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E. P. SHERMAN

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CARTON

Filed Oct. 1, 1930

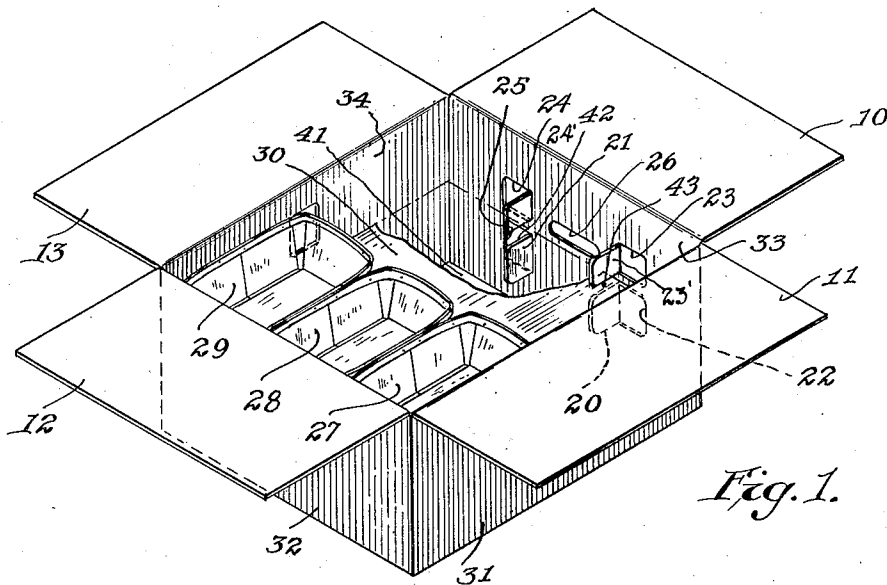


Fig. 1.

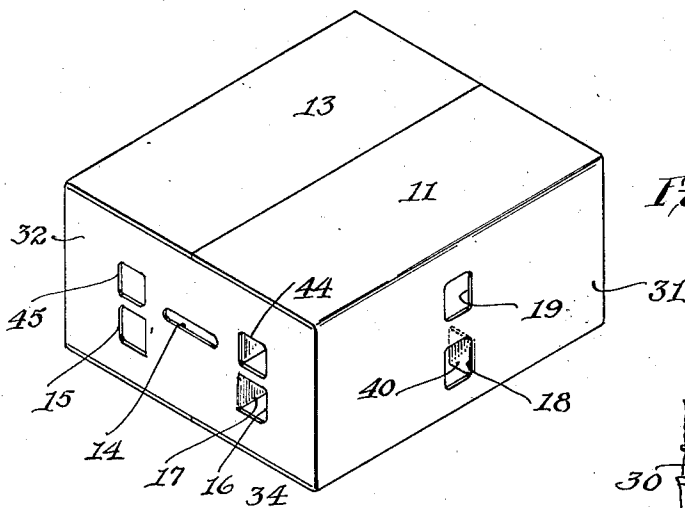


Fig. 2.

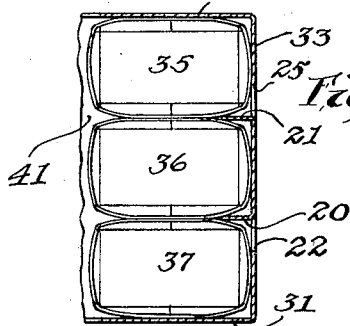


Fig. 3.

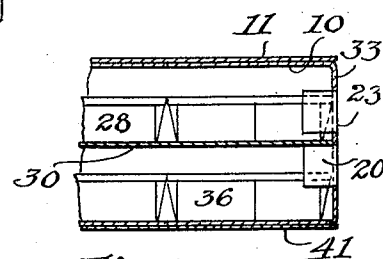


Fig. 4.

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CARTON

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This invention, relating, as indicated, to a carton is more particularly directed to the provision of a carton adapted especially for the shipment of perishable goods, such as fruit, in a container which will be as light as possible and in which small baskets of fruit can be placed in tiers with partitions for the support of each tier, although this carton is also adaptable for shipment of fruit packed directly therein without the use of baskets or the like.

A more detailed object of the invention is to provide a ventilating means for each tier of fruit, said ventilating means comprising flaps cut from the side walls of the carton and bent inwardly so that a partition may be supported thereon, the said openings with their respective flaps serving the triple function of a positioning means between baskets, a partition support and a ventilating opening. Heretofore, wooden crates and in some instances corrugated paper cartons have been used, but in the case of the former the expense of such crates added materially to the cost of the fruit and also necessitated their return shipment.

