July 3, 1962 L. BONNET 3,042,247

PREFABRICATED PACKING-CASES FOR DATES AND OTHERS

Filed Nov. 17, 1958 2 Sheets-Sheet 1

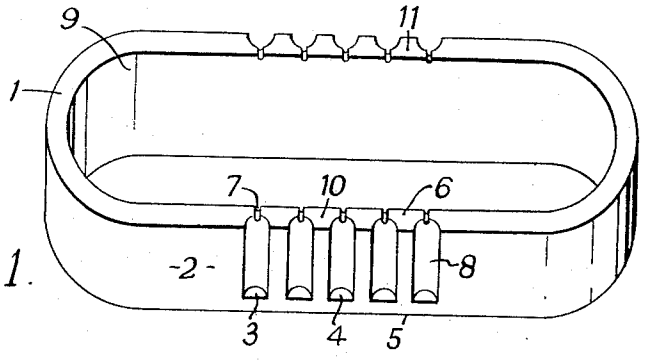


Fig. 1.

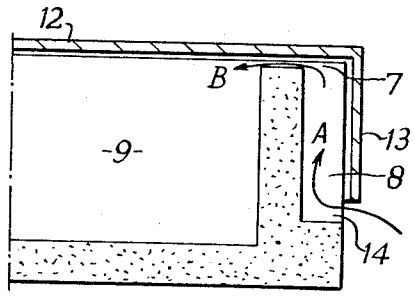


Fig. 2.

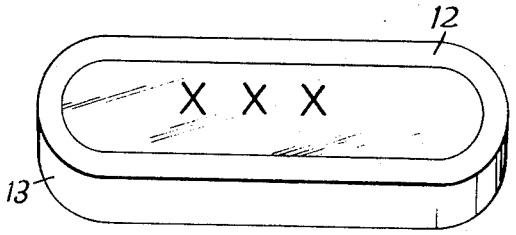


Fig. 3.

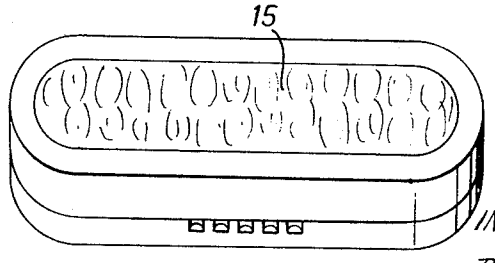


Fig. 4.

INVENTOR

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July 3, 1962 L. BONNET 3,042,247

PREFABRICATED PACKING-CASES FOR DATES AND OTHERS

Filed Nov. 17, 1958 2 Sheets-Sheet 2

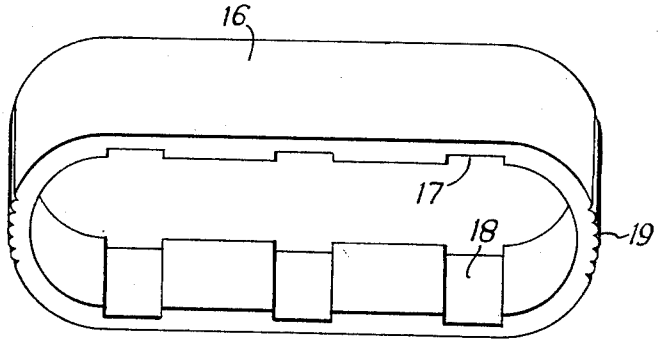


Fig. 5.

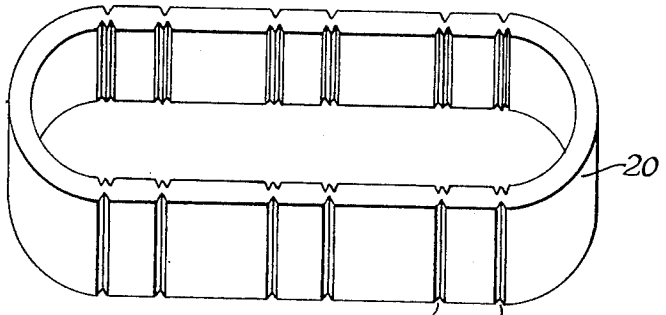


Fig. 6.

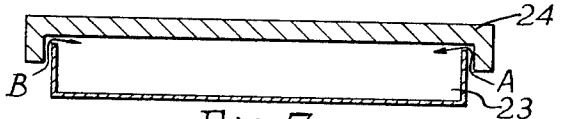


Fig. 7.

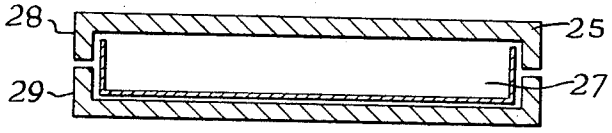


Fig. 8.

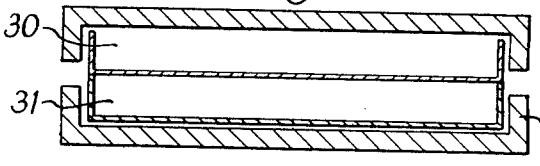


Fig. 9.

