Oct. 9, 1928. 1,686,949

F. J. BRANDT

INDICATING MEANS FOR VENDING MACHINES

Filed June 4, 1927

FIG. 1.

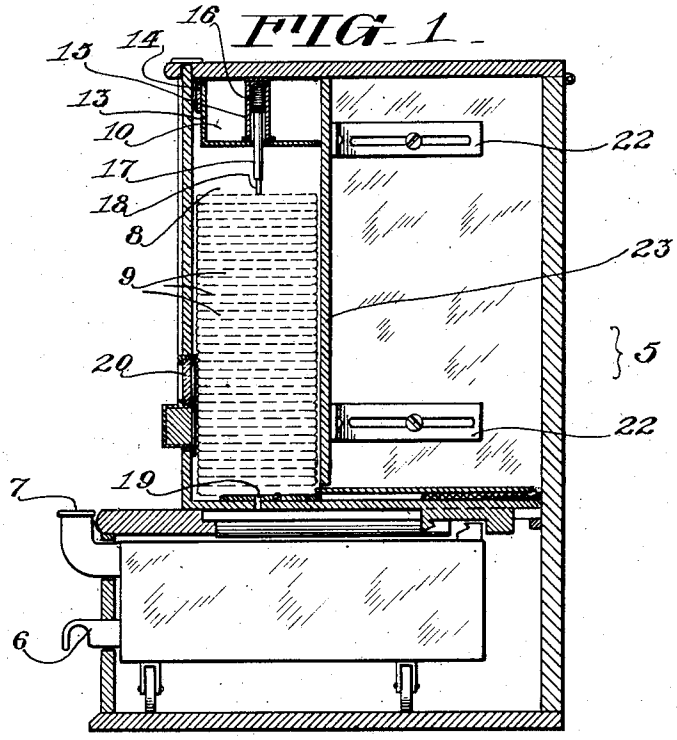


FIG. 2.

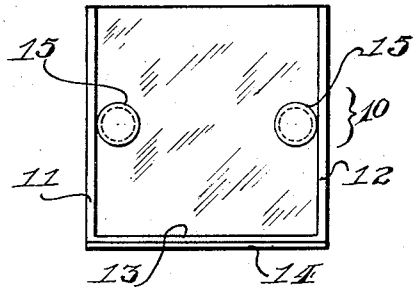


FIG. 3.

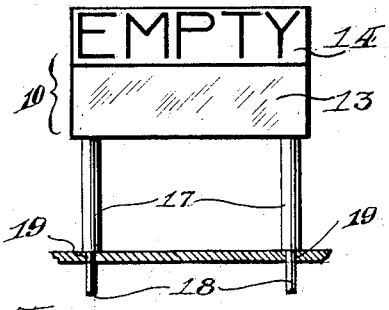
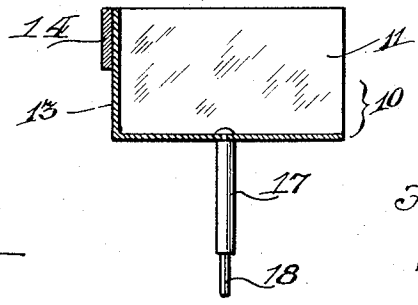


FIG. 4.



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UNITED STATES PATENT OFFICE.

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INDICATING MEANS FOR VENDING MACHINES.

Application filed June 4, 1927. Serial No. 196,444.

This invention relates to indicating means for vending machines and more particularly to a device for ascertaining when the machine is empty. Prospective purchasers are thus given positive notice and may avoid depositing coins in an empty machine; while proprietors will be apprised when to refill machines without the necessity of opening them.

An object of the invention is to provide an indicating device that will also serve as a charging weight and aid in dispensing the wares to be vended.

A feature of the invention resides in the provision of a mounting for the indicating medium having adjustable supporting means adapted to fit within the mounting and extend beyond the mounting, depending on the fullness of the machine.

Another feature lies in the formation of a combination indicator mounting and weight made of sheet material and formed to fit within guides and over the wares, whereby upon the emission of the last unit vended, the indicating medium will be displayed above the actuating and dispensing means of the machine.

A further feature provides for positioning the indicator mounting at the base of the compartment after the compartment is emptied and the top unit of the stack to be vended is removed as a support for said mounting.

Other objects and features will be apparent from the following description read in conjunction with the accompanying drawings in which

Figure 1 is a view partly in section of a coin vending machine having a device in accordance with the invention positioned within the guides of a compartment containing a stack of wares to be vended.

Figure 2 is a top view of the device.

