Sept. 14, 1926.

1,600,158

R. M. WILLIAMS

VENDING MACHINE

Filed May 31, 1924

3 Sheets-Sheet 1

Fig. 1.

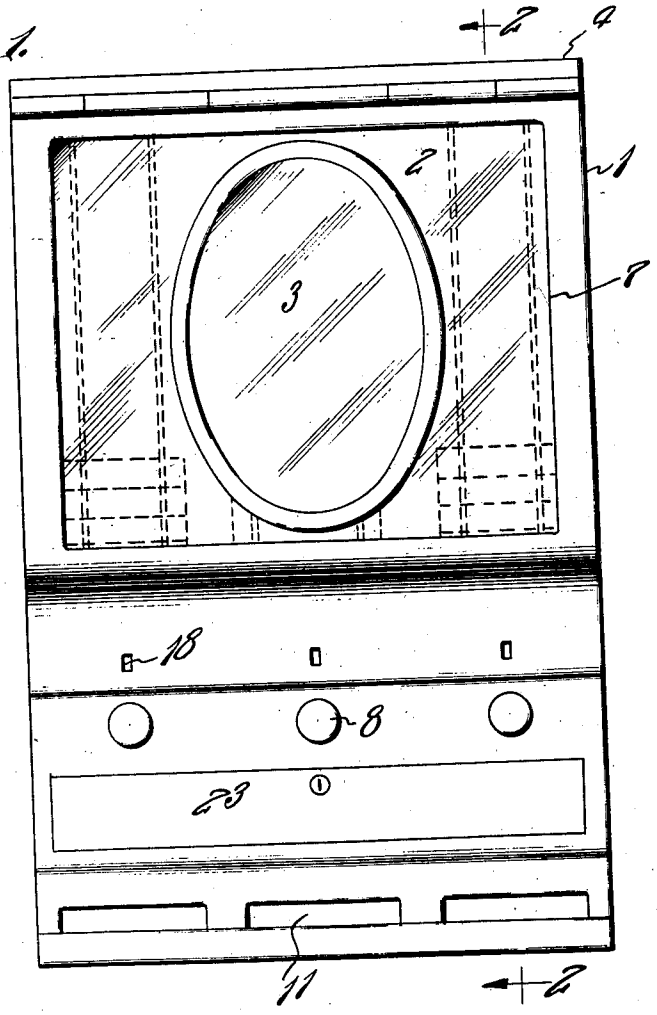
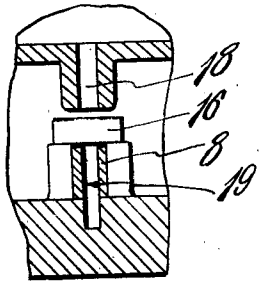


Fig. 5.



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Fig. 5.

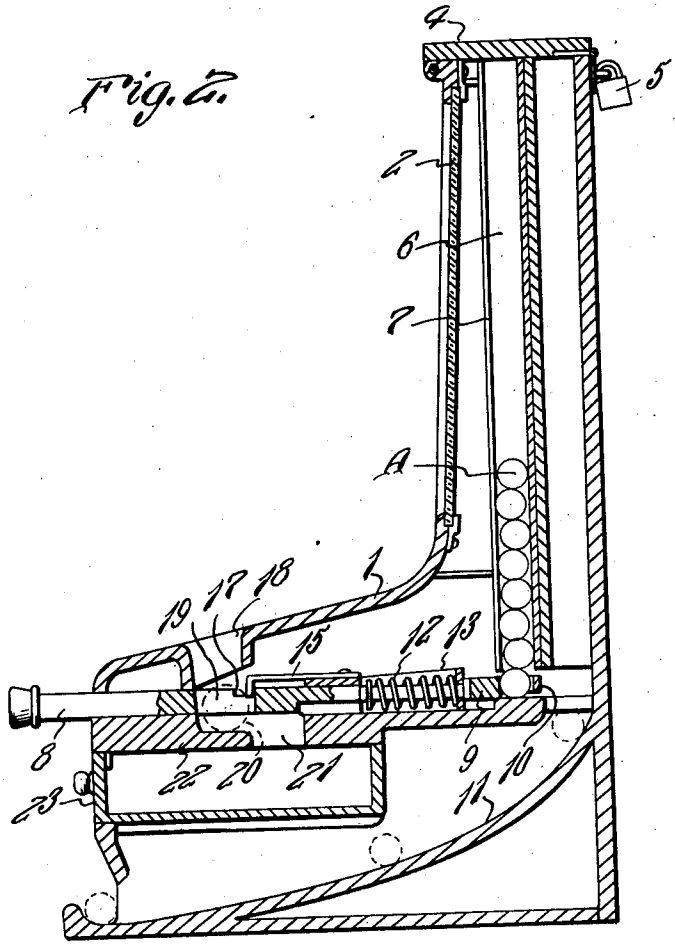
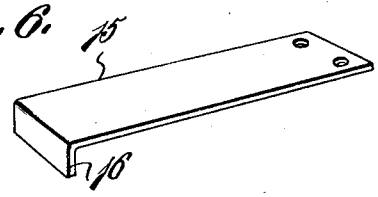


Fig. 6.