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PREFABRICATED PACKING-CASES FOR DATES AND OTHERS

Louis Bonnet, 25 Blvd. Baille, Marseille, France

Filed Nov. 17, 1958, Ser. No. 774,315
Claims priority, application France Nov. 18, 1957
1 Claim. (Cl. 220—44)

This invention relates to prefabricated packing-cases for dates and other fruits.

The packing or conditioning-cases for packing dates must present particularities allowing together the preserving, the safety while being conveyed, and the good appearance of the produce.

The fruits, having been previously treated must be retained in a sufficiently moisture absorbent atmosphere, so as to make hygrometrical changes easier, and, at the same time to prevent any fermentation. Air perviousness of the packing case is also necessary, this being usually obtained by the use of wood, cardboard or the like.

However the manufacturing of such packing cases requires a range of complicated settings and assemblings, thus giving rise to important wastes of time, as also to the requirement of skilled workmanship.

The present invention consists in the realization of a packing case which can be prefabricated by mass production methods. Further this same packing case can be used as an isothermic container for the preserving of produce of all kinds.

Several embodiments of the invention are hereinafter described, by way of example, with reference to the accompanying drawings, wherein:

FIG. 1 shows in perspective the container as a whole;

FIG. 2 shows in section the particulars of the ventilating orifices;

FIGS. 3 and 4 show as a whole the packing case with the part of expanded material;

FIGS. 5 and 6 show, respectively, a cover of expanded material, and a tray of dense material; and

FIGS. 7, 8 and 9 show applications of the whole.

The box, FIGURES 1 and 2, is made as an ellipsoidal container of usual form, for the packing of dates.

The expanded plastic material, e.g. polystyrene, is air permeable and assumes the hygrometrical dampness.

A part of the outer upright face **2** is provided with grooves **3**, **4** and others, extending from the lower part **5** to the upper edge **6**; a hole **7**, FIGURES 1, 2, connects the cavity **8** to the inner space **9** of the box. These grooves are arranged in both sides **10** and **11** of the tray.

The cover comprises an obturating part **12**, with a depending peripheral wall **13**, the jointing of which does not obturate the grooves or ventilation and allows a hole **14** to communicate with the outer atmosphere.

In FIGURES 5 and 6, the cover **16** is made of expanded plastic material, and bears on the whole height of its inner face **17** grooves or ventilating ribs **18**, and on the outer face upright ribs **19** in the rounded end parts. The tray **20**, FIG. 6, of usual dense plastic material is provided in its upright faces with grooves **21**, **22** and others, the hollows of which coincide with those in the cover, thus operating as stiffening ribs.

The tray **23** is higher than the depending wall of the cover **24**, as seen in FIG. 7.

The advantages of this packing are manifold.

The fruits are isolated from the outer medium and then hygrometrical osmosis necessary to their preservation occurs between the covering surface and the pulp. A

tiny, but sufficient air circulation occurs (arrow AB FIG. 2) which is equalized by the diameter of the hole **14** communicating with the outer atmosphere, and by the capillary duct **7** communicating with the inner space of the box.

The employment according to FIGS. 5 and 6 and others is the one recommended. At first, the box **20** of hard plastic material can contain fruits pressed close together and has more solidity. Its smooth surface is washable, can sustain the effect of disinfectants and the like without distorting.

It is impervious to the air and to liquids. These boxes can be imbricated, thus making easier the conveying and the storing. The produce contained are possibly arranged directly in the box or can be packed into cellulose films or the like. The cover **16** of expanded material brings all the advantages described, by giving rise to an air circulation due to the connection of holes and ribs, FIG. 7 arrow AB.

This packing case; more particularly meant for the packing of dates, FIG. 7, can be used to form an isothermic packing case, FIGS. 8, 9, by arranging two covers **25**, **26** to wrap entirely the tray **27**. The surfaces **28**, **29**, joined on their edges obturate any air circulation, thus allowing to retain, at their initial temperature, cold or warm, all kinds of provisions, products or the like, thus forming an inexpensive isothermic container, obtained by re-using packing cases, instead of throwing them away after their first use, as is generally the case with usual packing-cases.

Finally, the trays **30**, **31**, FIG. 9 are possibly superposed so as to form several stories with or without lower covers **32**.

In FIGS. 7, 8 and 9, the depending wall of the covers **21**, **25** acts as a fender and a beautifier which gives a most aesthetic appearance.

I claim:

A packing box for foodstuffs comprising a tray having a base and a continuous wall extending upwardly from the periphery thereof, a plurality of grooves in the top edge of said wall and extending downwardly at the external face thereof, said wall and base being made of a stiff, dense, air-tight and water-tight material, a first upper cover of air-permeable material having a top and a continuous wall depending from the periphery thereof, said wall being of similar shape to the wall of the tray and being of somewhat larger dimensions to permit engagement slidably over the wall of the tray, the depth of the lid wall being less than the height of the tray wall, and a second lower cover identical to the upper cover for slidable engagement in inverted position onto the lower part of the tray until the free edge of the two covers abut such that the two covers together completely enclose the tray, said grooves in the external face of the tray wall extending downwardly to a point below the lower edge of the upper cover positioned thereon, whereby upon removal of the lower cover the tray and upper cover then constitute a box having a direct circulation of air through the grooves.

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