Sept. 30, 1958 J. SROFE 2,854,183

PACKAGING AND MERCHANDISING DEVICE

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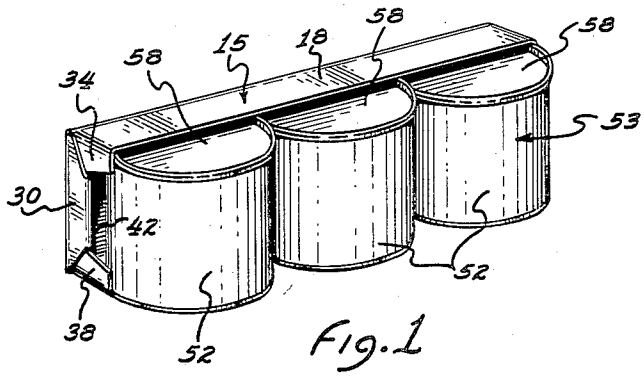


Fig. 1

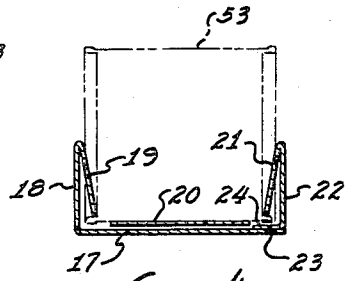


Fig. 4

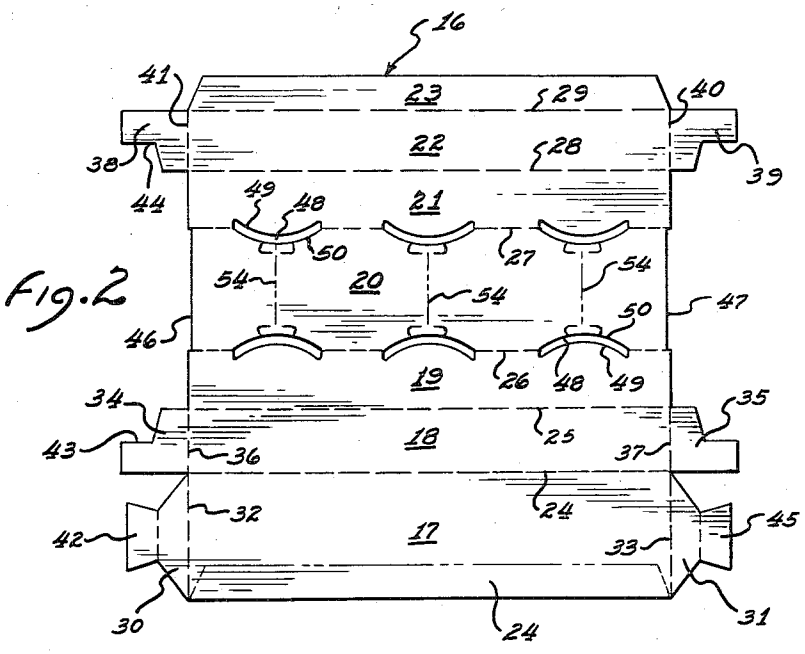


Fig. 2

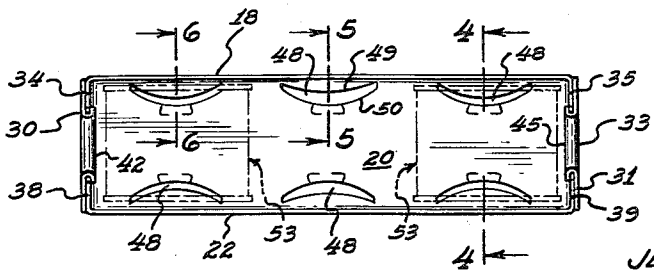


Fig. 3

INVENTOR.
JESSE SROFE.

BY

Willard S. Grove

ATTORNEY.

