

2,706,038

Filed Jan. 28, 1953

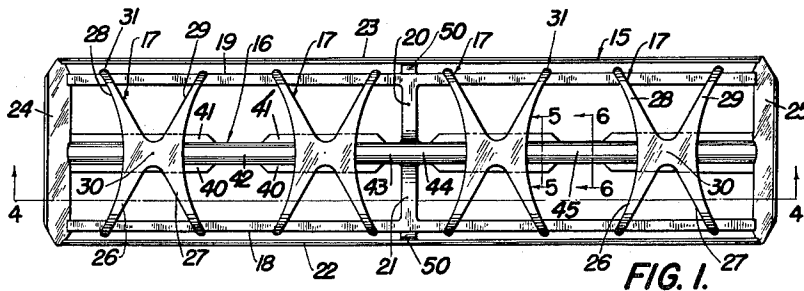
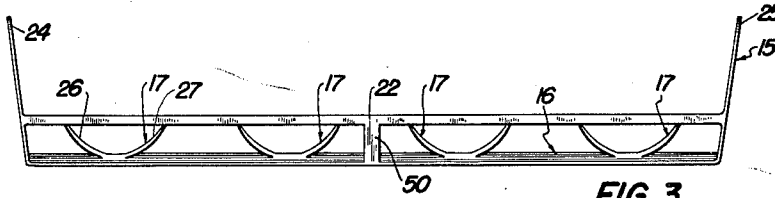


FIG. 5.

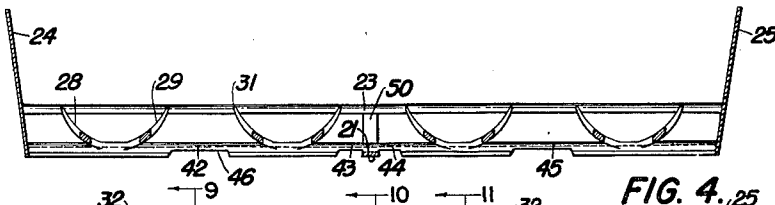


FIG. 6.

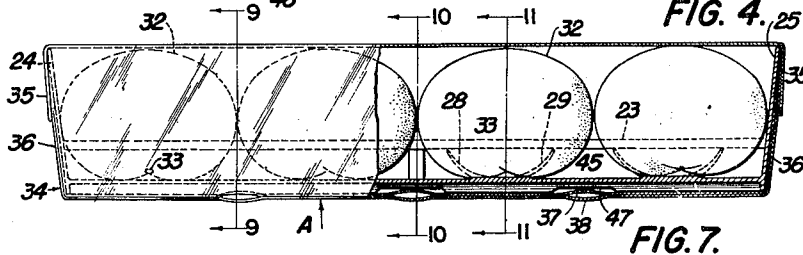
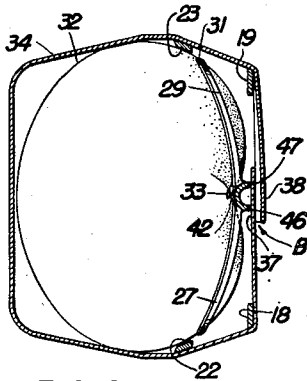


FIG. 8.



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FRUIT CONTAINER

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Application January 28, 1953, Serial No. 333,724

3 Claims. (Cl. 206—45.33)

This invention relates to fruit containers, more particularly to wrapped trays for housing a plurality of tomatoes, the device of this invention being of the category referred to in our prior applications identified by Serial Nos. 284,363, 289,506 and 303,063, and the second filed application now Patent No. 2,680,513, granted June 8, 1954.

It is primarily within our contemplation to provide a form of package in which a line of fruit units will be firmly supported within a tray by a central beam structure to eliminate the danger of the fruits coming into engagement with an underlying table or conveyor upon which the package may be placed. And it is further within our contemplation to provide the tray with a plurality of centrally supported flexible arms that will provide yieldable supporting means along portions of the tomatoes disposed laterally of the central supporting beam, whereby fruits of slightly varying sizes may be adequately supported with a minimum amount of structural material, thereby to present a tray that is economical of material.

It is also an important object of this invention to provide a completely wrapped package wherein the said tray is one component, another being a flexible wrapping of cellophane or other conventional enrobing material providing both a securely packed device as well as one in which there are means for ventilating the interior of the package.

In connection with the last-mentioned aspect of our invention, it is to be noted that packages in which tomatoes are enveloped by an air-tight wrapping cause a rapid deterioration of the fruit, inasmuch as the ripening process is accelerated under stagnant air conditions. It is to overcome this shortcoming that we have devised the structure of the present invention whereby, in addition to providing a firm though yieldable support for the fruit within the tray, and the positioning of such units at a level where they will be safely out of engagement with the underlying floor, air will be permitted to enter through certain unsealed overlapping portions of the wrapping, to circulate within the interior of the package and thereby retard the ripening process.

