Sept. 15, 1953 C. L. STEVENS 2,652,154

DISPLAY RACK

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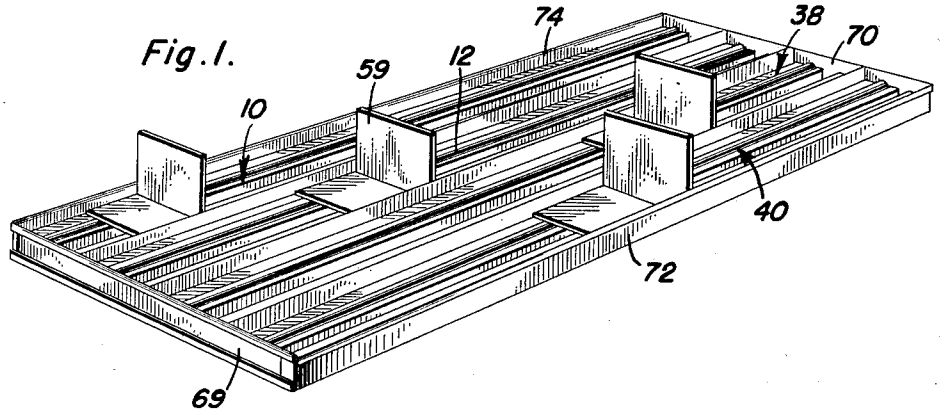
Fig. 1.



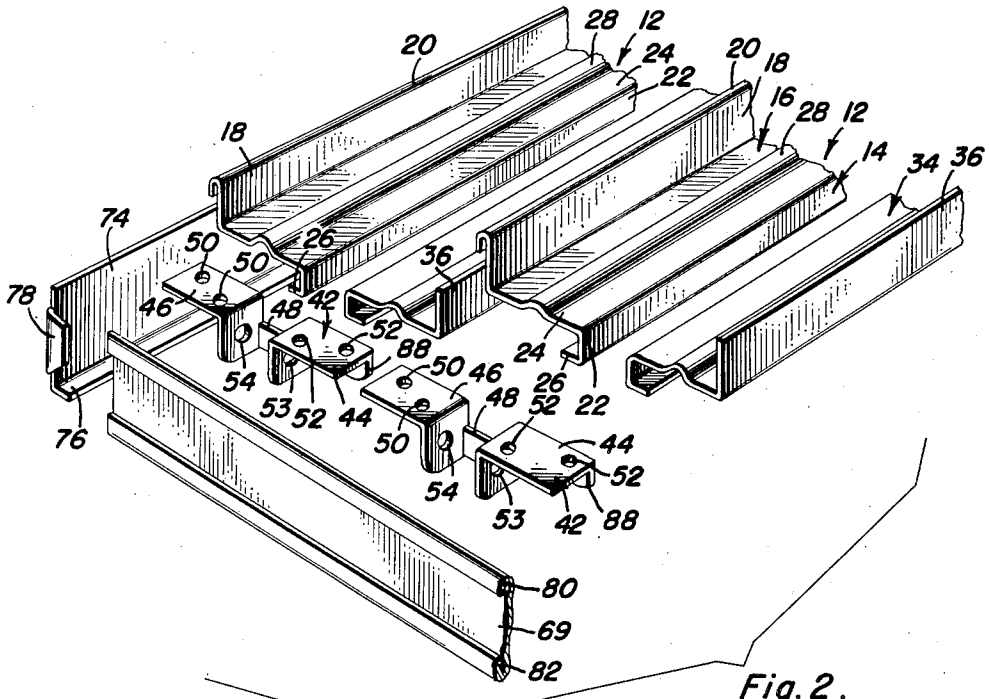


Fig. 2.

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Fig. 3.