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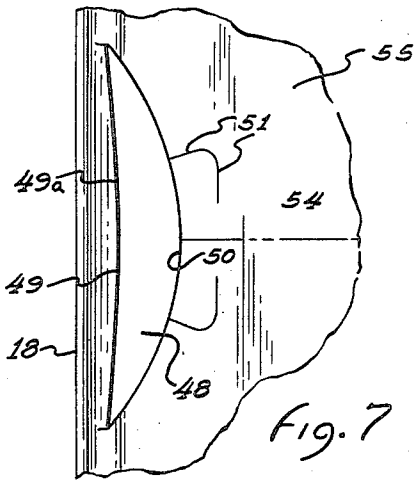


Fig. 7

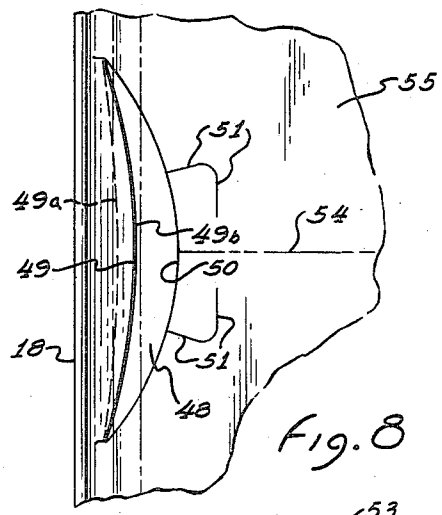


Fig. 8

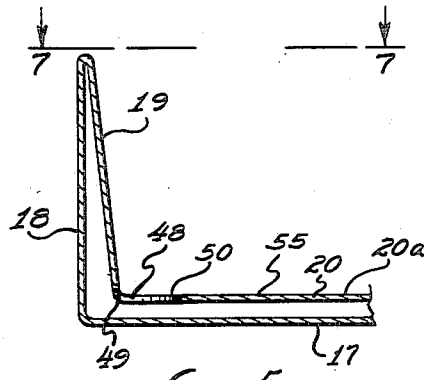


Fig. 5

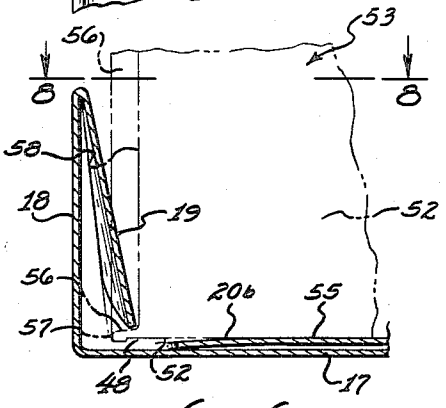


Fig. 6

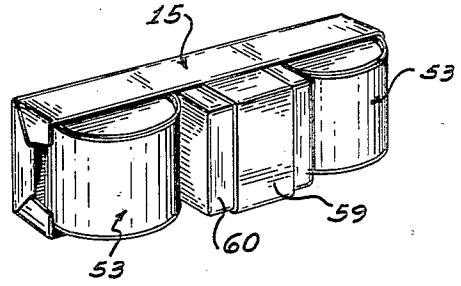


Fig. 9

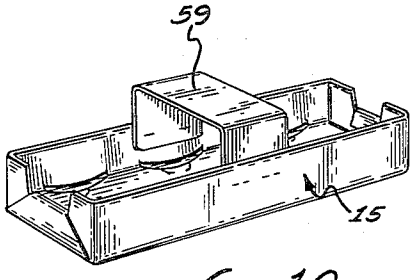


Fig. 10

INVENTOR.
JESSE SROFE.

BY

Willard S. Grant

ATTORNEY.

