A. WAGNIERE.

DELIVERY MECHANISM FOR PENCIL VENDING MACHINES.

APPLICATION FILED MAY 10, 1909.

956,006. Patented Apr. 26, 1910.

Fig. 1.

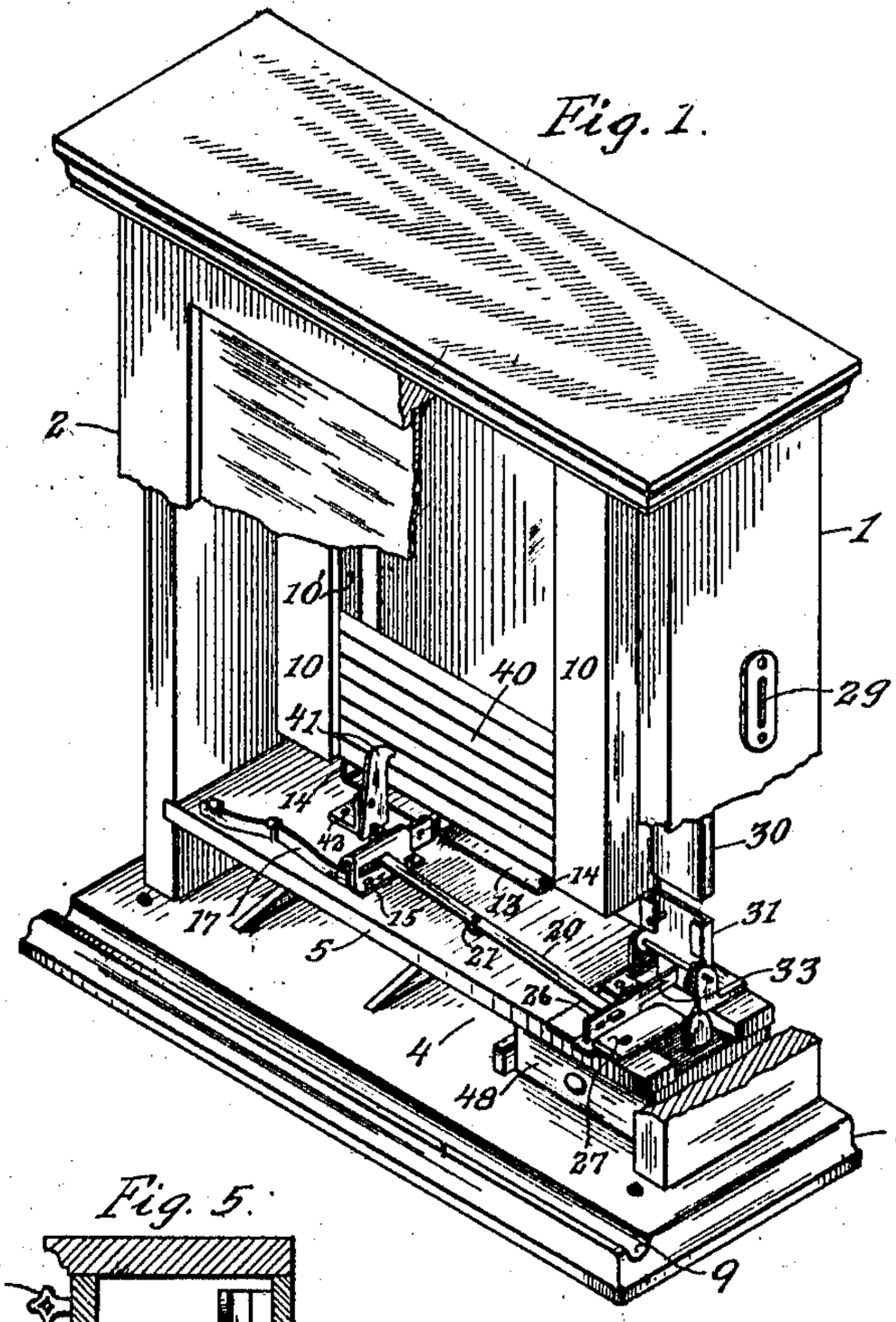


Fig. 2.

