

H. H. BRINKS.
VENDING MACHINE.

APPLICATION FILED AUG. 8, 1911.

Patented Feb. 27, 1912.

3 SHEETS—SHEET 1.

1,018,808.

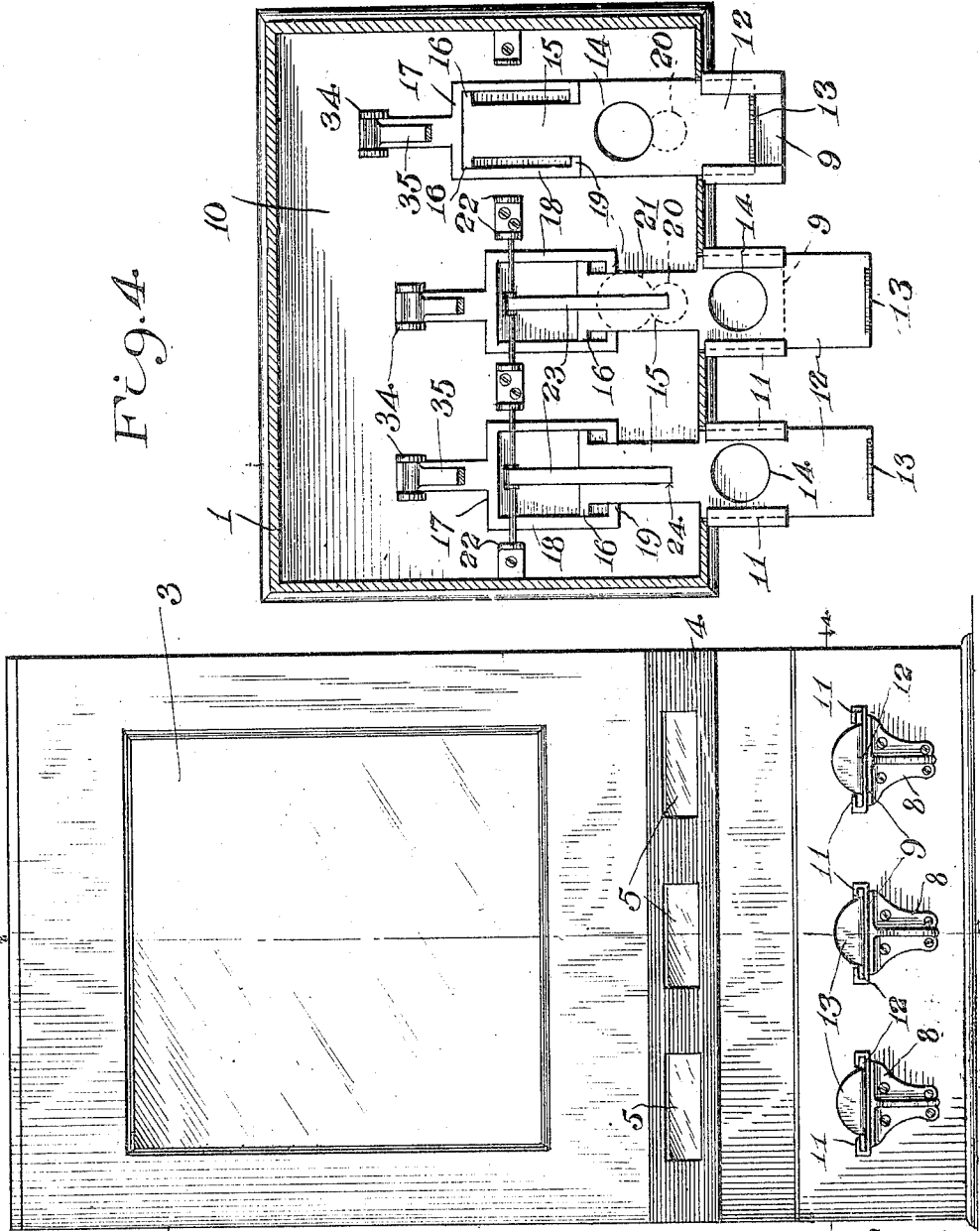


Fig. 4.

Fig. 1.

