Dec. 28, 1943. A. P. LAPARA 2,337,755

CARTON WITH INTERLOCKING BOTTOM

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Fig. 1.

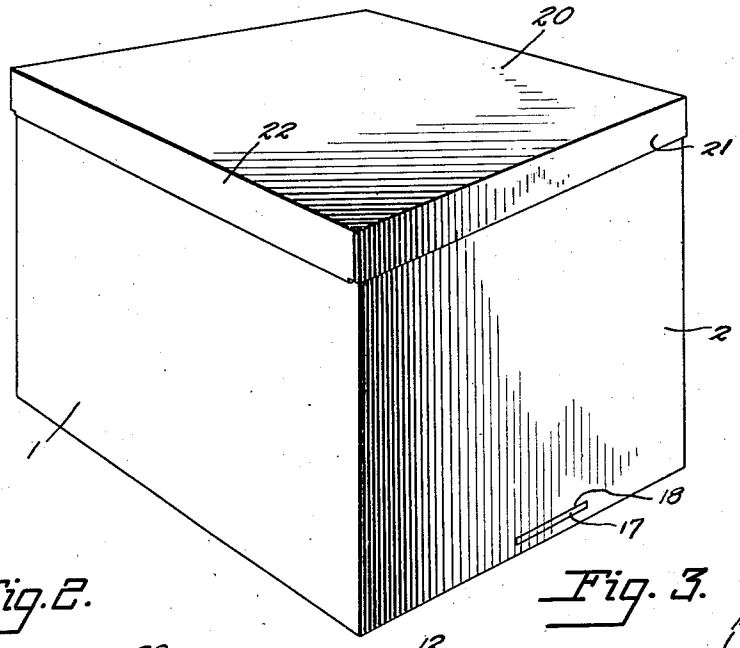


Fig. 2.

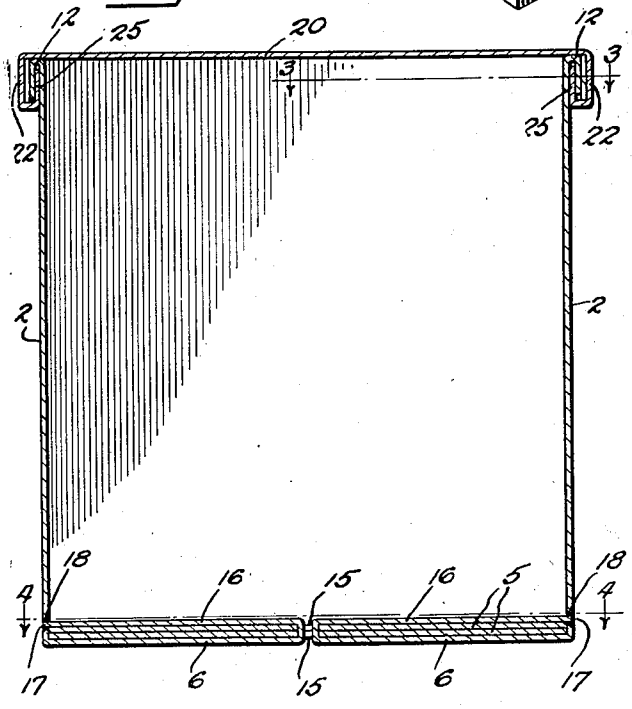
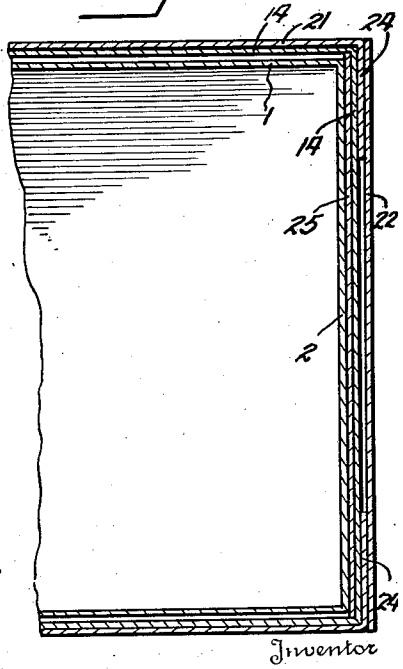


Fig. 3.



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Fig. 4.