It is also within our contemplation to provide a central beam having the supporting functions above-mentioned and which will nevertheless be held against bending and be light in weight.

Other objects, features and advantages will appear from the drawings and the description hereinafter given.

Referring to the drawings,

Figure 1 is a plan view of the tray member of our invention.

Figure 2 is an end view of Figure 1.

Figure 3 is a side elevational view of Figure 1.

Figure 4 is a longitudinal section of Figure 1 taken substantially along line 4—4 thereof.

Figure 5 is a fragmentary section of Figure 1 taken along line 5—5 thereof.

Figure 6 is a fragmentary section of Figure 1 taken along line 6—6 thereof.

Figure 7 is a part elevational, part sectional view of the tray of Figure 3 operatively supporting therein a plurality of tomatoes, the device being enrobed by a transparent wrapper, a portion of the wrapper being removed for clarity, the section being taken substantially along the longitudinal axis of the device.

Figure 8 is an end view of the package of Figure 7.

Figure 9 is a somewhat enlarged section of Figure 7 taken along line 9—9 thereof.

Figure 10 is a somewhat enlarged section of Figure 7

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taken along line 10—10 thereof, the dot-dash lines showing the position of the flexible supporting arms when not under load; and

Figure 11 is a somewhat enlarged section of Figure 7 taken along line 11—11 thereof.

As illustrated in the drawings, the tray 15 of our invention, made preferably of plastic material, comprises a central longitudinally disposed beam or bar 16 supporting a plurality of multiple-armed seat members 17, oppositely disposed parallel base rails 18 and 19, two transversely aligned supporting bars 20 and 21 connecting the said base rails with the said central beam, oppositely disposed parallel upper rails 22 and 23, and end walls 24 and 25.

The said seat members 17 each comprises four upwardly curving arms 26, 27, 28 and 29 extending from the central juncture portion 30. The said arms 26 and 27 diverge outwardly and laterally from said juncture portion 30 on one side of the beam 16, and the said arms 28 and 29 similarly diverge outwardly and laterally from said juncture portion 30 on the other side of rail 16. The arrangement is hence such as to present, in plan view, a seat member of a substantially X-shaped configuration, each of the arms being curved upwardly from the juncture portion 30 to a predetermined upper level. It is preferred that the upper terminal ends 31 of each of said arms be normally, when not under load, substantially at the level of the upper rails 22 and 23, as shown in Figs. 2 and 10. It is also preferred that said arms be of somewhat flexible material, so that they will yield slightly under the weight of a supported tomato.

In operatively employing said tray 15, a plurality of tomatoes 32 are placed upon said seating members 17, the said arms 26, 27, 28 and 29 of each of said members embracing the sides of said tomatoes because of their said curved configuration. The depressed stem end 33 of each of the tomatoes is placed directly over the said juncture portion 30 of the supporting seating member, as illustrated, the weight of the tomatoes bearing down upon the arms and causing a downward displacement thereof from the normal dot-dash position 27a and 29a to the full line position 27 and 29 of Figure 10. In the said loaded position of the arms, the lateral sides of the tomatoes may be in engagement with the upper rails 22 and 23. Since said upper rails are supported only at their ends and at their junctures with the intermediate props 50 extending to the base rails, the upper rails will bend slightly at their unsupported portions. The arrangement is hence that both said arms and said upper rails will yieldably support the tomatoes and adjust themselves to slight variations in fruit sizes.

After said tomatoes are placed on the said seating members 17, the entire device is enrobed by a transparent flexible wrapping 34, the method of wrapping being by means well known to those skilled in the art, either manually or mechanically. The wrapping is so proportioned as to form at the opposite ends of the tray two overlapping portions 35 and 36, and also overlapping marginal portions 37 and 38 along the underside of the tray, below the beam member 16. The said wrapping is made of known material of such properties that contacting portions can readily be secured together by heat and pressure means well known to those skilled in the art. When the said overlapping portions are brought against a wall of the tray by conventional heating and pressure dies, such portions will adhere to each other, and cause a sealing of the wrapping at such adhesively secured portions. The outer surfaces of the end walls 24 and 25 serve as a backing for the overlapping portions 35 and 36, certain portions along the undersurface of beam 16 constituting similar backing walls for the bottom overlapping portions 37 and 38 of the wrapping, as will hereinafter appear.

