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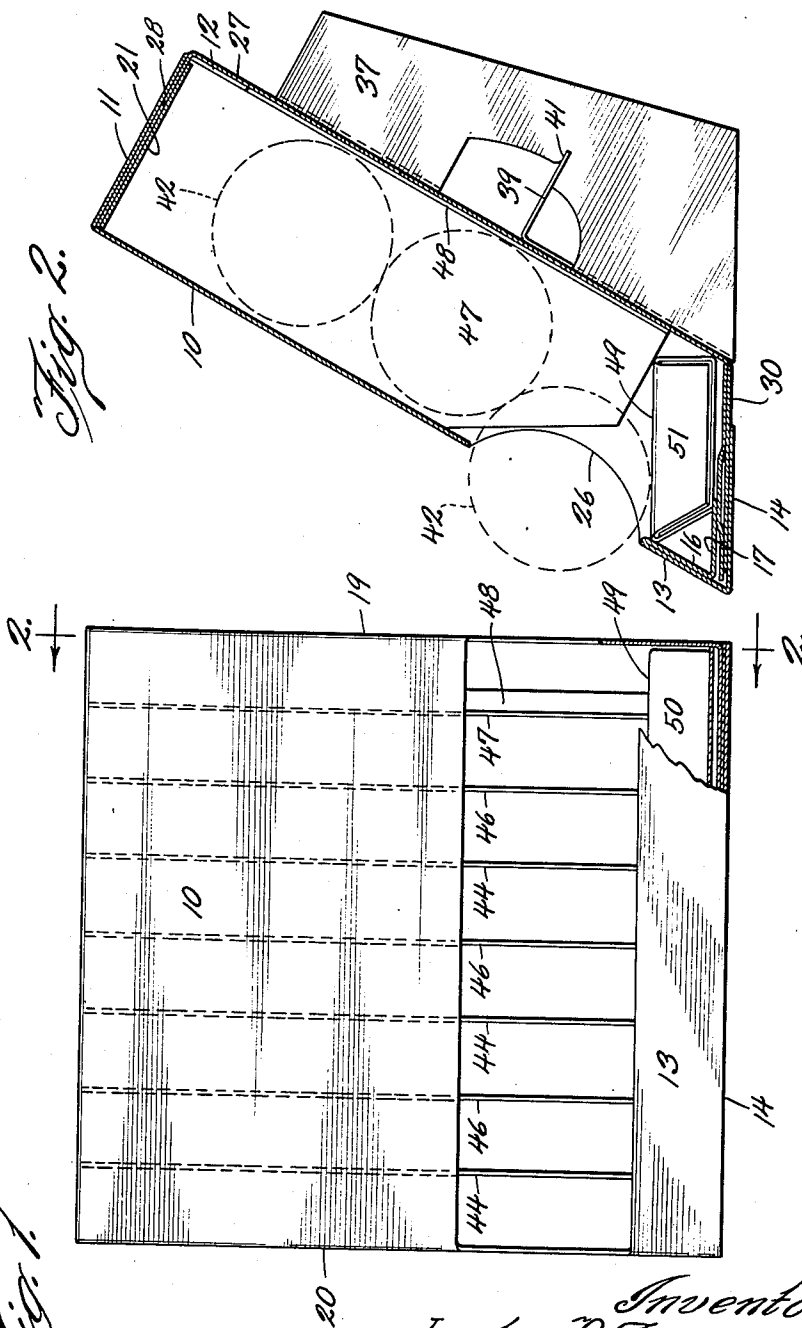
L. R. ZIMMERMAN ET AL