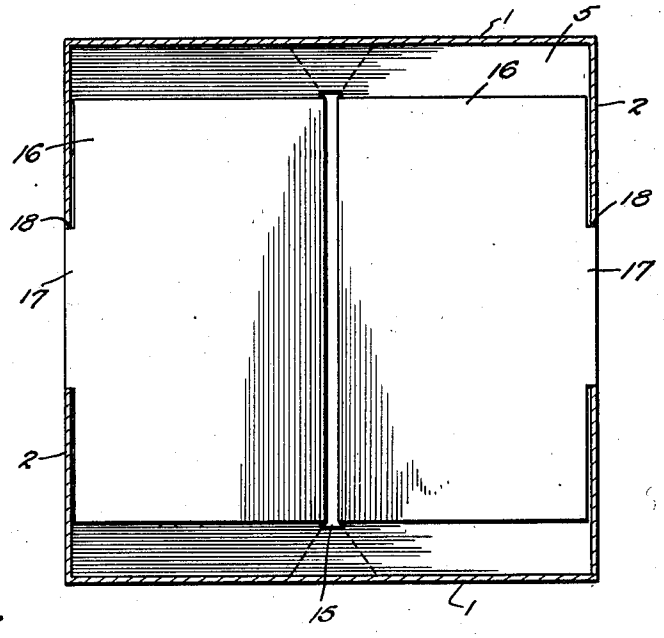


Fig. 5.

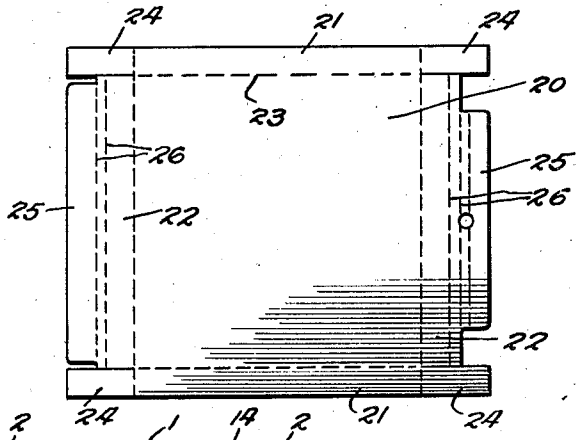
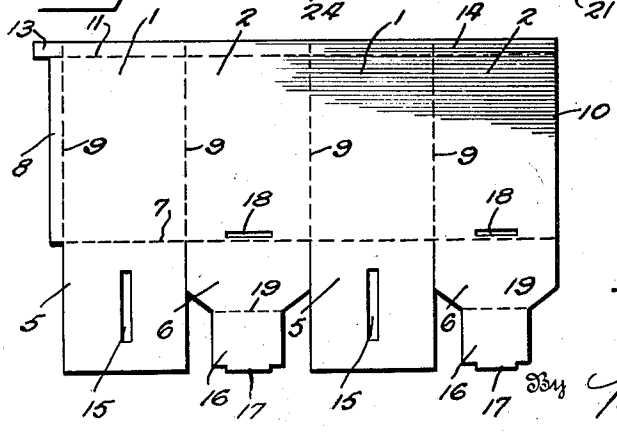


Fig. 6.



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2,337,755

UNITED STATES PATENT OFFICE

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CARTON WITH INTERLOCKING BOTTOM

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Application June 10, 1942, Serial No. 446,494

2 Claims. (Cl. 229—39)

This invention relates to cartons assembled from a foldable blank of sheet material, of the type in which the bottom comprises a plurality of thicknesses of the sheet material formed as infolded integral extensions from the sides of the carton.

One of the objects of the invention is to provide a carton of the class described, having an interlocking bottom.

Another object of the invention is to provide novel interlocking means for the bottom panel.

Other objects of the invention will appear as the following description of a preferred and practical embodiment thereof proceeds.

In the drawings which accompany and form a part of the following specification, and throughout the several figures of which the same characters of reference have been employed to designate identical parts:

Figure 1 is a perspective view of a carton embodying the principles of the invention;

Figure 2 is a vertical longitudinal section therethrough;

Figure 3 is a horizontal section taken along the line 3—3 of Figure 2;

Figure 4 is a horizontal section taken along the line 4—4 of Figure 2;

Figure 5 is a plan view of the lid of the carton in blank form;

Figure 6 is a plan view of the carton in blank form.

Referring now in detail to the several figures and first adverting to the blank shown in Figure 6, the carton comprises the side panels 1 and 2 and the bottom panels 5 and 6, the latter being preferably integral extensions of side panels and being demarked therefrom by the fold lines 7.

