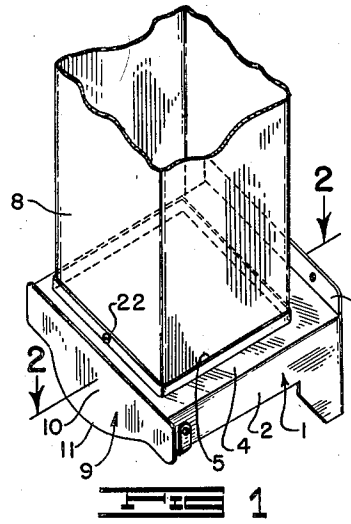
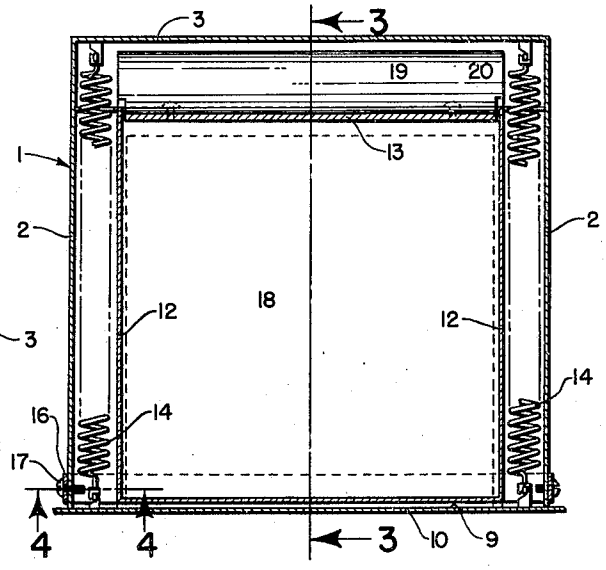
Dec. 13, 1949 A. W. MONDORF 2,491,053

DISPENSER

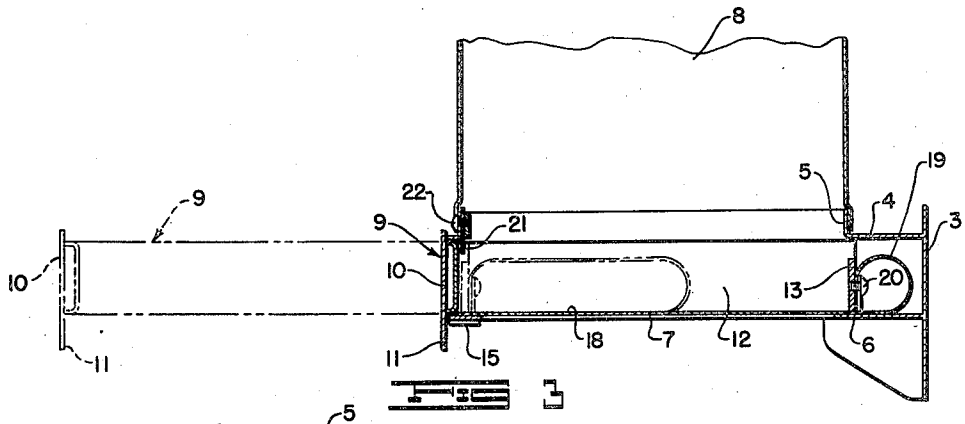
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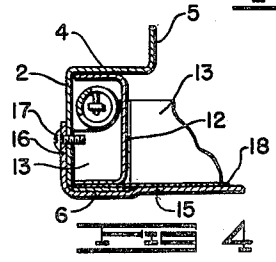
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UNITED STATES PATENT OFFICE

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DISPENSER

Alfred W. Mondorf, Pasadena, Calif.

Application July 5, 1947, Serial No. 759,016

6 Claims. (Cl. 312—67)

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My invention relates to dispensers, more particularly, to devices suitable for the dispensing of sliced bread.

Included in the objects of my invention are:

First, to provide a dispenser which employs a particularly simple yet effective and dependable novel feeding mechanism wherein a flexible ribbon functions as a support for the entire stack of the commodity, such as sliced bread, being vented, and folds upon itself as a selected quantity of the commodity is withdrawn to function as a support for that portion of the stack which remains within the dispenser.

Second, to provide a dispenser for bread and similar commodities which comprises few parts which are inexpensive of manufacture and which are easily maintained in a clean and sanitary condition.

With the above and other objects in view, reference is directed to the accompanying drawings in which:

Figure 1 is a fragmentary perspective view of my dispenser.

Figure 2 is an enlarged sectional view, in plan, taken through 2—2 of Figure 1.

Figure 3 is a fragmentary sectional view through 3—3 of Figure 2 with the open position of the dispensing drawer shown by broken lines.

Figure 4 is a further enlarged fragmentary sectional view through 4—4 of Figure 2.

My device includes a dispenser housing 1, preferably formed of sheet material and including side members 2, a back member 3, a top member 4 having an opening 5, and a bottom member 6 having an opening 7. The back member may be arranged for attachment to a wall or other vertical surface. The opening 5 in the upper or top member 4 is bordered by a flange over which fits the lower end of a container 8 in the form of a rectangular tube. The dispenser housing is open at its forward end opposite from the back member 3 and is adapted to receive a drawer 9. The drawer 9 includes a front piece 10 having a depending lip 11 for engagement by one's fingers to open the drawer. Attached to the front piece are side channel members 12, the flanges of which are directed outwardly toward the side members 2 of the housing, as shown best in Figure 4. The drawer is without a top or bottom member, but is provided with a back plate 13 connected between the side channels 12.

