F. L. STOCKING.

DISPENSING MACHINE.

APPLICATION FILED FEB. 9, 1915.

1,165,034.

Patented Dec. 21, 1915.

2 SHEETS—SHEET 1.

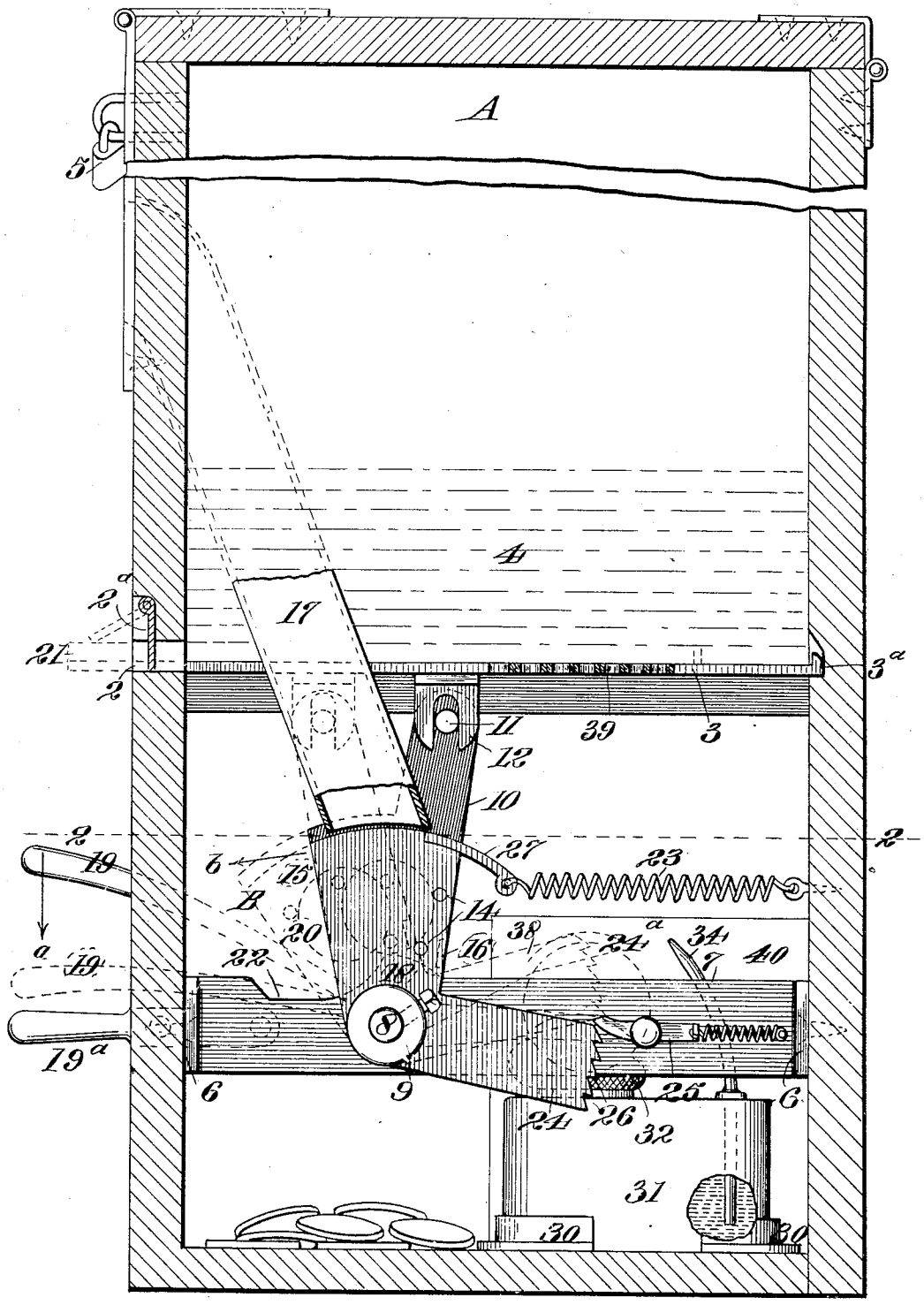



Fig. 1.

WITNESSES:

Charles Pickles

Thos. Eastberg.

INVENTOR

Frank L. Stocking

BY G. H. Strong.

ATTORNEY

F. L. STOCKING.

DISPENSING MACHINE.

APPLICATION FILED FEB. 9, 1915.