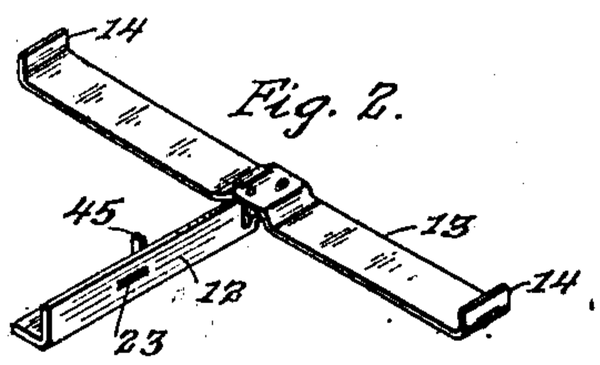


Fig. 3.

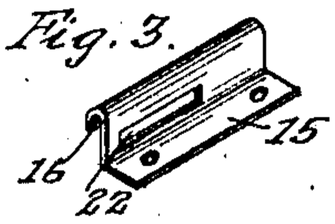


Fig. 4.

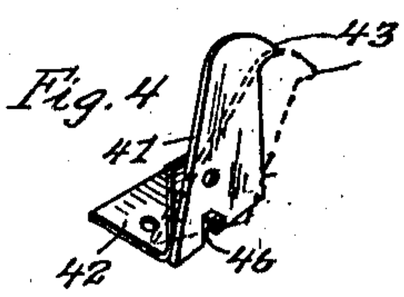


Fig. 5.

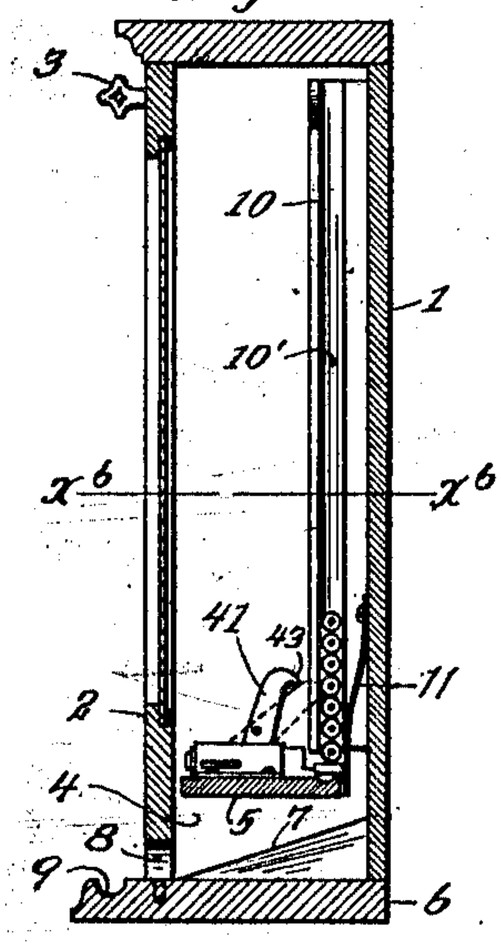


Fig. 6.

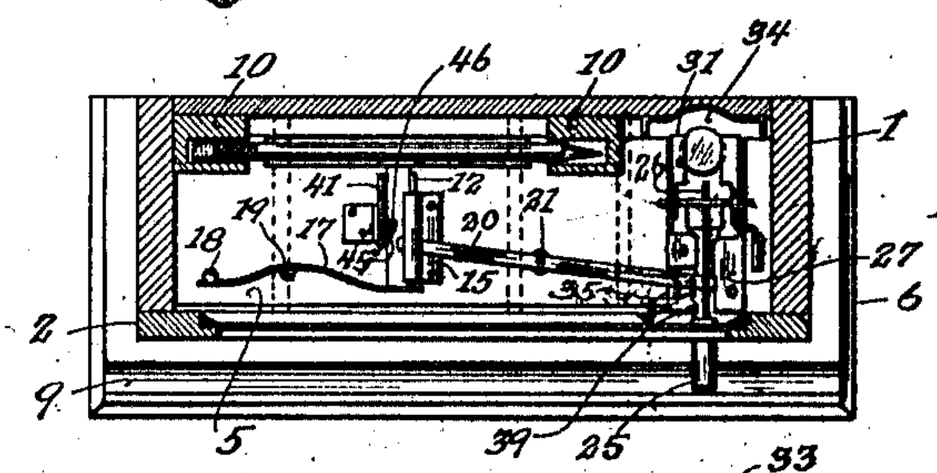
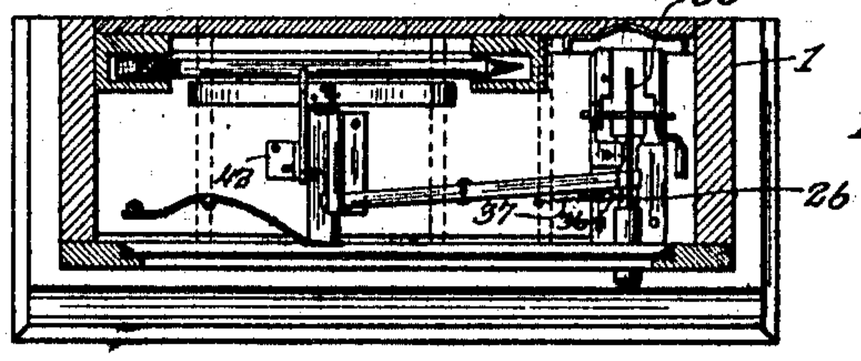


