ABSTRACT OF THE DISCLOSURE

A vending machine for cans of beer, the machine including a hinged door to a receiving compartment wherein a disengaged can is discharged, the door being upwardly pivotable to allow access of a purchaser's hand into the compartment to take the can, and the door including prongs which puncture the can lid when the door is pivotable open, thus eliminating need for separate puncturing operation, and allowing the purchaser to immediately partake of the content.

This invention relates generally to vending machines. More specifically it relates to machines for vending beer in bottles or in cans.

A principal object of the present invention is to provide a beer dispensing vending machine which is coin operated.

Yet another object is to provide a coin operated, beer dispensing, vending machine which has self contained means for selectively dispensing several different brands of drinks.

Yet another object is to provide a coin operated, beer dispensing, vending machine which has self contained means for automatically opening a sealed beer can when dispensing the same, thereby eliminating the necessity for the purchaser to do this task subsequently and separately.

Other objects of the present invention are to provide a beer dispenser, or the like, which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

All of the foregoing and still further objects and advantages of my invention will now be more clearly explained with reference to both this specification and to the drawings wherein:

FIGURES 1 and 2 are perspective views of machines in accordance with my invention for serving beer in quarter;

FIGURE 3 is a fragmentary perspective view of a machine for serving beer in cans;

FIGURE 4 is a fragmentary perspective view of a modified beer dispensing machine having means to automatically open the can when dispensing the same;

FIGURE 5 is an enlarged detail view thereof;

FIGURE 6 is a cross sectional view taken on line 6--6 of FIGURE 5;

FIGURE 7 is a cross sectional view taken on line 7--7 of FIGURE 6;

FIGURE 8 is a view similar to FIGURE 6 showing a next subsequent step of operation;

FIGURE 9 is a view similar to FIGURE 8 and showing a final step of operation; and

FIGURE 10 is a cross sectional view taken on line 10--10 of FIGURE 4.

Referring now to FIGURE 1, a machine frame 10 carries advertising for the one type of beer it carries. When a half dollar is dropped into slot 12, the beer bottles are moved until one can be moved easily out of the open chamber 14. If the machine is empty, no bottles can be removed from chamber 14, and the coin or coins will be found in the coin return 16. The bottles can be opened using opener 18.

The machine of FIGURE 2 is modified whereby a potential beer drinker can select one of four different kinds by placing one half dollar in any of selection slots 30, 32, 34 and 36. Each slot has a corresponding chamber, the appropriate one of 38, 40, 42 and 44, through which the selected quart of beer can be removed.

FIGURE 3 shows a similar arrangement. However, only one coin slot 70 is available for coins. After a coin is dropped into the slot, a selected one of five buttons 72, 74, 76, 78 and 80, is depressed, and a disposable paper carton filled with beer is dispensed automatically as desired at chamber 90.

The mechanism employed in FIGURE 1 can comprise either a conventional vertical or horizontal track dispensing mechanism containing a plurality of spaced apart buckets, cups, or other elements each of which supports a bottle or can of beer which is electrically operated to advance each of the buckets, cups, etc., one step each time a coin is placed in the appropriate slot.

In FIGURES 4 to 9 a modified vending machine construction 100 is shown wherein a can of beer 101 is automatically opened when dispensed.

The can 101 is delivered down a dispensing chute 102, as shown in FIGURE 6, and falls on a stage 103 that is supported in raised position on a plurality of pivotal lugs 104 that are each pivoted on a pin 105 secured in a frame 106 stationarily mounted within the housing 107 of the vending machine 100. Each lug 104 has an arcuate face 108 that is contiguously relative to the pin 105; each lug further being attached pivotally free by a pin 109 to a vertically slidable frame 110 that is normally retained in an upward position by means of a leaf spring 111 located below the slidable frame 110 and above a shoulder 112 of the stationary frame 106. A return spring 113 is located below the stage 103 to normally urge the stage in an upper position, above the lugs 104.

A doorway 114 is provided in the front wall 115 of the housing to permit access of a purchaser's hand 116 into the housing for removing a dispensed can of beer.

A door 117 pivoted on a pin 118 is normally vertically disposed over the doorway. A pair of punch prongs 119 and 120 are integrally formed on the door for the purpose of piercing the top end of the beer can.

In operative use, as shown in sequence in FIGURES 6 to 9, the can drops from chute 102 upon the stage 103. The purchaser then lifts the door pivotally about pin 118 so as to gain access to the can. In so doing, the prongs 119 and 120 pierce the top of the can 101 to form openings 121. As the prongs bear against the top of the can to form the openings, the end of the door bears against the top of the vertically slidable frame 110 causing the same to be lowered against the action of spring 111. The lowering of the frame 110 causes the lugs 104 to rotate out of the way of the stage thereby allowing the stage to fall down under the weight of the full can of beer. Thus the prongs 119 and 120 become disengaged with the top of the can after having pierced the same. The can is now free to be moved horizontally out of the doorway, as shown in FIGURE 9. After the can is removed from the stage, the spring 113 urges the stage to upper position again. After the door is allowed to be pivoted again into a closed position, pressure thereof against the slidable frame is released and the frame 110 also is raised to upper position, ready for the next similar dispensing operation.

While various changes may be made in the detail construction, it is understood that such changes will be within the spirit and scope of the present invention as is defined by the appended claims.
Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A beer dispenser comprising a hollow machine frame having a refrigeration unit, a beer dispensing mechanism electrically operated, said mechanism carrying a plurality of individual hollow containers filled with beer, a coin operated control device for operating said mechanism, a chamber adjacent said mechanism whereby placing a coin in said device causes said mechanism to advance one container to said chamber, said hollow machine frame comprising a housing having a front wall, a doorway in said wall, a door pivoted in said doorway, said door having a pair of punch prongs integral therewith, a dispensing chute within said housing, a stage below said chute, said stage being supported in an up position by a compression spring therebelow and a plurality of lugs pivoted into a position below said stage, said lugs being pivoted to a vertically slidable frame and to a stationary frame, whereby downward travel of said slidable frame retracts said lugs from below said stage, a spring normally urging said slidable frame upward, and the end of said door engaging the upper end of said slidable frame when said door is pivoted for said prongs to engage a top of a beer can positioned on said stage.

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