May 1, 1956 G. B. BREBNER 2,744,018

FRUIT BOX

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Fig. 1.

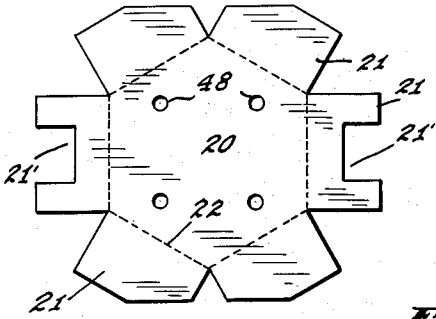



Fig. 2.

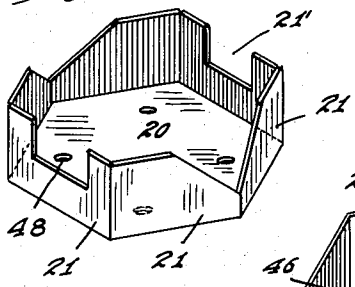



Fig. 4.

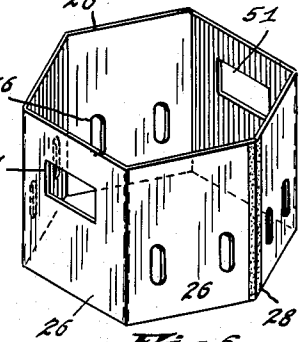



Fig. 3.

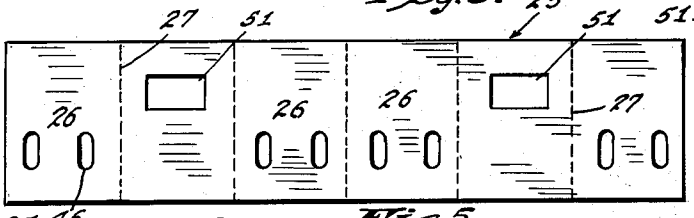



Fig. 5.

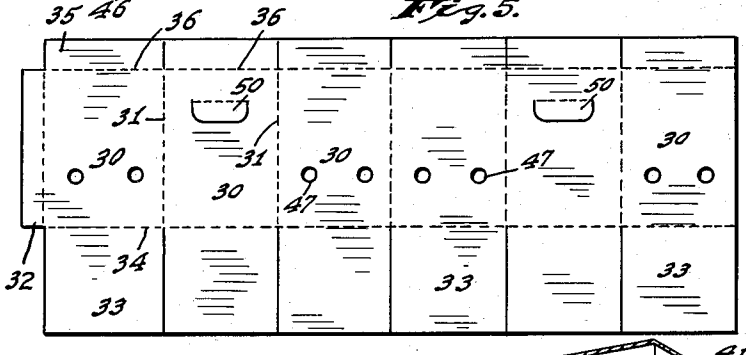



Fig. 6.

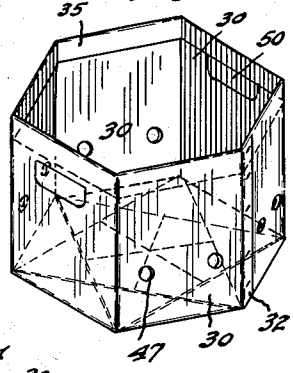



Fig. 8.

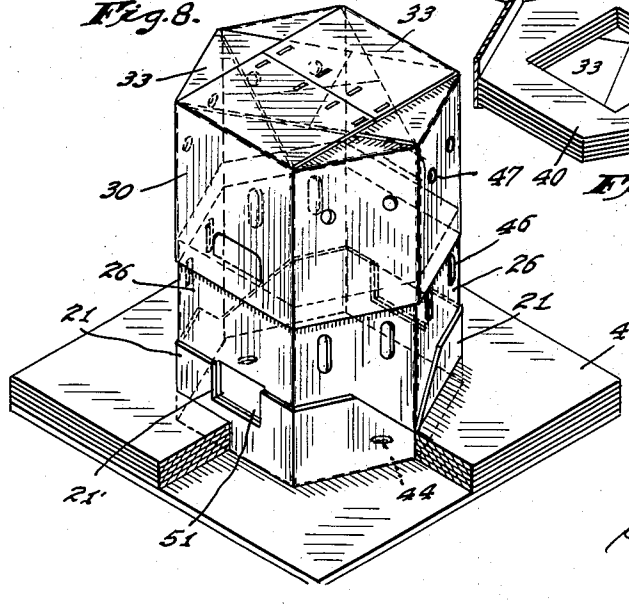



Fig. 7.

