March 31, 1931. T. S. HALPIN 1,798,416

VENDING MACHINE

Filed July 26, 1929 2 Sheets-Sheet 1

Fig. 1.

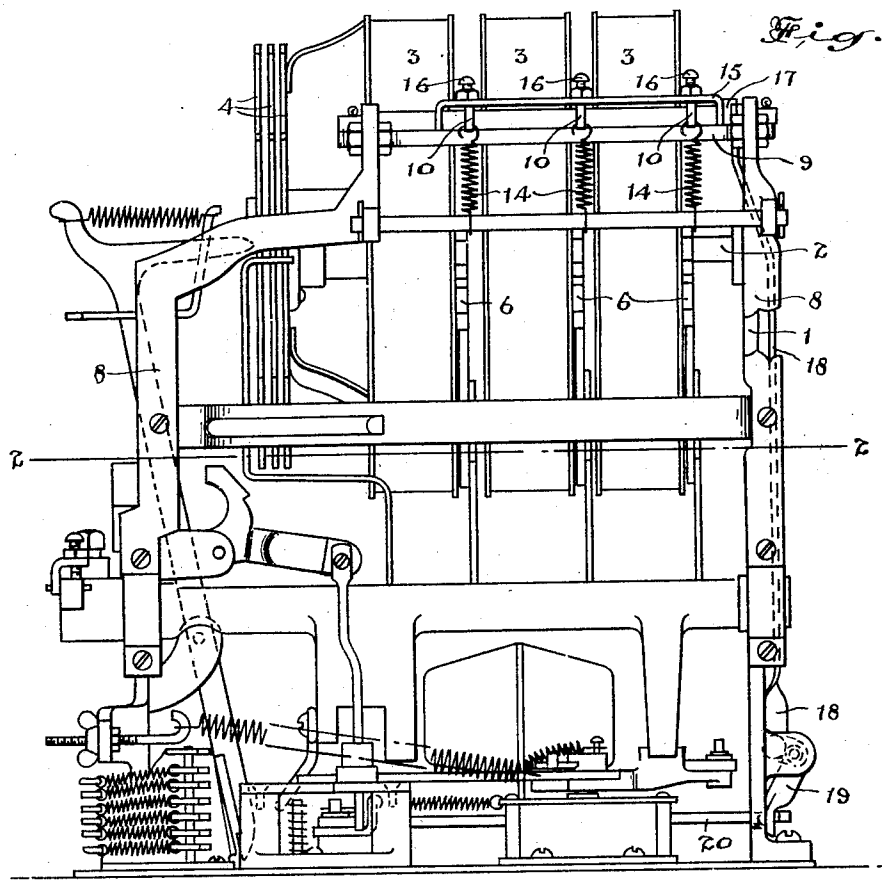
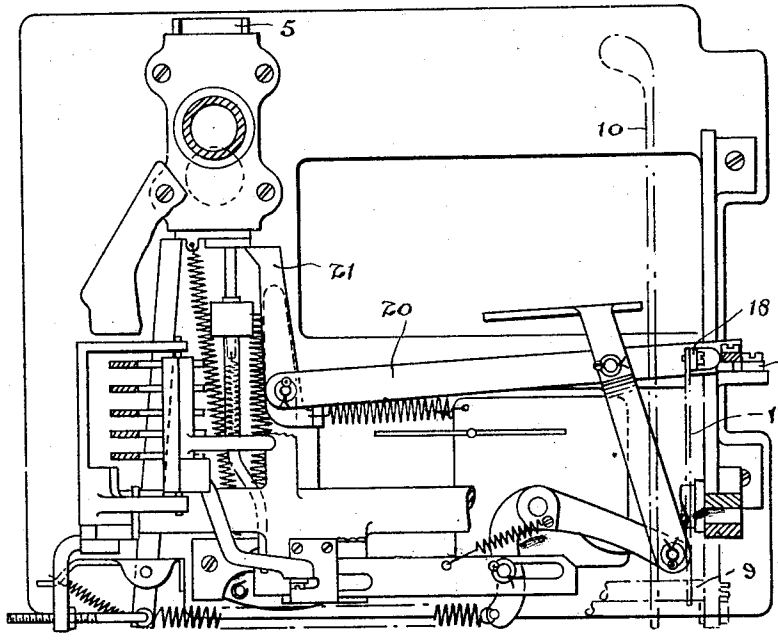


Fig. 2.