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PACKAGING AND MERCHANDISING DEVICE

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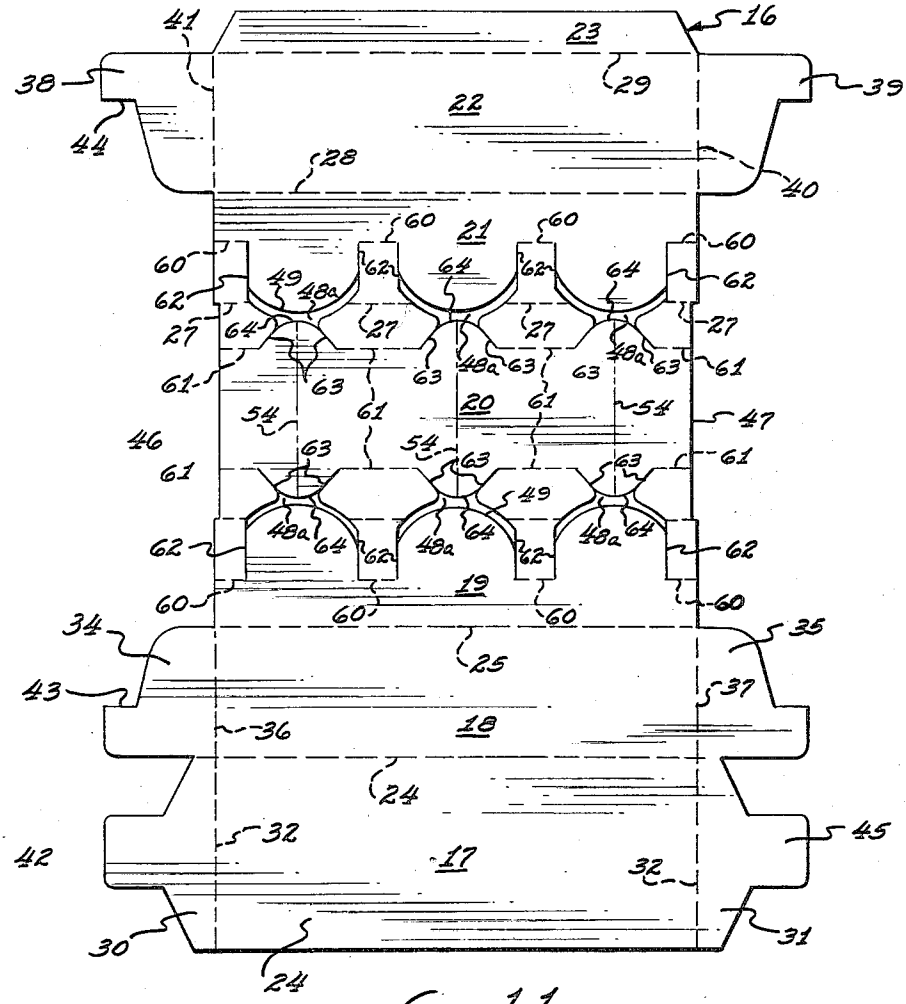


Fig. 11

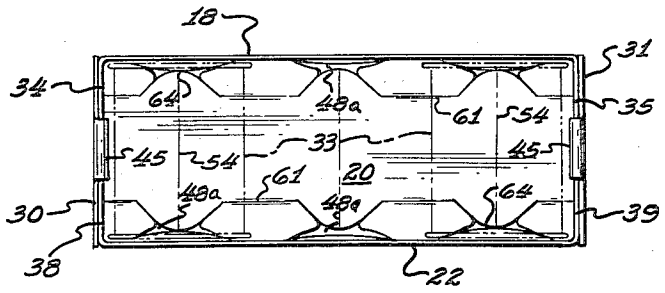


Fig. 12

INVENTOR.
JESSE SROFE.

BY
Willard S. Grant

ATTORNEY.

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2,854,183

PACKAGING AND MERCHANDISING DEVICE

Jesse Srofe, Cincinnati, Ohio

Application April 8, 1957, Serial No. 651,530

3 Claims. (Cl. 229—34)

This invention pertains to a packaging and merchandising device and is particularly directed to a can and box merchandising device for rigidly holding the articles in proper display position.

One of the objects of this invention is to provide a can pack merchandiser that securely holds the items in packed condition while allowing full and unobstructed view of the matter on the exterior of the items for proper display.