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3 Sheets-Sheet 3

Fig. 3.

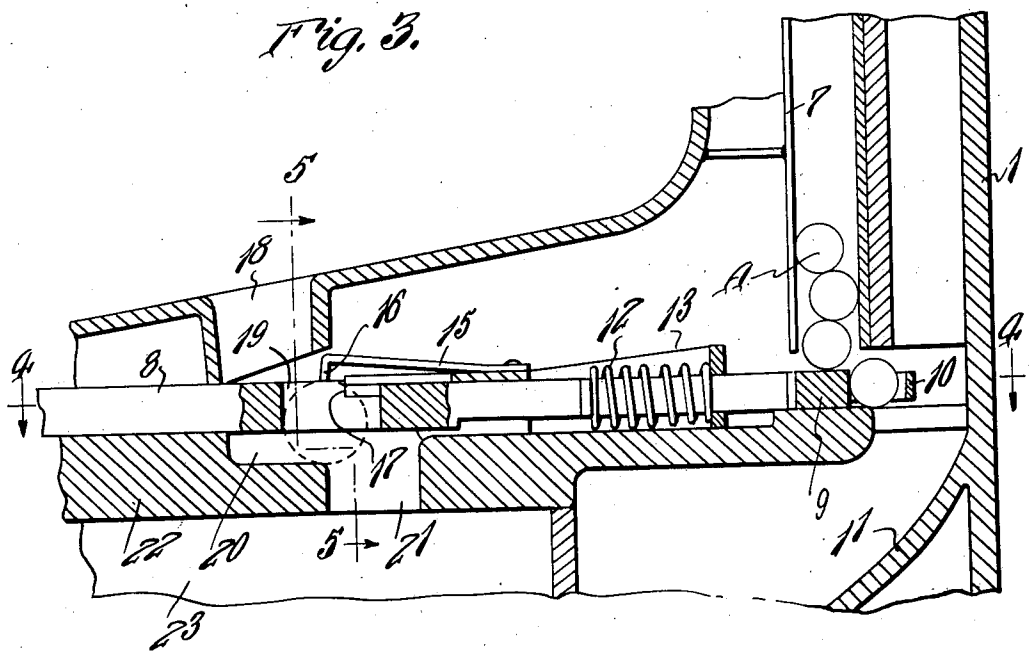
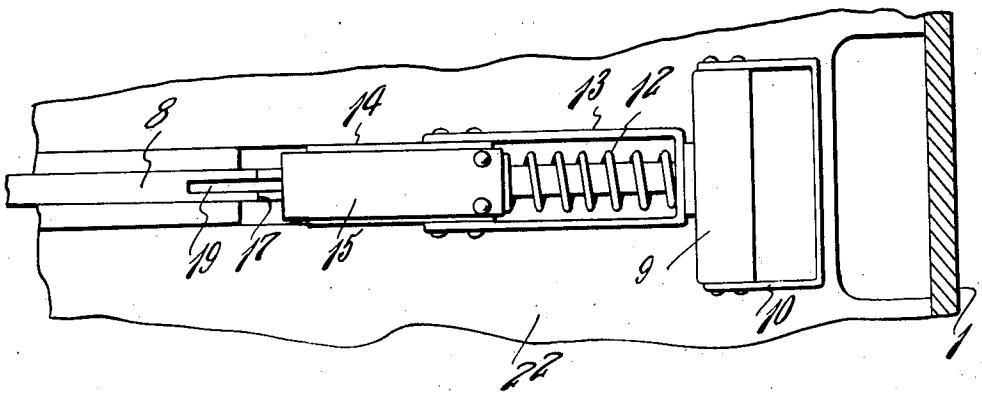


Fig. 4.



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Patented Sept. 14, 1926. 1,600,158

UNITED STATES PATENT OFFICE.

ROBERT M. WILLIAMS, OF GUTHRIE, OKLAHOMA.

VENDING MACHINE.

