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54 Packing box.

57 The box comprises a bottom wall (11), lateral walls (12, 13, 14, 15) and a top-closing lid (16), in which two opposite walls of the box (10) are provided with lid fastening means (18). Said fastening means (18) are made up of fastening members having folding ends (19) that protrude from the top edges of the lateral walls (13, 15) of the box (10) and that are passed through lateral openings (22) of the closing lid (16).

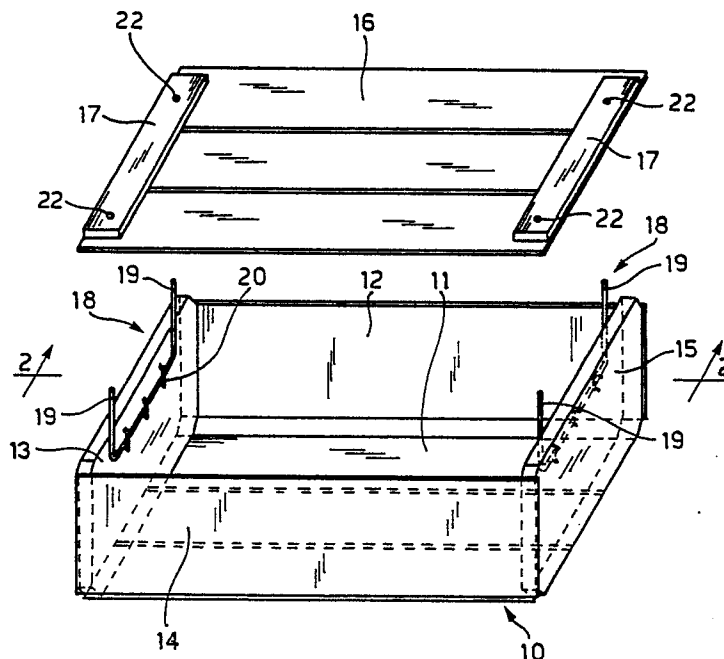


Fig. 1

Packing Box

The present invention relates to a packing box for agricultural products, especially fruit, vegetables and the like, provided with a top-closing lid that is conveniently fixed to the box's side walls once the box has been filled.

It is a well-known fact that agricultural products such as fruit, vegetables and allied products are packed and transported in boxes of wood, carton, plastic and other suitable material; when particularly delicate products have to be packed and freighted, the box is provided with a top-closing lid that has to be conveniently fixed to the side walls of the box.

At present, metal staples fix the lid to the box below and are driven through the lid and top edges of the side walls or otherwise the box is tied with ropes or the like. Special staplers are necessary to apply the metal staples manually - this requiring a long and costly operation. Furthermore, if the person involved lacks expertise or is careless or if the sides of the box are too thin, the metal staples do not have enough grip and so the lid is badly fixed. Binding the box with rope is costly and lengthy.

An object of the invention is to provide a box similar to that already mentioned above that is already provided with lid fastening means to obviate the above-mentioned drawbacks and that do not require special machines or apparatus, so simplifying in this manner the closure of said box.

The invention therefore concerns a box that is particularly suited for the packaging of agricultural products, comprising bottom and lateral walls, as well as a top-closing lid in which lid fastening means are provided on the lateral walls of the box, said lid fastening means comprising folding members protruding from the top edges of the box walls and in which the lid has lateral passing through openings for the above said folding members.

Both the boxes and folding members for fastening the lid can be manufactured in any type of suitable material, in any required shape or size. Moreover, the folding or fastening members can be fixed to the lateral walls of the box at any required position, for example, on the inside or outside of the two lateral walls, or they can be attached to any part of the walls themselves. The invention is better illustrated herebelow with reference to the attached drawings:

Fig. 1 is a perspective view of the box with the corresponding closing lid and provided with the lid fastening means;

Fig. 2 is a longitudinal section according to lines 2-2 of figure 1;

Fig. 3 is a cross-sectional view according to lines 3-3 of figure 2;

Fig. 4 is an enlarged view of the top edge of the box's lateral wall in which the lid fastening member is set in a proper slot.

As shown in the figures, a box 10 comprises bottom wall 11, and lateral walls 12, 13, 14 and 15 that are connected to each other and to the bottom wall 11 by any suitable means; for example, they can be glued together or fixed with nails, metal staples, or by any other appropriate means.

In addition, number 16 indicates a top-closing lid which in this specific case is shown as being formed by several parts joined together by lateral strips 17.

As seen in the given example, the two lateral walls 13 and 15 of the box have been provided with lid fastening means including folding fastening members 19 that protrude from the top edges of the walls 13 and 15. The fastening members 19 can in any case be carried out; in this particular case they have been made with U-shaped metal wire and fixed along the inside surface of each of the two lateral walls 13, 15 and can be attached, for example, by using metal staples 20 or any other suitable means. However, it is not excluded that the lid fastening members may be made in some other form: in bands for example and fixed in a different manner to the sides of the box 10. For example, figure 4 shows a fastening member 19 for the lid 16 set in a slot or seat 21 on a side of the wall 13, or rather can be incorporated in the wall's material itself.