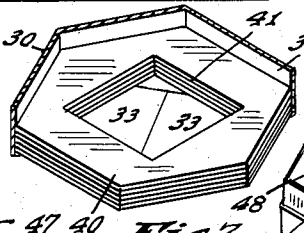
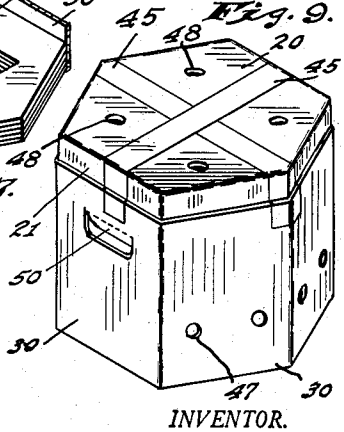



Fig. 9.




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Fig. 10.

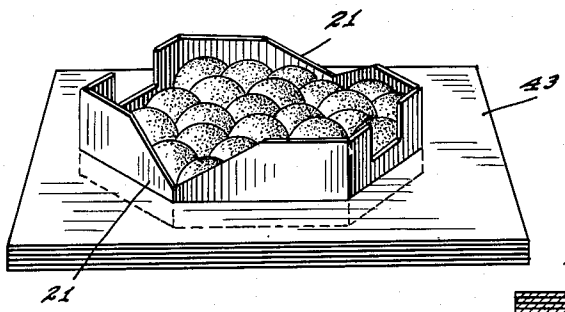



Fig. 15.

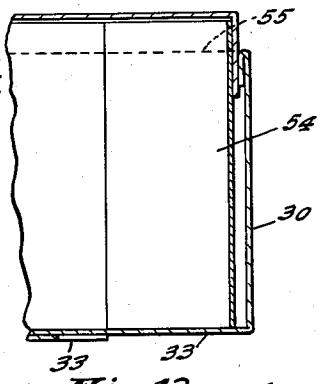



Fig. 12.

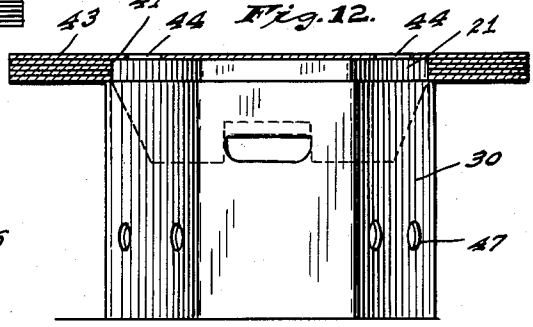



Fig. 11.

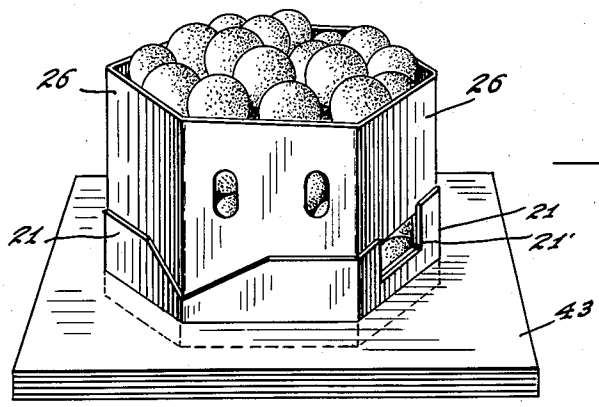



Fig. 13.