2,067,749

CONTAINER

Filed Aug. 18, 1934

4 Sheets-Sheet 1



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4 Sheets-Sheet 2

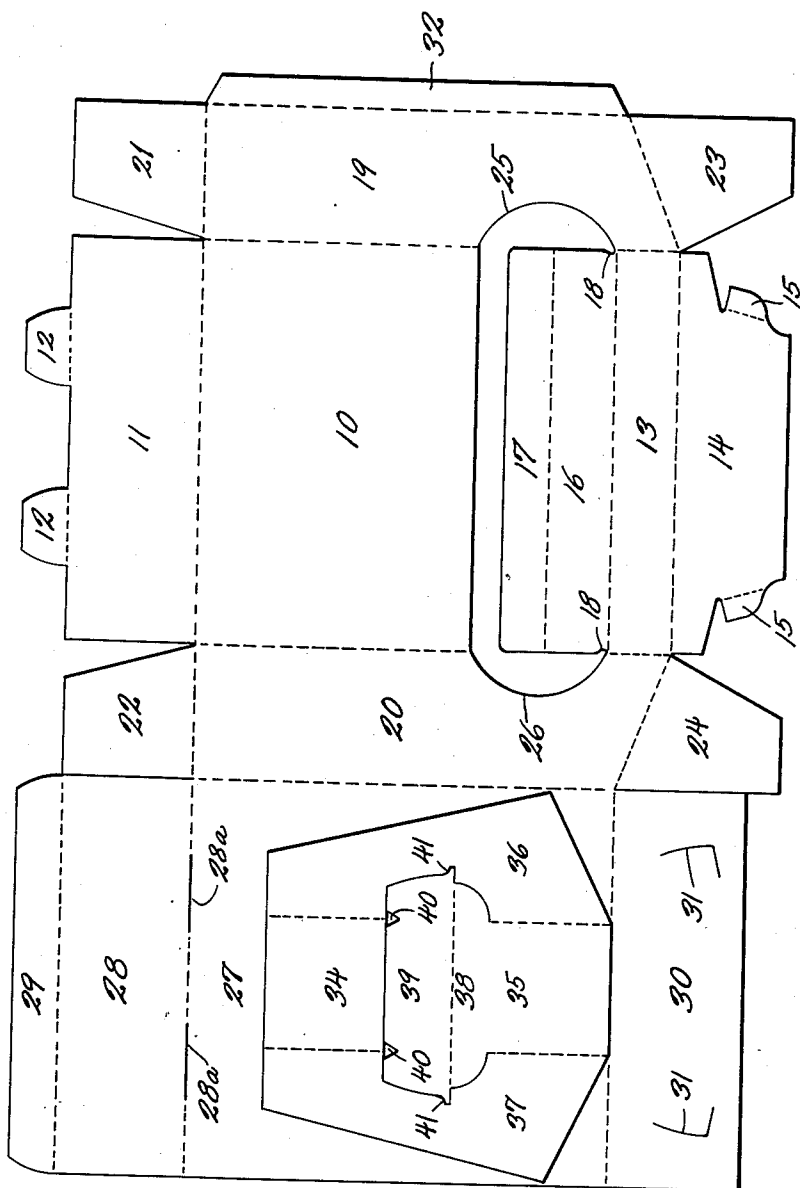


Fig. 3.