Fig. 7.



Witnesses.
Geo. J. Huting.
Louis W. Gratz.

Inventor.
by August Wagniere.
Pennie Davis Goodrich & Co

UNITED STATES PATENT OFFICE.

AUGUST WAGNIERE, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO E. W. PECK AND T. R. OWEN, OF LOS ANGELES, CALIFORNIA.

DELIVERY MECHANISM FOR PENCIL-VENDING MACHINES.

956,006. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed May 10, 1909. Serial No. 495,186.

To all whom it may concern:

Be it known that I, AUGUST WAGNIERE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Delivery Mechanism for Pencil-Vending Machines, of which the following is a specification.

This invention relates to a pencil vending machine of the type shown in my application Serial No. 445,680, filed July 27, 1908, and the present invention relates particularly to the means for delivering the pencils from the machine.

The main object of the invention is to provide for delivering the pencils in a simple and efficient manner, so that a single movement of the controlling means serves for ejection of a pencil and for bringing the following pencil into position for ejection.

Another object of the invention is to provide means for holding the upper pencils of the column of pencils in such manner that undue pressure will not be brought onto the ejection devices.

Other objects will appear hereinafter.

The accompanying drawings illustrate the invention and referring thereto: Figure 1 is a perspective of the machine. Fig. 2 is a perspective of the ejector. Fig. 3 is a perspective of a guide for the ejector. Fig. 4 is a perspective of the means for sustaining the uppermost pencils of the column. Fig. 5 is a vertical section of the machine from front to back. Fig. 6 is a horizontal section on the line x^6—x^6 in Fig. 5, showing the ejecting mechanism in normal position. Fig. 7 is a view similar to Fig. 6, showing the ejecting mechanism in operated position.

1 designates the case or body of the machine which may be of any suitable construction and is provided with a front or door 2 normally held by locking means 3, so as to prevent access into the interior of the case. Below this front the case is provided with a recess 4 extending beneath the body of the case, the top of this recess being formed by a partition or false bottom 5 which forms the base for the mechanism of the machine. The door 2 extends in front of said recess 4 and is cut away at 8 along its lower edge to form a slot through which the pencils are ejected. The base 6 of the case is provided with inclined pencil supports 7 extending upwardly and rearwardly within the recess 4 to receive the pencils and cause the same to roll forward through the slot 8 and into a groove 9 near the front edge of the base.

Within the case 1 two vertical guides 10 extend at the back of the case, at a point adjacent to the top of the case, each guide being formed with a vertical guide groove 10′ of sufficient width to accommodate a pencil and the portions of said guides at the top thereof being removed sufficiently from the top of the case 1 to permit the introduction of pencils into the guide way formed by said grooves. The false bottom 5 extends part way under said grooves, but is separated from the back of the casing 1 and from the bottom of the guides 10 a sufficient distance to permit the passage of a pencil between the rear edge of the false bottom and the back of the case.

The ejector consists of a T-shaped member comprising a bar 12 formed, for example, of an angle strip and a cross head 13 fastened to and extending transversely of said bar, said ejector head consisting of a sheet metal strip having its ends bent up as at 14 a distance somewhat less than the thickness of the pencil. The bottom of the guides 10 terminates a sufficient distance from the false bottom to enable a pencil to pass between them, a spring 11 attached to the back of the cam normally pressing forwardly to hold the lowermost pencil in position on the false bottom, but yielding to permit the rearward movement of the pencil when it is forcibly pressed back by the ejector. The bar 12 slides in a guide consisting of a sheet metal strip bent in angle form with its upwardly extending portion bent over and down to form a guide way 16 in which the vertically extending portion of the angle bar 12 slides. A spring 17 engaging and supported by pins or studs 18, 19 on the false bottom 5 extends over the front end of the bar 12, so as to normally press said bar to rearward position shown in Figs. 1 and 6.

