Sept. 15, 1942. C. C. LAYHER 2,296,215

DISPLAY CONTAINER

Filed March 23, 1939

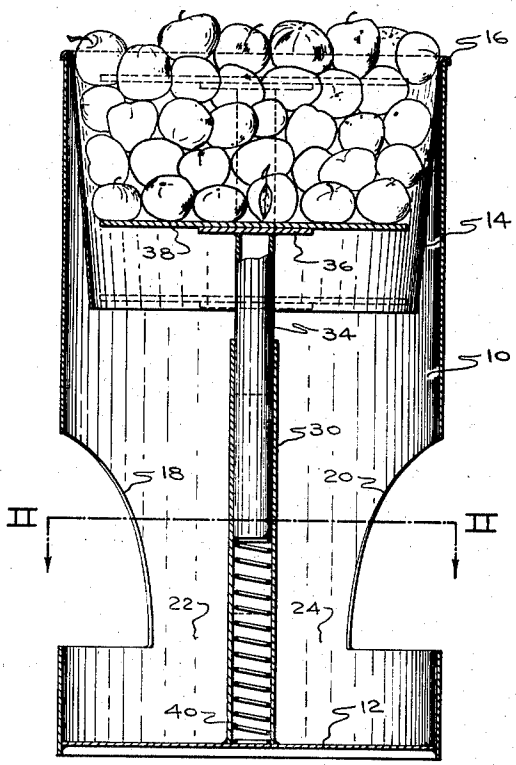


Fig. 1

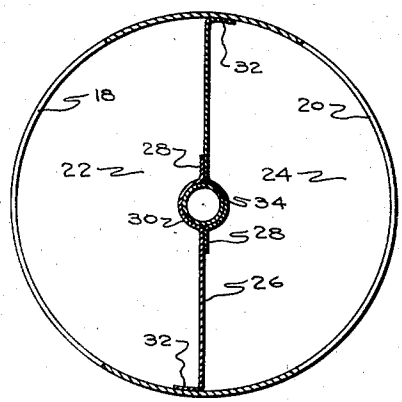


Fig. 2

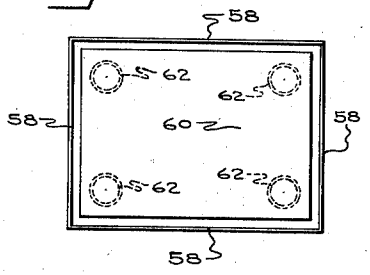


Fig. 5

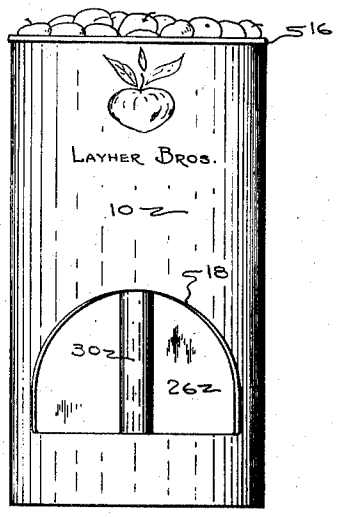


Fig. 3

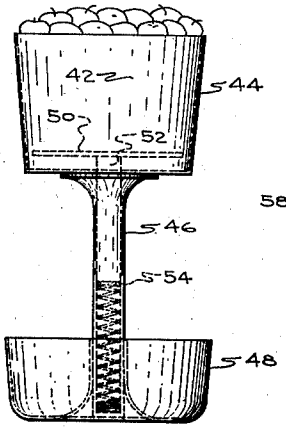


Fig. 4

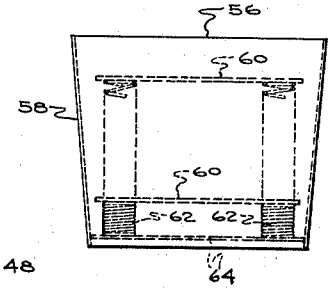


Fig. 6

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DISPLAY CONTAINER

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2 Claims. (Cl. 220—93)

The present invention relates to improvements in display container structure particularly designed for use in connection with the sale of fruits, vegetables and other produce in small quantities.

It is well recognized that the average purchaser of food products prefers to obtain the upper layer of the product being displayed in conventional crates, boxes and the like. This is for the reason that the upper layers are considered to be freshest and of more uniform, high quality and thus creates a greater desire of ownership. Recognizing this situation, storekeepers have resorted to the use of false bottoms in display crates, boxes and barrels which require frequent replenishment of the food products if sales are to be made therefrom.

At least in the patented art it has heretofore been proposed to provide cigar boxes with follow-up bottoms urged by springs to give the box of cigars the appearance of being substantially full at all times. There appears, however, to have been no development beyond this point.

An object of the present invention is to provide an improved display container which is primarily designed for the display and dispensing of potatoes, apples, pears, peaches and similar fruits and vegetables which are conventionally displayed in baskets and crates and dispensed therefrom in small quantities as sold, characterized by the feature that the container has the appearance of always being full up to the removal of the lowermost layer.

Another object resides in providing a novel display container as described in the preceding paragraphs which is entirely automatic in its operation.

A further object is to combine an ever full container into an attractive and inexpensive display stand.

These and other objects and advantages residing in the arrangement, construction and combination of parts of the illustrated embodiments of the invention will more fully appear from the following description and annexed claims.

