

No. 727,260.

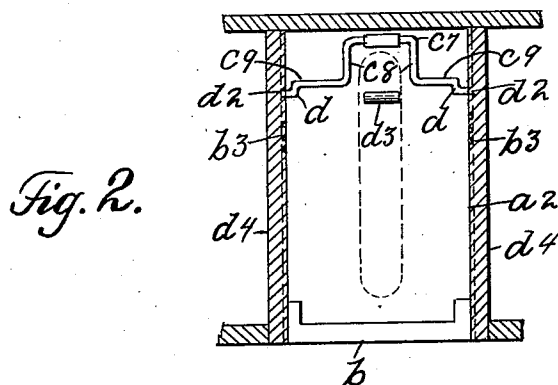
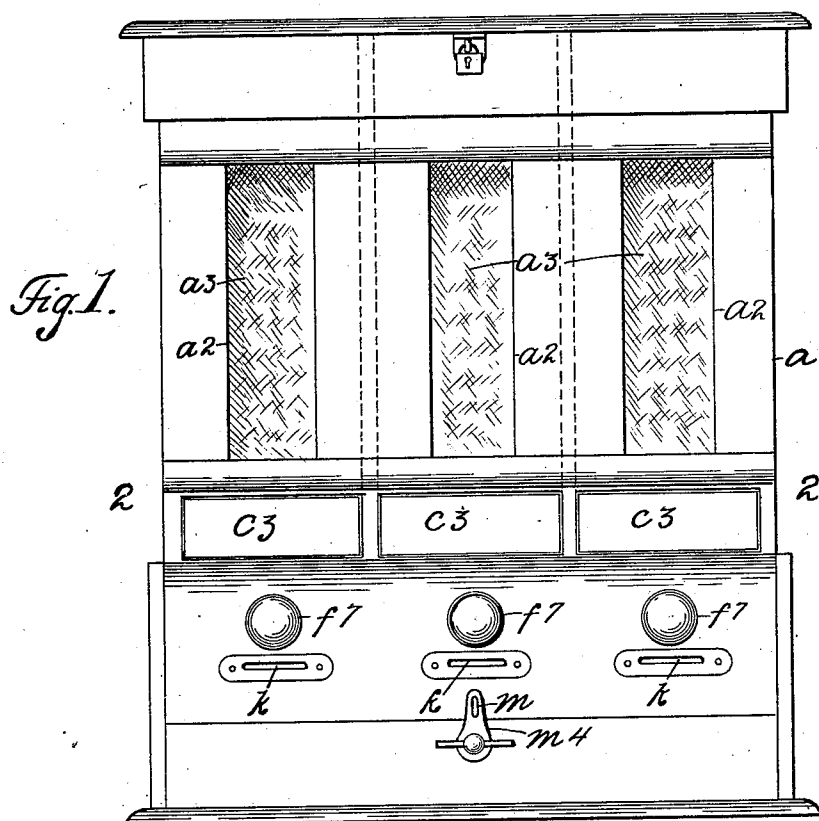
PATENTED MAY 5, 1903.