Application filed May 31, 1924. Serial No. 717,100.

This invention relates to a vending machine, the general object of the invention being to provide a plunger having a slide at one end thereof for moving articles from a container into a delivery chute with coin operated means for holding the plunger against movement until a coin is inserted into the device.

Another object of the invention is to provide spring means for returning the plunger to normal position and to provide a money drawer for receiving the coins from the plunger after the plunger has been moved to its innermost position.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a front view of the invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is an enlarged sectional view showing one of the plungers in partly projected position.

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a section on line 5—5 of Figure 3.

Figure 6 is a view of the coin operated spring.

In these views, 1 indicates a casing, which is made with a narrow upper part and a wide lower part, the upper part being provided with a transparent front 2 and a mirror 3 and a hinged top 4 which may be locked by any suitable form of lock, shown at 5. The articles to be vended are placed in the guideways 6, the front portions of which are formed by the rods 7 after raising the top 4. A horizontally arranged plunger 8 is associated with each guideway and each plunger has on its inner end a frame which consists of a cross piece 9 and a yoke 10 which has its bight spaced from the front edge of the cross piece to form a receiving space for the lowermost article in the guideway. By pushing the plunger inwardly the article A, shown in this instance as perfume bottles, is moved from the bottom of the guideway over the upper end of a chute 11 which is so arranged as to cause the article to pass to a pocket 11′ at the front of the casing where it may be picked up by the purchaser. A spring 12 is arranged on the plunger and acts to hold the same in its outermost position, said spring having one end engaging a U-shaped guiding member 13 through the bight of which the plunger passes and which has its limbs connected with a stationary part 14 which also acts as a guiding means for the plunger and to the top of which is fastened a spring plate 15 with its front end bent downwardly, as at 16, to engage a shoulder 17 formed on the plunger, thus holding the plunger in its outermost position. The front end of the spring plate is located just in rear of a coin chute 18 formed in the top of the wide part of the casing and with which a slot 19 in the plunger will register when the plunger is in its outermost position. The bottom of a recess 20 acts as a support for the coin when engaging the slot 19 and a coin opening 21 in the partition 22 is arranged adjacent the recess so that when the plunger is moved forwardly the coin will roll along the bottom of the recess and drop into the opening 21 and thus pass into a money drawer 23 located under the partition. As the coin moves along the bottom of the recess it will strike the depending part 16 of the plate and raise the same out of engagement with the shoulder on the plunger to permit the plunger to be forced inwardly to its entire extent and thus take an article from the guideway and deposit it into the chute 11. The drawing shows three plungers and three guideways for supporting three rows of articles with the money drawer 22 arranged to receive the coins from all of the plungers, though it will of course be understood that this arrangement can be varied to suit conditions. The articles can be seen through the transparent face of the casing.

From the foregoing it will be seen that it is simply necessary to place a coin of the desired denomination in a coin chute so that this coin will rest upon the bottom of the recess 20 in the partition 22 and project from the slot 19 in the plunger. Then by pushing upon the outer end of the plunger the coin will be forced into engagement with the depending part of the spring

plate so as to raise said plate out of engagement with the shoulder on the plunger to permit the movement of the plunger to be continued and thus move an article resting upon the inner end of a partition and occupying the space formed by the cross piece 9 and the yoke 10 into the upper end of the chute so that the article will roll down into the pocket 11′ where it can be picked up by the plunger. As soon as the finger is released from the plunger the spring 12 will return the plunger to its outermost position and the depending part in the spring plate will drop in rear of the shoulder on the plunger and thus prevent another inward movement of the plunger until another coin has been placed in the coin chute. The coin will be forced through the opening 21 into the money drawer as the plunger moves inwardly under the action of gravity and the pressure of the spring plate.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

A vending machine of the class described comprising a casing having a guide way therein for containing the articles to be vended, a stationary horizontal guide member, a U-shaped guide having its end attached to the stationary guide, a plunger movable through the stationary guide and intermediate portion of the U-shaped guide, a chute in the top of the casing, said plunger having a slot adapted to be normally aligned with the chute, a partition in the casing below the plunger, said partition being formed with a recess aligned with the chute and further provided with an opening out of alignment with the chute, yieldable means for retaining the plunger in an inoperative position including a coil spring upon the plunger between one end of the stationary guide and the intermediate portion of the U-shaped guide, means preventing movement of the plunger against said spring, said means being released through movement of the plunger and means carried by the plunger for removing the articles from the guide way one at a time upon movement of the plunger in one direction.

In testimony whereof I affix my signature.

ROBERT M. WILLIAMS.