M. B. MILLS.

COIN CONTROLLED VENDING MACHINE.

APPLICATION FILED JULY 25, 1908.

918,886. **Patented Apr. 20, 1909.**

3 SHEETS—SHEET 1.

Fig. 1.

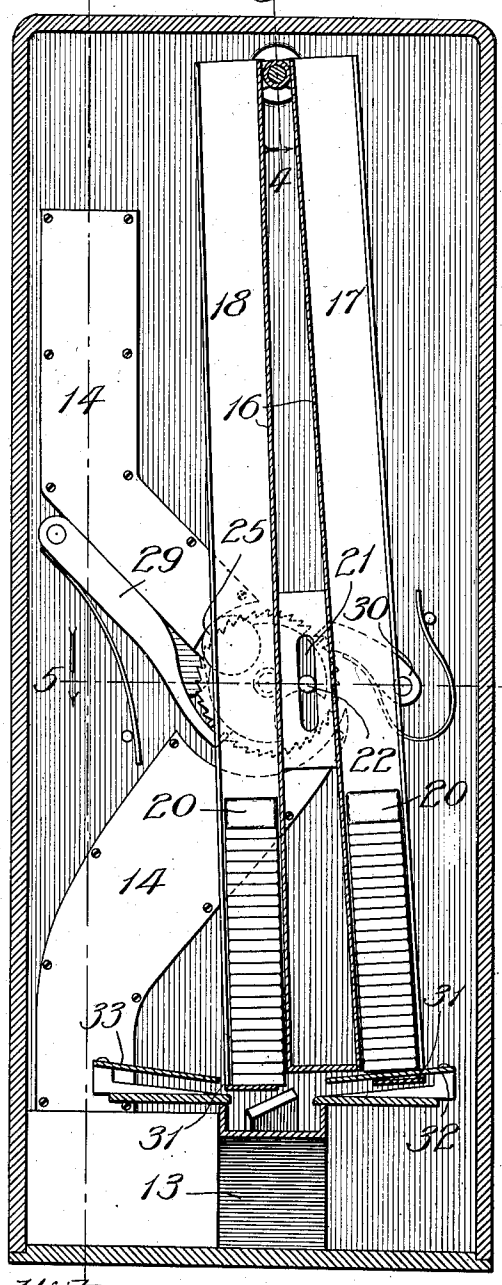
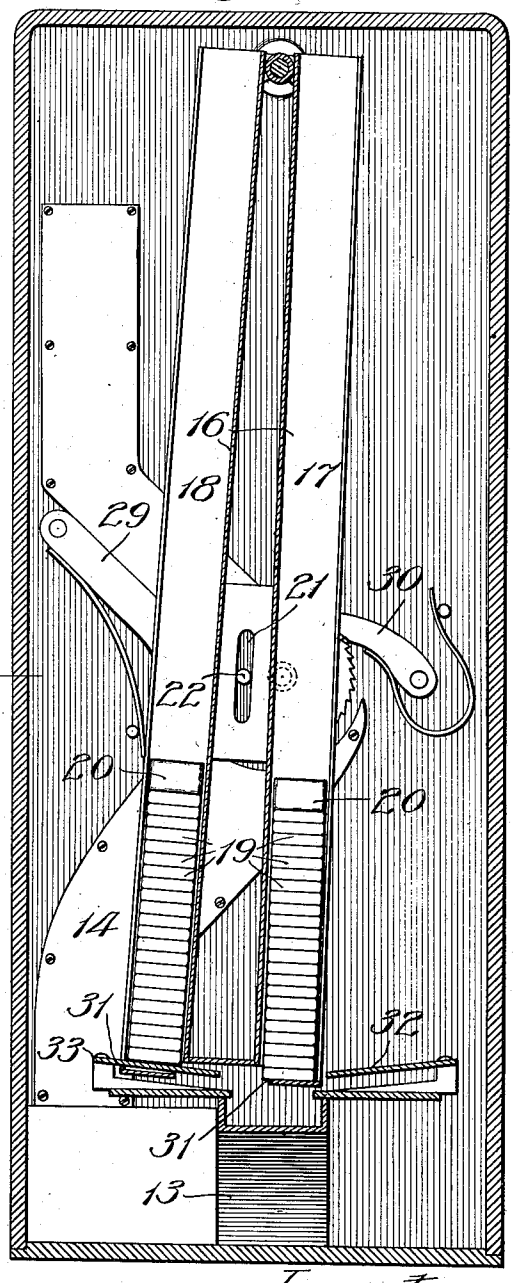


Fig. 2.



Witnesses:

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3 SHEETS—SHEET 2.

Fig. 3.

