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F. H. VOGEL

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VENDING MACHINE STRUCTURE

Filed April 6, 1931

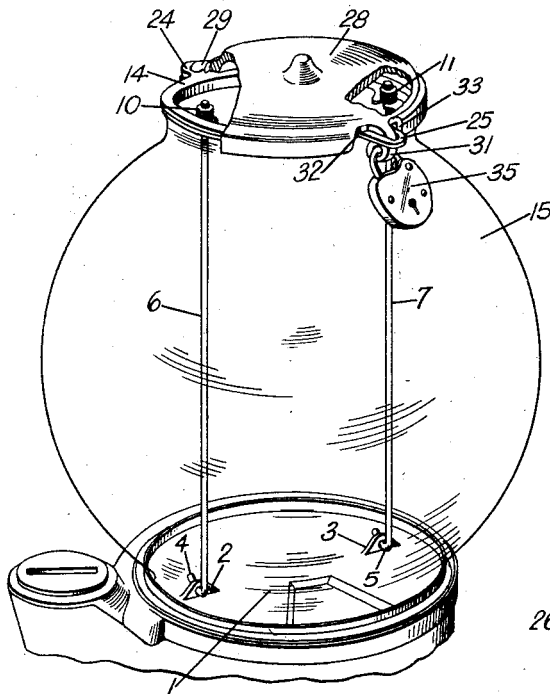


Fig. 1

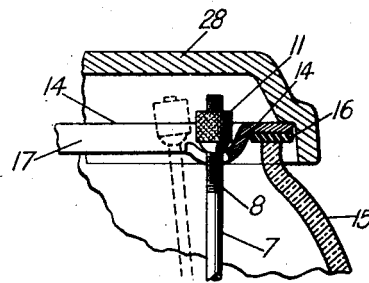


Fig. 2

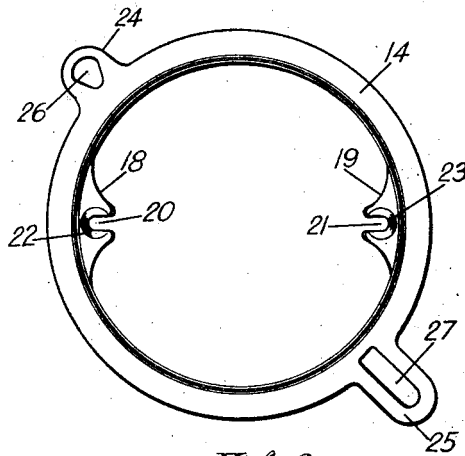


Fig. 3

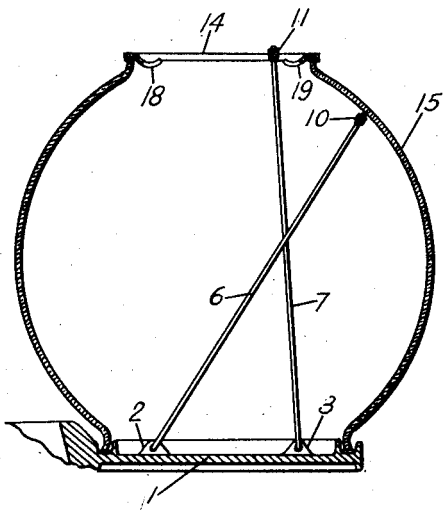


Fig. 4

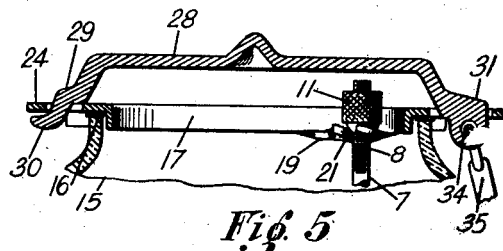


Fig. 5

INVENTOR.
Frank H. Vogel.

BY
Edwin P. Cooper
ATTORNEY.

UNITED STATES PATENT OFFICE

FRANK H. VOGEL, OF COLUMBUS, OHIO, ASSIGNOR TO THE COLUMBUS VENDING COMPANY,
OF COLUMBUS, OHIO, A CORPORATION OF OHIO

VENDING MACHINE STRUCTURE

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My invention relates to vending machine structure. It has to do particularly with the provision of a means for securing the globe or other article container upon a vending machine.

In the past, various devices have been used for securing globes or article containers upon vending machines but the securing means utilized has usually been of such structure that it has been difficult to separate the globe or container from the vending machine, as is frequently necessary for washing or other purposes. Furthermore, the usual securing means has been of such a nature as to render the interior of the globe or container comparatively inaccessible.

One of the objects of my invention is to provide a means for securing the globe or container in position as a part of a vending machine with a minimum of difficulty. In other words, it is desirable to provide a securing means of such nature that it may be rendered operative with ease and facility.

