Jan. 2, 1951 L. D. LEHMAN 2,536,948

CARTON

Filed Jan. 15, 1947 2 Sheets-Sheet 1

Fig 4

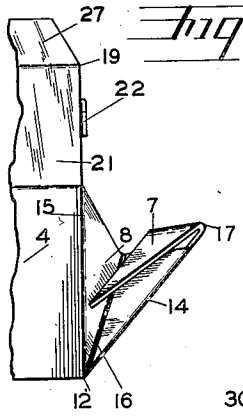
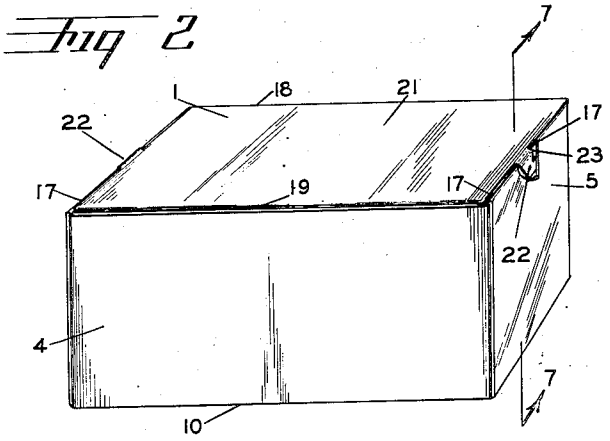


Fig 1

Fig 2



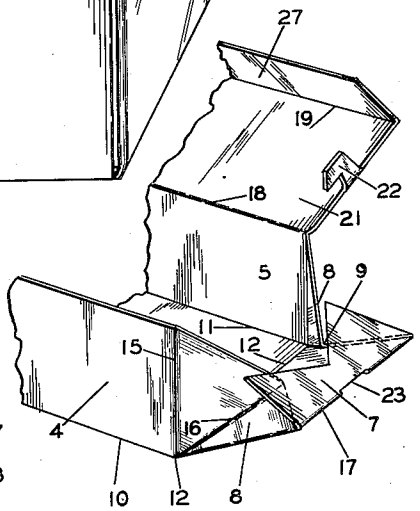


Fig 3

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Jan. 2, 1951 L. D. LEHMAN 2,536,948