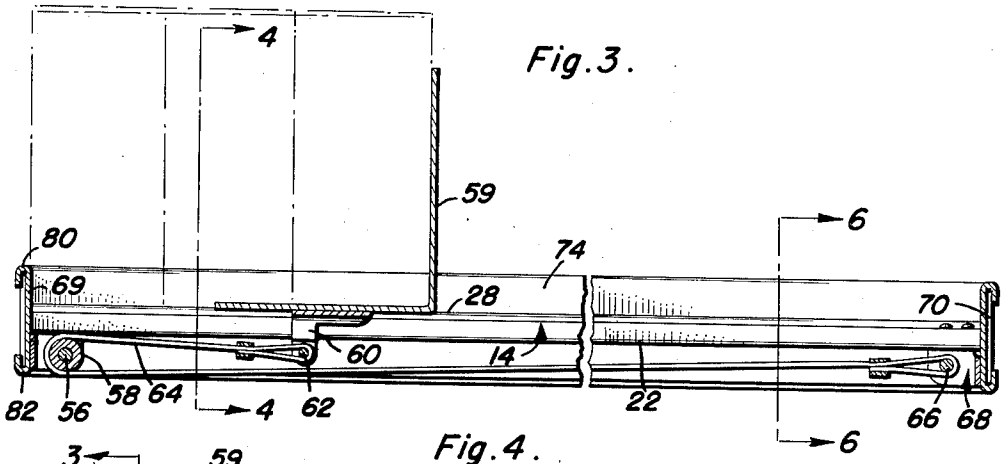


Fig. 4.

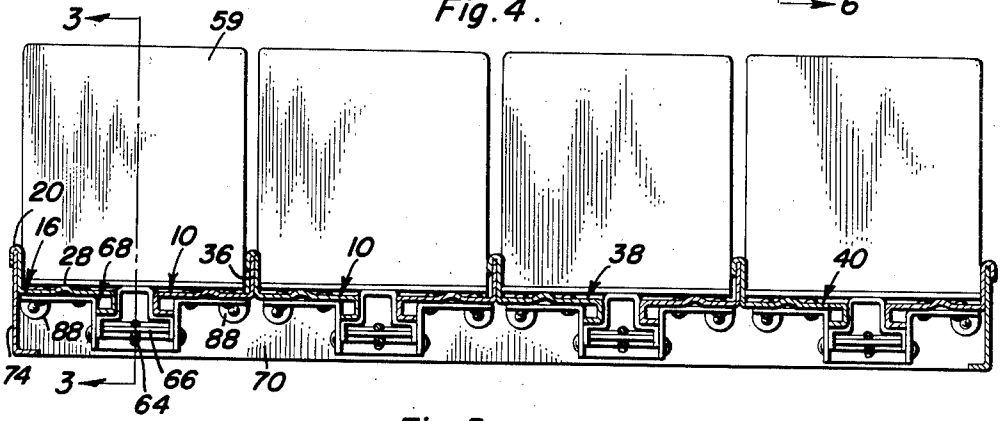


Fig. 5.

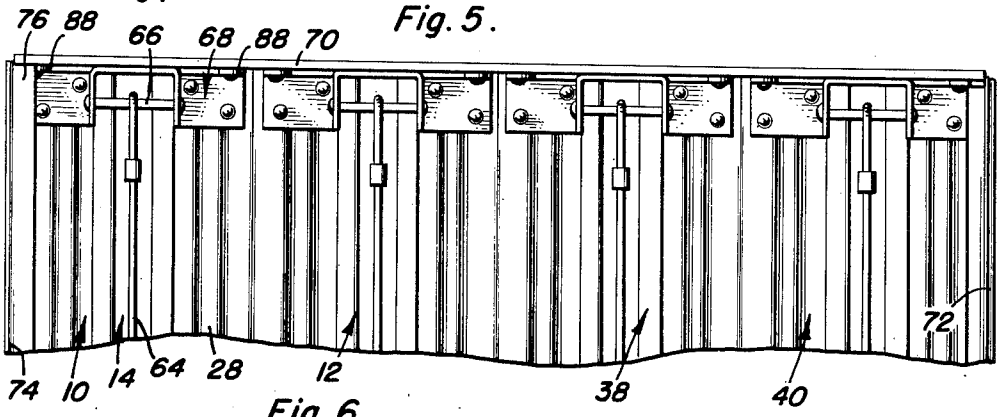
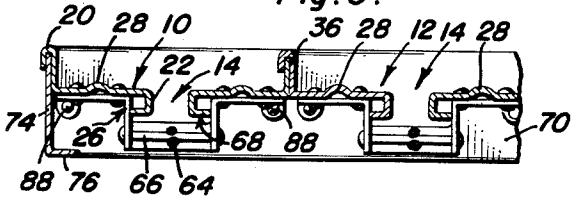


Fig. 6.



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Patented Sept. 15, 1953

2,652,154

UNITED STATES PATENT OFFICE

2,652,154

DISPLAY RACK

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Application December 27, 1949, Serial No. 135,191

3 Claims. (Cl. 211—49)

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This invention relates to novel and useful improvements in devices for displaying and dispensing articles, as cartons of milk.