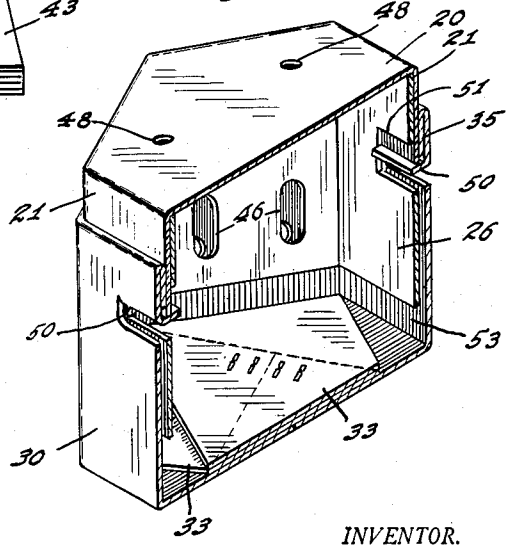
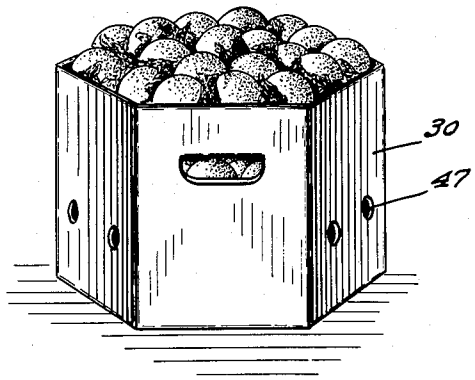



Fig. 14.




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# FRUIT BOX

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Application August 7, 1950, Serial No. 178,078

3 Claims. (Cl. 99—171)

This invention relates to a container for use in the shipping of fruit or similar products. An object of the invention is to produce a container which can be simply and economically manufactured and which will prove sturdy and of ample strength in use. Another object of the invention is to produce a container having a removable cover and so arranged that upon removal of the cover the contents of the container will project upwardly above the sides thereof. A further object of the invention is to facilitate the packing of the container in such a way that when the cover is removed a selected and especially arranged top layer of the container-contents will be exposed to view.

In carrying out the invention, I employ a container having three separable parts—namely, a body comprising a bottom and side walls, a liner, and a cover, all conveniently formed of corrugated board or other generally similar foldable material. The cover is provided along its side edges with flaps which are received between the side walls of the container-body and the liner. In using the box, the cover is inverted and the flaps thereon are held in vertical position to define a tray adapted to contain the layer of fruit which is to be the top layer in the filled container. After such layer has been arranged on the cover as desired, the liner is put in place inside the cover-flaps and between such flaps and the fruit, after which additional fruit is placed within the liner until the latter is filled. The container-body, in inverted position, is then passed downwardly over the liner and the cover flaps, whereupon the container is inverted and the cover fastened in place.

The accompanying drawings illustrate a preferred form of the invention: Fig. 1 illustrates the blank of which the cover is formed; Fig. 2 is a perspective view illustrating the completed cover in inverted position; Fig. 3 is a view of the liner-blank; Fig. 4 is a perspective view of the finished liner; Fig. 5 is a view illustrating the blank from which the container-body is formed; Fig. 6 is a perspective view illustrating the finished container-body; Fig. 7 is a perspective view in partial section illustrating a step in the formation of the container body shown in Fig. 6; Fig. 8 is a perspective view illustrating the final step in the packing and assembly of the container; Fig. 9 is a perspective view illustrating the packed container with its cover fastened in place; Fig. 10 is a perspective view illustrating the first stage in the packing of the container; Fig. 11 is a perspective view illustrating the packed container before the container-body has been lowered into place; Fig. 12 is an elevation in partial section illustrating the packed container still in association with the cover-form; Fig. 13 is an isometric sectional view showing the container parts assembled; Fig. 14 is a perspective view illustrating the filled container with its cover removed to display its contents; and Fig. 15 is a fragmental section showing a modified liner.