L. W. BALDWIN.
VENDING MACHINE.

APPLICATION FILED JULY 10, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

J. C. Lassen
F. A. Stewart.

INVENTOR
Louis W. Baldwin

BY
Edgar T. Hale
ATTORNEY

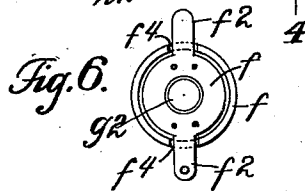
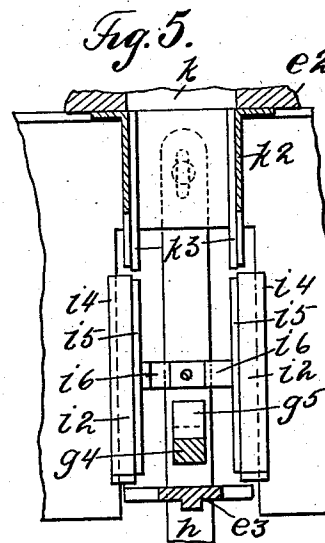
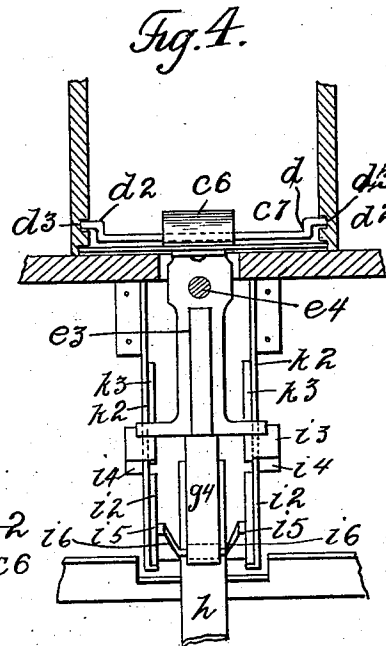
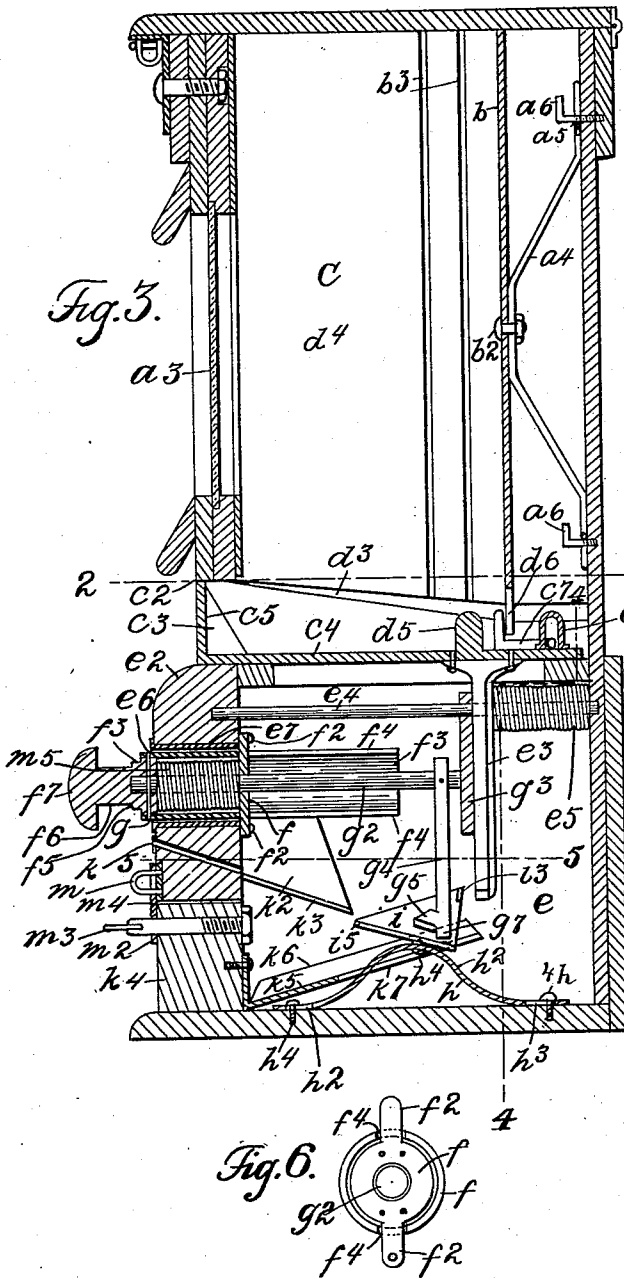
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2 SHEETS—SHEET 2.



WITNESSES:

J. C. Larsen
F. A. Stewart

INVENTOR
Louis W. Baldwin

BY
Edgar S. Lathrop
ATTORNEYS

UNITED STATES PATENT OFFICE.

LOUIS W. BALDWIN, OF JERSEY CITY, NEW JERSEY.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 727,260, dated May 5, 1903.

Original application filed May 10, 1902, Serial No. 106,766. Divided and this application filed July 10, 1902. Serial No. 114,989. (No model.)

To all whom it may concern:

Be it known that I, LOUIS W. BALDWIN, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Vending-Machines, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved coin-operated vending-machine which is simple in construction and operation and comparatively inexpensive and which involves a comparatively small number of parts and which will not easily get out of order or frequently need repair.

This application is a divisional application, based on another application filed by me May 10, 1902, Serial No. 106,766, and the invention described and claimed in this case is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a front view of a coin-operated vending-machine embodying my invention; Fig. 2, a partial section on the line 2 2 of Fig. 3; Fig. 3, a central vertical section through one of the compartments or subdivisions of my improved machine; Fig. 4, a partial section on the line 4 4 of Fig. 3; Fig. 5, a partial section on the line 5 5 of Fig. 3; Fig. 6, an end view of a slide-tube and parts connected therewith which I employ.