In returning to the preceding figures, one can see from figure 3 for example that the fastening members 19 are fixed at spaced apart positions on a same lateral wall of the box and protrude straight up from the top edge of the wall. Therefore, the closing lid 16 on the sides corresponding to walls 13 and 15 of the box is provided with holes or openings 22 for passing through the fastening members 19 mentioned hereto. The distance between the openings 22 on the same side of the lid correspond to the distance between the ends of the fastening members 19 so that they can pass through the mentioned holes or openings 22. Moreover the openings 22 correspond in shape and size to the shape and size of the cross section of the lid fastening members 19. For instance, when the fastening members 19 are in metal wire, the openings 22 can simply be perforations. In any case, it is obvious that this invention has found a substantially simple and sure method of fixing lids. In fact, the fastening members 19 of the lid 16 can be fixed to the box by the manufacturer during production by utilising appropriate automatic machinery and so in less time and with reduced costs. The box and lid

provided with the fastening means according to the invention can in this manner be sent to the utiliser or directly to the site where it will be used and where no additional tools or equipment are necessary. It is sufficient to manually fold against the lid the protruding ends of the fastening members 19 after having passed them through their respective holes on the sides of the lid 16. If for any reason one or more of the members 19 are accidentally folded to the side before being fixed to the lid, said parts 19 can easily be straightened out by hand and passed through the lid holes 22. In any case, once the product has been packaged, the operation for fixing the lid 16 to the box 10 will appear to be extremely simplified.

Claims

1. A packing box (10) particularly suited for the packaging of agricultural products, comprising bottom and lateral walls (11, 12, 13, 14, 15), as well as a top-closing lid (16), characterised in that lid fastening means (18) are provided on lateral walls of the box, said fastening means (18) comprising fastening members (19) having folding ends protruding from the top edge of said walls, and in that the lid (16) has lateral openings (22) in which the folding end of the fastening members (19) can be passed through.
2. The box according to claim 1 characterised in that said fastening members (19) are made up of protruding metal wires that can be folded against the closing lid (16).
3. The box according to claim 1 characterised in that said fastening members (19) are made up of metal tongues that can be folded against the closing lid (16).
4. The box according to claim 1 characterised in that said fastening members (19) are fixed to a side of lateral walls of the box (10).
5. The box according to claim 1 characterised in that said fastening members (19) are placed in a seating provided on the lateral walls of the box (10).
6. The box according to claim 1 characterised in that said fastening members (19) are incorporated in the lateral walls of the box (10).
7. The box according to claim 2 characterised in that said fastening members (19) for the lid (16) are U-shaped metal members.

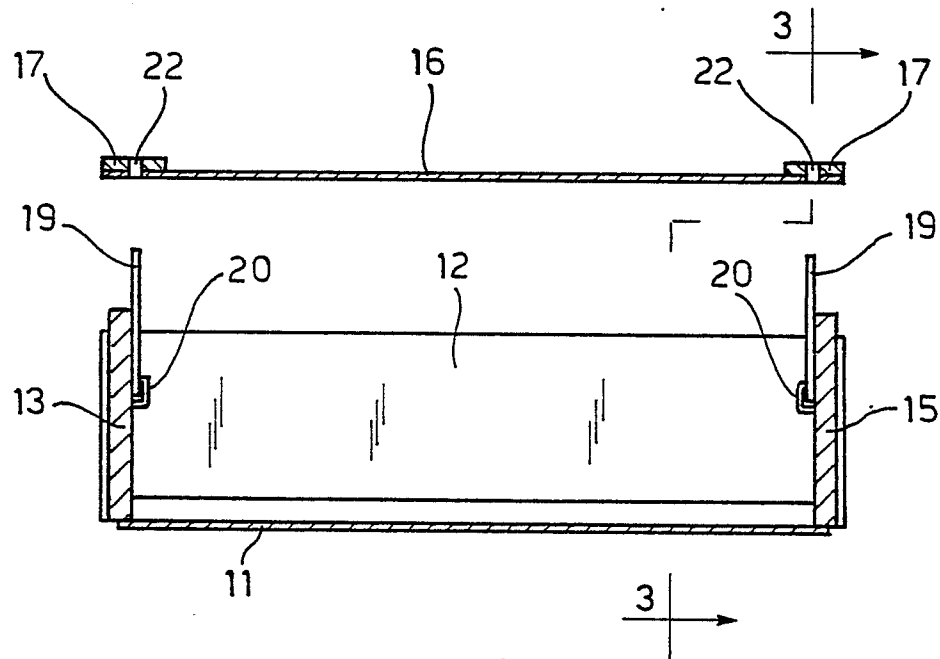


Fig. 2

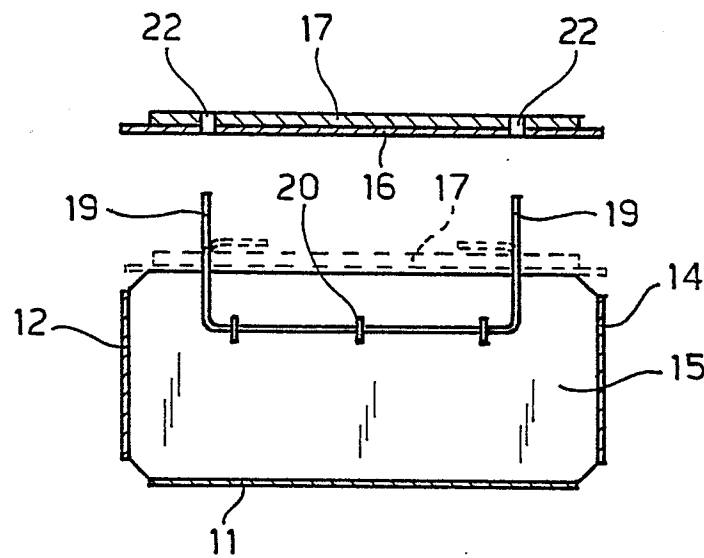


Fig. 3