Witnesses
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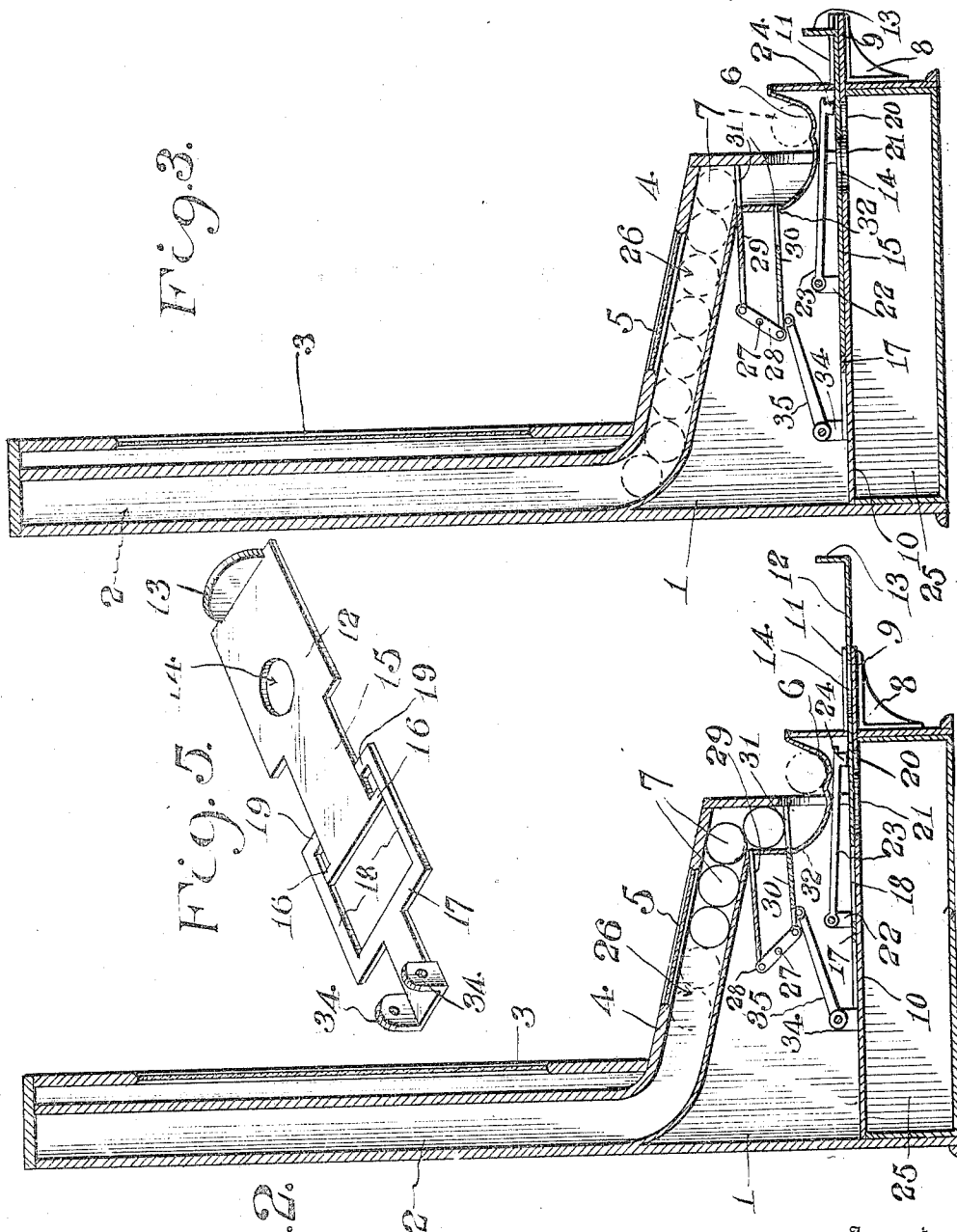
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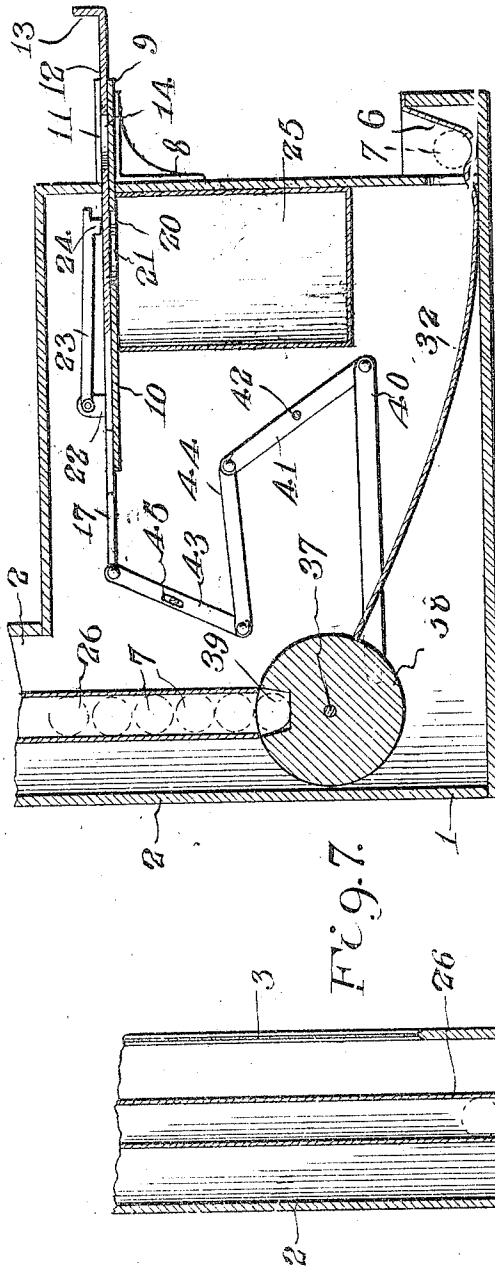
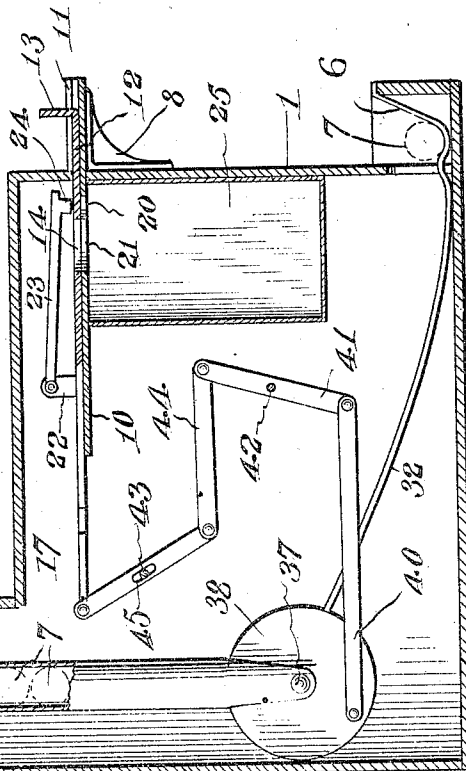