CARTON

Filed Jan. 15, 1947 2 Sheets-Sheet 2

Fig 6

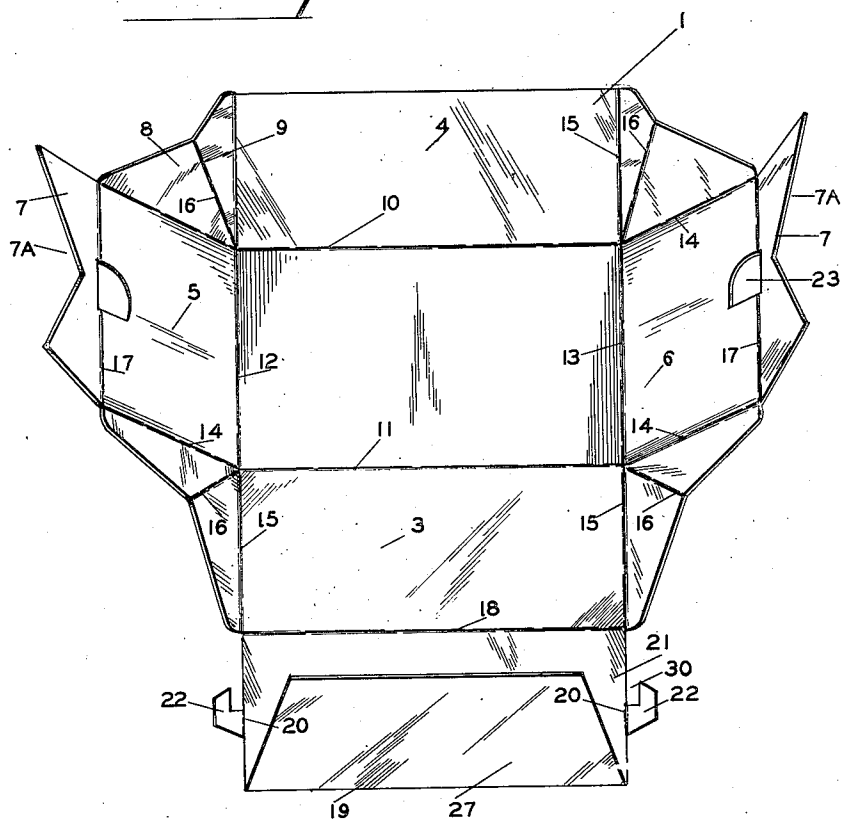


Fig 7

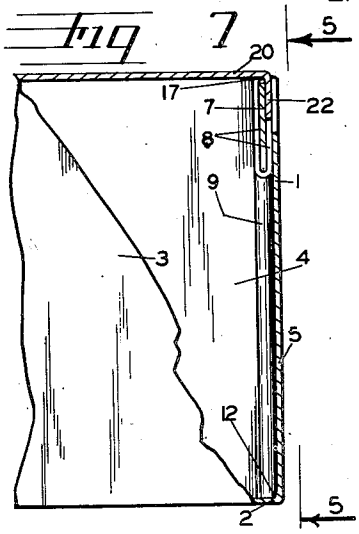
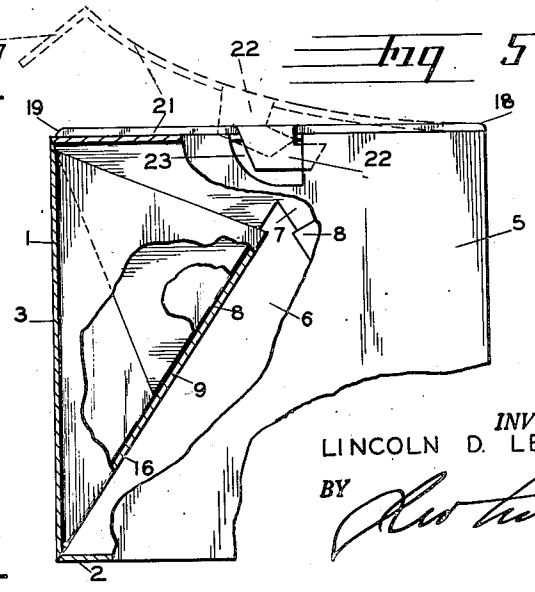


Fig 5



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UNITED STATES PATENT OFFICE

2,536,948

CARTON

Lincoln D. Lehman, Portland, Oreg.

Application January 15, 1947, Serial No. 722,230

2 Claims. (Cl. 229—31)

1

This invention relates to improvements in cartons and is particularly adapted to be used in connection with heat and cold insulating cartons.

The primary object of the invention is to construct a carton of one piece of material in such a manner as to prevent leakage of liquids therethrough by forming the same out of one piece of material.

A further object of the invention is to provide a closure lid having a means of bracing the carton together when the lid is closed, said means also maintaining the lid in closed position.

My new and improved carton is so cut out of sheet material as to form the entire carton, both side walls, ends and cover, and at the same time the carton is cut it is creased in such a manner as to provide for easy folding and forming of the carton.

These and other incidental objects will be apparent in the drawings, specifications and claims.

Referring to the drawings:

Figure 1 is a perspective view of the carton in erected position, the lid open and parts broken away for convenience of illustration.

Figure 2 is a perspective view of the carton in fully erected and closed position.

Figure 3 is a fragmentary partially erected perspective view of the carton showing the end being folded.

Figure 4 is a side view of Figure 3.

Figure 5 is an enlarged fragmentary end view of Figure 2, illustrating the lid in closed position and showing the lid being closed by the broken lines.

Figure 6 is a semi-folded view of the carton.

Figure 7 is an enlarged fragmentary sectional view taken on line 7—7 of Figure 2, particularly made to illustrate the cover in closed position.