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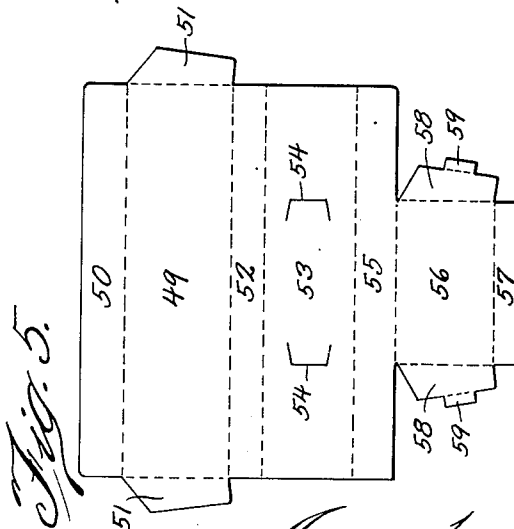
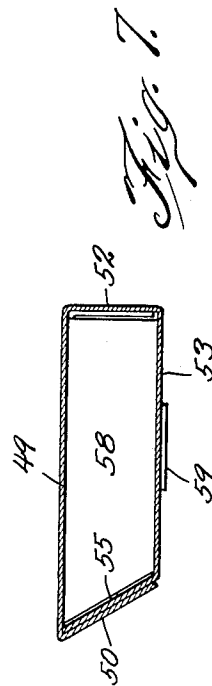
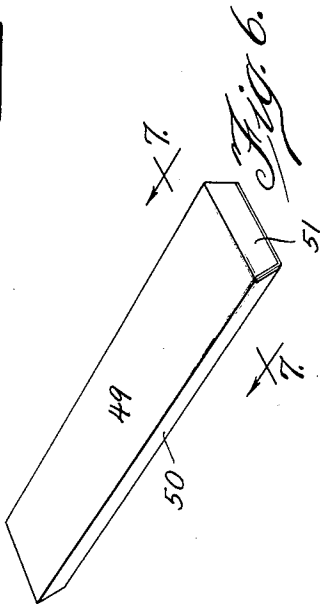
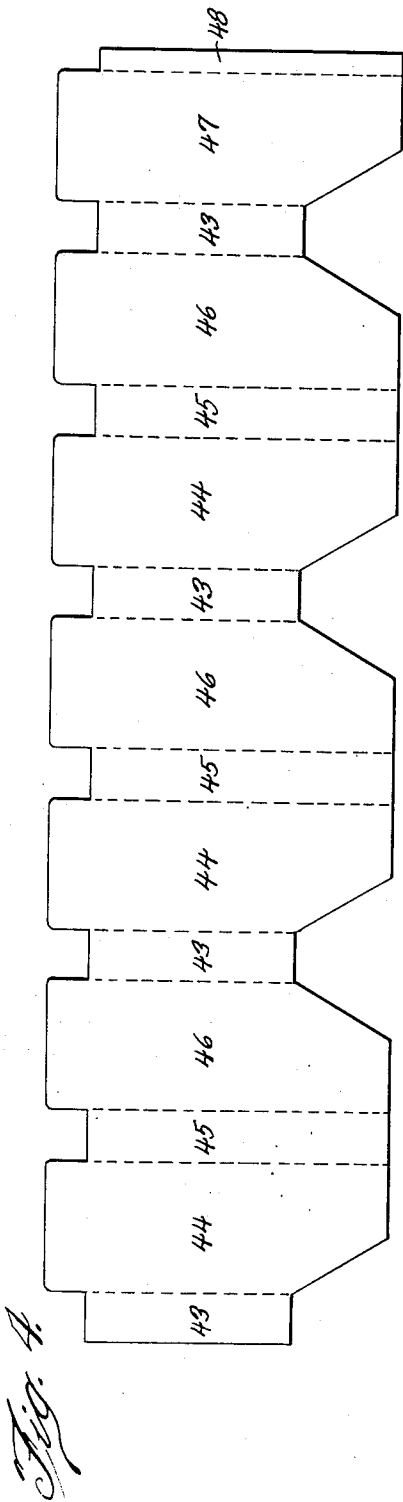
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4 Sheets-Sheet 3



