J. H. WALTER.

VENDING MACHINE.

APPLICATION FILED NOV. 12, 1910.

1,004,832.

Patented Oct. 3, 1911.

2 SHEETS—SHEET 1.

Fig. 1

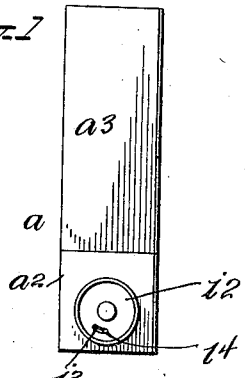


Fig. 2

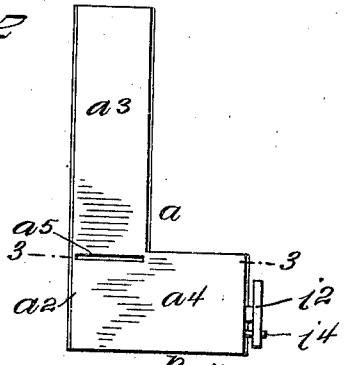


Fig. 3

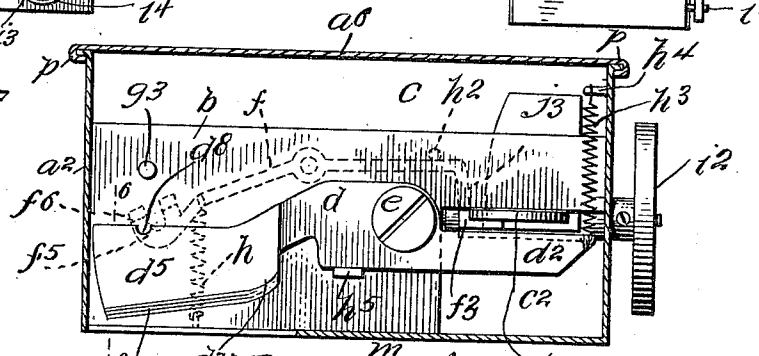


Fig. 4

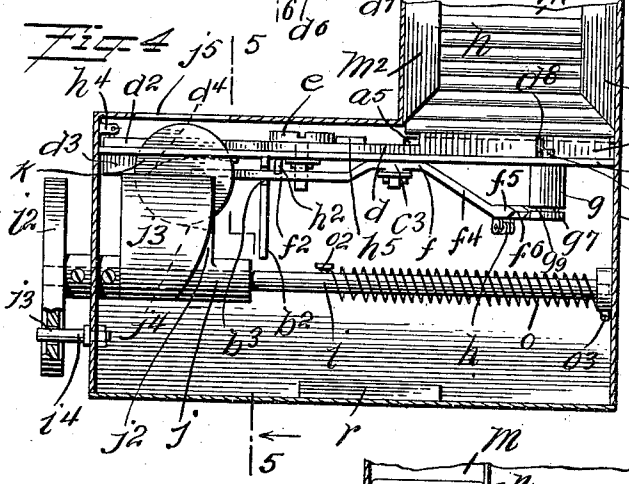


Fig. 5

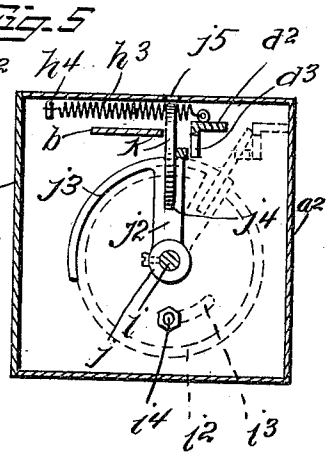
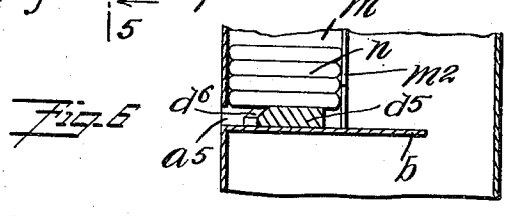