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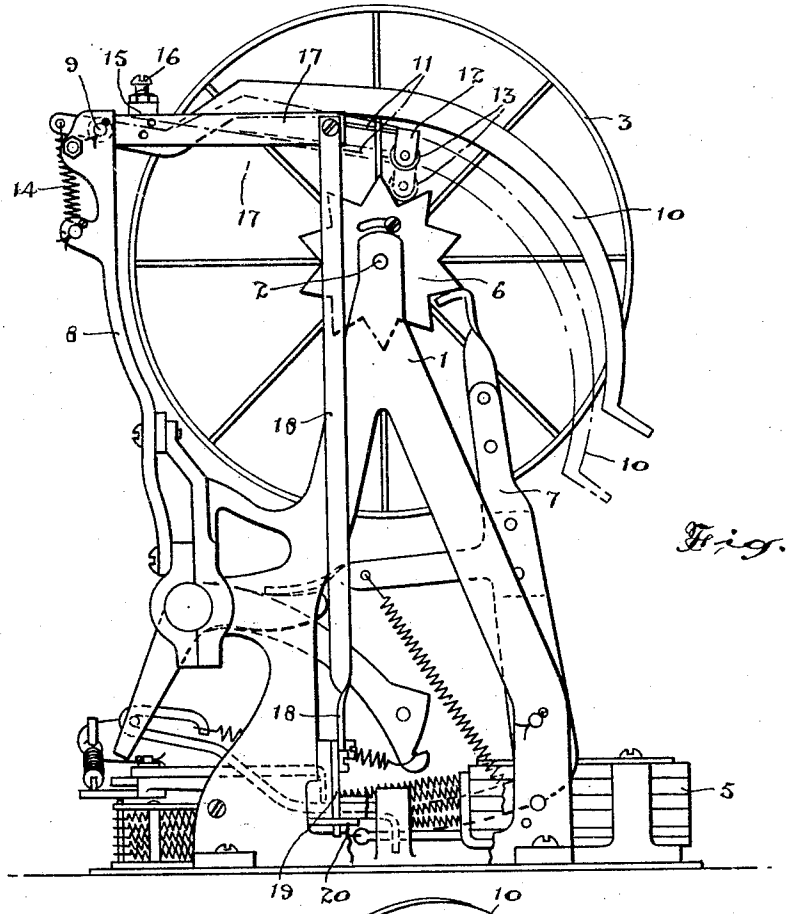


Fig. 3.

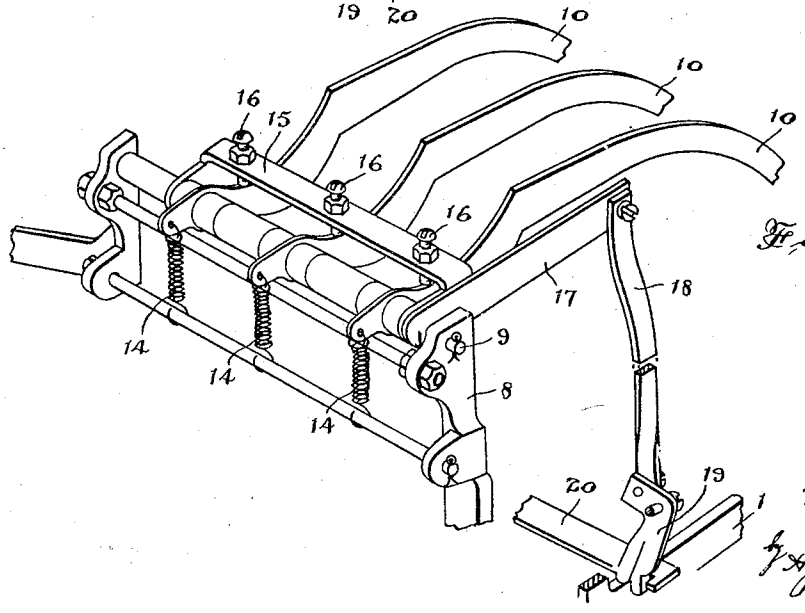


Fig. 4.

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UNITED STATES PATENT OFFICE

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VENDING MACHINE

Application filed July 26, 1929, Serial No. 381,211, and in Canada August 10, 1928.

The principal objects of the invention are, to provide an attractive means for effecting an increase in the sale of goods from the machine, and to provide a mechanism to be operated in connection with the sale of the merchandise which will afford the purchaser the opportunity of a premium through the skilful operation of the machine.