The said beam 16 contains a longitudinal hollowed-out portion 39 along the bottom wall thereof, producing a longitudinal arch 39a extending from end to end of the beam. The arrangement is hence such as to produce a light-weight structural member that will not bend under the weight of the tomatoes in view of the rigid arch construction. The underside of the arch contains at spaced intervals therealong base portions 40 and 41, bases 40

being on one side of the beam and bases 41 on the other side. The lowermost surfaces of said bases are substantially at the level of the lowermost surfaces of base rails 18 and 19, so that when the device is placed upon a table or other horizontal structure, said base rails 18 and 19 and said spaced base portions 40 and 41 are in resting engagement upon said horizontal supporting surface. Between the said base portions of the beam are intermediate arched sections 42, 43, 44 and 45 without any base portions corresponding to said portions 40 and 41. The lowermost edges 46 and 47 of said intermediate arch portions are at a higher elevation than the bottom surface of base portions 40 and 41, as clearly shown in Figures 5, 6 and 9. The construction is hence such that between said low-level base portions 40 and 41 there are elevated portions 46 and 47 of the beam, the latter constituting regions for the passage of circulating air therpast, as will more fully be hereinafter described.

The said base portions 40 and 41 are adapted to receive thereagainst the overlapping portions 37 and 38 of the wrapper under the action of a pressing die acting in the direction of arrow A (Figs. 7 and 11). Hence at such regions, that is, along each of said base portions 40 and 41, the adjacent overlapped portions 37a and 38a will become adhesively secured to each other, to seal the wrapping about the tray. However, directly below the bottommost portions 46 and 47 of the intermediate sections 42, 43, 44 and 45, as shown in Figures 9 and 10, the overlapping portions 37 and 38, not being in adhesive engagement, provide spaces therebetween through which air can pass from the outside into the interior of the package, such as is indicated by the arrow B in Figure 9. Even where the overlapping portions 37 and 38 are in very close proximity, there are always regions sufficiently separated to permit the passage of air therpast.

It is hence apparent that because of the special structure of the beam 16 which is flanked by apertured portions of the base, the wrapper 35 can be made to envelope the tray 15, and held securely in position thereover by the adhesively secured overlapping portions 37a and 38a, and will yet serve as a means to permit circulating air to enter through those unsealed regions containing the overlapping portions 37 and 38. The passage of air between said unsealed overlapping portion into the interior of the package will prolong the ripening period of the tomatoes and therefore give them longer life, and will also cause such ventilation within the device as to prevent a fogging of the inner walls of the tray and wrapper.

In the above description, the invention has been disclosed merely by way of example and in preferred manner; but obviously many variations and modifications may be made therein. It is to be understood, therefore, that the invention is not limited to any specific form or manner of practicing same, except insofar as such limitations are specified in the appended claims.

We claim:

1. In a package for a row of fruit units, a container tray and a wrapping therefor; said tray having a longitudinally extending beam with a base portion and an adjacent ventilating portion, the undersurface of the said ventilating portion being above the level of the said base portion; said wrapping being a flexible sheet enrobing said tray and having overlapping marginal portions underlying the tray and extending longitudinally under said

beam, said overlapping portions being adhesively sealed together at the section thereof underlying said base portion, whereby said wrapping is maintained in enrobing engagement with said tray, said overlapping portions having an unsealed section underlying said ventilating portion, the said overlapping portions of said unsealed section being separable, whereby ventilating passages between the outside atmosphere and the interior of the tray are provided.

2. In a package for a row of fruit units, a container tray and a wrapping therefor; said tray having a longitudinally extending beam with an arched recess extending longitudinally along the underside thereof, the underside of said beam having a plurality of pairs of laterally opposite base portions flanking said arched recess, said pairs of base portions being in longitudinally spaced relation, the undersides of the beam adjacent said base portions being disposed at a level above that of the undersides of said base portions, thereby to provide ventilating portions adjacent said base portions; said wrapping being a flexible sheet enrobing said tray and having overlapping marginal portions underlying the tray and extending longitudinally under said beam, said overlapping portions being adhesively sealed together at the sections thereof underlying said base portions, whereby said wrapping is maintained in enrobing engagement with said tray, said overlapping portions having unsealed sections underlying said ventilating portions, the said overlapping portions of said unsealed sections being separable, whereby ventilating passages between the outside atmosphere and the interior of the tray are provided.

3. In a package for a longitudinal row of adjacent fruit units, a moulded plastic container tray having a base and a wrapping therefor; said tray having at said base a combination supporting and backing member, said member comprising a semi-rigid bar extending longitudinally and medially along said tray and having laterally projecting fruit supporting portions along the longitudinal extent thereof to support all of the adjacent fruit units within said longitudinal row at the medial portion of the fruit, ventilating passages in the bar; said ventilating passages communicating with the interior of the container tray and with the bottom face of the bar; said wrapping being a flexible sheet enrobing said tray and having overlapping marginal portions underlying the tray and extending longitudinally under said bar, said marginal portions being positioned for bearing contact with the undersurface of said bar responsive to upwardly directed sealing pressure, said overlapping marginal portions having adhesively sealed sections at longitudinally spaced intervals underlying said bar, whereby alternate sealed and unsealed sections are provided along said overlapping portions, said unsealed sections being separable, in communication with and adjacent to said ventilating passages in said bar.

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