Mounted within the spaces formed between the side chambers 12 and the side members 2 are springs 14 which are suitably anchored to the

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back member 3 and to the front piece 10 of the drawer. The springs tend to hold the drawer in its closed position.

Extending across the housing 1 under the drawer adjacent the front piece 10 and defining the forward margin of the opening 7 in the bottom member 6 of the housing, is a cross bar 15 having upturned ends 16 which are attached by screws 17 to the side members 2. The screws 17 project into the space between the side members 2 and side channels 3, and are adapted to be engaged by the back plate 13 of the drawer to limit outward movement.

Secured to the cross bar 5 is the forward edge of a dispensing shelf 18 formed of thin flexible material such as spring steel or other spring material. The dispensing shelf extends under the drawer 7 and beyond the inner end thereof. The inner portion of the dispensing shelf is looped or rolled upwardly, as indicated by 19, and the extremity thereof fastened to the back plate 13 by screws 20. The side margins of the dispensing shelf 18 overlie the side margins of the opening 7 and fit under the side channels 12, as shown in Figure 4, so that when the drawer is closed the shelf 18 forms a bottom for the drawer 9.

Operation of the dispenser is as follows:

The dispenser is primarily intended for dispensing sliced bread in restaurants, but may, of course, be employed for other commodities which may be readily stacked. When the drawer is in its inner or closed position, as shown in Figure 3, the stack of bread rests on the dispensing shelf 18. When the drawer 9 is opened, the back plate 13 urges one or more bottom slices of the bread forwardly from under the stack so that when the drawer is fully opened the slices removed by the drawer drop into a plate or into the hand of the operator. During forward movement of the drawer, the roll 19 follows behind the dispensing shelf 18 to form a support for the stack of bread remaining in the dispenser, as indicated by broken lines in Figure 3.

By pre-stressing the spring material comprising the shelf in a direction opposite from the direction of the roll 19, the upper side of the shelf which follows the drawer tends to remain flat, as indicated. In addition, the weight of the stack remaining in the dispenser also tends to maintain this shape, and, furthermore, the width of the opening 5 may be less than the width of the dispensing shelf so that the side margins of the dispensing shelf will in any case be restrained by the top member 4.

In order to dispense a predetermined number

of objects, there is provided a retainer plate 21 mounted on the flange forming the forward margin of the opening 5. The retainer plate is secured by a screw 22 which extends through a slot in the plate so that the plate may be adjusted vertically to a predetermined height.

The drawer and dispensing shelf may be readily removed for cleaning by removing screws 17 and unfastening the springs 14. Also, the vertical tube or container 8 may be readily removed for cleaning, and may, if desired, be formed of transparent material.

Many other embodiments of the invention may be resorted to without departing from the spirit of the invention.

I claim:

1. A dispenser for stacked objects, comprising: a frame defining a drawer opening; a bottomless drawer slidable in said opening; and a flexible shelf member underlying said drawer and forming a bottom therefor when said drawer is closed, said flexible shelf including a looped inner end attached to the inner end of said drawer whereby as said drawer is open said shelf is caused to fold on itself and follow said drawer.

2. A dispenser for stacked objects, comprising: a frame defining a drawer opening; a bottomless drawer slidable in said opening; means for aligning a stack of objects above said drawer; and a flexible member including a shelf underlying said drawer for supporting said stack when said drawer is closed whereby said drawer contains a predetermined portion thereof, and a looped inner end attached to the inner end of said drawer for movement under said stack at a level above said underlying shelf thereby to retain the remainder of said stack as a portion thereof is withdrawn by said drawer.

3. A dispenser for stacked objects, comprising: a frame defining a drawer opening and including means for receiving a stack of objects to be vended; a bottomless drawer slidable in said opening and adapted to extract a predetermined quantity of objects from under said stack; a flexible shelf having a forward end fixed to said frame and a rearward looped end fixed to said drawer, said shelf underlying said drawer when said drawer is closed to support said stack, and its rearward end movable into said stack at a level corresponding to the objects contained in said drawer as said drawer is withdrawn, thereby to support the remainder of said stack until the drawer is closed.

4. A dispenser for stacked objects, comprising: an open bottom drawer; a flexible shelf underlying said drawer, fixed at its forward end, looped at its rearward end and attached to the rear of the drawer whereby the looped portion rolls forward into the space previously occupied by the drawer as the drawer is opened; and means for retaining a stack of objects above said drawer for support by the forward end of said shelf when said drawer is closed or by the looped end of said shelf when said drawer is open.

5. A dispenser for stacked objects, comprising: a drawer open at its top and bottom sides; a flexible shelf underlying said drawer to support a stack of objects located within and extending above said drawer; a frame slidably receiving said drawer and including means cooperating with the inner end of said drawer to permit a predetermined portion of said stack of objects to be withdrawn when said drawer is open; said flexible shelf including a looped inner end attached to the inner end of said drawer and occupying a height at least equal to the height of said drawer, whereby when said drawer is opened, said looped portion follows said drawer to support and retain the stack of objects remaining above said drawer.

6. A dispenser for stacked objects, comprising: a frame structure defining a drawer opening at one vertical side and an opening for stacked objects at its upper side; a shelf secured to said frame structure at the lower margin of said drawer opening and extending under said stack of objects; a bottomless drawer slidable in said drawer opening over said shelf and having a rear wall adapted to withdraw a predetermined number of objects from said stack when said drawer is opened; and means continuing from said shelf, looped upon itself and attached to the rear wall of said drawer to form a second shelf spaced to support the portion of the stack remaining as said drawer is opened.

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