The operating means for the ejector consists of a lever 20 pivoted at 21 on the false bottom 5 and extending through a slot 22 on the guide 15 and through a slot 23 in the bar 12, the said lever working close in the slot 23, but the slot 22 being elongated, so as to enable the bar 12 and the ejector to be operated by movement of said lever. Such movement of the lever is effected by an op-

erating means consisting of a push button 25 sliding through the front or door 2 of the case and engaging the front end of the slide bar 26 mounted to slide forwardly and rearwardly in a guide 27 on the false bottom 5, said slide bar 26 being slotted to receive and fit the lever 20, so that the rearward movement of the slide bar 26 causes forward movement of the slide 12 and the ejector and vice versa.

Coin control means are provided for controlling the rearward movement of the slide bar 26, said means comprising coin slot mechanism which may be of any usual or suitable form, for example, of the form described and claimed in my application aforesaid. As such coin slot mechanism forms no part of the present invention, it is illustrated and described herein in so far as is necessary for the explanation of the delivery mechanism.

29 designates the coin slot, 30 the coin chute, 31 the lock, pivotally mounted on the false bottom 5 and adapted to receive a coin from the coin chute 30 and to tilt under the weight of the coin in position to bring the coin into position for ejection from the lock by an arm 33 extending rearwardly from the slide bar 26. A slot 34 extends through the false bottom 5, to discharge the coin to a cash receptacle 48.

Means are provided for preventing the operating device from being partially operated in such manner as to eject the pencil without dislodging the coin, said means consisting, for example, of a series of teeth 35 on the slide bar 26, and a pawl 36 pivoted to the guide member 27 and held by a spring 37 so as to cause it to engage said teeth to prevent back movement of the slide 26 after it has started to move in either direction. A deep notch 39 at each end of the series of teeth 35 enables the pawl or detent 36 to resume its normal position when the slide reaches the end of its stroke in either direction. Means are also provided for sustaining the upper pencils of the column of pencils indicated at 40 in Fig. 1, so as to relieve the ejector mechanism of the weight of such pencils, said means consisting of a member 41 pivoted to a bracket 42 on the false bottom 5, and having a projection or tooth 43 at its upper end, the pivot of the said member being at one side of the center of gravity of the member so that said member tends to fall forward to position shown in dotted lines in Fig. 5 with its tooth 43 engaging with the column of pencils to sustain those pencils which are above said tooth. This sustaining means is normally held out of engagement with the column of pencils by a pin 45 on the slide 12 engaging with a pin 46 on the member 41 to hold said member in position shown in full lines in Fig. 5. As the sustaining member 41 swings rearwardly against the column of pencils, the point of contact of the said member with the pencils is at the rear of the pivotal point of support of said member, so that the downward pressure of the pencils on said member tends to press said member rearwardly and to bind it more tightly against the pencils, the pressure of said member on the pencils being therefore proportional to the weight to be sustained.

The operation is as follows: It being assumed that a column of pencils is in place in the guideways 10′, the lowermost pencil rests on the top of the upturned flanges 14 of the ejector head 13 so that no pencils can be delivered until the ejector head is moved forwardly. Such forward movement of the ejector head is prevented by the lock 31 which normally extends up into the path of the arm 33 and opposes rearward movement of the slide 26 connected to the operating lever 20. A person desiring a pencil will drop a coin in the slot 29 and said coin dropping onto lock 31 will tip the same over, the coin receiving portion of said lock being at the rear of the pivot thereof so that under the weight of the coin the lock will turn to horizontal position, bringing said lock out of the path of the slide bar 26. The push button 25 may now be pressed forcing the slide bar 26 rearwardly, operating the lever 20 and bar 12 to move the ejector head 13 forwardly from under the lowermost pencil of the lower part of the column and allowing the column of pencils to drop until the bottom pencil rests on the false bottom 5. In this operation the pin 45 on the slide 12 is removed from the projection 46 on the pencil sustainer 41 allowing the tooth 43 thereof to come into engagement with the column of pencils so that downward movement of those pencils which are above this sustaining device is prevented, thereby reducing the friction on the lower pencils, facilitating the operation of the ejector means and obviating the risk of squeezing or binding of the lower pencils by the superincumbent weight. The lock 31 being at this time in horizontal position, the rearward arm 33 of the slide bar 26 moves over the top of said lock and pushes the coin therefrom into the discharge slot 34 by which it is conveyed to the cash receptacle 48. When the push button 25 is released, the spring 17 presses the slide bar 12 rearwardly causing the flanges 14 of ejector head 13 to press the lowermost pencil rearwardly and over the rear edge of the false bottom 5, said pencil falling onto the inclined supports 7 and rolling forward into the receptacle 9. During this movement the pencil sustainer 41 is returned to its normal position by the pin 45 of the slide 12 engaging with the projection 46 on said member allowing the upper pencils of the column to descend and to rest