The cover-blank shown in Fig. 1 comprises a body portion **20** having at its side edges integral flaps **21** separated from the body by score-lines **22** which facilitate folding



of the flaps into positions normal to the body, as shown in Fig. 2. The particular container described in this application is of hexagonal form in plan, and the cover-body **20** is therefore hexagonal; but it will be understood that containers of different shape may be employed if desired.

The liner-blank designated in its entirety in Fig. 3 by the reference numeral **25** comprises six panels **26** separated by score-lines **27** about which the blank can be folded to bring it into the hexagonal form illustrated in Fig. 4 in which the ends of the blank are joined as by a strip of gummed tape **28**.

The body-blank shown in Fig. 5 comprises six panels **30** separated by score-lines **31** about which the blank can be folded into the hexagonal form illustrated in Fig. 6. To secure the ends of the blank together when folded, the panel **30** at one end of the blank may be provided with an integral tongue **32** which laps the panel at the other end of the blank and is secured thereto, as by stapling. Integral with each of the panels **30** is a bottom-flap **33** separated from its associated panel by a score-line **34**. If desired, each of the panels **30** may be provided at its top with an integral ear **35** foldable inwardly about a score line **36**, as indicated in Fig. 6, to finish the upper edge of the container-body.

To facilitate assembly of the container-body, the form **40** shown in Fig. 7 may be employed. Such form corresponds externally to the internal shape of the container body and desirably has in its center a large opening **41**, as indicated. In using the form **40**, the blank shown in Fig. 5 is wrapped about it, the form occupying a position just inside the score-lines **34** with the corners of the form coinciding with the score-lines **31**; and when the form has been completely encircled, the end flap **32** and the opposite end panel **30** are stapled together. The bottom flaps **33** are then folded into overlapping relationship as indicated in Figs. 7 and 8 and are stapled together. The opening **41** in the form **40** facilitates both this stapling operation and removal of the form from the container-body. Upon removal of the form **40**, the ears **35** may be folded inwardly to complete the container-body.

For use in packing the container, I find it convenient to employ the form **43** illustrated in Figs. 8, 10, and 12. Such form has a recess corresponding in shape to the external form of the cover **20—21** as illustrated in Fig. 2, and the bottom of the recess is provided with one or more openings **44** for a purpose which will hereinafter become apparent. In packing the container, the form **43** is disposed as indicated in Figs. 8 and 10 with its recess opening upwardly, and the cover, with its flaps **21** folded upwardly, is placed within the recess, the recess-walls serving to hold the cover-flaps **21** in vertical positions. The layer of fruit which is to constitute the upper layer in the packed container is then carefully arranged in the tray formed by the inverted cover, as illustrated in Fig. 10. This operation is known as "facing," and is common in fruit packing. The assembled liner is then put in place inside the cover-flaps **21**, and the liner is filled with fruit as indicated in Fig. 11, the fruit desirably projecting somewhat above the upper edge of the liner. After the liner has been completely filled, the inverted container-body is lowered over it, as indicated in Fig. 8, the cover-flaps **21** being received between the respective side walls of the liner and body, as indicated in Fig. 13. The filled and assembled container, with the form **43** still in place, is then inverted to bring it into the position shown in Fig. 12, whereupon the form **43** is removed. The openings **44** in the form **43** facilitate stripping of the form from the assembled container, as downward pressure can be applied to the container-cover through such openings while the form is being raised. Upon removal of the form **43**, the cover is secured in place, as by gummed tape **45**.

Ventilation of fruit containers is generally deemed nec-

essary, and I accordingly provide at least some of the wide walls of the liner and of the container-body with ventilating openings 46 and 47, respectively, and the cover with openings 48. To facilitate handling of the filled package, opposite side walls 30 of the container-body may be provided with cut-out tongues 50 joined to the side-walls along their upper edges and foldable inwardly as indicated in Fig. 13. If such tongues are employed, the liner is provided in opposite side walls with openings 51 through which the tongues 50 may pass when folded inwardly to provide an opening for the reception of fingers. Cover flaps 21 which might otherwise interfere with inward folding of the tongues 50 may be provided with notches 21'.

