Oct. 21, 1947. W. E. CALLISON 2,429,510

ARTICLE DISPENSING MACHINE

Filed July 21, 1947

Fig. 1

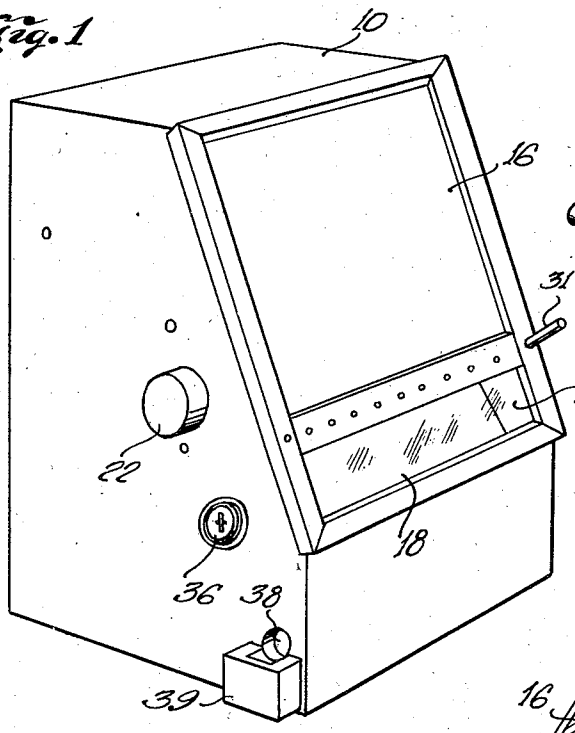


Fig. 2

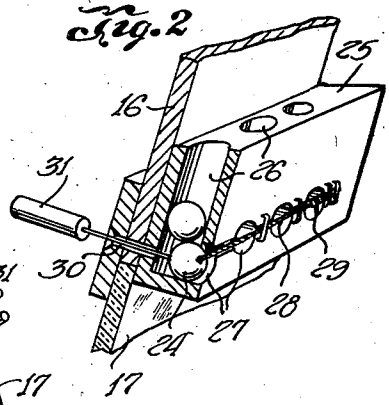


Fig. 3

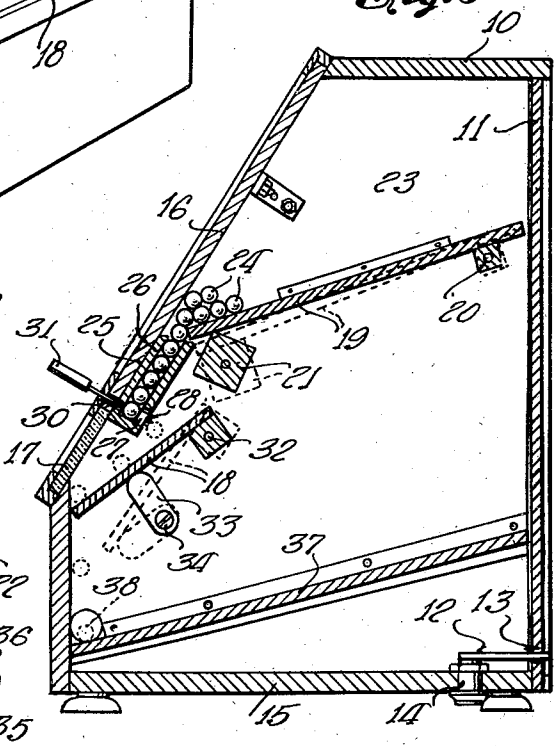
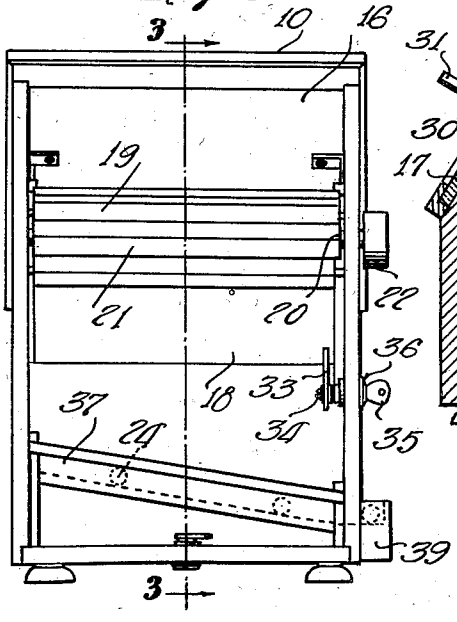


Fig. 4



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ARTICLE DISPENSING MACHINE

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5 Claims. (Cl. 312—89)

1

This invention relates to merchandise dispensing equipment and more particularly to a machine for dispensing marbles.