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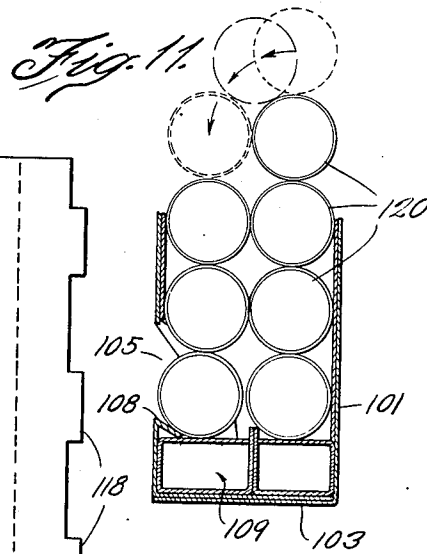
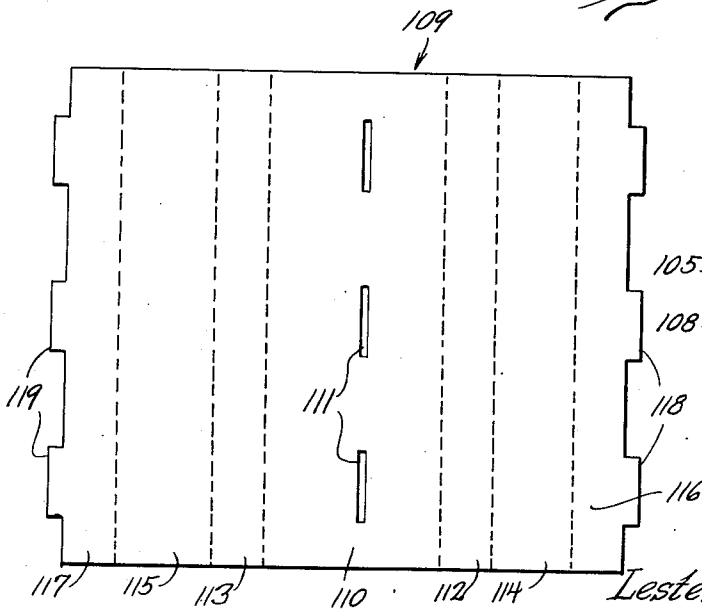
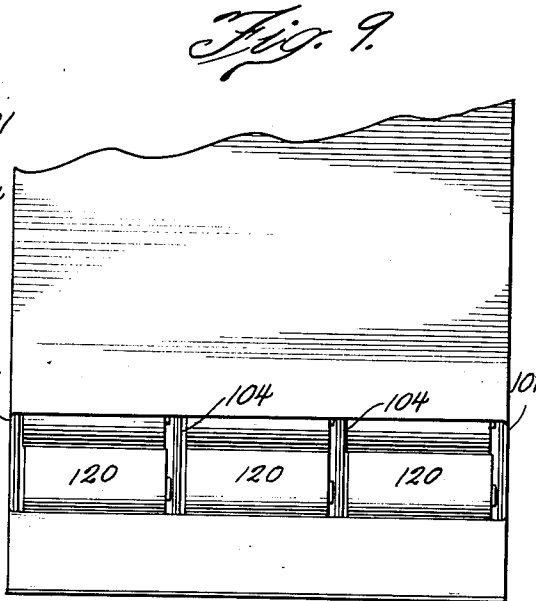
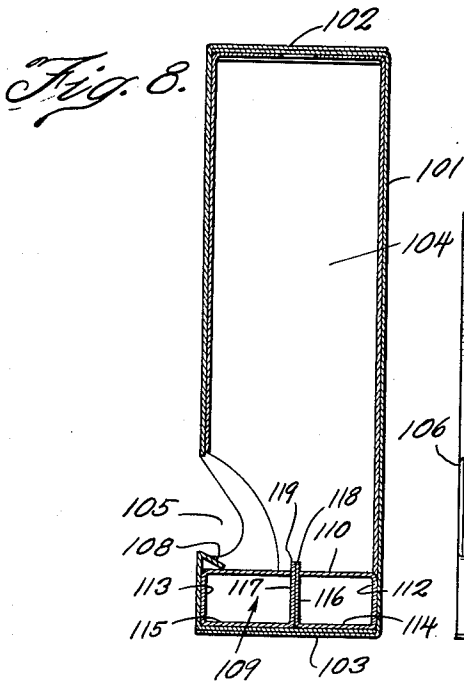
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CONTAINER

Filed Aug. 18, 1934

4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

2,067,749

CONTAINER

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Application August 18, 1934, Serial No. 740,390

3 Claims. (Cl. 206-44)

The present invention relates to a self-serving display device of cardboard material or the like and has to do particularly with member for supporting merchandise in the container and the structure about the discharge orifice therein.

The objects of the invention, among others, include the provision of the following:

An improved display and self-serving device having a plurality of magazines for holding articles of merchandise and discharging these articles at a common opening;

An unique counter dispensing device having a discharge opening above the bottom thereof and provided with a bottom member to support the merchandise in a selected position adjacent such discharge opening and projecting partly therefrom; and

A novel display and dispensing carton of sheet material having a discharge opening with reinforcing parts extending through and about said opening.