An object of this invention is to releasably connect together a number of sections in order to form a base which is adapted to accommodate articles to be displayed, each of said sections having vertical upstanding side walls, some of the side walls being provided with channels so that they may be disposed in nested relationship with planar side walls of other sections, thereby forming a base of a number of juxtaposed sections.

A further object of this invention is to yieldingly urge the articles toward the front of the device by means of a follower which is constantly biased by means of a single, resilient strand which is attached at one end to a bracket and which is attached at the other end to the follower after passing over a guide roller.

A further object of this invention is to provide a device of the nature to be described which is made up of a number of similar parts releasably connected together so that the resultant useful article may be made of any desired width in order to accommodate one or more rows of milk cartons or other articles to be discharged.

Ancillary objects and features will become apparent in following the description of the illustrated form of the invention.

Figure 1 is a perspective view of one form of the device;

Figure 2 is an exploded perspective view showing details of construction of the base and end and side panels which are used in conjunction with the base;

Figure 3 is a longitudinal sectional view of the device shown in Figure 1, taken on the line 3—3 of Figure 4 and in the direction of the arrows;

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 3 and in the direction of the arrows;

Figure 5 is a fragmentary plan view of a part of the device taken from below it; and

Figure 6 is a sectional view showing detail of construction and taken substantially on the line 6—6 of Figure 3 and in the direction of the arrows.

The illustrated embodiment of the invention consists of four sections which are held together; each section providing one guideway for articles to be displayed and dispensed. Any number of sections may be fastened together in the manner to be described in accordance with the necessities of the particular job.

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The utility of the device is in connection with refrigerators. It is recommended that the device be employed in stores where the self-service system has been adopted. In this manner, a number of cartons of milk placed in a refrigerator are constantly urged toward the door thereof so that one is always accessible to the person making a selection. Moreover, by constantly pressing the cartons of milk forward, there is little likelihood for confusion as to where and how to place the fresher milk. The store operator simply waits until such time that the rack is almost exhausted and then pushes the followers backward, placing the fresher milk behind the older milk.

Reference is now made to Figure 2. There are two sections 10 and 12, respectively, fragmentarily illustrated. Each section, for example, section 10, is composed of a pair of metal plates, preferably of sheet material, which are spaced from each other in order to form a slot 14. The plate 16 is substantially Z-shaped and includes a vertically rising side wall 18 with a channel 20 at the upper longitudinal edge thereof. A vertical depending leg 22 depends from a center portion 24 and has a flange 26 disposed at right angles thereto. The center portion 24 is provided with a longitudinal rib 28 rising from the upper surface thereof.

The plate 16, then, includes a center portion 24 with a wall 18 rising from one edge thereof, together with the leg 22 which depends from the opposite edge thereof, and the flange 26 which extends at right angles to the main plane of the leg 22.

The plate 34 which forms a part of the section 10 is of a structure identical to the plate 16 with the exception that the side wall 36 thereof does not have a channel at the upper edge. The side wall 36 is planar.

Reference to Figure 6 shows that the ridges, each of which is indicated at 28, form rails to accommodate the articles to be dispensed. Together with the sections 10 and 12 which are shown in Figure 2, there are the sections 38 and 40 which are of similar construction. The four illustrated sections make up one particular arrangement which is to be used in connection with one size of refrigerator compartment. For smaller compartments, a lesser number of sections will be used, and for larger compartments a greater number of sections will be used.

In order to hold the plates of each section spaced from each other whereby the slot between

the plates is formed, a bracket is disposed at the front of the section and a bracket is disposed at the rear of the section. In Figure 2, the bracket 42 is illustrated as being made of a pair of substantially L-shaped members 44 and 46, respectively, which are connected together by means of a strap 48. This strap is below the upper surface of each L-shaped member so that the slot 14 is unobstructed at the front thereof. A pair of openings 50 is provided in the upper leg of the L-shaped member 46 and a pair of openings 52 is provided in the upper leg of the L-shaped member 44. These openings are adapted to accommodate rivets or screws so that the bracket is held fixedly in place on the bottom of the plates.

Openings or apertures 53 and 54 are provided in the shorter leg of each L-shaped member accommodating the shaft or axle 56 which has a roller 58 thereon. This journals the roller below the bottom of the section 10.