1,165,034.

Patented Dec. 21, 1915.

2 SHEETS—SHEET 2.

*Fig. 2*

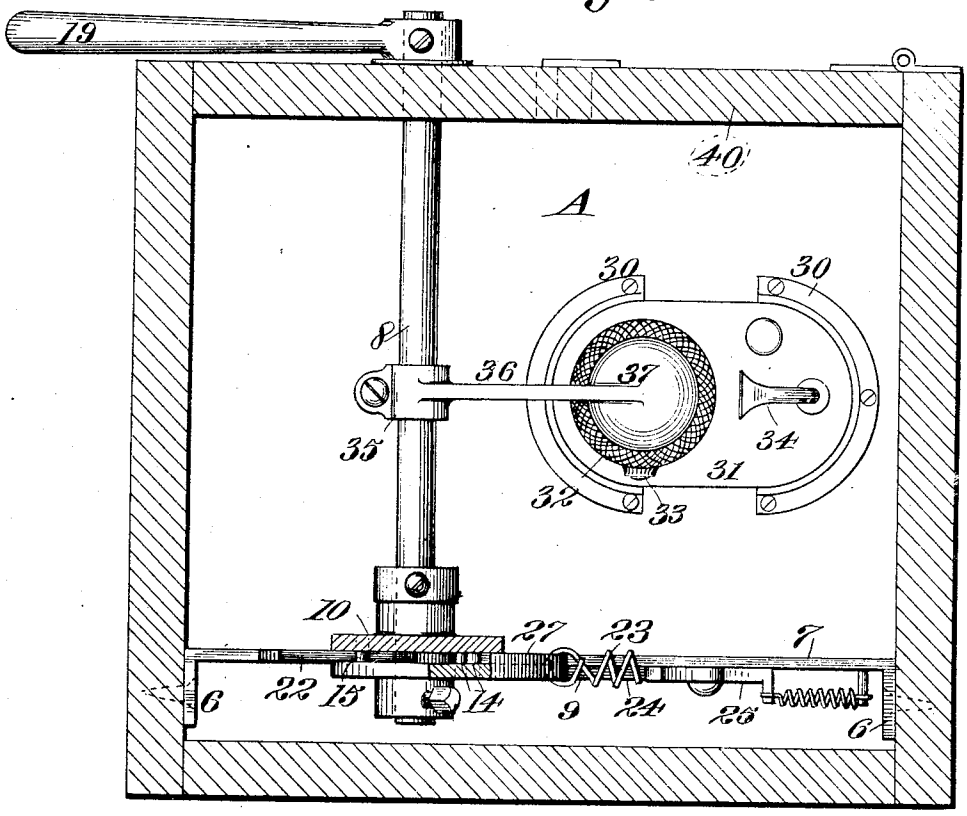
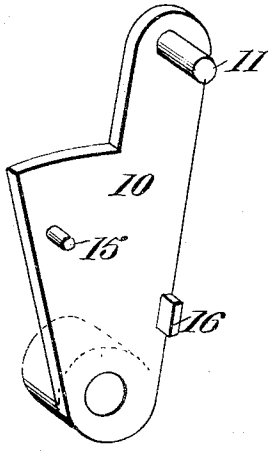



*Fig. 3.*




WITNESSES:

Charles Ackeles

Thos. Eastberg.

INVENTOR

Frank L. Stocking

BY G. H. Strong.

ATTORNEY

# UNITED STATES PATENT OFFICE.

FRANK L. STOCKING, OF SAN FRANCISCO, CALIFORNIA.

## DISPENSING-MACHINE.

1,165,034. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed February 9, 1915. Serial No. 6,995.

*To all whom it may concern:*

Be it known that I, FRANK L. STOCKING, a citizen of the United States, residing at the city and county of San Francisco and State of California, have invented new and useful Improvements in Dispensing-Machines, of which the following is a specification.

This invention relates to a dispensing machine.

One of the objects of the present invention is to provide a simple, easily operated, coin-controlled dispensing machine, and to provide a holder in connection with same from which packages or articles of a suitable nature may be withdrawn one by one upon the deposit of a coin.

Another object is to provide means for automatically spraying the lowermost package with a disinfecting fluid before removal.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a vertical central section through the dispensing machine. Fig. 2 is a section on line 2—2, Fig. 1. Fig. 3 is a perspective view of lever 10.