A novel means for preventing jamming of two rows of merchandise that are adapted to be discharged from a single aperture. These objects, and such other objects as may hereinafter appear, are obtained by the novel construction, unique arrangement, and improved combination of the several elements which constitute the present invention, two forms of which are illustrated in the accompanying four sheets of drawings, hereby made a part of this specification, and in which:

Figure 1 is a front elevation of a device embodying one form of the present invention;

Figure 2 is a vertical section taken on the line 2-2 of Figure 1;

Figure 3 is a plan view of a blank from which the main body of the device illustrated in Figures 1 and 2 is formed;

Figure 4 is a plan view of a blank for forming a partitioning member used as shown in Figures 1 and 2;

Figure 5 is a plan view of a blank for forming an insert bottom member of the character shown in Figures 1 and 2;

Figure 6 is a perspective view of the insert member formed from the blank shown in Figure 5.

Figure 7 is a transverse section of the inserted bottom member shown in Figure 6 and is taken on the line 7-7 of Figure 6; and

Figure 8 is a vertical section through a container comprising a second form of the invention and in which the items of merchandise are stacked in rows two deep from front to back;

Figure 9 is a front fragmentary view of the container illustrated in Figure 8;

Figure 10 is a plan view of a blank from which the insert member shown in Figure 8 is made; and

Figure 11 is a schematic representation of the cycle of movements of articles of merchandise as discharged from the container.

Like reference characters are used to designate similar parts in the drawings and throughout the following description of the illustrated embodiments of the invention.

The device illustrated in Figures 1 to 7 inclusive, comprises three blanks. One of these is for forming the main body including the front, the back, the sides, the top, and the bottom. A second blank is employed for providing partitions between the front and back. A third blank is employed for forming an insert bottom member which rests upon the bottom of the container. On the insert member, the merchandise stored within the container is seated for display and ready dispensing.

The container, partitioning member and insert are shown in Figures 1 and 2. Reference should be had to Figure 3, a plan view of the blank for forming the main body in container part of the device. The blank comprises a plurality of sections. These sections form two spaced apart front sections, two side sections, a back, extensions from the front sections and side sections which overlap or interlock to form the top and bottom of the device, and an extension from the bottom front section to provide a reinforcement about the lower edge of the dispensing or discharging aperture which is shown in Figures 1 and 2.

The blank shown in Figure 3 comprises a top front section 10, an extension 11 at the top edge thereof, and tongues 12 depending from the top edge of extension 11. A bottom front section is indicated 13 and it has a bottom section 14 extending therefrom, there being tabs 15 at the side of section 14, the side edges of section 14 being of irregular contour as shown.

A section 16 extends upwardly from the section 13 and appended to section 16 is a second section 17. Notches 18 are formed adjacent the bottom side edges of section 16.

Sides 19 and 20 are integral with sections 10 and 13. At the top edge of sections 19 and 20 are top-forming extensions 21 and 22, respectively. Sections 21 and 22 each have an oblique edge, the oblique edges of the two sections being reversed. Sections 19 and 20 also have bottom

forming extensions 23 and 24 appended thereto. One edge of each of said bottom forming sections is oblique, and the oblique edges of opposed sections are opposed and complementary.

8 An inverted squat U-shaped aperture is formed across the sections 19, 10, and 20. The U-shaped aperture has a curved outer periphery 25 at one end and a second complementary and reverse curved periphery 26 at its other end. The curved sections of the aperture are in the sections 19 and 10. Such curved sections of the aperture are connected by a relatively long and narrow slot defined at its top by the lower edge of the section 10 and its bottom by the upper edge of section 15 17.

The back of the container is indicated by the numeral 27. It has a top extension 28 which terminates in a lip 29. Section 27 has at its bottom an extension 30 in which are disposed two L-shaped slots 31. At the outer edge of section 19 is a short lip or extension 32. Scores may be used to divide the various sections herein described. For example, there may be a score between the section 32 and section 19, another between the section 19 and section 21, and a continuation of the last referred to score between the sections 10 and 11, 22 and 20, and 27 and 28. Slots 28a between parts 27 and 28 to receive tongues 12 are in alignment with the last mentioned score.