Fig. 6



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 7

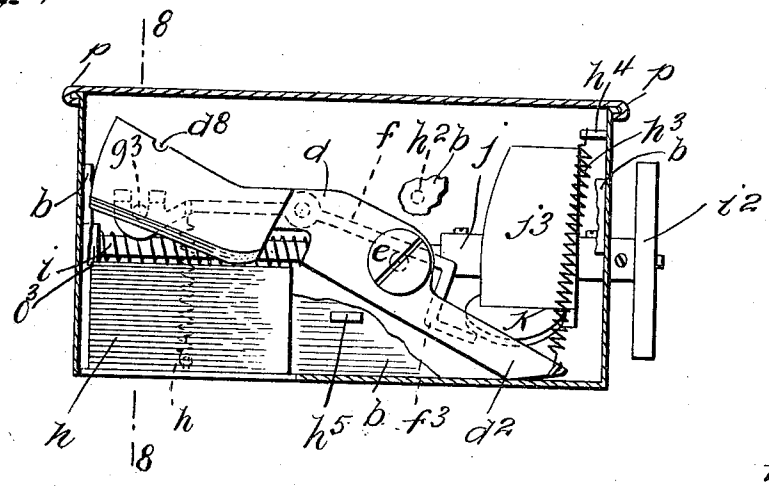


Fig. 8

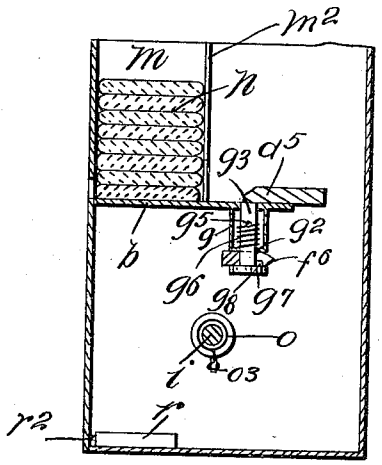


Fig. 10

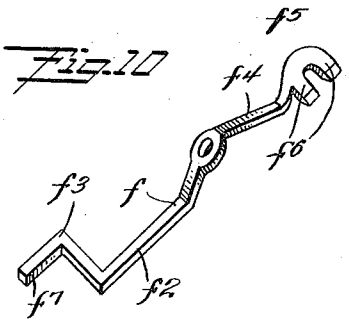


Fig. 11

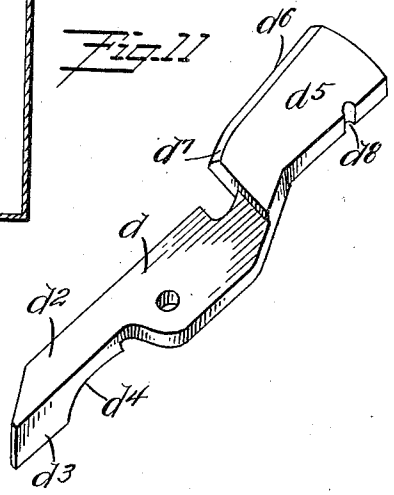
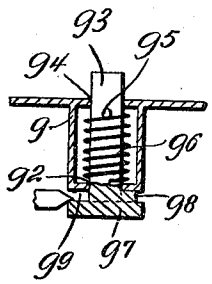


Fig. 9



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UNITED STATES PATENT OFFICE.

JOHN H. WALTER, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO GUSTAV REGELMANN, OF BROOKLYN, NEW YORK.

VENDING-MACHINE.

1,004,832. Specification of Letters Patent. Patented Oct. 3, 1911.

Application filed November 12, 1910. Serial No. 591,941.

To all whom it may concern:

Be it known that I, JOHN H. WALTER, a citizen of the United States, and residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to machines for vending articles of merchandise and commonly known as coin operated vending machines; and the object of the invention is to provide an improved machine of this class particularly designed for use in vending articles of merchandise in the form of small packages; a further object being to provide a machine of this class which is comparatively small and which may be attached to the back of theater seats, car seats or other supports where the space available is comparatively small; and with these and other objects in view the invention consists in a machine of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a right hand side view of my improved vending machine looking in the direction of the arrow x of Fig. 2 and on a reduced scale; Fig. 2 a front view of the machine on the same scale as Fig. 1; Fig. 3 a horizontal sectional view on the line 3—3 of Fig. 2 and showing the top plate of the bottom portion of the machine removed, said view being also on an enlarged scale; Fig. 4 a back elevation and vertical sectional view on the same scale as Fig. 3 and showing the machine reversed or the right side turned to the left; Fig. 5 a vertical section on the line 5—5 of Fig. 4; Fig. 6 a partial vertical section on the line 6—6 of Fig. 3; Fig. 7 a view similar to Fig. 3 but showing the parts in a different position and showing the method of operating the machine; Fig. 8 a partial vertical section on the line 8—8 of Fig. 7; Fig. 9 a view similar to Fig. 8 but showing only a detail thereof and showing said detail in a different position; Fig. 10 a perspective view of one of the operating levers of the machine, and;—Fig. 11 a similar view of another of said levers.

In the practice of my invention as shown in the drawing I provide a casing a comprising a horizontal bottom portion a^2 and an upright top portion a^3, and at the bottom of the upright top portion a^3, the front wall a^4 of the casing is provided with a horizontal slot or opening a^5 through which the articles of merchandise to be vended are projected in the operation of the machine as hereinafter described.