Fig. 7.

Fig. 6.



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UNITED STATES PATENT OFFICE.

HERMAN H. BRINKS, OF GRAND RAPIDS, MICHIGAN.

VENDING-MACHINE.

1,018,808.

Specification of Letters Patent.

Patented Feb. 27, 1912.

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To all whom it may concern:

Be it known that I, HERMAN H. BRINKS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

My invention relates to improvements in vending machines, and has for its leading object the provision of an improved vending machine particularly adapted for delivering bottles, cigars or like tubular articles.

The further object of my invention is the provision in a vending machine of improved means for ejecting all coins not of the proper size and for preventing operation of the machine except when a coin of the correct size is deposited therein.

Another object of my invention is the provision of an improved type of ejector for vending machines and of an improved operating mechanism therefor of such construction as to be operated by a direct push thereagainst but which cannot be operated without breaking the machine unless the proper coin is first deposited.

Other objects and advantages of my improved vending machine will be readily apparent by reference to the following description taken in connection with the accompanying drawings and it will be understood that I may make any modifications in the specific structure shown and described within the scope of my claims without departing from or exceeding the spirit of my invention.

Figure 1 represents a front view of my complete vending machine. Fig. 2 represents a vertical sectional view thereof on the line 2—2 of Fig. 1. Fig. 3 represents a similar view to Fig. 2 with the parts shown in ejecting position. Fig. 4 represents a cross sectional view on the line 4—4 of Fig. 1. Fig. 5 represents a detailed view of the slide levers. Fig. 6 represents a sectional view illustrating a modified construction of ejecting mechanism, and Fig. 7 represents a view of the mechanism shown in Fig. 6 at the completion of the ejecting operation.

In the drawings, the numeral 1 designates the inclosing casing of my vending machine having the upstanding hopper portion provided in the front with the mirror 3 and having the inclining top 4 with the glass panels 5, while disposed at a suitable position on the front is the trough 6 for receiving the bottles 7 as delivered from the machine. Brackets 8 are secured to the front of the casing and support the forwardly projecting ends 9 of the supporting plate 10, said ends 9 having inturned flanges 11 to provide guides for the operating levers. It will be understood that there may be any desired number of operating levers and containing compartments controlled thereby although I have illustrated but three in the drawings.

Slidably engaged beneath the flanges 11 is the slide actuating lever 12 having an upwardly bent outer end 13 to facilitate grasping and outward drawing of the lever, said lever having a coin receiving aperture 14 formed therein near the inner end of its main portion. Disposed at all times within the casing 1 of my machine, is the reduced portion 15 of the lever 12 which terminates at its inner end in the laterally extending wings or lugs 16. The lever 12 is slidably supported upon the plate 10, while supported at the rear of the lever 12 or actuating lever is the operating lever comprising a cross bar 17 having extending forward from its ends the arms 18 adapted to span the wings 16 and having at their ends the inwardly projecting portions 19 adapted to fit against the reduced portion 15 of the lever 12. In the use of this actuating and operating lever the lever 12 is pushed inward and first telescopes with the arms 14 of the cross piece 17 until the inner end of the lever 12 contacts with the cross bar 17. Continued movement of the lever 12 then serves to force the cross bar 17 rearwardly with it.