Figure 3 is a front view showing the indicating means mounted thereon.

Figure 4 is a side sectional view of a modified form.

Considering all the views simultaneously, similar designations referring to similar parts, numeral 5 designates a form of vending machine to which my invention may be applied. The form of machine, as well as the type of plunger, such as 6, coin chute 7, or the release mechanism, etc., constitutes no part of my invention and is illustrated merely to show the application of my device in practice.

Numeral 8 represents a compartment in which are stacked packages 9 of confections or the like. Upon inserting a coin in tube 7 and actuating lever 6, the machine is adapted to release one of the packages indicated. Disposed above the top package is device 10 formed of sheet metal or the like with its bottom part having extensions forming upwardly extending sides 11, 12 and a front part 13. The bottom is substantially equal to a cross-section of the compartment 8. The upstanding sides and front therefore provide a substantially snug and aligned fit within the compartment. To front part 13 may be pasted or otherwise secured an indicating card or other medium 14 to denote that the machine is empty, or to give other information. Device 10 is provided with sockets 15 and within each socket is positioned a spring 16. Abutting the underside of each spring is a rod 17 having a bearing pin 18 resting on the top package.

When the compartment is filled substantially to the level of the bottom of the device, the springs will be compressed and the rods lodged wholly within the sockets. The pins will then bear against the packages due to the spring tension and the weight of the device. As the packages are vended, the rods will be pushed from the sockets by the springs, as shown in Figure 1, and the packages bear the weight of the device only. The weight of the device keeps the packages close together and assures ready dispensation. When the last package is withdrawn, pins 18 will fall within apertures 19 and the indicating sign positioned behind glazed opening 20. Pins 18 are retained in line with the apertures 19 due to the snug sliding fit of the sides and front of the device within the compartment.

Figure 4 shows a modified form of device in which the pin and rod are directly secured to the bottom of the device. In both forms the devices are designed so that when pins 18 fit within the apertures at the bottom of the compartment, the signs will be at the proper height to show through the glass.

If the compartment is enlarged, as for example by shifting brackets 22 controlling the position of the back part 23 of the compartment, the bottom of the device is correspondingly designed to fit the new era. If desired, the sides of the compartment and device may be formed with a tongue and groove, or other

arrangement, so that the same device may serve different sized compartments. The sign may be divided into two or more parts and by correspondingly providing different openings, various conditions of the machine may be denoted.

While I have described my invention as taking a particular form, it will be understood that modifications may be made without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

I claim:—

1. In a vending machine, a compartment adapted to contain a stack of material, an indicating device within the compartment, means on said device for enabling it to slide in said compartment with its bottom part in a plane substantially perpendicular to the sides of the compartment, said device having supporting means adapted to exert a variable pressure on a stack of material within the compartment, and means at the bottom of the compartment for receiving said supporting means and fixing the indicating device in a predetermined position.

2. An indicating device for vending machines having means for resting on a stack of material, said means normally projecting a certain distance within the machine from the base of the device, and projecting a smaller distance when the machine is substantially full.

3. Means for indicating when a vending machine is empty comprising a device having a base, an indicating part, projections integral with the base for enabling the device to slide within a compartment in aligned position with respect to the sides of the compartment, means for supporting the indicating part of the device within the compartment at a distance above a stack of material therein, said means resting on top of the stack, and means for receiving said supporting means whereby the indicating part will precipitantly drop to a desired position when the last of the stack of material is vended.

4. Means for indicating the fullness of a vending machine comprising a base having an area substantially equal to a cross-section of a compartment of the machine wherein material is adapted to be stacked, extensions on the base adapting it to slide within and in aligned position with respect to the compartment, means including a socket within the device having a spring therein exerting tension against a rod adapted to rest on the material within the compartment, said spring and rod being adapted to fix indicating means on the device in a predetermined position when the machine is empty.

5. In a vending machine having a compartment in which material to be vended is stacked and apertures in the bottom of the compartment, an indicator including a base, side and front walls on the base for guiding the indicator in the compartment, sockets secured to the base, springs in the sockets, rods slidable in the sockets and abutting the springs, and pins secured on the rods for resting upon the uppermost piece of material in the compartment and adapted to enter the apertures when the last piece of material is vended.

6. In a vending machine, an indicator on a device having supporting means, receiving means for retaining said supporting means when the machine is empty, an opening in the machine, said supporting means being arranged so that the indicator will be observed through the opening only when said supporting means are within the receiving means.

In testimony whereof I have signed my name to this specification.

FRANCIS J. BRANDT.