A indicates a holder or container, preferably rectangular-shaped in cross section and of suitable height. The holder is provided with a discharge opening 2 at its lower end and a sliding bottom 3 upon which the articles 4 to be dispensed are supported. These articles are laid one on top of the other and are inserted through the upper end of the container; a cover and lock 5 of suitable construction being provided to normally close the container after it has been charged or refilled. The sliding bottom, upon which the articles are supported and by which they are dispensed or discharged one by one, is operated by a coin-controlled mechanism constructed as follows: Suitably secured in the container, below the sliding bottom, as at 6, is a cross bracket 7, and journaled in said bracket at one end and having its other end extending through the side of the casing is a shaft 8. Secured on the shaft, on one side of the bracket 7, is a bell-crank shaped lever 9, and loosely mounted on the shaft on the other side of the bracket is a lever 10, a detail view of which is shown in Fig. 3. The upper end of this lever is connected with the sliding bottom by means of a pin 11 which is engageable with a fork 12 secured on the sliding bottom. Movement is transmitted from lever 9 to lever 10 in the following manner: Secured on the inner face of lever 9 is a pair of pins 14, and secured on the inner face of lever 10 is a pin 15 and a lug 16. The pins 14 and 15 are so positioned with relation to each other as to form a triangular shaped support for the coin by which the machine is operated. This coin is delivered to the space formed between the two levers and in position between the three pins by means of a coin chute 17 of suitable construction. The end of this chute is positioned directly above the three pins and the coin when descending will thus be dropped into position between the pins, being supported in this position by a raised projection 18 formed on the bracket 7. The coin in this manner forms a filler between the two levers and the operation will be as follows: Secured on the outer end of shaft 8 is an operating lever 19. This lever is depressed in the direction of arrow *a* after the coin has been inserted and will thereby cause shaft 8, with connected lever 9, to rock in the direction of arrow *b*. The rocking movement of lever 9 will now be transmitted through the pins 14 and the coin indicated by dotted lines at 20 to pin 15, with connected lever 10, causing lever 10 to move forward in unison with lever 9. The movement of lever 10 is in turn transmitted through pin 11 and fork 12 to move the sliding bottom 3 in the same direction, causing an upwardly turned lug $3^a$ on the rear end of the bottom to engage the package or article to be dispensed and force this out through the discharge opening 2 into the position indicated by dotted lines at 21 where it may be grasped and completely removed.

The two levers, when rocked to their extreme limit, will assume the dotted line position indicated at B and the coin 20 will at this point assume a position directly above an offset 22 formed in bracket 7. Lever 19 may now be released and will immediately resume its normal position shown in Fig. 1, as spring 23, secured to lever 9, will rock it back to this position. The coin is, however, released before the two levers 9 and 10 assume their normal position and this is accomplished as follows: The first portion of the return movement of lever 9 is independent of lever 10, thereby causing pins 14 to move back or away from pin 15. This im-

mediately releases the coin and as this is standing in a position above offset 22 it will immediately drop down into the bottom of the receptacle or out of engagement with pin 15. A further movement of lever 9 will now bring pins 14, and particularly the lowermost of same, into engagement with lug 16 and this engagement of the lower pin 14 with lug 16 will cause lever 10 to move back in unison with lever 9 and at the same time retract the sliding bottom or force it back into its normal position. The parts are thus automatically returned to normal position where a coin may again be deposited if it is desired to discharge another package such as indicated at 4. It will, however, be impossible to operate the device without the insertion of a coin as the coin forms a filler between pins 14 and 15 which makes the operative connection between levers 9 and 10. Without the insertion of the coin it will thus be impossible to operate the device as lever 9 would swing forward without transmitting any movement to lever 10 and pins 14 would swing forward without any obstruction.

The lower extension 24 formed on lever 9, together with the pawl, indicated at 25, engageable with ratchet teeth 26 formed on the outer end of extension 24 is provided for the following purpose: In order to secure a perfect operation it is necessary to swing levers 9 and 10 to the dotted line position indicated at B, as it is necessary to move the coin 20 into register with offset 22 where it may be released. It is, furthermore, necessary to swing the levers 9 and 10 to this position as the movement transmitted to the sliding bottom should be sufficient to bring the discharging article or package into a position where it may be conveniently grasped. Ratchet 25 will engage with teeth 26 and lock lever 9 against return movement until the operating lever 19 has been completely depressed with relation to a stationary handle $19^a$. This complete depression of lever 19 produces the desired result and insures a perfect operation and correct position of the different parts of the coin-controlled operating mechanism as described.