Another score may be disposed intermediate the sections 28 and 29, and scores may be employed between the section 11 and the tabs 12. Scores parallel with that between section 19 and 35 32 divide the section 10 and 19, the section 19 and 20, the sections 20 and 27.

A horizontal score separates sections 27 and 30, and also sections 13 and 14, sections 13 and 16, and sections 16 and 17. Oblique scores in alignment with the adjacent edge of section 14 separates section 14 from the tabs 15, and oblique scores which are opposed and complementary separate sections 19 and 23, and sections 20 and 24.

The blank is assembled by folding the various sections in the manner usually employed in box making, the outer face of section 32 having adhesive applied thereto to engage the interior face of section 27. A tube rectangular in cross section is thus formed. The bottom of the device is formed by turning inwardly the sections 23 and 24, then turning inwardly the section 30 and securing at the outside thereof the section 14, and thereafter inserting the tongues 15 into the slots 31.

Sections 16 and 17 are pushed inwardly of the device, sections 16 being made to lay flatly against sections 13 and section 17 to rest upon the bottom comprising the opposed wings 23 and 24, and the members 30 and 14. Notches 18 facilitate this step by relieving the edge of the aperture of an excess of material.

The top generally is not closed until a partitioning member, now to be described, is inserted and the container filled with merchandise. To close said top, sections 21 and 22 are bent inwardly, section 28 bent over the top, and section 29 inserted downwardly in proximity to the rear face of section 10. Thereafter section 11 is folded backwardly and the tabs 12 are inserted in slots 33 in alignment with the score separating the section 27 from the section 28.

Because of the obliquity of the separating section 23 from section 19 and section 24, the device tilts backwardly. Upon the rear face of back 75 27 there may be adhesively secured an easel which

comprises an upper main body 34, a lower main body 35, wings 36 and 37, and a central section 38 which has a wing extension 39. Two notches 40 are cut in section 39, which is separated from section 38 by a horizontal score providing a hinge 5 therefor.

Sections 38 and 39 are of greater width than the upper and lower main sections 34 and 35, the section 38 being integral with the section 35, and sections 35, 38, and 34 being adhesively secured 10 to the back of section 27. Vertical scores separate the sections 36 from sections 34 and 35 and a parallel score separates section 37 from sections 34 and 35.

The easel is made effective by turning the wings 15 36 and 37 normal to section 27 and thereafter moving the section 39 downwardly to a horizontal position. Sections 36 and 37 have notches 41 which are complementary to notches 40, the notches 40 and 41 providing an interlock between the 20 section 39 and sections 36 and 37 to maintain the easel with the wings 36 and 37 normal to section 27. This position of the easel is shown in Figure 2.

Figure 4 illustrates a blank which divides the 25 box or container formed by the previously described blank into eight parallel vertical compartments, each to hold a number of cans 42. Each of the compartments thus formed in the present device has a capacity of three cans. The 30 entire device thus has a capacity of twenty-four cans.

The partitioning member comprises a short spacer 43 of the width of a can, a transverse part 44 of the depth of a can, a long spacer of the 35 width of a can indicated 45, a member 46 identical with member 44 except reversed, a repetition of the series of parts 43, 44, 45, and 46, a second repetition thereof, 43, 44, 45, and 46, another member 43, and a member 47, like a member 44, 40 except that it is provided with an extension 48 to receive adhesive.

The blank comprising the several sections 43, 44, 45, 46, 47, and 48 is folded as indicated in Figures 1 and 2 with the short spacers 43 at 45 the front of the device, the lower edges of the sections 43 registering with the upper edge of the aperture in the front 10 of the device.

Thus the spacers 43 at the front of the device and the contiguous oblique edges of sections 44 50 and 46 do not interfere with the ready discharge of merchandise. The obliquity of the edges of the lower sections of sections 44 and 46 is to facilitate the removal of the merchandise and to afford a larger area of display therefor. The bottom 55 edges of sections 44, 45, and 46 rest on an insert or bottom member now to be described.

Figures 5, 6, and 7 illustrate the blank from which the insert bottom member is formed, a perspective thereof, and a transverse section 60 thereacross.