The principal object of the invention is to provide a dispensing cabinet for marbles having a concealed storage bin, from which the marbles are transferred by agitation into a series of magazines and from these magazines, in turn, the marbles are singly ejected, to fall onto an inclined support on which they are visible through a glass panel in the front of the cabinet. Provision is further made for locking the support in raised position to preclude unauthorized release of the marbles thereon which can be accomplished only by one in possession of a key, by which the support is lowered, permitting the marbles to roll onto a floor subjacent to the support and which is inclined towards a discharge opening in one wall of the cabinet, at which there is provided a stop for retaining the marbles in a position accessible to the operator of the machine.

Another object of the invention is to provide a marble dispensing machine including a cabinet having a lockable rear panel through which access is gained to the marble storage bin, provisions being made for sealing the panel to detect unauthorized tampering. Moreover, the relationship between the bin, the marble magazines and inclined marble support with which the cabinet is equipped, is such that regardless of the angle to which the cabinet is turned, continuity of travel of the marbles in their normal course through the machine will not be disturbed. In other words, shaking or tilting of the cabinet with an effort to defeat the same will not result in displacing the marbles from their normal course when operation of the machine is resumed.

Broadly, the invention provides a medium through which may be kept an accurate record of plays by the owners of amusement machines in which marbles constitute the scoring medium. The marble dispensing machine is unlocked for operation by one authorized to do so whereupon the customer dispenses therefrom a number of marbles of predetermined value which are used by him to operate an amusement machine separate and apart from the marble dispensing machine.

With the foregoing objects in view, the invention has further reference to certain features of accomplishment which will become apparent as the description proceeds, taken in connection with the accompanying drawing wherein:

Figure 1 is a front perspective view of a machine embodying the invention.

Figure 2 is a fragmentary rear perspective view of the front panel showing the article magazines.

Figure 3 is a view in vertical section taken on line 3—3 of Figure 4 and

2

Figure 4 is a rear elevational view with the rear panel removed.

Continuing with a more detailed description of the drawing, reference numeral 10 denotes a cabinet having a removable rear panel 11 which is locked in position by a lug 12 entering a slot 13 in the panel and oscillatable by a key insertable in a cylinder lock 14 under the floor 15 of the cabinet. The rear panel 11 is preferably provided with a seal auxiliary to the lock 14 by which to detect efforts to tamper with the cabinet to surreptitiously remove marbles therefrom.

The front of the cabinet has an inclined panel 16, below which is a panel 17 of transparent material through which may be seen an inclined marble support 18, to which further reference will be made presently.

In the upper portion of the cabinet is a plate 19 which has a fulcrum 20 adjacent its rear edge. This plate is inclined rearwardly and its free forward or lowest edge rests upon a substantially square shaft 21, the latter extending transversely of the cabinet, one end protruding through one wall thereof and to which is attached an operating knob 22.

The inclined plate 19 defines a bin 23 thereabove for marbles 24 the latter being placed in the bin from the rear after removing the panel 11.

Affixed to the front panel 16 on its inner surface and extending the full width of the cabinet is a marble magazine assembly consisting of a transverse member 25 having therein a plurality of relatively parallel bores 26 whose open upper ends are in a position to receive marbles 24 from the lip of the inclined plate 19. Communicating with the lower ends of the bores 26 are lateral openings 27, across which extends a cord or wire 28, to one or both ends of which is attached an end of a small coiled spring 29, the opposite end of the spring being anchored to the ends of the member 25 so that the cord or wire 28 will be possessed of a certain amount of resiliency for the purpose to be presently explained.

In alignment with the center of the lowermost marble in each of the magazines or bores 26 is a small hole 30. These holes extend through the lower portion of the front panel 16 and through the rear wall of the member 25 into the magazine bores 26. A punch 31 is insertable through selective holes 30 to bear against a marble in a bore, thrusting the same through the opening 27 against the resistance of the restraining cord or wire 28, the latter yielding to the pressure of the punch 31, releasing the marble onto the upper portion of the inclined support 18. The released marble rolls downwardly on the support 18, coming to rest momentarily against the front wall of the cabinet below the transparent panel 17, through which it is visible.

The inclined support 18 is pivoted along its rear edge at 32 and is held in raised position by means of an arm 33 on a transverse shaft 34. The arm 33 can be oscillated only through the medium of a key 35, actuating a lock 36. Therefore, the support 18 can be lowered to release marbles therefrom only by authorized use of the key 35.