In the top part of the bottom portion a^2 of the machine is a horizontal partition plate b which, in the form of construction shown, is narrower than the bottom part a^2 of the casing whereby a space c is formed between said partition plate and the back wall a^6 of the casing, and the front right hand corner of the plate b, in the form of construction shown, is also cut out to form a rectangular recess c^2, and the portion of said plate cut out to form the recess c^2 is bent downwardly to form a hanger b^2 as shown in Fig. 4.

Pivoted on the partition plate b is a lever d which ranges longitudinally of the bottom part a^2 of the casing a and said lever is connected with said plate by a headed screw or pin e which extends down through and below the plate b as shown in Fig. 4.

The lever d is shown detached in Fig. 7, and the right hand end portion d^2 thereof is cut away longitudinally and provided with a downwardly directed flange d^3 having at its bottom edge a curved recess d^4 and the flange d^3 extends downwardly through the rectangular recess c^2 in the plate b. The right hand end portion of the lever d is provided with a flat oblong head d^5, the front edge of which is preferably partly beveled as shown at d^6, and the inner corner edge of which is also preferably rounded as shown at d^7, and in practice the head d^5 of the lever d rests on the plate b and is movable forwardly and backwardly thereover and the back edge thereof is preferably provided with a recess d^8.

Pivoted to and beneath the plate b at c^3 is a lever f, the right hand end portion f^2 of which is provided with a forwardly directed L-shaped member f^3, and the left-hand end portion f^4 of which is provided

with a yoke-shaped head f^5, the side arms f^6 of which are wedge-shaped in form. The hanger b^2 is provided with a slot b^3 through which the right hand end portion f^2 of the lever f passes, and said end portion of said lever in the operation of the machine as hereinafter described swings horizontally through the recess d^4 in the flange d^3 of the end portion d^2 of the lever d. The left hand end portion f^4 of the lever f ranges downwardly and the head f^4 thereof is in a horizontal position, and connected with the plate b directly over the head f^5 of the lever f is a tubular casing g, the bottom of which is provided with an opening g^2 as shown in Fig. 9, and a pin g^3 is passed upwardly through the casing g and upwardly through a hole g^4 in the plate b, and said pin is provided within the casing g with a transverse stop pin g^5, between which and the lower end of the casing g is a spiral spring g^6 which normally serves to hold the pin g^3 in its raised position so that the upper end thereof projects above the plate b. The lower end of the pin g^3 is provided with a head g^7, and said pin and head are provided with a lug g^8 at one side which strikes against the bottom of the casing g and normally holds the head g^7 at a predetermined distance below the bottom of said casing so as to form a space or recess g^9 between said head and said casing, and in the operation of the machine as hereinafter described the yoke-shaped head f^5 of the lever f or the side arms f^6 thereof pass into said space or recess g^9 and depress the pin g^3 so that the top thereof will be flush with the plate b.

Connected with the front of the bottom portion of the casing a below the plate b is a spiral spring h which is also connected with the end portion f^4 of the lever f, and the bottom part of the plate b is provided with a stop h^2, and the spring h normally serves to hold the lever f in the position shown in full and dotted lines in Fig. 7, and the stop h^2 serves to limit the backward movement of the right hand end portion of said lever.

Connected with the right hand end portion of the lever d is a spiral spring h^3 which is also secured in the back portion of the casing a as shown at h^4, and this spring h^3 serves to limit the forward movement of said end portion of said lever while the forward movement of the left hand end portion of said lever is limited by a stop h^5 on the plate b.

In the bottom portion a^4 of the casing a and at a predetermined point below the plate b is mounted a horizontal shaft i, the right hand end portion of which projects through the bottom part of the casing a and is provided with a hand wheel i^2, and mounted on the right hand end portion of said shaft within the casing a is a sleeve j provided with a radial arm j^2 which is oblong in cross section and provided with an arc-shaped shield j^3 which extends downwardly and backwardly, and formed in the outer end of the arm j is a coin slot j^4, and a corresponding coin slot j^5 is formed in the top of the bottom part a^4 of the casing a, and through which a coin k may be passed, and in the normal position of the parts the coin k when passed through the slot j^5 will enter the slot j^4 in the arm j^2 as clearly shown in Figs. 3, 4 and 5.

In the front top portion a^3 of the casing a is a receptacle m adapted to receive articles n of merchandise, said receptacle being formed, in the construction shown, by the front and side walls of the top portion a^3 of said casing and inwardly directed flange or web members m^2 connected with said side walls, and in practice any suitable means may be provided for passing the packages n or merchandise into the receptacle m. In practice however, I prefer to make the back of the casing a and the bottom thereof integral and to connect said parts with the rest of the casing by sliding the back portion into position, said back portion of the casing being provided at its opposite side edges with U-shaped keepers p adapted to engage corresponding flanges on the sides of the casing as shown in Fig. 3 and with this construction I place on the bottom of the casing a suitable lock device r having a bolt or catch adapted to engage the front of the casing at r^2, and the lock device r may be operated by a key through the bottom of the casing or in any desired manner.

