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DISPLAY DEVICE FOR MERCHANDISE

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1 Claim. (Cl. 211-49)

This invention relates to a display device for merchandise, and more particularly to a display device for a retail store in which small packaged items are loaded and which has means for constantly urging the items towards the front or customer end of the device, the foremost item being forced upwardly for easy removal by a customer.

Modern retailing, particularly supermarkets, discount stores, and five-and-ten cent stores, have created a demand for efficient mechanisms of the self-serve type for the loading of merchandise. Basically, suitable devices must present the merchandise in a way which attracts the customer and which permits ready removal of items by the customer. Additionally, from the retailer's point of view, such devices should be easily stocked and preferably in a manner which will encourage the customer to take the oldest item first. This latter point is particularly applicable to the sale of perishable merchandise.

The present invention provides a display device in which the items are constantly urged towards the front of the device by resilient means. Devices in which the merchandise is spring-loaded have been proposed in the past. However, one major shortcoming of such devices has been that it is difficult for the customer to remove an item from the device because the items are firmly wedged in place by the resilient means. The present invention overcomes this difficulty by providing structure for popping up the foremost items. This serves a dual purpose. Firstly, it is easy for the customer to remove the raised item. Additionally, the customer is encouraged to take the foremost or oldest items because of its ready accessibility. Another important feature of the invention is that the display device may be loaded either from the front or from the rear. Rear loading is desirable in some applications, such as the meat department of large supermarkets, where the meat display counters are stocked from behind the counters from an area which is readily accessible to the meat cutting and packaging area.

It is, therefore, an object of the invention to provide a display device for merchandise.

Another object of the invention is to provide a display device in which the items are resiliently loaded and constantly urged towards the customer end of the device.

Another object of the invention is to provide such a display device in which the foremost item is raised upwardly from the remainder of the items for easy removal by a customer.

A further object of the invention is to provide a display device having means thereon for locking the resilient means in a position which permits either rear or front loading of the device.

A still further object of the invention is to provide a display device having a compact, low cost construction which is nevertheless extremely durable.

Other objects of this invention will appear in the following description and appended claim, reference being had to the accompanying drawing forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

In the drawing:

FIGURE 1 is a view in perspective of one embodiment of the present invention showing the resilient means locked in a position to permit loading of the mechanism;

FIGURE 2 is a sectional view taken substantially along the line 2-2 of FIGURE 3 looking in the direction of the arrows; and

FIGURE 3 is a side elevational view of the mechanism of FIGURE 1 showing the device partially stocked with merchandise.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawing, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Referring to FIGURES 1 and 2, it may be seen that the display device 10 includes a wire rod frame 12. The frame 12 comprises a continuous wire rod formed into a pair of spaced apart parallel longitudinally extending portions 14, 16 having U-shaped portions 18, 20 depending from the ends thereof. Normally, the device 10 is utilized with the rod portions 14, 16 extending horizontally and the U-shaped portions 18, 20 extending downwardly therefrom to form a trough-like structure. However, the device may be utilized in other orientations such as vertical or at some intermediate angle between the vertical and horizontal planes.

A laterally extending rod 22 is secured to the U-shaped portion 20 adjacent to the web member 24. The method of securement of the various wires and rods in the device 10 is preferably by welding. A second laterally extending rod element 26 is secured to the U-shaped portion 18 adjacent to the longitudinally extending rod portions 14, 16.

A generally U-shaped wire element 28 extends between the U-shaped frame portions 18, 20. The member 28 comprises parallel rods 30, 32 which have their free ends 34, 36 secured to the web 38 of the U-shaped portion 18. The rods 30, 32 then continue towards the second U-shaped portion 20. At a point near the U-shaped portion 20, the rods 30, 32 are angled upwardly to form inclined portions 40, 42 which extend above the rod element 22 and terminate at a point slightly beyond the U-shaped portion 20. The inclined portions 40, 42 are secured to the rod 22. Extending upwardly from the inclined portion 40, 42 is a U-shaped portion 44.