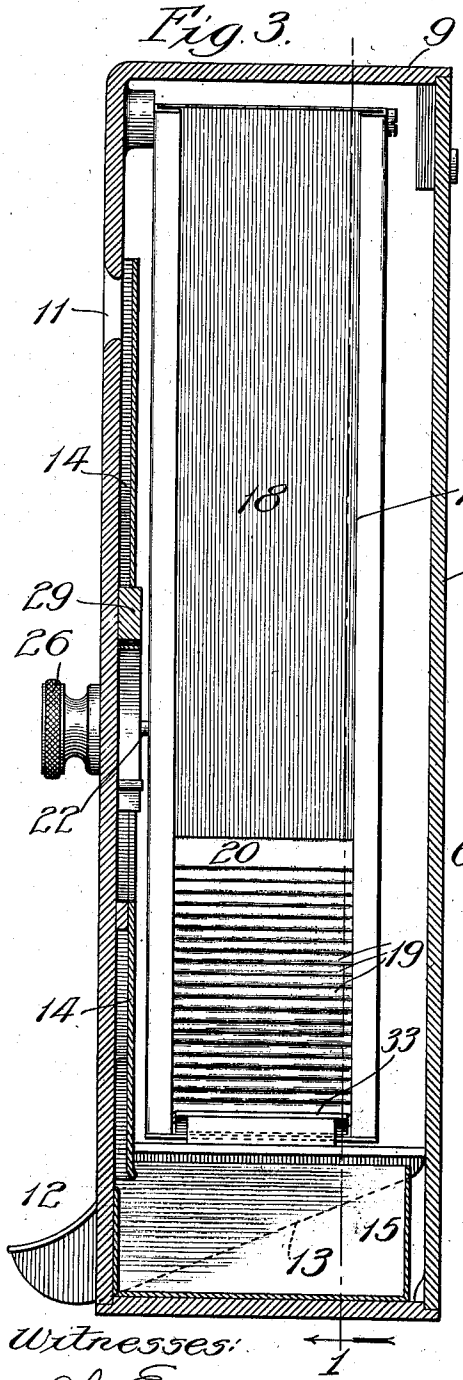


Fig. 4.

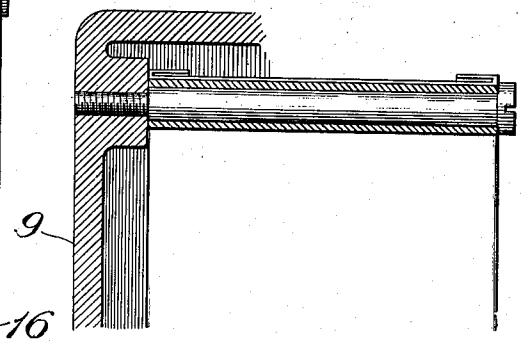
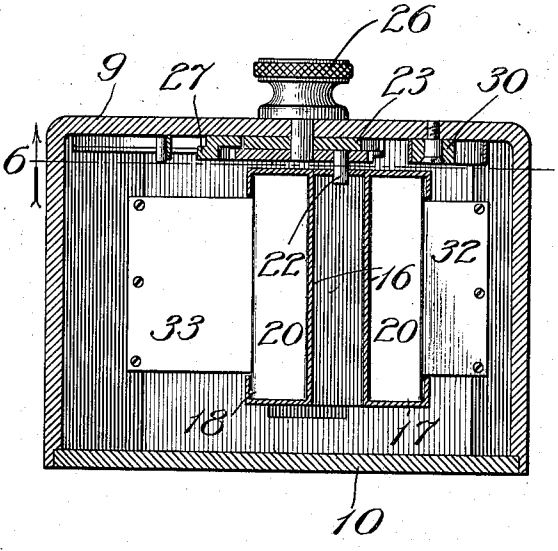


Fig. 5.



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3 SHEETS—SHEET 3.

Fig. 6.