The blank comprises a top 49, an extension 50 at one side thereof, and end tangs or extensions 51, the latter being opposed and having opposed and complementary oblique top edges. The tangs 51 are wider adjacent their sharply oblique end edges. The narrow end is slightly oblique.

From the other side of section 49 depends a narrow section 52 from which extends a bottom 70 member 53 having in the body thereof two U-shaped opposed slits 54. From the edges of section 53 is an extension 55 of substantially the same width as section 50 and wider than section 52.

From section 55 there is a relatively short extension 56 which has at one edge an extension 57, and at its other two edges, extensions 58, each of which is provided with a tab 59. The ends of sections 58 are oblique, that in proximity to section 55 being more sharply oblique than that in proximity to section 57. Likewise, sections 58 are wider at their sharply oblique edge than at their less oblique ends.

Parallel scores separate the sections 50 and 49, 49 and 52, 52 and 53, 53 and 55, 55 and 56, and 56 and 57. Sections 51 are separated from section 49 by scores normal to those just mentioned and section 56 is separated from sections 58 by scores parallel to those separating sections 49 and 51. Slightly oblique scores that are in alignment with the edges of section 58 separate the section 58 from the tabs 59.

Adhesive may be used between sections 50 and 55. The end sections 51 are next turned over the open ends of the tube thus formed.

The insert member is then inserted into the bottom of the device, the section 50 contacting sections 16 and section 53 resting upon section 17. The ends 51 are held against opening by the material of sections 19 and 20. The merchandise rests upon the section 49 as do also the edges of sections 44, 45, and 46 of the partitioning member.

The cover of the device is brought into closing position, as previously described, after the merchandise, cans 42, has been loaded into the device. To load, a removable closure is applied over the front aperture. This is removed at the time the device is put in use.

When the device is in use, that is resting upon its bottom and being supported by the easel at the back thereof, the merchandise 42 rests upon the insert member, and has a tendency to roll forwardly of the device, its forward progress being arrested by the section 16 which is parallel to section 13, the upper edge of which extends above the front edge of the insert member. Thus a barrier preventing accidental displacement of the merchandise is provided.

Each can may be readily removed by picking it up between the fingers, or fingers and thumb. When a can is removed, the next higher can drops into the place made vacant but does not roll out of the device because its progress is arrested by the barrier 13-16.

An inexpensive, effective display and dispensing device for a single row of cans is thus provided. The dispenser has a distinct advantage in forcing the merchandise to project beyond the vertical edges of the front of the device through the discharge aperture thereof. Thus, a larger area of the opposed side surfaces of the can 42 are exposed to view and this display attracts attention because of the position of the merchandise. Removal of the merchandise is extremely simple because of the projection of the major portion of the lowermost can through the discharge apertures at all times.

The second form of the invention illustrated comprises a suitable display carton of any preferred construction. The carton illustrated in Figures 8 to 11, inclusive, comprises a body 101 which may be formed of any suitable material and any blank having ends 102 and 103 that are closed by the over lapping of the material of the front and sides or otherwise.

Within the container there may be a plurality of partitions 104 dividing the container into vertical compartments so that a number of differ-

ent items of merchandise of the same character may be stored and displayed in a single container. Adjacent to the bottom of the body 101 there is a discharge opening 105 which extends across the front of the container.

The sides 106 and 107 and partition members 104 may be cut back between the top and the bottom of the opening 105 to facilitate grasping items of merchandise stacked in the container. The opening 105 is larger from top to bottom than the major transverse dimension of the articles to be dispensed from the display container.

The container preferably has an inwardly directed lip 108 which extends from the lower edge of the discharge opening 104 and which provides an incline, the purpose of which will later be apparent. Lip 108 may be integral with the frame of the box (as in the earlier described form of the invention) or it may be attached by adhesive or otherwise.

Within the bottom of the container is an insert member of material which supports the merchandise. The insert member 109 comprises a central section 110 having spaced apart aligned longitudinally disposed slots 111 generally to one side of the center of said section as shown. Depending from opposed edges of and integral with the central section 110 are two similar or identical extensions 112 and 113.