To allow of the rear movement of the cross piece 17 only when the correct coin has been inserted in the machine, I form in the base plate 10 the apertures 20 of size to allow a dime or penny to drop therethrough and

the apertures 21 of size to permit a nickel to readily fall through the same. Pivottally supported by the bracket 22 rising from the base is the gravity safety lever 23 having a depending head 24 which rides on the lever 12. When an attempt is made to force the lever 12 inward without a coin in the aperture 14, the end 24 will drop downward through the aperture 14 and the aperture 20 which is disposed beneath the end 24 and the lever 12 will be locked against further inward movement before it has come into contact with the cross piece 17. The operation of the member 23 is the same when a penny is placed in the aperture 14. When, however, a nickel is placed in the aperture 14 the same will pass across the aperture 20 and by filling the aperture 14 will prevent the end 24 from locking the lever 12 against movement and the lever will consequently pass inward to engage the cross piece, the nickel dropping through the aperture 21 into the coin box or drawer 25.

In the preferred form of my invention, I have provided the vertical and inclined chute 26 for containing the bottles or articles 7 to be vended by my machine, said chute being adapted to discharge into the trough 6. To control the discharge and to permit but a single article to pass downward upon each operation of the machine, I intermediately pivot on the rod 27 extending transversely of the machine the links 28 having pivottally secured to their upper ends the slide gates 29 and having pivottally secured to their lower ends the slide gates 30. Said gates each have forwardly extending lugs 31 which are slidably engaged in the depending portion of the bottom 32 of the chute and are adapted to project across the chute to limit the downward movement of the bottles 7. To rock the links 28 to shift the said gates, I pivot to the upstanding ears 34 of the cross piece 17 the operating links 35 which have their other ends pivoted to the lower ends of the gate links 28. As the cross piece is moved rearwardly the lower gate is drawn back to allow the bottle resting thereon to drop into the trough 6 while the other gate is moved forward to hold back the rest of the bottles, as is clearly shown in the drawings.

In the modified construction of my invention illustrated in Figs. 6 and 7, in place of employing the gates, I rotatably mount on the rod 37 extending transversely of the machine the cylinder 38 disposed below the bottom or discharge end of the chute 26 and having a recess 39 formed in one side thereof. Said recess is normally disposed below the chute to receive the lowermost bottle 7 therefrom. Eccentrically secured

to the end of the cylinder is the lever 40 having pivoted to its forward end the lever 41 intermediately pivoted at 42 and connected with the intermediately pivoted lever 43 by the link 44. The lever 43 has its upper end pivoted to the depending ears 34 of the cross piece 17 and is rearwardly shifted thereby. To permit of slight movement of the lever 43, I form therein the slot 45 which allows of relative movement of the lever with respect to its pivot and prevents binding. Rocking of the levers 41 and 43 by movement of the ejector operating and actuating levers serves to rock the cylinder until its groove or recess 39 is in position to allow the bottle 7 to roll therefrom into the trough 6 as is clearly illustrated in the drawings.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of my improved vending machine and actuating mechanism therefor will be readily apparent, and it will be seen that I have provided a simple and practical vending machine having no delicate parts or springs to get out of order but which will serve to deliver an article such as a bottle of perfumery or a cigar when the correct coin is deposited but will eject coins of other than the proper size and prevent operation of the machine thereby.

I claim:

1. A vending machine comprising a casing, a guide plate secured therein and having a portion projecting forward therefrom, a sliding lever mounted on the guide plate, and having a projecting portion riding on the projecting portion of the plate, the inner end of said lever being provided with laterally extending lugs, an operating lever telescopically engaging the inner end of the lever and operating said lugs to shift the operating lever, whereby an ejector constructed to allow a single article at a time to be discharged from the machine.

2. A vending machine comprising a casing, a guide plate secured therein and having a portion projecting forward therefrom, a sliding lever mounted on the guide plate and having a projecting portion riding on the projection of the plate, said lever having a coin receiving aperture formed therein, a plate having a plurality of apertures of different sizes formed therein, said lever being provided with a reduced portion having formed at its ends laterally extending lugs, an actuating lever slidably mounted upon the plate, said lever consisting of a cross bar having oppositely disposed arms extending forwardly and provided with inwardly projecting portions, said lugs and reduced portion being spanned by the arms

and telescopingly engaging in the operating lever, an ejector constructed to allow a single article at a time to be discharged from the machine when the lever is shifted, and a gravity locking member adapted to force coins of wrong denominations through the apertures of the lever and plate and to lock the lever against inward movement.

In testimony whereof I affix my signature, in the presence of two witnesses.

HERMAN H. BRINKS.

Witnesses:

ANNA VANDER MOERE,
FLORA INGELL.