After a predetermined number of marbles have been transferred from the bin 23 to the support 18 through the medium of the magazine, in the manner explained, the support 18 is lowered by actuating the arm 33 through the key 35. The marbles thereon will fall onto a false bottom 37 in the lower portion of the cabinet, the said false bottom being obliquely inclined so that one corner will be lower than the rest, causing marbles falling thereon to converge towards and pass through an opening 38 in one side wall of the cabinet, to be deposited into a receptacle 39 exteriorly of the cabinet accessible to the operator.

To insure proper distribution of the marbles along the length of the member 25 constituting the marble magazine in order that each bore 26 will be charged with marbles, the knob 22 may be rapidly oscillated to correspondingly actuate the square shaft 21 and thus agitate the marbles 24 by the rapid oscillation of the plate 19 on its fulcrum.

It is important to observe that the close spacing of the various parts described, such as the limited displacement of the plate 19 with respect to member 25; juxtapositioning of the square shaft 21 in relation to the inclined support 18 and the like leaves no space of sufficient width to permit passage of marbles onto the inclined false bottom except through the normal course as described. Thus, fouling of the machine or effecting unauthorized release of marbles by tilting or inverting the cabinet is rendered virtually impossible.

Manifestly, the construction as shown and described is capable of some modification and such modification as may be construed to fall within the scope and meaning of the appended claims is also considered to be within the spirit and intent of the invention.

What is claimed is:

1. A marble dispensing machine including a cabinet having a marble bin provided with an inclined and vertically displaceable floor, a stationary member having a plurality of relatively parallel bores therein whose upper open ends are adapted to receive marbles from said bin, such bores communicating at their lower ends with lateral openings in said stationary member, a resilient marble retaining line overlying the centers of said openings collectively, means opposite said line and in alignment with the axes of said openings for receiving a punch for exerting pressure on a marble in a bore to overcome resistance of said line to release said marble, an inclined, oscillatable support adjacent said stationary member for receiving marbles therefrom, an obliquely inclined false bottom in said cabinet, a release opening for marbles falling on and directed by said false bottom, means for vertically displacing the floor of said bin and key controlled means for oscillating said inclined support to release marbles therefrom.

2. A marble dispensing machine including a cabinet having a transparent panel in the front thereof and an obliquely inclined false bottom in the lower portion thereof, a marble bin in the upper portion of said cabinet having an inclined and movable floor, a member disposed transversely of said cabinet having a plurality of relatively parallel bores therein adapted to receive marbles from said bin, said member having openings communicating with the lower portions of said bores and smaller openings opposite to and in alignment with said first openings, a resilient marble retaining line overlying said first openings collectively, means insertable through said smaller openings for exerting a thrust on marbles in said bores selectively to overcome the resistance of said line, a key actuated, inclined support subjacent said transverse member receiving marbles ejected therefrom and means for actuating the floor of said bin for distributing marbles into the bores of said transverse member.

3. A marble dispensing machine including a cabinet having a transparent front panel and an obliquely inclined false bottom communicating with a marble discharge opening, a vertically oscillatable plate in the upper portion of said cabinet defining a marble bin, a square shaft exteriorly actuated for oscillating said plate, a plurality of relatively parallel magazines for receiving marbles collectively from said plate, said magazines each having aligned openings at their lower ends, resilient means overlying the inner of said openings collectively for retaining marbles in said magazines, means insertable through the outer of said openings selectively for ejecting marbles through said inner openings against the resistance of said resilient means, an inclined and oscillatable marble support subjacent said magazines and key actuated means for displacing said support for releasing marbles therefrom onto said false bottom.

4. An article dispensing machine including a cabinet having an obliquely inclined false bottom therein and an article release opening at the lowest point of said false bottom, an article storage bin, a plurality of relatively parallel article magazines adapted to receive articles by gravity from said bin, each having an article release opening in its bottom, resilient means for retaining articles in said magazines, means operable exteriorly of said cabinet for ejecting articles singly from said magazines selectively against the resistance of said retaining means, a key controlled inclined support subjacent said magazines for receiving articles from said magazines and for depositing the same onto said false bottom.

5. An article dispensing machine as set forth in claim 4, further defined in that the article magazines consist of relatively parallel bores in a transverse member, the latter having axially aligned openings intersecting said bores at their lower ends, the outer of said openings being adapted to receive an instrument for exerting pressure on an article in a selected bore for ejection through the aligned inner opening and resilient means overlying the inner openings collectively to retain said articles against the pressure of said instrument.

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