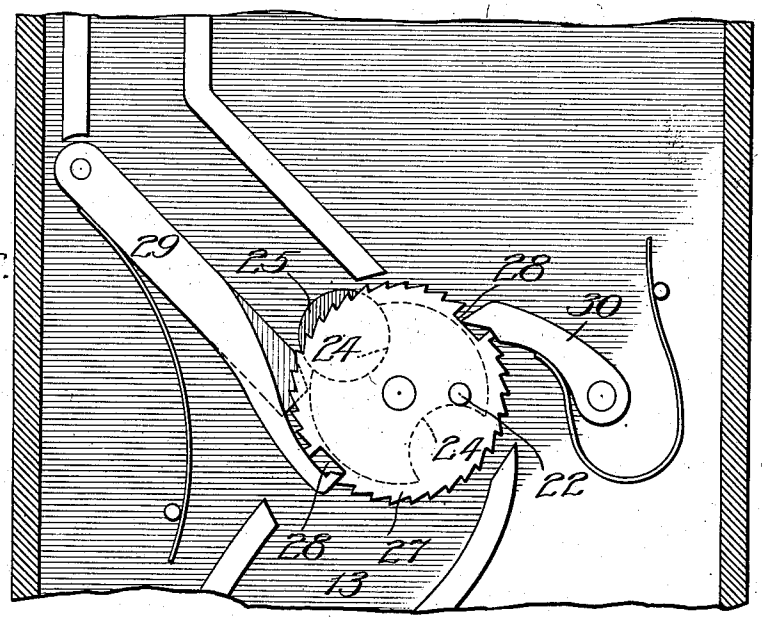


Fig. 7.

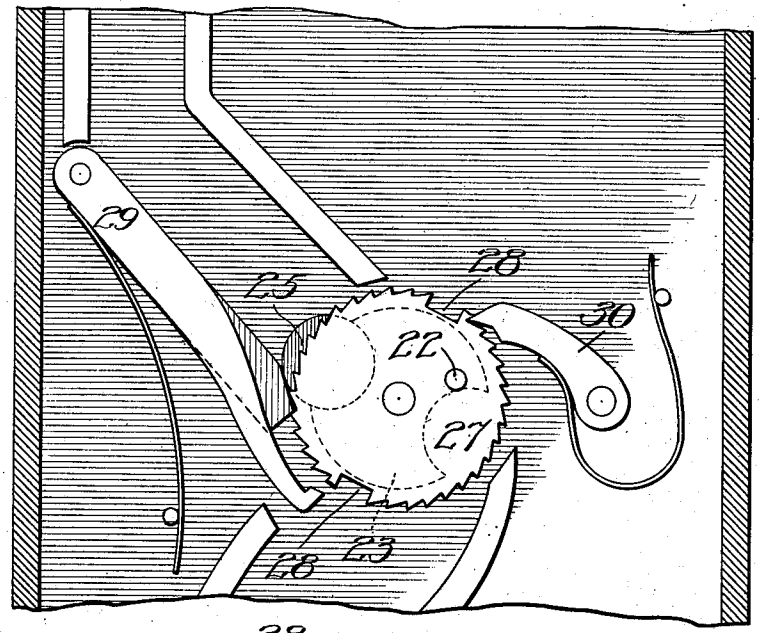
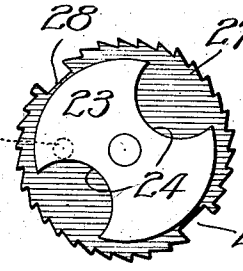


Fig. 8.



Witnesses:

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UNITED STATES PATENT OFFICE.

MORTIMER B. MILLS, OF CHICAGO, ILLINOIS, ASSIGNOR TO ZENO MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

COIN-CONTROLLED VENDING-MACHINE.

No. 918,886. Specification of Letters Patent. Patented April 20, 1909.

Application filed July 25, 1908. Serial No. 445,371.

To all whom it may concern:

Be it known that I, MORTIMER B. MILLS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coin-Controlled Vending-Machines, of which the following is a specification.

My invention relates to an improvement in the class of vending machine in which the supply of the article to be delivered as the result of inserting a coin of proper denomination into the machine, is contained in a magazine.

The primary object of my invention is to double the magazine-capacity of the machine without increasing the dimensions of the latter; and this I accomplish by duplicating the magazine and supporting the two legs to be oscillated between stationary discharging-fingers in the paths of the lowermost articles therein, whereby a delivery will be effected by swinging the magazine in either direction.

In the accompanying drawings, Figure 1 is a vertical section of the machine on the line 1, Fig. 3, showing the double magazine turned to one delivery position; Fig. 2 is a similar view showing the double magazine turned to the opposite position; Fig. 3 is a section on line 3, Fig. 1, Fig. 4, a broken enlarged section on line 4, Fig. 1, and Fig. 5, a section on line 5, Fig. 1; Fig. 6 is an enlarged broken section on line 6, Fig. 5, showing the coin-controlled mechanism in its normally locked condition; Fig. 7 is a similar view showing the coin-controlled mechanism in its released condition, and Fig. 8, a face-view of the ratchet-device with which the coin coöperates for releasing said mechanism.