Another object of this invention is to provide such a merchandiser which is made from a folding box form glued on a regular automatic box folding and gluing machine.

A further object of this invention is to provide a can pack merchandiser which tangentially engages the sides and lips of the cans to rigidly and securely hold them in the pack without obscuring matter on the top and sides of the cans.

Still another object of this invention is to provide a can pack merchandiser formed as an open tray or box standing on its side and having a double bottom that forms an air cushion between the top edges of the box and lower bottom thereof so that when the cans are packed into the box and exert pressure on the upper bottom, the folded inside portions, having can lip engaging tongues, automatically spring inwards towards the can tops and lock behind the inner rims thereof to rigidly and securely hold the cans in the box tray.

It is also an object to construct a can pack merchandiser as above recited in which the cans and other merchandise may be rigidly locked in the box tray so that they cannot be dislodged by rough handling during shipping and transportation.

Further features and advantages of this invention will appear from a detailed description of the drawings in which:

Fig. 1 is a general perspective of a packaging and merchandising device incorporating the features of this invention.

Fig. 2 is an unfolded view of the sheet of material from which the box tray is formed.

Fig. 3 is a front elevation of the box tray folded up from the sheet shown in Fig. 2.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is an enlarged fragmentary section on the line 5—5 of Fig. 3.

Fig. 6 is an enlarged fragmentary section on the line 6—6 of Fig. 3.

Fig. 7 is an enlarged fragmentary view indicated by the line 7—7 of Fig. 5.

Fig. 8 is an enlarged fragmentary view indicated by the line 8—8 in Fig. 6.

Fig. 9 is a perspective view of a basket type merchandiser for both can and boxes.

Fig. 10 is a perspective view of the empty merchandiser used as a basket.

Fig. 11 is an unfolded view of an alternative form of sheet of material from which the box tray may be formed.

Fig. 12 is a front elevation of the box tray folded up from the sheet shown in Fig. 11.

The tray indicated generally at 15 is formed from the single folded up sheet 16 of Fig. 2, the sheet having the main or lower back portion 17, the outside top member 18 (when the display device is on its side as shown in Fig. 1), the inner side member 19, the upper bottom 20, the inner side member 21, the outer side member 22 (which is the surface upon which the loaded merchandiser rests as in Fig. 1 when loaded for display), and the gluing flap 23 which engages the upper face 24 of the main bottom 24 as best shown in Fig. 4. Each of the aforementioned portions 17 to 23 inclusive are separated by the respective scorings 24, 25, 26, 27, 28 and 29 as shown in Fig. 2. End forming flaps 30 and 31 are connected through the scorings 32 and 33 to the ends of the main or lower bottom portion 17. The flaps 34 and 35 are connected by scorings 36 and 37 to the ends of the outside top member 18 while the flaps 38 and 39 are connected by the scorings 40 and 41 with the ends of the outer side member 22. The flaps 34—38 are folded in behind the flap 30 and the locking flap 42 folded over the edges 43 and 44 of the respective flaps 34 and 38 to form an end of the tray 15 as best seen in Fig. 1. Similarly, flaps 35 and 39 are folded behind the flap 31 and held in place by locking flap 45 to form the other end of the tray, both locking flaps engaging the shortened edges 46 and 47 of the upper bottom 20 to thus hold the outside top member and outer side member 22 rigid with the bottom 17 and ends 30 and 31.

Between the upper bottom 20 and inner side members 19 and 21 are formed the can lip receiving arcuate slots 48 defined by the convex edges 49 of the side members 19 and 21 and the concave edges 50 of the upper bottom 20. Suitable slits 51, Figs. 7 and 8, may be provided in the upper bottom adjacent the concave edges 50 to facilitate the depression or downward bending of the upper bottom by the side 52 of the cans 53 along the line 54 when the cans are forced down against the top surface 55 of the upper bottom 20.

