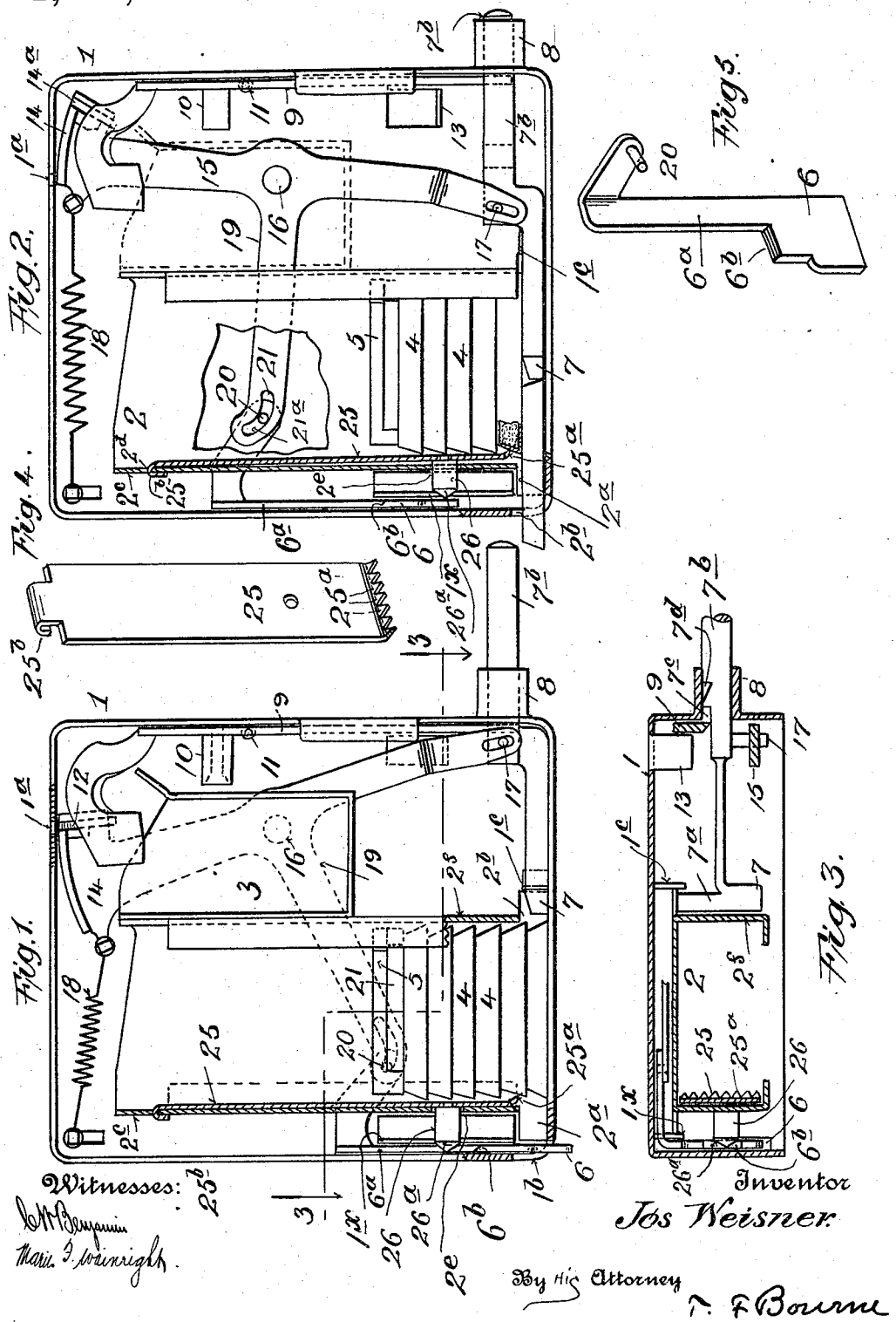
J. WEISNER.

VENDING MACHINE.

APPLICATION FILED NOV. 20, 1914.