In the drawings forming part of this specification, reference being made to Fig. 1, I have shown at *a* a machine involving my invention and comprising three separate subdivisions or parts *a*², each of which is exactly the same and each of which contains the same operative mechanism, the object of this construction being to provide a machine of the class specified by which various articles may be vended—such as chewing-gum, candy, cigarettes, peanuts, smoking-tobacco, chewing-tobacco, and various other articles—the number of articles vended depending entirely upon the subdivisions or compartments of the

machine, and from the following description it will be seen that the operative mechanisms of the separate compartments have no connection whatever except as hereinafter specified, and a description of one of said compartments and the mechanism contained therein will suffice for the description of all.

In Fig. 3 of the drawings I have shown a central vertical section of one of the compartments or subdivisions of my machine, and said compartment is provided with a front transparent panel *a*³, and the back wall thereof is provided with a flexible metal strip or wire *a*⁴, the ends of which bear on said back wall and are provided with slots, loops, or hooks *a*⁵, through which are passed pins, screws, or other devices *a*⁶ by which said strip or wire is held in place, and a vertical plate *b* is connected to said strip or wire at *b*², and the side walls of the compartment are preferably provided with vertically-arranged grooves *b*³, as shown in Fig. 3, into which the side edges of the plate *b* are adapted to be inserted. The bottom slot or loop *a*⁵ in the bottom end of the strip or wire *a*⁴ opens downwardly, and the said end of said strip or wire may thus be caused to engage the screw or other device *a*⁶ as the plate *b* is inserted into the grooves *b*³ in said walls of the compartment, and the groove or slot *a*⁵ in the upper end of said strip or wire may open upwardly or laterally and may be easily connected with the corresponding screw or other device *a*⁶, and by means of the plate *b* the dimensions of the chamber *c*, which constitutes a goods receptacle or reservoir, may be regulated, and the object of using the strip or wire *a*⁴ is to provide means whereby the central portion of the plate *b* may be supported, and said plate may be made of thin material; but said plate may be of any desired material and may be adjusted in any preferred manner, and said strip or wire may be so formed as to support the plate *b* when the latter is in either of the forward grooves *b*³.

The front wall of the compartment *a*² is provided with an opening *c*², and placed in the bottom of said compartment is a drawer *c*³, which may be drawn out through said opening *c*², and said drawer consists of a bottom plate *c*⁴ and a front plate *c*⁵, and con-

nected with the inner end of the bottom plate c^4 is a keeper c^6 , in which is placed a transverse rod c^7 , the separate sides of which are bent forwardly, as shown at c^8 in Fig. 2, and then laterally to form arms c^9 , having upwardly-directed members d , which are provided with outwardly-directed fingers d^2 , adapted to move in slots d^3 , formed in the opposite side walls d^4 of the chamber, receptacle, or reservoir c . The drawer c^3 forms the bottom of the chamber c , and the bottom of said drawer is also preferably provided near the rear end thereof with an upwardly-directed projection d^5 , and the bottom of the plate b is provided with a corresponding opening d^6 , through which the projection d^5 may pass if in the operation of the device the plate b is so placed as to be forward of the upwardly-directed projection d^5 .

Below the chamber or reservoir c is a supplemental chamber or compartment e , provided with a thickened front wall e^2 , and the bottom c^4 of the drawer c^3 is provided with a hanger e^3 , which is secured to the bottom of the rear portion thereof, and in the top of the supplemental chamber or compartment e is placed a shaft e^4 , the ends of which are supported in the front and back walls of the compartment or chamber e , and this shaft passes through the hanger e^3 , and between said hanger and the rear wall of said compartment is placed a spiral spring e^5 , which is mounted on said shaft.

The front wall e^2 of the chamber or compartment e is provided centrally with a cylindrical opening e^6 , having a metal casing e^7 , and the inner end of this casing is partially closed by a circular plate f , having oppositely and vertically arranged arms f^2 , which are secured to the front wall e^2 , and movable through the front wall of the casing and inclosing the plate f is a tube f^3 , having longitudinal slots f^4 at the top and bottom sides thereof, through which the arms f^2 of the plate f pass, and the outer end of the tube f^3 is closed by a head f^5 , having a neck f^6 , provided with a knob or handle f^7 , by which the apparatus is operated, as hereinafter described.