on the lower pencils, said lower pencils resting in turn on the top of the flanges 14 of ejector head 13, as before, this completing the cycle of operation.

What I claim is:—

1. A delivery mechanism for pencil vending machines comprising, in combination, two vertical, grooved guides for receiving the ends of the pencils to guide the pencils in a vertical column, a bottom member extending beneath said guides at a sufficient distance therefrom to permit passage of a single pencil between said bottom and the lower end of said guides, an ejector consisting of a bar and a cross head thereon, said cross head normally extending below the space between said vertical guides to sustain the lowermost of the column of pencils within the guides, guide means on said bottom member in which said bar of the ejector is movable forwardly and rearwardly, a lever pivoted on said bottom member and engaging with said bar of the ejector to operate the ejector forwardly, a push button supported in position to operate said lever for such forward operation of the ejector, and a spring engaging the said bar of the ejector to normally press the ejector rearwardly.

2. A delivery mechanism for pencil vending machines comprising, in combination, two vertical, grooved guides for receiving the ends of the pencils to guide the pencils in a vertical column, a bottom member extending beneath said guides at a sufficient distance therefrom to permit passage of a single pencil between said bottom and the lower end of said guides, an ejector consisting of a bar and a cross head thereon, said cross head normally extending below the space between said vertical guides to sustain the lowermost of the column of pencils within the guide members, guide means on said bottom member in which said bar of the ejector is movable forwardly and rearwardly, a lever pivoted on said bottom member and engaging with said bar of the ejector to operate the ejector forwardly, a push button supported in position to operate said lever for such forward operation of the ejector, a spring engaging the said bar of the ejector to normally press the ejector rearwardly, and means for sustaining the upper pencils of the column during the ejection operation, consisting of a member pivotally mounted on said bottom to swing rearwardly against the column of pencils, and means on said member and on the aforesaid bar of the ejector to turn said member forwardly away from the column of pencils when the ejector is in normal rearward position.

3. In a delivery mechanism for pencil vending machines, in combination with the vertical guides for the pencils, an ejector mounted to move forwardly and rearwardly below said guides, a bottom member extending beneath and supporting said ejector and separated from the guide members sufficiently to allow passage of a single pencil, and means for operating said ejector, means for sustaining the upper pencils of the column, consisting of a member pivotally mounted on said bottom member and swinging rearwardly against the column of pencils by gravity, and means on said swinging member and on the ejector for releasing said member from the column of pencils when the ejector is in normal position.

4. A delivery mechanism for pencil vending machines comprising, in combination, two vertical, grooved guides for receiving the ends of the pencils to guide the pencils in a vertical column, a bottom member extending beneath said guides at a sufficient distance therefrom to permit passage of a single pencil between said bottom and the lower end of said guides, an ejector consisting of a bar and a cross head thereon, said cross head normally extending below the space between said vertical guide members to sustain the lowermost of the column of pencils within the guide members, guide means on said bottom member in which said bar of the ejector is movable forwardly and rearwardly, a lever pivoted on said bottom member and engaging with said bar of the ejector to operate the ejector forwardly, a push button supported in position to operate said lever for such forward operation of the ejector, a spring engaging the said bar of the ejector to normally press the ejector rearwardly, and spring means at the rear of the column of pencils and of the space between the said guide members and the said bottom member to prevent passage of the pencil from said space until it is ejected by the ejector.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 26th day of April 1909.

AUGUST WAGNIERE.

In presence of—

A. P. KNIGHT,

FRANK L. A. GRAHAM.