A second longitudinally extending U-shaped portion 46 is provided within the U-shaped portion 28. The element 46 comprises a pair of spaced apart parallel rods 48, 50 having their free ends secured to the web 38. The other ends are joined together by a web 52 which extends slightly beyond the web 24. The rods 48, 50 are secured to the web 24.

A bracket 54 is slidably mounted on the rods 48, 50. The bracket 54 comprises a horizontal plate portion 56 which extends across the rods 48, 50. Each end of the plate 56 is bent over to engage one of the rods 48, 50 to thereby secure the bracket 54 in place. Extending upwardly at substantially right angles from the plate portion 56 is a second plate portion 58. The plates 56, 58 are structurally reinforced by an angularly inclined U-shaped brace 60 which extends therebetween. It will be noted that the plate portion 58 is not quite as wide as the spacing between the rods 30, 32. This permits the plate 58 to move between the upwardly inclined portions 40, 42 when it reaches the U-shaped portion 20.

A small plate 62 is secured to the under side of that portion of the element 46 which extends beyond the U-shaped portion 20. A flat spring 64, which is fabricated to coil upon itself, has one end 66 secured to the

plate 62 by nut and bolt structure 68. The spring 64 extends from the plate 62 between the rods 48, 50. The spring passes through an opening in the bracket 54 and terminates in coiled portion 72. The coiled portion 72 abuts against the plate 58, constantly urging the bracket towards the U-shaped portion 20.

The bracket 54 is shown in FIGURE 1 locked in a position adjacent to the U-shaped portion 18. This permits the display device to be loaded from either the front end or rear end without the necessity for using one hand to hold the bracket out of the way. The locking means comprises a wire element 74 having a hook portion 76 at one end for engagement with the rod 26 and a hook portion 78 at the other end for engagement with the plate 58.

Referring to FIGURE 3, it will be noted that the device 10 has been loaded with packaged items 80. The packages may contain, for example, sliced lunch meat. The items 80 rest on the rods 30, 32, 48, 50 and are maintained in an upright position and guided by the rods 14, 16 which act as side wall structures. The foremost package 80 abuts against the U-shaped portion 44 of the member 28. The plate 58 abuts against the rearmost package, thus urging the entire unit forwardly. The spring 64, of course, coils and uncoils when packages are removed from or loaded into the device.

It will be noted that the foremost package 80 is raised upwardly from the remaining packages. This is due to this particular package sliding up the inclined portions 40, 42. When the foremost package is removed by a customer, the next package will be forced up the incline and in position for removal by a customer. This feature of the invention has been found to be particularly desirable from the commercial standpoint. Without the pop-up feature, the unit is not suitable for a great many retail applications.

Having thus described my invention, I claim:

A display device for merchandise comprising a trough-like receptacle for containing a plurality of items of merchandise, said receptacle comprising a bottom wall, a pair of upstanding side walls and a front wall, said bottom wall including longitudinally extending guide means for a bracket, said receptacle bottom wall including longitudinally extending wire elements on each side of the guide means forming a surface for the items of merchandise to slide upon, said wire elements having an inclined portion adjacent the receptacle front wall upon which the foremost item slides to a position out of alignment with the other items to permit easy removal thereof from the display device, a bracket slidably mounted on said guide means, said bracket having an upstanding wall for abutment with the rearmost item of merchandise, a flat coiled spring having one end secured to the front end of the receptacle, such spring continuing from the front end of the receptacle, passing through an opening in the bracket and terminating in a portion coiled upon itself and in abutment with the rearward surface of said bracket wall to constantly urge the bracket and items of merchandise towards the receptacle front wall, the said wire elements of the bottom wall being spaced apart a distance greater than the width of said bracket to permit the bracket to pass between the inclined portions of the wire elements and move the rearmost item of merchandise to the front wall of the receptacle.

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