Secured to the head f^5 of the tube f^3 by means of a transverse pin g or in any desired manner is a shaft g^2 , which passes inwardly through the center of the plate f and through the tube f^3 and to the inner end of which is secured a plate g^3 , which normally rests against the hanger e^3 and through which the shaft e^4 loosely passes, and connected with the inner end of the shaft g^2 is a supplemental hanger g^4 , the lower end of which is provided with a forwardly-directed shoulder g^5 , below which the said hanger is extended to form a lug or projection g^7 .

In the bottom of the supplemental compartment or chamber e is placed a plate-spring h , which ranges forwardly and backwardly and the central portion of which curves upwardly, as shown at h^2 , and the ends of which bear

on the bottom of said compartment, and the front end is provided with the slot h^3 , through which is passed a screw or other fastening device h^4 , and the rear end thereof is secured by a screw or other device.

Connected with the upper curved portion of the spring h is a coin-receiver i , composed, as shown in Figs. 4 and 5, of side portions i^2 , which are preferably triangular in form, the wider ends thereof being directed backwardly, and the upper portion of the wider ends of said side portions i^2 of the coin-receiver i are preferably connected by a transverse plate i^3 , which when the parts are in their normal position project above the bottom of the hanger e^3 . The side plates i^2 of the coin-receiver i are preferably made of thin metal and are provided at their upper edges with outwardly-directed flanges i^4 , over which the hanger e^3 passes in the operation of the device, and said side portions i^2 are provided at their bottom edges with inwardly-directed flanges i^5 , forming supports for the coin, and the side pieces i^2 are also rigidly connected by a transverse yoke-shaped member i^6 , and as thus constructed it will be seen that the coin-receiver i is open at the bottom between the inner edges of the flanges i^5 .

The front wall e^2 of the bottom compartment or receptacle e is provided with a coin-slot k , which is of just such dimensions as the coin which it is intended to use, and this slot passes downwardly and backwardly through said wall, and connected with the wall at the inner end of said slot is a coin-chute k^2 , the sides of which are provided with inwardly-directed flanges k^3 , which receives the coin as it passes through the slot k and discharges it into the coin-receiver i , where it rests on the bottom flanges i^5 at the opposite side of said receiver.

In the front wall e^2 of the chamber or receptacle e and beneath the coin-slot k is placed a drawer k^4 , which comprises a transverse member which fits in a suitable opening in the front wall e^2 and to which is secured a backwardly and upwardly directed member k^5 , having sides k^6 , and the member k^5 constitutes the bottom of the drawer and is provided with a slot or opening k^7 , into and through which the central portion of the spring h projects, and the front wall e^2 of the chamber e is provided with a staple or other device m and the drawer k^4 with a bolt m^2 , having a link m^3 , which serves as a handle, and said bolt is also provided with a plate m^4 , through which the staple m may be passed, whereby the drawer may be secured by an ordinary padlock.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof. The material or articles to be vended are placed in packages which are deposited in the reservoir or chamber c , and it will be understood that said packages may be of any

desired size, as may also the drawer c^3 , and said drawer is intended to be of such dimension as to be substantially filled by one of said packages, and when the drawer is drawn out, as hereinafter described, the fingers or projections d^2 of the arms c^3 move forward in the grooves d^3 and support all the packages above the bottom one and prevent them from dropping down until the drawer is forced back into its normal position, as shown in Fig. 3.

In the operation of the apparatus a coin is inserted into the coin-slot k and passes down over the bottom of or through the coin-chute k^2 and drops into the receiver i , where it rests on the bottom flanges i^5 at the sides thereof. The knob or handle f^7 is then grasped and the shaft g^2 and tube f^3 are pulled outwardly against the operation of a spring m^5 , which is mounted in the outer end of the tube f^3 , and one end of which bears on the plate f and is secured thereto and the other end of which is secured to the shaft g^2 and the operation of which is to force said shaft and tube inwardly into the position shown in Fig. 3. As the shaft g^2 is pulled outwardly the hanger g^4 moves therewith, and the lug or projection g^7 at the bottom of said hanger and against which the coin rests strikes against said coin and forces it forwardly over the upwardly and forwardly directed flanges i^5 at the bottom of the coin-receiver i . This operation depresses the spring h and the transverse plate i^3 at the back of the coin-receiver i , the latter being depressed below the bottom of the hanger e^3 . At the same time the spring e^5 forces the hanger e^3 forwardly, which operation forces the drawer c^3 forwardly and outwardly, and the package in said drawer may be removed therefrom. When this operation is complete, the knob or handle f^7 of the shaft g^2 is released, and the spring m^5 immediately forces said shaft g^2 , the hanger e^3 , the drawer c^3 , and the hanger g^4 back into their normal position or into the position shown in Fig. 3. In the above operation the coin is shoved forwardly out of the coin-receiver i by means of the lower end of the hanger g^4 and drops into the drawer k^4 , and the parts are again in position for use or for the insertion of another coin.