The terminal side panel on one side is formed with the attaching flap 8 so that when the side panels are folded along the lateral lines of fold 9 into tubular form, the flap 8 may be stapled or otherwise secured to the free edge 10 of the opposite terminal panel. The upper ends of the side panels 1 and 2 are formed with a fold line 11 parallel to the top edge of the blank and a short distance away from said upper edge delineating a relatively narrow marginal portion 14, which may be folded down on the outside of the carton in the manner shown at 12 in Figure 2, increasing the rigidity and strength of the upper end of the carton, and providing means by which a lid, presently to be described, may be interlocked with respect to the carton.

A lateral extension flap 13 slips beneath the outfolded marginal portion 14 to which it may be secured by stapling or in any other suitable manner.

In the assembled carton the bottom panels 5 and 6 are folded inwardly with respect to the sides of the carton to form a bottom of plural ply thickness. Since it is the object of the invention to have the plies of the bottom interlock, the alternate bottom panels 5 which will fold together from opposite sides are provided with registrable slots 15 at an intermediate portion and parallel to the fold line 7 in the blank of Figure 6. The other alternate bottom panels 6 are cut so as to form tongues 16 of such width as to pass through the slots 15, and of a length slightly greater than the distance of the slots 15 from the line of fold 7, when the tongues 16 are inserted in said slots and folded over toward the sides of the carton from which the tongue bearing bottom panels 6 emanate. At their ends the tongues 16 are provided with the extensions 17 of reduced width which are adapted to snap into the slots 18 formed in the side panels 1 adjacent the bottom of the carton.

In setting up the carton the side panels are folded along the lines of fold 9, and the flap 8 stapled to the edge 10, to form a tubular structure. The bottom slot bearing panels 5 are then folded inwardly toward each other so that the slots 15 congruently register. The bottom panels 6 are then each folded inwardly upon the bottom and the tongue portions 16 folded along their base lines 19 and slipped through the slot 15.

Each of the tongues which now extends upwardly on the interior of the carton is folded outwardly upon itself until the extensions 17 come into frictional contact with the sides of the carton. These may be forced down and finally snap into the slots 18, thereby locking the bottom of the carton firmly together and against collapse.

Referring to Figure 5, this shows a blank for the lid of this carton and comprises a top panel 20 having the side extensions 21 and 22 adapted to be folded downwardly along the lines of fold 23 to form the flanges of the lid. The extensions 21 have end flaps 24 adapted to be slipped beneath the extensions 22 when the latter are in folded condition, and to be stapled thereto, holding the flanges of the lid in position. The extensions 22 are provided with flaps 25 foldable along the lines of fold 26 so as to extend up behind the extensions 22 in the folded lid. In locking the lid to the carton, the upwardly extending flap on one side of the lid is pushed up beneath the flange 12 at the top of the carton, on one side; then the cover is pushed into place all around, and the

opposite flap 25 is forced upward beneath the adjacent flange 12 of the carton, thereby locking the lid in place.

While I have in the above disclosure described what I believe to be a preferred and practical embodiment of the invention, it will be understood to those skilled in the art that the specific details of construction as shown and described are by way of example and not to be construed as limiting the scope of the invention which is defined in the appended claims.

What I claim is:

1. Carton assembled from a foldable blank of sheet material comprising side panels and bottom panels the latter being extensions from the lower ends of said side panels, infolded in substantial surface contact to form a plural ply bottom, the inner bottom panels being formed with registering slots intermediate and perpendicular to the bases and opposite free edges of said panels, the outer bottom panels being formed with tongues extending through said slots, folded within said carton toward the bases of the respective panels from which said tongues emanate, the side panels from which the outer bottom panels are folded being provided with slots in the plane of said tongues in which said tongues engage.

2. Carton assembled from a foldable blank of sheet material comprising side panels and bottom panels the latter being extensions from the lower ends of said side panels, infolded in substantial surface contact to form a plural ply bottom, the inner bottom panels being formed with registering slots intermediate and perpendicular to the bases and opposite free edges of said panels, the outer bottom panels being formed with tongues extending through said slots and folded within said casing toward the bases of the respective panels from which they emanate, said tongues being of such length as to frictionally press the adjacent sides of said carton, in the course of its folding movement, said sides being provided with slots adjacent the bottom of said carton in the path of the folding movement of said tongues, into which the ends of said tongues spring for interlocking the panels of the bottom of said carton.

ANTHONY P. LAPARA.