On the left hand end portion of the shaft i is placed a spiral spring o, one end of which is secured to said shaft at o^2, and the other end to the casing a or to a bearing for the said shaft secured to said casing as shown at o^3, and the hand wheel i^2 is provided with a slot i^3 through which passes a pin i^4 secured to the corresponding side portion of the casing a through which said shaft passes, and the spring o serves to hold the shaft i and the arm j^2 in their normal positions, or that shown in Figs. 3, 4 and 5, while the pin i^4 operating in the slot i^3 serves to limit the rotation of said shaft in the operation of the machine as hereinafter described.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawing and the following statement thereof. In the normal position of the various parts of the machine the head d^5 of the lever d rests on the plate b beneath the bottom of the package receptacle m as shown in Figs. 3 and 6, and the back of said receptacle is open at the bottom and the slot a^5 in the front of the casing a is in the same plane with the head d^5 of said lever, and the packages n to be vended rest on said head. If now a coin

k be passed down through the coin slot j^5 it will drop into the position shown in Figs. 3, 4 and 5, and immediately in front of the finger f^7 of the L-shaped part f^3 of the lever f, and also in front of the end d^2 of the lever d as clearly shown in Figs. 3 and 5. If now the hand wheel i^2 be turned forwardly the coin k will first operate the lever f and through the head f^5 thereof backwardly and the side arms f^6 of said head will pass between the head g^7 of the pin g^3, and the bottom of the casing g and will draw down said pin, and at this instant the coin k also strikes the end d^2 of the lever d and the head d^5 of said lever is thrown backwardly and withdrawn from the bottom of the package or receptacle n, and at this time the packages in said receptacle drop down and one of them rests on the plate b, and as the shaft i is further turned and the levers d and f thrown into the position shown in full and dotted lines in Fig. 7, and in dotted lines in Fig. 5, the coin k passes beneath the end portions f^2 and d^2 of said levers and drops into the bottom of the casing while the said levers are returned to the normal positions by the springs h and h^3 and in this operation the head d^5 of the lever d is thrown forwardly and strikes the bottom package n and projects it forwardly through the slot a^5, and this operation, may, as will be understood, be repeated as long as there are any packages in the receptacle m. The arc-shaped shield j^3 of the radial arm j^2 in which the corner slot j^4 is formed is intended for a guard against the insertion of a coin through the slot a^5 in the casing a at any time when the shaft i and the arm j^2 are turned back or into the position shown in dotted lines in Fig. 5, and the pin g is intended to prevent fraudulent operations, or the fraudulent removal of the packages n. Without this pin an instrument might be inserted through the slot a^5 and the head d^5 of the lever d forced backwardly in which event the packages would drop on to the plate b and could be removed by hand or otherwise through the slot a^5, but with said pin in the position shown in Figs. 3 and 5, the head d^5 of the lever d can only be moved backwardly in the operation of the machine as herein described.

While the construction shown and described is that which I prefer it will be apparent that changes therein and modifications thereof may be made, within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages, and I reserve the right to make all such alterations in the said construction as fairly come within the scope of said claims.

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

1. In a vending machine, a casing the top portion of which is provided with a coin slot, a horizontal plate supported in the top portion of said casing, a shaft mounted horizontally below said plate and tensionally held in a predetermined position and one end of which passes through said casing and is provided with a hand wheel, a flat radial arm connected with said shaft and provided with a coin slot which corresponds with the coin slot in the top of the casing, a lever pivoted on said plate, one end of which ranges beneath and in front of the coin slot in the casing, another lever pivoted beneath said plate and provided with a member which ranges parallel with and rearwardly of the corresponding end of the first named lever, and means for holding said levers in their operative positions.

2. In a vending machine, a casing provided with a coin slot, a horizontal plate mounted in said casing, and one corner portion of which is cut away beneath and in front of said coin slot to form a recess, a shaft mounted beneath said plate and provided with a radial arm having a radial coin slot, said arm being also provided with a backwardly directed arc-shaped shield, a spring supported pin mounted beneath the end portion of said plate opposite said recess and extending forwardly through said plate, a lever pivoted on said plate and one end of which ranges beneath and in front of the coin slot in the casing, and the other end of which is normally in front of said pin, another lever pivoted beneath said plate and one end of which is adapted to depress said pin and the other end of which is provided with a part which extends parallel with and rearwardly of the corresponding end of the first named lever, said end of said first named lever being also provided with a flange which extends downwardly through said recess, and terminal devices for holding said levers in their operative positions.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 11th day of November 1910.

JOHN H. WALTER.

Witnesses:
B. M. RYERSON,
C. E. MULREANY.