Another object of my invention is to provide a securing means of such a nature that it may be readily disconnected. Furthermore, this securing means should be of such form as to permit this connection without completely disassembly of the parts.

Another object of my invention is to provide a securing means which may be more cheaply constructed. At the same time, this securing means should be of tougher material and more resistance to such breakage as might be resorted to for the purpose of tampering with or robbing the machine.

The preferred embodiment of my invention contemplates the provision of a plurality of pivotally mounted bolts with nuts thereon designed for cooperation with a retaining ring which is superimposed upon the globe or other containing element. Preferably, these bolts are pivotally mounted upon the top of the vending mechanism and at spaced points thereon. They extend upwardly and are preferably disposed in parallel relation when in operative position. They are designed so that they may be swung into or out of open-ended slots in lugs which form an integral part of the retaining ring, being equipped

with adjustable nuts which may cooperate with these lugs for retention of the bolts in operative position.

The preferred embodiment of my invention is shown in the accompanying drawing wherein similar characters of reference designate corresponding parts and wherein:

Figure 1 is a perspective view of the upper portion of a vending machine made in accordance with my invention, the cap of the vending machine being broken away.

Figure 2 is a detail, partially in section, illustrating the connection between my retaining ring and one of the bolts which I preferably utilize.

Figure 3 is a top plan view of my retaining ring removed.

Figure 4 is a vertical sectional view of the upper portion of a vending machine, illustrating a globe, my retaining ring mounted thereon and showing my bolts disconnected from the said retaining ring.

Figure 5 is a sectional view taken through the cap of a vending machine made in accordance with my invention.

In the drawing, my invention is shown as comprising a vending machine wherein the upper plate 1 of the vending mechanism is provided with spaced perforated lugs 2 and 3. These upstanding perforated lugs 2 and 3 are adapted for the reception of the hook-shaped ends 4 and 5 of the bolts 6 and 7.

These bolts 6 and 7 are normally disposed, during operation, in upstanding parallel relation, although they may be in a slanting position. They are threaded at their upper ends as shown at 8 in Figure 2. Threaded upon these bolts are nuts 10 and 11 which are provided upon their lower ends with convex formations, as illustrated in Figure 2. These nuts are preferably made comparatively large in order to secure more leverage and are also deeply knurled so that a wrench is not needed in tightening or loosening them. In the drawing, these nuts are shown to be cylindrical in shape, but they may be of hexagonal or any other desired shape.

Designed for cooperation with these upstanding bolts 6 and 7 is a retaining ring 14 which is designed to be mounted upon the

top of a globe 15, being cushioned thereon by means of an elastic washer 16. The ring 14 is preferably provided on the interior thereof with a downwardly turned flange 17. It is also provided with oppositely disposed lugs 18 and 19 extending radially in from the interior wall thereof.

The lugs 18 and 19 are preferably formed with open-ended slots 20 and 21 so that the bolts 6 and 7 may be readily swung from such a position as that shown in Figure 4 into these slots 20 and 21. When these bolts have been moved into these slots 20 and 21, they may be held in this position by downward adjustment of the nuts 10 and 11. The upper surfaces of the lugs 18 and 19 have a concave formation as at 22 and 23 and the adjustment of the nuts 10 and 11 downwardly onto these lugs causes the convex bottoms of the nuts to seat in the concave formations 22 and 23 and prevent accidental swinging of the bolts out of the slots in these lugs.

The retaining ring 14 is further provided upon its exterior with a projecting lug 24 and, diametrically opposite thereto, it is provided with a projecting lug 25. The lug 24 has an aperture 26 therein of eccentric form and the lug 25 has a closed slot 27 formed therein.

My structure is also provided with a cap 28 having a finger 29 extending radially outward from one side thereof. This finger 29 is also provided further with an L-shaped extension 30 which is adapted to be hooked into the aperture 26 of the lug 24. Directly opposite the finger 29 is a lug 31 and the cap 28 is cutaway as at 32 and 33. This lug 31 extends downwardly into and through the opening 27 in the lug 25. It is apertured as at 34 for the reception of a padlock 35.

In assembling the structure, it will be understood that, with the bolts 6 and 7 connected to the lugs 2 and 3, the globe or other container is placed in position upon the plate 1. Then, the retaining ring 14 with its cushioning ring 16 is superimposed upon the globe. The bolts 6 and 7 are then swung into the open-ended slots 20 and 21, this being permitted by the fact that the nuts 10 and 11 are sufficiently high upon these bolts to prevent interference. As soon as these bolts are within the slots 20 and 21, the nuts 10 and 11 are screwed downwardly until they seat in the concavities 22 and 23 of the lugs 18 and 19. In this position, the bolts 6 and 7 are spaced apart, as shown in Figure 1, and the interior of the globe or container is comparatively accessible. When these parts have been thus assembled, the cap 28 may be placed in position by hooking the finger 29—30 into the opening 26 of the lug 24 and by passing the lug 31 downwardly through the slot 27 of the lug 25. A padlock may be applied to hold these parts in this assembled position. It will be apparent that the as-

sembling of this device is much more simple than previous devices of this character because of the ease with which the bolts 6 and 7 may be swung into the open-ended slots 20 and 21. This eliminates the difficulty of passing the ends of the bolts through the openings, formed in the retaining ring by raising and then lowering the retaining ring into position on the container.