The casing 9 shown is of the usual general form and construction for a gum-vending machine, being provided with a removable back 10, and having a coin-insertion opening 11 in the upper part of its face and a receiving-cup 12 at the base thereof for the delivery to the cup, by way of a chute 13, of the articles vended by the machine. A coin-chute 14 leads in the casing from the opening 11 to discharge into a suitable drawer or receptacle 15 in the bottom of the casing. The magazine 16 is composed of two similar legs or compartments 17 and 18 united at their upper and lower ends and between the latter to diverge toward their lower ends from the uppermost union where the double magazine is pivotally hung, as shown, to adapt it to be swung as and for the purpose hereinafter described.

The shape of the magazine-legs should conform in cross-section to the shape of the article stored for delivery in them, in the present instance packages of gum, indicated at 19, in stacks surrounded by weights 20 to hold them down. In the intermediate union between the two magazine-legs is provided a slot 21 engaged by a stud 22 projecting eccentrically from the face of a disk 23 centrally journaled on the front of the casing to be interposed in the coin-path through the chute and containing similar diametrically opposite semi-circular recesses 24, 24 in its periphery for receiving a coin 25. An operating handle, shown as a knob 26, is provided on the outer end of the journal carrying the recessed disk, and this journal also carries, between the disk and the inner face of the casing-front, a ratchet 27 mutilated by similar rectangular recesses 28, 28, formed diametrically opposite each other in its periphery. A spring-pressed pawl 29 and a spring-pressed detent 30 engage, respectively, the recesses 28 in the normal position of the ratchet to lock it and the magazine until released by a coin as hereinafter described; and in the normal position of the disk 23 it presents one of its recesses 24 to the inner end of the upper section of the coin-chute. The magazine-legs contain transverse openings 31 near their otherwise closed lower ends, the height of each opening being slightly greater than the thickness of a package 19 to prevent the discharge of more than the lowermost package of a stack at the inner end of the opening from which to drop into the delivery-chute 13. To effect this discharge ejecting-fingers 32 and 33 are supported stationarily and inclinedly at opposite sides of the lower free end of the magazine to register, respectively, with the outer ends of the openings 31, whereby when the magazine is turned in either direction it abuts the lowermost package 19 in one leg against the adjacent ejecting finger and by moving along the latter at the respective opening 31 causes the finger to dislodge that package and discharge it into the chute 13 for delivery at the cup 12.

When a coin is dropped into the chute 14

it lodges in a disk-recess 24 with a section of the coin protruding therefrom. By then turning the knob 26 to the extent of play permitted by the recess 28 with which the pawl 29 engages, the protruding portion of the coin will encounter the pawl in its path and in the position shown in Fig. 6, and further turning the knob will press the confined coin against the pawl to force it out of engagement with the ratchet into the position shown in Fig. 7, thereby releasing the ratchet. Continued turning of the knob until the ratchet has described one-half a revolution, during which the coin clears the pawl and drops into the receptacle 15, causes the engagement of the stud 22 with the slot 21 to turn the magazine to the position represented in Fig. 1, and engage the finger 32 with the lowermost package 19 in the leg 17 to eject that package and discharge it into the chute 13 for delivery at the cup 12. At the end of this partial revolution of the ratchet the pawl locks it by engagement with the other recess 28 with the other disk-recess 24 in position for lodgment in it of the next coin inserted into the machine for operating it. Insertion of such next coin and turning the knob in the same direction releases the magazine in the manner described and effects its movement in the direction to engage the lowermost package 19 in the magazine-leg 18 with the finger 33 to effect the ejection of that package and its discharge to the cup 12.

As will be observed, after the turning of the knob has been once started it can not be turned back, because of the detent 30, until it has completed a half revolution, when it becomes locked; and the invention doubles the magazine-capacity of the machine without requiring, to that end, any increase in its dimensions over those of the ordinary single-magazine vending-machine. The gist of my invention is the two-compartment magazine movable with reference to stationary ejecting-fingers registering with its package-discharge openings, whether the magazine be pivotally supported and movable by swinging it or otherwise.

What I claim as new and desire to secure by Letters Patent is—

In a vending-machine, the combination with a casing, of a magazine comprising two united legs forming compartments for articles to be vended and having lateral discharge-openings in their lower ends, said magazine being pivotally suspended in the casing and having a slot in the junction between said legs, ejecting-fingers supported in the casing at opposite sides of the lower ends of said legs to coincide with said openings therein, mechanism releasably locking said magazine against movement, comprising a recessed disk journaled in the casing, a stud on the disk engaging said slot, a ratchet connected with said disk and provided with peripheral recesses, a spring-pressed pawl engaging the ratchet and extending adjacent to said disk, a spring-pressed detent engaging the ratchet, and an operating handle for turning the ratchet, and a delivery-chute in the casing between the ejecting-fingers, for the purpose set forth.

MORTIMER B. MILLS.

In presence of—

CHAS. E. GAYLORD,

W. T. JONES.