A further object of the invention is to provide means for preventing the delivery of premiums unless the skill operated members are brought into play, thereby rendering the machine entirely a game of skill.

The principal features of the invention consist in the arrangement of means for normally locking the premium discharge mechanism, and means for moving said locking device clear of the premium discharge mechanism only by the operation of the means for controlling the spinning wheels.

In the drawings, Figure 1 is a rear elevational view of the internal mechanism of the vending machine.

Figure 2 is a plan section taken below the line 2—2 of Figure 1.

Figure 3 is a side elevational view, parts of the mechanism being broken away.

Figure 4 is a perspective detail of the spinning wheel control levers and the latch mechanism connected with the discharge locking device.

Machines of the class in which a plurality of spinning wheels or drums are arranged to display certain symbols have been in use for a considerable period and these spinning wheels, if coming to rest in certain predetermined arrangements of the symbols, operate a mechanism to deliver certain premiums. The spinning wheels are given an initial impulse by the operation of a lever upon the insertion of a coin and the wheels are arrested at different periods following the operation of the lever.

The type of machine to which the present invention is adapted to be applied is shown and described in the following United States Patents:—1,586,455 May 25, 1926; 1,570,910 Jan. 26, 1926; 1,677,647 July 17, 1928; 1,697,537 Jan. 1, 1929; 1,706,896 Mar. 26, 1929.

Such machines have been considered illegal as being games of chance. Devices have been introduced into these machines to control the spinning of the wheels so that at the option of the operator he may use his skill in controlling the position at which the wheels come to rest, but the use of the controlling mechanism has been optional and the machine could still be operated purely as a game of chance.

The present invention eliminates this feature by positively locking the premium delivery mechanism unless the operator uses the skill device, thereby positively making the machine one of a game of skill which cannot be operated to obtain premiums unless skill is invoked.

In the illustrations in the accompanying drawings much of the common mechanism is illustrated in order to show the operative relation of the present invention.

The frame 1 supports an axle 2 upon which the spinning wheels 3 are mounted.

Each of these wheels has connected with it a control disc 4 and the relative position of these control discs when the spinning wheels come to rest regulate the premiums to be given.

A plurality of slides 5 are to be controlled by the discs 4 through a mechanism, the details of which are not shown, as it is old and coins or tokens are received by openings in the slides in accordance with the location of the control discs. Ordinarily these slides are moved by the automatic mechanism to discharge coins or tokens delivered thereinto and the present invention is introduced to prevent this automatic operation of the delivery mechanism unless certain other mechanisms are operated.

Each of the spinning wheels 3 is provided with a star wheel 6 which is adapted to be arrested at a predetermined period in the automatic mechanism by a stop lever 7.

In accordance with the present invention an extension frame 8 is provided which supports a cross bar 9 running parallel with the axis of the spinning wheels and upon this cross bar are pivotally mounted a plurality of brake levers 10, one being arranged beside each of the spinning wheels and carrying

a spring brake arm 11, each provided with a bracket end 12 carrying a roller 13 which is adapted to engage the teeth of the star wheel to retard or arrest the movement of the spinning wheel.

The brake levers 10 are held in their raised position by coil springs 14 connected at their rear ends.

Pivotally mounted upon the cross bar 9 and extending across the tops of the brake lever 10 is a guard bar 15 and set screws 16 are threaded in said guard bar and engage the top sides of the brake levers.

Rigidly connected with the guard bar 15 is an arm 17 which extends horizontally upon its pivot support and is connected to a vertical bar 18 and said vertical bar has its lower end pivotally connected to a latch 19 pivotally mounted on the lower part of the frame.

The latch 19 normally intercepts the movement of a lever 20 which operates with the time controlled mechanism for stopping the movement of the spinning wheels 3 through the operation of the stop levers 7.

Mounted upon the lever 20 is a locking member 21 which when the lever 20 is engaged by the latch 19 engages and locks the means for operating the delivery slides 5 but if the lever 20 is not intercepted by the latch it will move the locking member out of locking contact with the slide mechanism.

The provision of the guard bar 15, arm 17 and vertical bar 18 connected with the latch 19 retains the latch in a position to intercept the lever 20 unless the brake levers 10 are depressed and unless all of said levers are depressed, thus making it necessary that the person operating the machine utilize the brake members for each individual spinning wheel.