1,184,153.

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UNITED STATES PATENT OFFICE.

JOSEPH WEISNER, OF NEW YORK, N. Y., ASSIGNOR TO PEERLESS AUTOMATIC MACHINE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

VENDING-MACHINE.

1,184,153. Specification of Letters Patent. Patented May 23, 1916.

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To all whom it may concern:

Be it known that I, JOSEPH WEISNER, a citizen of the United States, and resident of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

The object of my invention is to provide improved means to prevent the extraction or displacement from a vending machine of more than the proper number of articles for a given coin, to the end that when the ejector has discharged, for instance, one candy or other article, no more candies or articles can be extracted until the parts have been restored to their normal positions and a new coin inserted to permit operation of the ejector.

My invention comprises novel details of improvement and combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein, Figure 1 is a face view of a vending machine embodying my improvement, the cover being removed and parts being in sections, showing the parts in their normal positions; Fig. 2 is a substantially similar view showing the parts in the operative position, compartment 3 being omitted; Fig. 3 is a section on line 3, 3, in Fig. 1; Fig. 4 is a perspective view of the retainer for the articles; and Fig. 5 is a perspective view of the shutter.

Similar numerals of reference indicate corresponding parts in the several views.

The box or casing 1 may be of any suitable construction and is shown provided with a coin-slot 1^a, and an outlet 1^b. At 2 is a compartment within the casing and at 3 is a compartment beneath the coin-slot to receive the coins therefrom. The opposed walls of the lower portion of compartment 2 are open at 2^a, 2^b, in line with outlet 1^b for the exit therethrough of the articles 4, one by one. A suitable weight 5 rests upon the stack of articles and is of greater depth than the articles so as not to be pushed through the outlet 1^b while resting upon the bottom of the box. A shutter 6 is guided within the box to aline with outlet 1^b and to be raised and lowered as hereinafter explained. At 7 is an ejector or plunger alined with outlet 1^b to push articles 4 therefrom. The ejector is shown provided with a head 7^a and a stem 7^b guided through a suitable bearing 8 of box 1. Ejector 7 is normally held retracted and locked from being pushed to eject articles 4 by means of a lever 9 pivotally supported within the box, as at 10, the lower end of said lever being adapted to engage shoulders 7^c, 7^d on one side of stem 7^b. Shoulder 7^c is normally in such a position as permits slight movement of the ejector before engaging lever 9, and then said lever prevents forward movement of the said ejector until the lever has been moved by a coin out of the way of shoulder 7^c. Lever 9 is normally pressed toward the ejector stem by a suitable spring 11 co-acting with said lever and with the box. The upper end of lever 9 is to be moved by a coin that is passed through a coin-slot 1^a so as to move and hold the lower end of said lever out of line with notches 7^c and 7^d when an article is to be ejected. A stop 13 carried by box 1, which may be stamped out of the metal of the box, between which stop and the adjacent wall of the box the lever 9 swings, aids in preventing the lever from being pushed by the ejector to the left in Figs. 1 and 2, while said lever has free swinging movement between stop 13 and said wall at pivot 10. A lever 15 is pivotally supported within the box as at 16 and is provided with a coin pusher or projection 14 and a slot 14^a to receive the coin 12 from slot 1^a, to coact with lever 9, to operate the latter to release the ejector. Lever 15 is arranged to coact with ejector 7, for which purpose said lever is shown pivotally connected at 17 with the ejector by a pin and slot connection. A suitable spring 18 connected with lever 15 or the part 14 and with the box, serves to normally hold the parts 14 and 15 retracted, thus serving to maintain ejector 7 in its normal position, the head 7^a then resting against a stop 1^c (Fig. 3). Lever 15 is shown provided with an arm 19 pivotally connected with shutter 6 by a pin and slot 20, 21, said pin being shown connected with extension 6^a of shutter 6, and the latter is guided in a suitable guideway in the box as between the adjacent wall of the box and the web 1^x thereof.

