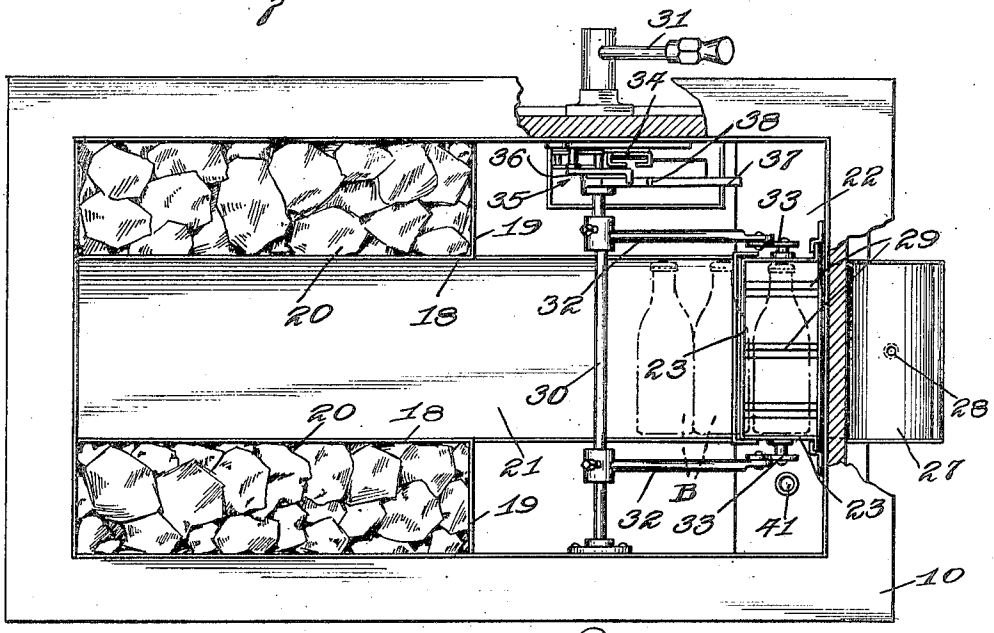
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Fig. 4.



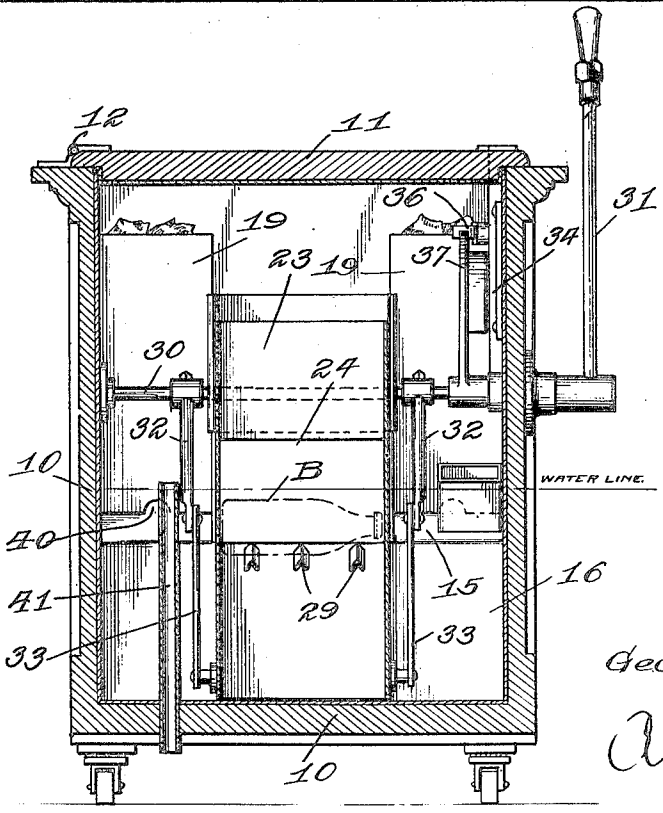


Fig. 5.

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Patented Feb. 20, 1923. 1,446,381

UNITED STATES PATENT OFFICE.

GEORGE H. DENT, OF MONTGOMERY, ALABAMA.

COMBINED BOTTLE-VENDING MACHINE AND REFRIGERATOR.

Application filed June 22, 1922. Serial No. 570,122.

To all whom it may concern:

Be it known that I, GEORGE H. DENT, a citizen of the United States, residing at Montgomery, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Combined Bottle Vending Machines and Refrigerators, of which the following is a specification.

This invention relates to vending machines and has special reference to a combined refrigerator and bottle vending machine.

One important object of the invention is to improve the general construction of devices of this kind.

A second important object of the invention is to provide a novel form of single delivery mechanism for use in connection with such devices.

A third important object of the invention is to provide an improved and novel arrangement of refrigerating means for devices of this character.

With the above and other objects in view, as will be hereinafter apparent, the invention consists in general of certain novel features of construction and combination of details hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—

Figure 1 is a longitudinal median section through a refrigerator construction in accordance with this invention.

Figure 2 is a front view thereof.

Figure 3 is a view of one corner of the top showing the coin slot.

Figure 4 is a plan view of the refrigerator with the top removed and certain of the parts broken away.

Figure 5 is a section on the line 5—5 of Figure 4.