The depression of one of the brake levers simply moves it away from the set screw of the guard bar or the operation of any two of the brake levers will simply move them away from the guard bar set screws.

The tension of the spring at the rear end of any one of the brake levers is sufficient to hold the weight of the guard bar and its co-operating parts in the raised position, but when the operator manipulates the three brake levers in order to effect the control of each of the spinning wheels 3 the guard bar is dropped and the weight of same, together with that of the vertical bar 18 swings the latch 19 on its pivot throwing the lower end thereof out of the path of movement of the lever 20 thereby allowing the automatic operation of the premium discharge mechanism.

It will be understood from this description without entering into the details of the well known mechanism that this invention provides an arrangement of individual brakes for controlling the movement of each of the spinning wheels and that unless all of these brakes are used so as to effect that control and thereby bring into play the skill of the operator the mechanism for the automatic discharge of the premiums in accordance with the location of the spinning wheels when they come to rest will not operate.

The mechanism applied to the standard type of machine is extremely simple and is applicable without any material change of the standard mechanism.

What I claim as my invention is:—

1. In a vending machine, the combination with a plurality of spinning wheels and a premium discharge mechanism controlled by said spinning wheels, of manually operable means for controlling the spinning wheels, and means for locking said discharge mechanism adapted to be released only on the operation of said manual control means.

2. In a vending machine, the combination with a plurality of spinning wheels and a premium discharge mechanism controlled by said spinning wheels, of means for locking said discharge mechanism, means for controlling the rotation of the spinning wheels, and means actuated only by the operation of said controlling means for unlocking the discharge mechanism.

3. In a vending machine, the combination with a plurality of spinning wheels and a premium discharge mechanism controlled by said spinning wheels, of means for locking said discharge mechanism, a plurality of braking mechanisms adapted to individually control said spinning wheels, and means for unlocking said locking means actuated only by the operation of all of said braking means.

4. In a vending machine, the combination with a plurality of spinning wheels, and a premium discharge mechanism controlled by said spinning wheels, of means for locking said discharge mechanism, a plurality of braking mechanisms adapted to individually control said spinning wheels, a bar supported by said brake members and adapted to be depressed only upon the operation of all of said brake members, a latch operatively connected with said bar, and means controlled by the operation of said latch on the depression of said bar for unlocking said discharge mechanism.

5. In a vending machine, the combination with a plurality of spinning wheels and a premium discharge mechanism controlled by said spinning wheels, of means for locking said discharge mechanism, a plurality of brake levers adapted to be depressed to individually control said spinning wheels, a horizontal bar pivotally mounted and extending across said brake levers and resting thereon and adapted only when all of said brake levers are depressed to swing downwardly, an arm extending horizontally from said bar, a vertical bar pivotally connected to the latter arm, a latch pivotally mounted on the frame of the ma-

chine and operatively connected with said vertical bar to be swung outwardly on the downward swinging of the horizontal bar, a lever pivotally mounted in the frame and adapted to be normally arrested by said latch member, said latch being adapted on the downward swinging of said horizontal bar to be swung inwardly thereby to prevent the arresting of said pivotal lever, and a locking member pivotally mounted on the frame adapted to normally engage and lock the premium delivery mechanism and to be engaged by said pivotal lever and moved thereby to the unlocked position when said pivotal lever is not arrested by said latch member.

6. In a vending machine, the combination with a plurality of spinning wheels and a premium discharge mechanism controlled by said spinning wheels, of a plurality of brake arms pivotally mounted one adjacent to each of said spinning wheels and each carrying a spring roller brake, a star wheel mounted on each of said spinning wheels adapted to be engaged by said brake, a bar pivotally mounted and extending above said brake arms and resting thereon and adapted only on the depression of all of said levers to swing downwardly, a vertical bar suspended from the aforesaid bar, a latch pivotally mounted on the frame and pivotally connected to said vertical bar and adapted on the downward swinging of said pivotally mounted bar to be swung out of its latching position, a lever pivotally mounted on the frame to swing in a horizontal direction and adapted to be engaged by said latch when all of said levers are not depressed and the horizontal bar is held in its raised position, a locking arm pivotally mounted on the frame adapted to engage and lock the premium discharge mechanism and engaging said horizontal lever and adapted to be moved by said lever to unlock said premium discharge mechanism on the operation of all of said levers and the movement of the latch from the path of the lever.

THOMAS S. HALPIN.