In Figs. 5 and 7 is shown the position of the convex edge 49 prior to insertion of the can in the tray pack. Under these conditions the edge 49 is in the position 49*a* with the portion 54 of the upper bottom 20 in normal height position 20*a*. When portion 54 of the upper bottom is depressed (as by insertion of the can 53) to the lower position 20*b*, Fig. 6, the convex edge bulges inwardly of the tray to position 49*b*, Fig. 8. As the can is inserted in the tray, the convex edge 49 snaps in behind the inner surface 56 of the rim 57 of the can 53 and as the can is fully depressed downwardly to move portion 54 of the upper bottom to position 20*b*, the edge 49 engages the top and bottom portions 58 of the can 53. The convex edges 49 cannot move away from the tops and bottoms of the cans so long as the sides of the cans depress the upper bottom portions 54 to position 20*b* so that the cans are rigidly and securely locked in the tray 15. The only way the cans can be released is by inserting the finger between the inner side members 19 and 21 and the tops and bottoms of the cans to move the convex edge forceably back to position 49*a*.

In Figs. 11 and 12 is shown the sheet of material 16 cut and scored somewhat differently than that shown in the previously discussed figures in that additional scorings 60 and 61 and slits 62 and 63 are formed in the sheet for greater flexibility and easier operation of the outward swinging of the arcuate edges 49 when the containers or cans 53 are pressed against the line of bending 54 of the box pan as described. Into the arcuate cuts 48*a* partially projects the convex edge 64 of the portion

of the upper bottom between the slits **63**. The overall functioning of this arrangement, however, is substantially identical to that described in the case of Figs. 1 to 10 inclusive.

It is quite obvious by inspection of Fig. 1 that substantially all of the tops and sides of the cans locked in the tray as described are exposed to unobstructed view so that the advertising matter thereon can be most effectively displayed. In Figs. 9 and 10 is an arrangement wherein both cans and boxes may be retained in the tray. In this unit the cans **53** are held in the tray as described while a handle portion **59** is connected with the members **18—19** and **21—22** so that a box or package **60** is retained between the locked-in cans and under the handle portion **59** as shown in Fig. 9. The empty unit can readily be used as a carrying basket as shown in Fig. 10.

While the apparatus herein disclosed and described constitutes a preferred form of the invention, it is also to be understood that the apparatus is capable of mechanical alteration without departing from the spirit of the invention and that such mechanical arrangement and commercial adaptation as fall within the scope of the appendent claims are intended to be included herein.

Having thus fully set forth and described this invention what is claimed and desired to be obtained by United States Letters Patent is:

1. A packaging device comprising a tray member formed from a single sheet of folded material including, a main bottom, an outside top member and an outer side member rigidly fixed in right angular position to the side edges of said main bottom, inner side members rigidly connected to the outer edges of said outside top member and said outer side member extending downwardly and inwardly inside of said tray, an upper bottom spaced above said main bottom and rigidly connected to the lower edges of said inner side members, and

suspended thereon above said main bottom, perforations in said upper bottom adjacent said inner side members having an edge movable transversely inwardly toward the middle of said tray when said upper bottom adjacent said perforations is depressed along a transverse line of bending toward said main bottom portion of said tray.

2. In a packaging device as set forth in claim 1 wherein end forming flap members hingedly connected to the ends of the main bottom, the outside top member and the outer side member rigidly lock the ends of said main bottom and the ends of said outside top member and said outer side member together in right angular position relative to said main bottom member.

3. A packaging device comprising, a tray having a main bottom, sides having top edges and ends rigidly fixed to and extending vertically upwardly therefrom, a floating upper bottom having transverse lines of bending spaced above said main bottom and supported solely from the top edges of said rigid sides by downwardly and inwardly sloping side members interconnected between said top edges and the side edge scorings between the bottom of said sides and the longitudinal edges of said upper bottom gripping means on said sloping side members, and means operable by the downward pressure on a transverse line of bending of said upper bottom to cause said gripping means on said sloping side members to automatically swing inwardly to secure merchandise in said tray.

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