It will be observed that the coin-receiver i is secured to or connected with the spring h in such manner that the bottom flanges i^5 at the sides thereof range forwardly and upwardly, and when the coin is dropped thereinto from the chute k^2 it slides downwardly and backwardly until it strikes the lug or projection g^7 at the bottom of the hanger g^4 , in which position the forwardly-directed shoulder g^5 extends immediately thereover, and when the hanger g^4 is pulled forwardly, as hereinbefore described, the parts g^7 and g^5 force the coin forwardly and upwardly, and this operation depresses the coin-receiver i , together with the spring h , as hereinbefore described.

In the normal position of the parts the hanger e^3 is held a considerable distance back of the top rear portion of the receiver i by the spring m^5 , and when a coin passes into the receiver i and the hanger g^4 is drawn outwardly the receiver i will be depressed so as to allow the hanger e^3 to pass over it, and in practice the hanger e^3 and the receiver i are made low enough so that the bottom of the hanger e^3 will pass under the coin-chute k^2 .

The object of the spring or spring-arms d^4 is to assist in retaining the plate b in proper relative position and to hold said plate stationary when made of thin material. The arms c^3 , which move forwardly with the drawer c^3 , prevent packages contained in the goods receptacle or reservoir d^4 from falling down into the space occupied by the drawer and into the bottom of the machine when said drawer is pulled forwardly; but any other suitable means may be provided for this purpose.

This apparatus is simple in construction and operation, and while I have shown in Fig. 1 of the drawings a machine involving three separate similar subdivisions, it will be understood that they are all the same and only one or more may be employed, as desired. The coin-operating lock mechanism shown and described in this case forms no part of the invention claimed herein, as it constitutes the subject-matter of the application hereinbefore referred to, the invention in this case being limited to the construction pointed out in the following claims and relating to the chambers c , the means for adjusting the capacity thereof, and the movable drawers in the bottom thereof and other parts pertaining thereto.

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

1. A vending-machine having a goods reservoir or receptacle, said goods reservoir or receptacle being provided with a bottom drawer having arms movable in slots formed in the side walls of the reservoir or receptacle, and means for moving the bottom drawer forwardly, substantially as shown and described.

2. A vending-machine, having a goods reservoir or receptacle provided with a removable and forwardly and backwardly adjustable back plate extending to the bottom of said goods receptacle or reservoir, said goods reservoir or receptacle being provided with a bottom drawer having arms movable in slots formed in the side walls of the reservoir or receptacle, substantially as shown and described.

3. A machine of the class described provided with a goods receptacle or reservoir having a forwardly and backwardly adjustable back plate extending to the bottom thereof, a drawer in the bottom of said receptacle or reservoir provided with laterally-directed arms having fingers movable in transverse grooves formed in the side walls of said re-

ceptacle or reservoir, substantially as shown and described.

4. A machine of the class described comprising a casing provided with a plurality of
5 separate subdivisions each of which consists of a top and bottom compartment, a drawer in the bottom of the top compartment of each subdivision, a hanger connected with said drawer and depending into the bottom com-
10 partment of the corresponding subdivision, and means whereby the drawer of each of the bottom compartments of each of said subdivisions may be moved forwardly or outwardly, substantially as shown and described.
- 15 5. A machine of the class described, comprising a casing provided with a plurality of separate subdivisions each of which consists of a bottom and top compartment, a drawer

in the bottom of the top compartment of each subdivision, a hanger connected with said 20 drawer and depending into the bottom compartment of the corresponding subdivision, forwardly and backwardly ranging shafts mounted in the top portion of each of the bot- 25 tom compartments, and passing through said hangers, and means for moving the said hangers and drawers forwardly, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in pres- 30 ence of the subscribing witnesses, this 9th day of July, 1902.

LOUIS W. BALDWIN.

Witnesses:

F. A. STEWART,
C. E. MULREANY.