In inserting the liner into the cover, it is lowered until it engages the cover-body 20. When the container-body is applied to the filled liner, its downward movement thereover is limited by engagement with the upper surface of the form 43, with the result that the liner projects beyond the open end of the cover body by a distance approximately equal to the depth of the recess in the form 43. If the liner and the container-body have the same height, a gap, indicated at 53 in Fig. 13 will exist between the closed end of the container-body and the adjacent edge of the liner. In filling the liner, allowance is made for the gap 53, and the fruit is heaped well above the liner, as shown in Fig. 11.

If when the container is open, its contents are to be placed on display, as for retail sale, the cover is removed to expose the top layer of fruit, and the liner is then forced downwardly to eliminate the gap 53, thus bringing the upper edge of the liner substantially flush with the upper edges of the side walls of the container-body and leaving the top layer of fruit projecting for a distance above its enclosing walls, a feature which is regarded as contributing to an attractive appearance. To accommodate for relative movement between the liner and the container-body when the former is forced downwardly after removal of the cover, the openings 46 and 51 in the liner may be vertically elongated, as is clearly indicated in Figs. 3 and 13.

An alternative form of liner is indicated at 54 in Fig. 15. That modified liner differs from the one previously described in that its height exceeds the height of the container body substantially by the depth of the recess in the form 43. In packing, such a liner will be filled only flush with its top. As a result, when the container-body is lowered over the filled liner, the closed end of the body formed by the flaps 33 engages the liner, and no gap such as that indicated at 53 in Fig. 13 exists. Thus, it is impossible, after the removal of the cover, to force the liner downwardly and leave the top layer of fruit projecting upwardly above its enclosing walls. To secure the latter result, however, the liner-blank is formed with a line of perforations 55 so positioned as to be substantially flush with the upper edge of the side walls 30 of the container body when the cover 20—21 is removed; and after the cover is removed, the projecting upper end of the liner is torn off, the line of perforations facilitating such tearing.

I claim as my invention:

1. In a method of packing a fruit box having a box-body, a bottomless liner therefor, and a cover provided with foldable flaps along its edges, said liner and cover being formed of foldable corrugated board the steps of supporting said cover in inverted position which its flaps supported laterally to extend vertically upwardly to define a tray, arranging in such tray the fruit which is to constitute the top layer when the box is subsequently opened, inserting the liner between the fruit and the cover flaps, filling the liner with fruit, and lowering the box-body in inverted position over the liner and cover-flaps.

2. In a fruit-packing box, a corrugated-board box-body having a bottom and side walls, a bottomless and topless circumferentially continuous liner covering the inner surfaces of the side walls to protect fruit contained in the box from contact with said side walls, said liner being of corrugated-board material stiff enough to support fruit contained in the box, and projecting upwardly beyond the upper edges of said side walls for confining laterally a fruit-layer located at least in part above such upper wall edges, and a corrugated-board cover overlying the upper end of said liner and provided at its periphery with integral flaps extending downwardly over the outer surface of the projecting portion of the liner and into the region between the liner and said side walls, said liner being provided adjacent the upper edges of said side walls with a weakened tear-line facilitating the tearing off of the projecting liner portion after removal of said cover.

3. A fruit package, comprising a corrugated-board box-body having a bottom and side walls, a body of fruit contained in said body and including an upper layer disposed in part below and in part above the upper edges of the side walls, a bottomless and topless circumferentially continuous liner covering the inner surfaces of said side walls to protect the fruit from contact therewith, said liner projecting upwardly beyond the upper edges of said side walls to the top of said upper fruit layer and being of corrugated-board material stiff enough to support the contained fruit, and a corrugated-board cover overlying the upper fruit-layer and the upper end of said liner, said cover being provided at its periphery with integral flaps extending downwardly over the outer surface of the liner and within the side walls, said liner being provided adjacent the upper edges of said side walls with a weakened tear-line facilitating the tearing off of the projecting liner portion after removal of said cover.


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