

APPLICATION FILED FEB. 18, 1910.

Patented May 30, 1911.

2 SHEETS—SHEET 1.



7-1

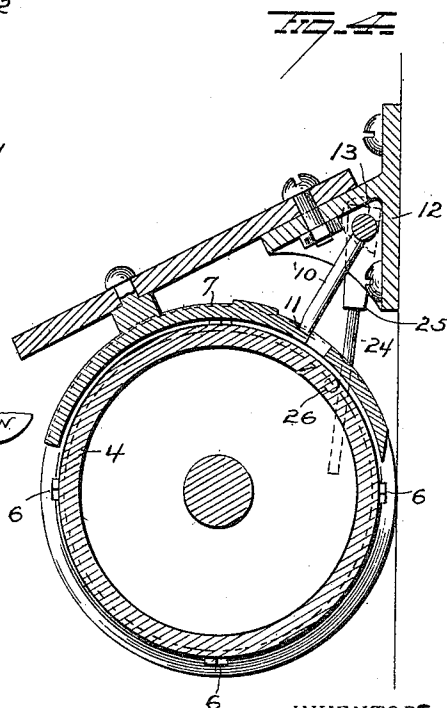
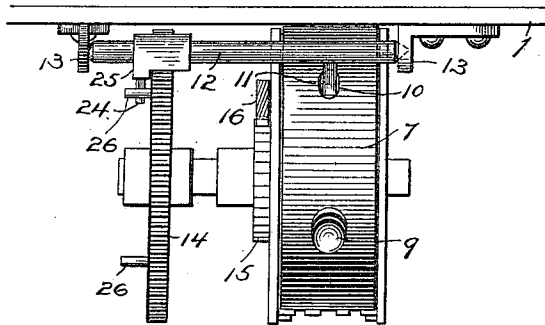
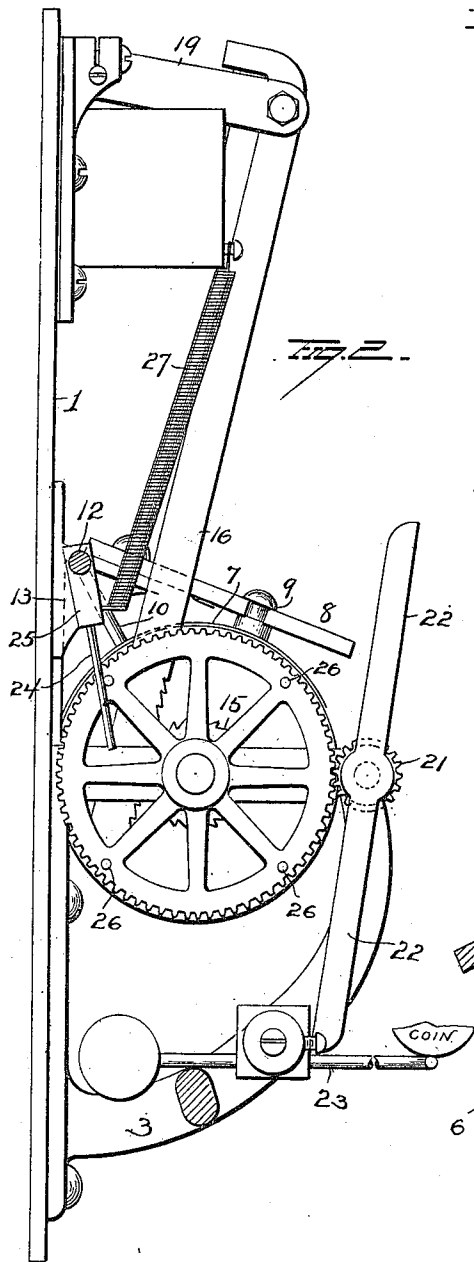
WITNESSES
E. Nottingham
G. J. Downing.

INVENTORS
S. L. H. Lee and
H. Warden
By H. A. Seymour Attorney

S. L. W. COE & H. WERDEN.
 VENDING MACHINE.
 APPLICATION FILED FEB. 18, 1910.

994,059.

Patented May 30, 1911.
 2 SHEETS—SHEET 2.



WITNESSES
E. J. Nottingham
G. J. Downing

INVENTORS
S. L. W. Coe and
H. Warden
By H. A. Seymour Attorney

UNITED STATES PATENT OFFICE.