The central section 111 is the top of the insert member in use and the extensions 112 and 113 on each side thereof provide the vertical sides of the insert member.

The next contiguous sections upon the blank form are designated 114 and 115 and each forms a fractional part of the bottom of the insert member. Depending from the bottom forming members are extensions 116 and 117 which are of the same width as the side members 112 and 113. Members 116 and 117 support the insert member at its center and each has a series of tongues 118 and 119 at the edge thereof. The tongues 118 and 119 register with and are inserted in the slots 111 in the top member 110. There is a tongue upon each of the extension sections 116 and 117 for each compartment in the container. The slots 111 preferably are nearer the back of the container than the front.

The lip 108 rests upon the top of the insert member 109 and may be attached thereto if desired. The top of the insert member 109 is in a plane below the lower edge of the discharge opening 105.

The discharge opening is larger than necessary for displaying one item of merchandise in each compartment. The cans 120 of merchandise are arranged in two stacks as shown. The upward inclination of the lip 105 and the elevation of the edge of the discharge opening 105 prevents a can 120 presented at the discharge opening from being rolled therefrom.

The inclination of the lip 108 and the elevation of the lower edge of the discharge member 105 are sufficient that the pressure of the stack of cans 120 there over will not cause the lowermost member to be accidentally discharged from the device.

When the can 120 on display is removed from the container, the entire front row of cans 120 drops down as shown in Figure 11. When the next can 120 is removed the front row again drops. When the first can was removed, the top member of the rear row of cans changed its position from over the second or back row to one substantially in the center of the merchan-

dise compartment such can resting equally on the topmost can of both stacks of merchandise. When the second can 120 is removed through opening 105, the centrally disposed top can becomes the top member of the front row of cans.

Removal of the next item of merchandise causes the front row to again drop and the top member of the back row to assume a position supported equally by the topmost back and topmost front members. The removal of the next succeeding item of merchandise causes the front row to again drop and the topmost member falls into the front row. This cycle continues until there is but one item of merchandise left in the device, that being the lowermost back member, which is held in position by the tongues 118 and 119. Without the tongues 118 and 119 the merchandise quickly would become jumbled. There would be no orderly discharge of the items. In many instances there would be such confusion that the merchandise would clog. By holding the lowermost back can 120 at the rear of the device there is no tendency for this member to advance to the front of the display device and produce confusion. The height of the tongues is an important factor although not a critical one and should be adjusted according to the character of the merchandise to be dispensed, i. e., the diameter of the can which is laid upon its side, and how much of the front can 120 is to be forced up lip 108.

The height of opening 105 is such that the rearmost lower can 120 may roll slightly forward to force the lowermost front can 120 slightly out of aperture 105. The opening, if no higher than the diameter of the can, would tend to unduly retard the movement of the front row of cans. By enlarging the aperture 105 slightly, this binding or retarding effect is overcome.

Where hereinabove cans have been mentioned

any cylindrical or tubular object is meant. A tongue for holding the rear lowermost object has been described. Any other means such as depressed seat for such can may be substituted for such tongue.

What is claimed as new and is desired to be secured by Letters Patent of the United States is:

1. A display dispensing device comprising a container having a front, back and sides, the front having a discharge aperture therethrough, and the bottom being at an angle to said front and back, an easel for supporting said container in an inclined position, partitions extending from the front to the back of said device and from side to side for dividing the container into a plurality of parallel compartments, and a merchandise supporting member comprising a tubular member trapezoidal in cross section and extending from side to side of said container, the front of said container having adjacent the discharge aperture therein an extension of material that is folded inwardly to provide a support for said trapezoidal merchandise supporting member.

2. The dispensing device described in claim 1, and in which the upper surface of said merchandise supporting member is in a plane beneath the lower edge of the discharge aperture in the front of said container.

3. The device described in claim 1, and in which said trapezoidal insert member has its edge of greatest height at the front of said device, and the top surface of the trapezoidal merchandise supporting member is in a plane parallel with a supporting surface for said device, the plane of the top surface of said trapezoidal member being below the plane of the edge of the discharge aperture in the front of said device.

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