In disassembling the parts, it is merely necessary to remove the padlock and then lift the cap to obtain access to the nuts 10 and 11. These nuts 10 and 11 may be adjusted vertically upward to a sufficient extent to permit the swinging of the bolts 6 and 7 out of the open-ended slots 20 and 21, for example, to the position shown in Figure 4. It will be apparent that the nuts 10 and 11 need not be entirely removed from the bolts to effect this disconnection. When the bolts have been removed from the open-ended slots 20 and 21, the retaining ring may be removed and the globe or container may then be removed, if desired. Furthermore, when the bolts have been removed from the slots, they may be swung to one side (Figure 4) making the inside of the container more easily accessible for cleaning or other purposes.

It will be seen that I have provided a simple apparatus for connecting the globe or container in position upon the vending machine with a minimum of difficulty. Furthermore, the bolts may be detached from the retaining ring without separating the nuts therefrom, thus avoiding the frequent occurrence of the dropping of such nuts into the container. It will also be apparent that, once these nuts have been adjusted downwardly to the proper extent, the retaining ring will be held firmly in position while, at the same time, the interior of the globe will be readily accessible. It will also be apparent that, owing to the fact that the retaining ring is stamped from sheet metal and is provided with a closed slot 27, there will be less likelihood of tampering with the machine by the breaking off of the end of the lug 25 and the lifting of the cap. This is one difficulty that has arisen in the past from the use of lugs of cast material with open-ended slots therein which may be more readily fractured.

It will be apparent that I have produced an extremely simple structure which is, nevertheless, readily assembled or disconnected and which, at the same time, efficiently performs the service for which it is intended.

Having thus described my invention, what I claim is:

1. Vending machine structure comprising a base portion embodying the usual dispensing mechanism, a receptacle adapted to contain the articles to be dispensed mounted upon said base portion, a retaining ring provided with open-ended slots mounted upon the top

of said receptacle, a plurality of bolt members disposed within the space defined by said receptacle and mounted upon the top of said base portion movable into said open-ended slots to hold said retaining ring in secured position and movable out of said open-ended slots to release said retaining ring from secured position, and means for holding said bolt members in place within the slots.

downwardly into engagement with the portions of said retaining ring surrounding said open-ended slots when said bolt members are in cooperative relation with said slots and adjustable upwardly and out of contact with said retaining ring when it is desired to move said bolt members out of cooperative relation with said slots.

In testimony whereof I hereby affix my signature.

FRANK H. VOGEL.

2. Vending machine structure comprising a base portion embodying the usual dispensing mechanism, a receptacle adapted to contain the articles to be dispensed mounted upon said base portion, a retaining ring provided with lugs having open-ended slots therein mounted upon the top of said receptacle, a plurality of bolt members disposed within the space defined by said receptacle and mounted upon the top of said base portion movable into said open-ended slots to hold said retaining ring in secured position and movable out of said open-ended slots to release said retaining ring from secured position, and means for holding said bolt members in place within the slots.

3. Vending machine structure comprising a base portion embodying the usual dispensing mechanism, a receptacle adapted to contain the articles to be dispensed mounted upon said base portion, a retaining ring provided with open-ended slots mounted upon the top of said receptacle, a plurality of bolt members disposed within the space defined by said receptacle and pivotally mounted upon the top of said base portion movable into said open-ended slots to hold said retaining ring in secured position and movable out of said open-ended slots to release said retaining ring from secured position, and nuts threaded onto the ends of said bolt members adjustable downwardly into engagement with the portions of said retaining ring surrounding said open-ended slots when said bolt members are in cooperative relation with said slots and adjustable upwardly and out of contact with said retaining ring when it is desired to move said bolt members out of cooperative relation with said slots.

4. Vending machine structure comprising a base portion embodying the usual dispensing mechanism, a receptacle adapted to contain the articles to be dispensed mounted upon said base portion, a retaining ring mounted upon the top of said receptacle, lugs having open-ended slots therein extending inwardly from the interior periphery of said retaining ring, a plurality of bolt members disposed within the space defined by said receptacle and pivotally mounted upon the top of said base portion movable into said open-ended slots to hold said retaining ring in secured position and movable out of said open-ended slots to release said retaining ring from secured position, and nuts threaded onto the ends of said bolt members adjustable

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