SARA L. W. COE AND HENRIETTA WERDEN, OF NEW YORK, N. Y.

VENDING-MACHINE.

994,059.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed February 18, 1910. Serial No. 544,531.

To all whom it may concern:

Be it known that we, SARA L. W. COE and HENRIETTA WERDEN, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Vending-Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in vending machines, and more particularly to such as are adapted for vending postage stamps and the like.

In the operation of machines for vending such articles as postage stamps, especially when the stamps are carried by a pocketed strip, some difficulty and annoyance have been experienced in effectually preventing a customer from fraudulently obtaining more than it was intended that the coin which he had inserted into the machine should purchase. Stamps to be sold with the use of vending machines, have been arranged in strips to be discharged through a slot by means of a feed wheel or drum and then severed by the purchaser. It has also been proposed to place stamps into pockets of a continuous strip of pockets and to feed such strip so as to project a single pocket at a time through discharge slot at each operation of the machine. When the feeding or vending means consists of a wheel or drum over which the strip is passed, a guard plate or shoe is employed to hold the strip in such relation to the engaging means on the feed wheel or drum that the strip shall be so fed forward at each operation of the machine, that a single stamp or pocket shall be projected through the discharge slot. It is important that during the forward feeding of the strip, the guard plate or shoe should not press the strip against the feed wheel or drum sufficiently to cause the undue retardation or the tearing of the strip. The passage of the strip over the feed wheel or drum should be quite free and therefore the guard plate or shoe should be capable of slight play during the normal feeding of the strip. In order however, that after a stamp or pocket of the strip shall have been projected through the discharge slot, the purchaser shall be prevented from pulling the strip over the feed wheel or drum and thus secure more than a single stamp or pocket. It is

important that the guard plate or shoe shall be made rigid and thus cause it to hold the strip against the feed wheel sufficiently tight to prevent it from being pulled over the engaging devices of said feed wheel after a single stamp or pocket has been projected by the normal operation of the machine.

The object of our present invention is to provide means which will operate to properly hold the strip after a portion thereof shall have been projected and to prevent said strip from being pulled through the discharge slot by the purchaser,—but which will also permit the free travel of the strip to project a single stamp or pocket during the normal operation of the machine.

With this object in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view, partly in section, showing a portion of a stamp or ticket vending machine embodying our improvements. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view showing the application of our improvements to the guard plate or shoe over the feed wheel or drum, and Fig. 4 is a sectional view of the devices shown in Fig. 3.

1 represents a supporting plate, to the rear face of which brackets 2—3 are secured and serve to support the journals of a feed wheel or drum 4. This feed wheel or drum is provided at its side edges with peripheral flanges 5 and adjacent to these flanges, lugs 6 project from the peripheral face of the wheel or drum. The lugs 6 (which are preferably V-shaped) are arranged in pairs adjacent to the flanges 5 and said pairs of lugs are spaced apart distances equal to the length of a stamp or a pocket of a strip of pockets. The strip of stamps or pockets will be provided at the intersections of the stamps or pockets with notches to receive the lugs 6 on the feed wheel and the mechanism for operating the latter will be such that said feed wheel will be turned at each operation of the machine a distance equal to the length of one stamp or pocket and will therefore project a single stamp or pocket through the discharge slot of the machine. In order that the notched portions of the strip shall be maintained in proper mesh with the engaging lugs 6 of the feed wheel or drum, a guard plate or shoe 7 is employed. This guard plate is segmental in

form and fits over the feed wheel or drum so as to guide the strip over the latter and prevent the disengagement of said strip from the lugs 6 of the feed wheel or drum.

5 During the normal operation of the machine, the plate or shoe 7 should not press against the strip sufficiently to retard the free movement of the latter while a stamp or pocket is being fed forwardly through the discharge slot. The plate or shoe 7 is prevented from displacement by means of a
10 pivoted arm 8 which is loosely engaged by a pin 9 on the plate or shoe, the latter being thus permitted to rest loosely upon the lugs
15 6 and prevent disengagement of the notched strip from the latter. After a stamp or pocket has been projected through the discharge slot, it might be possible for the purchaser to raise the plate or shoe 7 and
20 then by a quick pull upon the stamp or pocket, cause the disengagement of the strip from the lugs 6 of the feed wheel and thus the purchaser might be enabled to pull a portion of the strip over the feed wheel and
25 secure more than a single stamp or pocket. This would be prevented if the plate or shoe 7 would be held down tightly after a stamp or pocket has been projected. To accomplish this we provide an arm 10 to en-
30 gage a shoulder 11 on the plate or shoe 7 as clearly shown in Fig. 4.