My improvements comprise means for retaining the stack or articles 4 above the lowermost article, in position when ejector 7 has been pushed forward to eject the lowermost

article. To this end I provide a retainer 25, shown in the form of a strip of metal located within and along one side wall of compartment 2, on the side above opening 2^a, the lower end of which retainer is shown provided with teeth or projections 25^a adapted to engage the article 4 that is next above the lowermost article resting upon the bottom of the box. Retainer 25 is shown attached to the wall 2^c of compartment 2, by means of the bent end 25^b of the retainer entering and hanging upon the edge of an opening 2^d in wall 2^c. Retainer 25 is provided with a projection 26, which may be in the form of a pin guided in an opening 2^e in wall 2^c, the outer end 26^a of projection 26 being shown tapered or beveled to engage the beveled edge 6^b of shutter 6, which edge lies normally below said pin 26. The arrangement is such that when the parts are in the normal positions, shown in Fig. 1, the lowermost article 4 will rest upon the bottom of the box, the shutter 6 will be lowered to close outlet 1^b, the beveled edge 6^b of the shutter will be below projection 26 and retainer 25 will lie against the wall 2^c, so that the teeth 25^a of the retainer will not interfere with the articles 4. When the coin is inserted in slot 1^a and lever 9 is moved out of line with the shoulders 7^c, 7^d of stem 7^b, the ejector may be pushed and thereupon lever 15 will be operated and its arm 19 will rise and lift the shutter, and as soon as the beveled edge 6^b of the shutter engages projection 26, the retainer 25 will be pushed to the right in Fig. 2 toward the articles 4 and the teeth 25 of the retainer will engage the article 4 next above the lowermost article and push said article against the opposite wall 2^f of compartment 2, and thus suspend the stack of articles above the lowermost article, during which time the ejector may push the lowermost article forwardly to be grasped, as in Fig. 2, the ejector then resting below the stack of articles. In this position of the parts, since the stack of articles are positively retained in position within compartment 2, the surreptitious extracting of the articles is prevented. When the ejector is released spring 18, by pulling upon lever 15, swings the latter and restores the ejector to its normal position, and since the edge 6^b of the shutter descends below projection 26 the retainer will spring back from the articles 4 and permit the descent of the articles to position shown in Fig. 1, ready for further operation upon the insertion of a coin, the shutter preventing extraction through opening 1^b of articles 4 in the absence of a coin.

The means for operating the levers 9 and 15 by the action of coins may be provided as desired. In order to give the shutter 6 a relatively quick movement, I provide the slot 21 with a concave lower surface 21^a to ride against pin 20, so that when arm 19 is raised the action of the arm upon pin 20 will be accelerated, by which means a relatively long shutter may be provided that may extend well down to or below outlet 1^b, as in Fig. 1.

Changes may be made in the arrangements as set forth, within the scope of the appended claims, without departing from the spirit of my invention.

Having now described my invention what I claim is:

1. A vending machine comprising a casing provided with an outlet, a shutter to close said outlet, an ejector alined with the outlet, a lever pivoted on the casing and having an arm pivotally connected with the ejector and an arm pivotally connected with the shutter, a compartment within the casing above the ejector adapted to contain a stack of articles, a retainer connected with and depending along a wall of the compartment and provided with means to engage one of said articles, and complemental means between the retainer and the shutter for operating the retainer by the shutter.

2. A vending machine comprising a casing provided with an outlet, a shutter to control said outlet, an ejector alined with said outlet, a lever pivoted on the casing and having an arm pivotally connected with the ejector and having an arm pivotally connected with the shutter, said shutter having a beveled edge, means to retain a stack of articles in the casing above the ejector, a retainer adjacent said articles and adapted to engage one of the latter, said retainer having a projection adapted to engage the beveled edge of the shutter to operate the retainer.

Signed at New York city, in the county of New York, and State of New York, this 19th day of November, A. D. 1914.

JOSEPH WEISNER.

Witnesses:

RALPH H. RAPHAEL,

T. F. BOURNE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."