In the embodiment of the invention herein illustrated there is provided a casing 10 having a top 11 secured thereto as by hinge means 12. At the rear of this casing is also provided a door 13 leading to a refrigerator or storage compartment 14 which is divided from the upper part of the refrigerator by a forwardly and downwardly inclined partition 15 secured at its forward end to a vertical partition 16 which terminates short of the top and which has, just above the partition 15 an opening 17 therein. Extending longitudinally of the device at each side thereof is a partition 18 which terminates rearwardly against the rear wall of the casing and forwardly against the partition 16. The rear ends of the partition 18 are considerably higher than the front ends of such partitions and the bottoms rest on the partition 15 which extends from one side wall of the casing to the other. Transverse partitions 19 connect the partitions 18 with the side walls of the refrigerator and thus, in each rear corner of the device there is provided an iced compartment 20. The space between the partitions 18 forms a bottle runway 21. The space between the partition 16 and the front wall forms a well 22 wherein is mounted for vertical sliding movement, an elevator 23 having an opening 24 in its rear wall which is movable into and out of registry with the opening 17. The elevator also has an opening 25 in its front wall which is movable into and out of registry with an opening 26 in the front casing wall, the latter opening leading to a trough shaped bottle holder 27 provided with a drain pipe 28 leading downward therefrom. The front and back walls of the elevator 23 are connected at the bottoms of the openings 24 and 25 by inclined bars 29. The elevator is so proportioned in width that it will just hold one bottle as the bottles B roll down the runway 21. Under these circumstances when the elevator is raised to the dotted line position shown in Figure 1, the remainder of the bottles will be cut off while the bars 29 will move to such position that the bottle supported thereby may roll out into the trough 27. In order to lift the elevator there is provided a transverse shaft 30 extending through one side of the casing and having an operating lever 31 secured to its projecting end. Rock arms 32 are fixed on the shaft 30 and extend downwardly and forwardly from said shaft. The forward ends

of these rock arms are connected to the side walls of the elevator by links 33. Thus moving the operating lever backward effects lifting of the elevator.

In order to control the operation of the device by a coin deposit I have provided in the top of the casing a coin slot 34 which communicates with a coin control mechanism indicated in general at 35 and which includes a lifting arm 36. This coin control mechanism may be of any desired type, but I have preferably employed a mechanism such as that shown in the patent to Robinson No. 1,247,576. Inasmuch as no claim is made to the specific coin controlled mechanism, it is not deemed necessary to go into any further details than to say that the arm 36 acts as a pawl which normally engages a segment 37 having a shoulder 38 against which the pawl rests. This segment is fixed on the shaft 30 and so long as the pawl is depressed, which is the position unless a coin is inserted, the lever connot be turned. Whenever a coin is inserted the pawl 36 will be raised and the lever 31 will be free to move. A coin box 39 is provided beneath the mechanism 35 for the reception of coins which have passed through such mechanism. At the bottom of each of the partitions 19 is an opening 40 for the escape of water from the melted ice and this water runs down to the well, filling the latter to the top of the overflow pipe 41. Thus the bottle on the elevator is kept in ice water and the other bottles rest more or less in the ice water, or lie between the two ice compartments and are thus thoroughly chilled.

In operation the person desiring to procure a bottle of the drink being dispensed simply drops a coin in the slot and shifts the lever 31 backward. This will raise the end bottle out of the water and deposit it in the trough 27, any dripping going down the pipe 28.

It is to be noted that I preferably provide the device with a suitable form of indicator showing when the contents have been exhausted.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as properly come within the scope claimed.

It will be observed that bottles dispensed in this way are only handled by the purchaser after being put in the refrigerator and vending machine. Also the bottles, normally lying in the melted water from the ice, are to a great extent cleansed of any impurities that may have collected on them.

Having thus described the invention, what is claimed as new is:—

1. In a bottle vending machine, a casing having an opening in its front, an inclined bottle runway leading from the rear of the machine downwardly toward the opening, a well between the lower end of the runway and the opening and having an opening at the lower end of the runway, a tubular elevator vertically movable in said well and having openings in its front and rear walls, the opening in the front wall registering with the opening in the casing when the elevator is raised and the opening in the rear wall registering with the opening in the well when the elevator is lowered, the upper portion of said elevator constituting a closure for the opening in the front of the casing when the elevator is lowered, and the lower part of the elevator constituting a closure for the opening into the well when the elevator is raised, and means to actuate said elevator.

2. In a bottle vending machine, a casing having an opening in its front, an inclined bottle runway leading from the rear of the machine downwardly toward the opening, a well between the lower end of the runway and the opening and having an opening at the lower end of the runway, a tubular elevator vertically movable in said well and having openings in its front and rear walls, the opening in the front wall registering with the opening in the casing when the elevator is raised and the opening in the rear wall registering with the opening in the well when the elevator is lowered, the upper portion of said elevator constituting a closure for the opening in the front of the casing when the elevator is lowered, and the lower part of the elevator constituting a closure for the opening into the well when the elevator is raised, a shaft extending across said casing and projecting through one wall thereof, an operating lever fixed to said shaft outside the casing, rock arms carried by the shaft and projecting towards the elevator, and links connecting said rock arms and elevator.

3. In a bottle vending machine, a casing having an opening in its front, an inclined bottle runway leading from the rear of the machine downwardly toward the opening, a well between the lower end of the runway and the opening and having an opening at the lower end of the runway, a tubular elevator vertically movable in said well and having openings in its front and rear walls, the opening in the front wall being positioned at a lower point than the opening in the rear wall, and the elevator having a floor inclined from the bottom of the open-

ing in the rear wall downwardly to the bottom of the opening in the front wall, the opening in the front wall registering with the opening in the casing when the elevator is raised, and the opening in the rear wall registering with the opening in the well when the elevator is lowered, the upper portion of said elevator constituting a closure for the opening in the front of the casing when the elevator is lowered, and the lower part of the elevator constituting a closure for the opening into the well when the elevator is raised, and means to actuate said elevator.

In testimony whereof I affix my signature.

GEORGE H. DENT.