The arm 10 is carried by a shaft 12 mounted in brackets 13 so as to be disposed over the feed wheel or drum and also over a gear
35 wheel 14 secured to the same shaft which carries said feed wheel or drum. The feed wheel or drum is provided with a pinion 15 with which a rack bar 16 meshes. This rack bar is raised by the insertion of a coin into
40 the machine through the medium of an arm 17 secured on the shaft 18, the latter being provided with an arm 19 pivotally connected with the upper portion of the rack bar. When the rack bar has been thus raised, tension
45 will be put upon a spring 20 and when the mechanism has been released, the spring 20 will serve to pull the bar 16 downwardly and thus propel the feed wheel or drum 4. A pinion 21 meshes with the gear wheel 14
50 and the shaft of this pinion is provided with arms 22 adapted to engage a trip device 23, as shown in Fig. 2. Thus when the bar 16 is raised upon the insertion of a coin into the machine, it will be retained in such position
55 with the spring 20 under tension by the operation of the trip device 23. The construction of the machine is such that after the mechanism has been "set" as above explained, the coin will be directed to the
60 trip device 23 so as to cause the latter to release one of the arms 22 and permit the feeding wheel or drum to be operated as above explained.

As hereinbefore stated, it is important that
65 the plate or shoe 7 shall be free so as to not

bind or retard the strip of stamps or pockets during the interval of time that the same is being fed by the wheel or drum 4. At such time therefore the arm 10 should be moved away from the shoulder 11 on the
70 plate or shoe 7 so as to release the latter. For this purpose, the shaft 12 is provided with an arm 24 connected with the shaft through the medium of a block or head 25. The arm 24 is pressed toward one of a series
75 of pins 26 on the gear wheel 14, by means of a spring 27 attached to the block or head 25.

With the construction and arrangement of parts above described, it is apparent that the plate or shoe 7 will be held tightly against
80 the lugs 6 on the feed wheel at all times except when said wheel is being operated to project a stamp or pocket. As soon however, as the propelling mechanism shall have been released by the cooperation of a coin
85 with the trip 23, one of the pins 26 on the gear wheel 14 will press the arm 24 outwardly, thus turning the shaft 12 and consequently moving the arm 10 out of engagement
90 with the plate or shoe 7. When the propelling mechanism comes to rest, a stamp or pocket will have been projected through the discharge slot of the machine and the spring 27 will operate to bring the arm 24
95 against another pin 26 on the gear wheel 14 and the arm 10 in engagement with the shoulder 11 on the plate or shoe 7, thus holding the latter with sufficient rigidity to prevent it from being raised by the purchaser
100 sufficiently to enable the purchaser to pull the strip past the lugs 6 on the feed wheel.

Having fully described our invention what we claim as new and desire to secure by Letters-Patent, is,—

1. In a vending machine, the combination
105 with a feed wheel and propelling mechanism, of a plate or shoe disposed loosely over the wheel, means for holding said plate or shoe closely against the wheel when the same is at rest, and means for releasing said holding
110 means during the normal operation of the feed wheel.

2. In a vending machine, the combination
115 with a feed wheel and propelling means, of a plate or shoe disposed loosely over the feed wheel, an arm engaging said shoe when the feed wheel is at rest and holding it closely against said feed wheel, and means controlled by the propelling mechanism for disengaging said arm from the plate or shoe
120 during the normal operation of the feed wheel.

3. In a vending machine, the combination
125 with a feed wheel, another wheel rotatable with the feed wheel and provided with a series of pins and a plate or shoe disposed over the feed wheel and provided with a shoulder, of a shaft disposed over said wheels and provided with an arm to engage
130 the shoulder on said plate or shoe, another

arm projecting from said shaft and engaged
by the pins on said wheel, and a spring for
turning said shaft in one direction and nor-
mally maintaining one of the arms thereof
5 in engagement with the shoulder on the
plate or shoe while the feed wheel is at rest.

In testimony whereof, we have signed this

specification in the presence of two subscrib-
ing witnesses.

SARA L. W. COE.
HENRIETTA WERDEN.

Witnesses:

JAMES L. WRIGHT,
ANNIE B. WALTERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