A follower is disposed in each slot. The specific structure of the follower is seen best in Figure 3 and includes an L-shaped member 59 which seats upon the ridges 28. A hanger 60 is passed through the slot 14 and has a pin 62 secured thereto. One end of a resilient member, as a strand 64 of rubber or other analogous material is attached to the pin 62, while the other end is secured to the pin 66 which is operatively connected with the bracket generally indicated at 68. In the course of travel of the strand 64, the roller 58 is used to guide it, this roller being disposed at the front of the section under consideration.

After the various sections are formed by means of two plates and two brackets, together with the follower assembly, these sections in any desired number are connected together by disposing the planar side wall of one section so that its upper end is in nested relationship with the channel 20 of the next adjacent section.

Front and rear panels 69 and 70, respectively, are disposed at the front and rear of each section. These panels act as stops in order to limit the rearward and forward movement of the follower and hence the articles which are urged thereby. Side panels 72 and 74 are secured to the end panels by various means. In Figure 2, the side panel 74 is illustrated as having a bottom or seat flange 76 together with a tongue 78 extending laterally from the vertical edge of said side panel 74. This tongue is disposed between the rolled edges 80 and 82 of the front panel 69 and is held releasably in place thereby. If found necessary or desirable, a rivet or screw may be employed to hold the front panel 69 secured to the side panel 74. Each side panel is held in place with respect to the front and rear panels in this manner.

In order to hold the sections firmly in place within the confines of the end and side panels, the channels 20 at the ends of the entire assembly are disposed over the upper edges of the side panels 74 and 72 so that the said upper edges of said panels are in nested relationship with the channels 20 (Figure 4).

To further assist in holding the sides in place on the assembled section base, ears 88 with apertures therein depend from the longer legs of each of the L-shaped members which form a part of the makeup of each bracket. Rivets or screws may be passed through the apertures in the ears

88 and fastened to the rear panel 70 or the front panel 69, or both.

Having described the invention, what is claimed as new is:

1. A sectional display and dispensing apparatus comprising: a base which includes a plurality of separable sections; means operatively connected with said sections for fastening said sections together in side-by-side relationship; at least one of said sections comprising a pair of sheet material plates; brackets secured to said plates at the front and rear ends thereof holding said plates in spaced relationship thereby forming a slot between said plates; a follower disposed in said slot; and resilient means secured to one of said brackets and to said follower constantly urging said follower toward one end of said slot; each of said plates having a vertical upstanding side wall; and said sections fastening means comprising channels at the upper edges of some of said side walls disposed in nested relationship with the other of said side walls; end and side panels for said sections; and one of said channels being disposed on the upper edge of said side panels.

2. A display device comprising a plurality of sections which are disposed in side by side relationship, two of said sections being spaced from each other to define a passage between said sections, said two sections each having a downwardly extending vertical wall to provide guideways for said passage, a bracket fastened to the bottom surfaces of said two of said sections retaining said sections in a fixed spaced relationship, a second bracket fastened to said two of said sections and spaced from the first-mentioned bracket, a follower having a portion located in said passage, means yieldingly urging said follower in one direction on said two of said sections, said urging means being operatively connected with both of said brackets, one of said two of said sections having a vertical side with a downwardly opening channel at the upper edge thereof, the other of said two of said sections having a vertical side with planar surfaces so that the downwardly opening channel of the next adjacent section may be disposed thereon in nested relationship therewith, a frame for said sections, and the first-mentioned downwardly opening channel being in nested relationship with a part of said frame to hold said sections fastened in said frame.

3. A display device comprising a substantially rectangular frame having a front, a rear and side walls, said front and rear walls constituting stops, a plurality of sections disposed in said frame, a first of said sections including a vertical side wall with a downwardly opening channel at the upper edge thereof nested with the upper edge of one of the side walls of said frame, a horizontal base extending from the lower edge of and fixed to said vertical side wall, a depending vertical leg extending from said base at the edge thereof opposite from the edge which is connected to the vertical side wall, a second section located adjacent to but spaced from said first section, said second section including a base portion with a vertical leg portion extending downwardly from one edge thereof and spaced from the leg of said first section to thereby define a reinforced slot, a vertical side wall portion having planar surfaces, means fastening said first and second sections to one another in spaced

apart relation, a follower located in said slot and adapted to push articles against one of said stops and arranged to contact the other of said stops to limit its travel, and a third section provided with a downwardly opening channel engaged with said planar surfaces of the vertical side wall portion of said second side wall.

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