To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims; the annexed drawings and the following description setting forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings:—

Fig. 1 is a perspective view of a carton in opened position with parts broken away; Fig. 2 is a perspective view of the carton in closed position; Fig. 3 is a partial horizontal section taken just below the partition looking downwardly; and Fig. 4 is a partial vertical section.

Referring now to the drawings, it will be seen that my improved carton consists of a base 41, vertical sides 31, 32, 33 and 34, each of said sides having attached top portions 11, 12, 13 and 10, the portions 11 and 13 folding over the portions 10 and 12. The carton

itself may be made of corrugated paper board, heavy card board or any other similar material, the corrugated paper board being preferred because of its greater strength and its resistance to breaking or tearing under the most careless handling conditions. For instance, a corrugated paper board carton may be dropped upon a hard floor and the carton itself will absorb most of the shock instead of transmitting it to the contained fruit, such as would happen with a wooden or metallic receptacle. The sides of the carton have openings cut in, as shown at 24 and 25. These openings may be cut in such a manner that flaps 21 and 24' result, the said flaps being bent inwardly so that the openings may ventilate the interior of the carton while the upper edge 42 of the lower flap may serve as one of a number of supports for a central horizontal partition 30, known in the trade as a "pad". If flaps such as 23', 24' are left on the upper openings, the pad 30 is locked by the upper and lower flaps so that it will retain its position if, for example, the carton is inverted. A similar opening is cut at 22 resulting in the flap 20 which also has a supporting edge 43 and the opposite side 32 of the carton has openings 15 and 16 with flaps of identical construction, one of which is shown at 17. Any number of ventilating openings may be provided and not all of these need to have the integral flaps, for instance, the end 33 may have openings 23 and 24 cut therein and a flat hand hole 26 also cut therein. Similarly, at the other end the side 35 has the hand hole 14 and the openings 44 and 45. In the event that more than two tiers of fruit are to be packed in one carton the depth of the sides is increased and the openings 23, 24, 44 and 45 will have the flaps similar to those immediately below so that a second partition may be supported thereon. In some instances, where the fruit desired to be shipped is extremely heavy intermediate openings 18 may be cut in the sides 31 and 34 to admit air and these openings may have a flap such as shown at 40 in order to further support the pad 30. As stated before, the invention contemplates the provision of a carton particularly suitable for packing fruit

in baskets, and as shown in Fig. 3, the side 33 is made an exact multiple of a number of these baskets. In this figure the baskets 35, 36 and 37 will be seen with the flaps 20 and 21 serving as positioning elements between the baskets so that said openings and resulting flaps perform three functions, namely, the element, a partition support and a constant ventilating means for the fruit contained in the baskets.

From the foregoing description it will be seen that my improved carton is especially adapted for shipping fruit at a minimum of cost and of package weight and with efficient protection. Furthermore, it will be seen that when baskets are used the partitions are supported out of contact with the fruit which is advantageous in the shipment of a fruit, such as grapes, where the grapes project a substantial distance beyond the top of the basket.

A still further advantage in the use of my improved carton it will be noted that one operation produces two important results, that is, the cutting of flaps in the sides produces a support for a partition and also a ventilating means for the carton, thus providing a carton at low manufacturing cost.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly pointed out and distinctly claim as my invention.

1. A carton for shipping fruit in small baskets, said carton comprising a base, sides and top, said sides rising perpendicularly from said base and partitions in said carton paralleling said base, portions of said sides cut away in pairs vertically spaced approximately a partition thickness so as to leave relatively short vertically-disposed flaps integral at one end with said sides, said flaps being bent inwardly to serve as cushioning elements to provide supports for said partitions in upright and inverted positions of said carton and to provide ventilating openings.

2. A carton for shipping fruit in small baskets, in which the fruit extends above the top of the baskets, comprising a base, sides and top, a partition extending parallel to said base, short flaps cut out of said sides above and below said partition, said flaps being separated approximately the thickness of a partition and bent inwardly to support said partition in upright and inverted positions of said carton to retain the baskets and to provide ventilation for said fruit.

3. A carton for shipping fruit in small baskets, in which the fruit extends above the top of the baskets, comprising a base, sides

and top, a partition extending parallel to said base, flaps cut out of said sides above and below said partition, said flaps being separated approximately the thickness of a partition and bent inwardly to support said partition in upright and inverted positions of said carton and to provide ventilation for said fruit, said flaps being held at right angles to said sides by said baskets.

4. A carton for shipping fruit comprising a box of rectangular form, a partition therein parallel to and spaced between the top and bottom, an upper and lower series of vertically disposed intumed tongues each flexibly connected at one of its ends to the box sides, the upper edges of the lower series and the lower edges of the upper series being vertically spaced approximately the thickness of said partition and respectively supporting said partition when the carton is upright and when inverted.

Signed by me, this 29th day of September, 1930.

ELROY P. SHERMAN.