Extension 24 will assume the dotted line position indicated at $24^a$ or clear itself with relation to the pawl the moment lever 19 has been completely depressed and will in this manner reverse the action of the ratchet and permit the different parts to return to normal position.

A guard plate 27 has been provided for the purpose of preventing the entrance of more than one coin at a time into the space formed between pins 14 and 15, so that the deposit of more than one coin will not interfere with the operation of levers 9 and 10 with connected operating mechanism. This guard plate is preferably secured to the lever 9 and simply forms a filler between levers 9 and 10 which prevents a second coin from dropping down. The plate is also sufficiently extended to form a hook or connection for the attachment of the resilient spring 23. A pivoted plate $2^a$ may also be provided, as shown, for the purpose of preventing persons from inserting hooks or like devices through the discharge opening, or, in other words, to prevent tampering with the machine.

A machine constructed as here shown is particularly intended for dispensing packages containing paper towels and the like, and means have been provided for disinfecting each package, and particularly the lowermost package, before it is discharged from the machine. This is accomplished in the following manner: Suitably secured or mounted in the bottom of the case, between the semicircular brackets, such as indicated at 30, is a small container 31. This tank is filled with a disinfecting fluid of a suitable nature, a portion of which is automatically ejected every time the machine is operated. This is accomplished in the following manner: Suitably supported on the tank is a rubber bulb 32 such as is used on atomizers; the bulb being provided with an air inlet valve 33 in the usual manner. The tank is also provided with a spray nozzle 34, the lower end of which extends nearly to the bottom of the container or sufficiently far down to permit the lower end to extend below the liquid level. Suitably secured, as at 35, on shaft 8 is an arm 36, the outer end of which is cup-shaped, as at 37, to engage the rubber bulb.

The operation will be as follows: When the coin is inserted and lever 19 is depressed to eject the package, lever 36 will turn in unison with shaft 8 and lever 19, or, in other words, be raised into the dotted line position indicated at 38, Fig. 1. This permits the rubber bulb to be extended and air to be admitted through valve 33. The moment the package is ejected and lever 19 is released, it will cause arm 36 to be depressed and compress the bulb. This forces a sufficient quantity of air into the container, producing sufficient pressure on the surface of the liquid to cause a partial ejection in the form of a spray through the nozzle 34. The sliding bottom 3 being perforated, as indicated at 39, will permit this spray to rise and pregnate the lowermost package, causing same to be thoroughly disinfected before it is removed. Lever 36 is preferably adjustably secured upon the shaft, thereby permitting the compression and extension of the bulb to be regulated and controlling the amount of spray or disinfecting fluid discharged at each operation of the machine.

The disinfecting fluid should preferably

be of an evaporating nature so that the spray ejected will have a tendency to rise up through the perforations and thoroughly disinfect the packages contained in the dispenser and particularly the lowermost of same. The disinfecting apparatus here shown is automatic in operation as it is controlled and operated in unison with the coin-actuated mechanism previously described.

A door 40, formed on one side of the container, permits admission to the lower portion of the casing, so that the container may be refilled from time to time, when necessary, and also for the purpose of removing the coins collected.

The materials and finish of the several parts of the machine are such as the experience and judgment of the manufacturer may dictate.

I wish it understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims and that I do not wish to limit myself to the specific design and construction here shown.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In a package dispensing machine, a container, a perforated sliding bottom adapted to divide the container into a package containing chamber and a disinfecting chamber, means for operating the sliding bottom to discharge the packages one by one, a spraying device in the disinfecting chamber, and means for operating the spraying device to disinfect every package discharged.

2. In a package dispensing machine, a container, a perforated sliding bottom adapted to divide the container into a package containing chamber and a disinfecting chamber, means for operating the sliding bottom to discharge the packages one by one, a spraying device in the disinfecting chamber, having a nozzle formed thereon adapted to direct a disinfecting spray through the perforated bottom to disinfect the package to be delivered and means for operating the spraying device, in unison with the perforated bottom.

3. In a dispensing machine, the combination with a package discharging means of a perforated sliding plate adapted to support the package to be discharged, a spraying device mounted below the perforated plate adapted to contain a disinfecting fluid, and means for operating the spraying device in unison with the package discharging means to disinfect each package before delivering.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANK L. STOCKING.

Witnesses:
JOHN H. HERRING,
W. W. HEALEY.