In the drawing:

Fig. 1 is a vertical cross-sectional view of one form of the invention,

Fig. 2 is a horizontal cross-sectional view taken on line II—II of Fig. 1,

Fig. 3 is a side elevational view on a smaller scale of the construction shown in Fig. 1,

Fig. 4 is a view similar to Fig. 3 of another form of the invention,

Fig. 5 is a plan view of a further form of the invention, and

Fig. 6 is a side elevational view of the construction shown in Fig. 5.

Several different embodiments of the invention are illustrated in order that there may be a full understanding of its principles. In Figs. 1, 2 and 3 I have shown my novel display container built into a display stand which is particularly adapted for use in fruit and grocery stores. As shown, an upright housing 10 of metal or other suitable material constitutes the stand which may be cylindrical as shown or of any other appropriate shape. A bottom 12 closes the lower end of the housing 10. At the upper end a liner 14 of sheet metal, wood or composite material is suitably supported. In the preferred form the liner 14 has a flange 16 which fits over the upper end of the housing 10 to finish off the same and to support the liner in position. It may be welded or otherwise held against removal. To enhance the utility of the display stand, the housing 10 has openings 18 and 20 therein to provide access to the compartments 22 and 24 separated by a partition 26. As shown the partition 26 is fabricated from two similar sheet metal parts welded or otherwise secured at 28 and shaped to collectively define a cylindrical, vertical guide 30. The vertical outer edges of the partition 26 may be flanged at 32 to permit convenient securing of the same to the inside of the housing 10.

Supported for vertical movement within the guide 30 is a support 34 having a flanged upper end 36 upon which the bottom 38 is rigidly supported. The bottom 38 has the same general shape as the cross-sectional shape of the liner 14. A coiled spring 40 is housed for free expansion and compression within the guide 30 and acts upon the lower end of the support 34 to elevate the bottom 38 into the upper dotted line position. Assuming that the container defined by the liner 14 and the bottom 38 when located in the lower dotted line position will hold a bushel of apples, a spring 40 is selected which will counterbalance the weight of a bushel of apples when the bottom 38 is in the lower dotted line position. Then when the container is filled with apples the bottom 38 will come to rest at the lower dotted line position. As the apples are removed from the top, the bottom will gradually raise as each apple is removed as illustrated by the full line position in Fig. 1 of the bottom 38. When the last layer of apples is removed the spring 40 is only compressed by the weight of the

support 34 and bottom 38 and will assume the upper dotted line position. To assure full automatic operation of the bottom 38 as the apples are removed giving the appearance of a full container at all times, the liner 14 is shown as slightly conical or tapered in a downward direction. This construction has the effect of slightly crowding the apples together as the container is being filled and the bottom 38 depressed. As the weight of apples above each other and their shape cause a slight bonding or resistance to lateral displacement, the taper of the liner 14 upon upward movement of the bottom 38 materially reduces any tendency toward drag along the sides of the liner 14 which would give the bottom 38 an irregular jerking upward movement.

The compartments 22 and 24 may be used to display packaged articles of food or may be used as bins from which fruit or vegetables may be dispensed. I also anticipate making the housing 10 hour-glass shape which will eliminate the necessity of the liner 14 in order to obtain tapered wall structure for the upper container.

In Fig. 4 is shown a slightly different form of the invention in which a container 42, preferably with tapered side walls 44 is supported upon a tubular column 46 having a receptacle shaped base 48. A follow up bottom 50 corresponds to the bottom 38 and is similarly supported through a support 52 guided in the column 46 and acted upon the coiled spring 54. The function and operation of the bottom 50 is as described with reference to the bottom 38 of Fig. 1.

The present invention in one of its simplest forms is illustrated in Figs. 5 and 6. A box or crate 56 having a bushel capacity and tapered sides 58 is equipped with a false bottom 60 solely supported and centered by coil spring 62 at the corners. One novel feature claimed for this form of the invention in Figs. 5 and 6 is the tapered wall construction which makes it possible to have automatic and uniform operation of the bottom 60 even when handling irregular articles which may weigh from forty to sixty pounds per bushel. The springs 62 are connected to the false bottom 60 and the fixed bottom 64 in any suitable manner.

From the foregoing description it should be apparent that I have provided an inexpensive, desirable, attractive display container which will assist in the merchandising of food products. The convenience with which food products may be dispensed with from my display container should be obvious.

Having thus described my invention what I desire to protect by Letters Patent and claim is:

1. A display and dispensing container and stand comprising an upper container part, said upper container part having side walls having an inner surface which flares upwardly and outwardly, said container part including a vertically movable follow-up bottom, a central support for said bottom comprising a post, a tubular guide for telescopically receiving said central support, and resilient means acting upon said support to counterbalance the contents of said container and to raise said bottom as the contents of the container are removed from the top.

2. A display and dispensing container and stand comprising an outer housing, a liner shaped to define tapered side walls of a container, a supporting bottom for said container, a central support for said bottom for supporting the same for vertical movement from adjacent the lower end of said liner to adjacent the top thereof, a vertical partition for the lower and central positions of said housing shaped to form a central vertical guide for said central support, resilient means located in said guide and acting upon said central support to counterbalance said bottom and contents, and openings in said housing to afford access to compartments therein defined by said partition.

CLIFFORD C. LAYHER.