In the drawings:

My new and improved carton consists of a sheet of material 1, that is folded to form a bottom 2, side walls 3 and 4, and end walls 5 and 6 having tongues 7 extending from their free edges. The side and end walls are joined together by webs 8, which are folded inwardly at 9 and 16 as the carton is being formed.

When the sheet material 1 is cut to shape and creased along lines 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20, the carton may be formed at any time that it is needed. The sheet is best shown, partially folded, in Figure 6, and the formed carton is best shown in Figure 1.

I will now describe the erecting of my new and improved carton, referring especially to Figures 3, 4 and 6. The tongues 7 are notched at 7A to form outwardly extending prongs on each side. The webs 8 are folded on their fold lines 9 and 16, and the prongs of the tongues 7 are inserted within the folds of the webs 8 adjacent the fold lines 9 and 16, as best illustrated in Figures 3 and 4. The insertion of the tongue 7 within the webs in this manner makes it very easy to form the ends of the carton as the notch 7A of the tongue guides and maintains the webs in alignment while erecting the carton, the webs taking their position adjacent the end walls 5 and 6 as best illustrated in Figure 1. In the completing of this folding operation the side walls 3 and 4 are also folded along their crease lines 10 and 11, to the position shown in Figure 1, by the folding of the webs 8.

2

I will now describe the operation of closing the cover. The cover 21 extends from the side wall 3 and is folded along a crease line 18. Tabs 22 are formed on the ends of the cover for cooperation with the cut-out portions 23 of the end walls 5 and 6. By referring to Figure 5, the dotted lines indicate the position of the cover while these tabs are being inserted into the cut-out portions in the closing of said cover. The flap 27 of the cover is then inserted within the side wall 4, the tabs 22 maintaining the cover in closed position and at the same time preventing the end walls of the carton from spreading.

The tabs 22 are notched at 30, this notch engaging the underside of the crease 17 between the end walls 5 and 6 and their tongues 7, best illustrated in Figures 2 and 5. This is one of the outstanding features of my new and improved carton wherein the tabs forming part of the cover maintain the cover in closed position and at the same time brace the end walls of the carton.

Another outstanding feature of my invention resides in the fact that the carton is formed from one piece of material, the webs joining the side and end walls, thereby preventing any leakage of the contents of the carton. A further feature resides in the method of folding and erecting the carton, best illustrated in Figures 3 and 4, wherein the edges of the notch 7A of the tongue 7 force the proper folding of the webs 8, bringing the carton to its erected position as illustrated in Figure 1.

I do not wish to be limited to the exact structure as other equivalents may be substituted still coming within the scope of my claims.

I claim:

1. A carton formed from a single sheet of material comprising a bottom wall, side and end walls folded up at opposite sides of said bottom wall,

webs connecting the adjacent edges of said side and end walls and folded from the opposite side walls inwardly along median lines and against said end walls, and tongues on said end walls, said tongues being notched in their free edges remote from the respective end walls to form a pair of prongs in each tongue with the prongs extending away from the end walls and each pair of prongs having adjacent edges which diverge angularly from a junction centrally of the respective tongues, said tongues being folded over and their pairs of prongs respectively being inserted within the webs folded against the corresponding end wall with the diverging edges of said pairs of prongs coinciding with and nested in the median fold lines of said webs to anchor said webs and lock said side and end walls in upright position.

2. A carton formed from a single sheet of material comprising a bottom wall, side and end walls folded up at opposite sides of said bottom wall, a top wall folded over from the top of one side wall, a tuck-in flap hingedly folded down from the edge of said top wall opposite its hinge fold and insertable within the opposite side wall, webs connecting the adjacent edges of said side and end walls and folded from the opposite side walls inwardly along median lines and against said end walls, tongues on said end walls, said tongues being notched in their free edges remote from the respective end walls to form a pair of prongs in each tongue with the prongs extending away from the end walls and each pair of prongs having adjacent edges which diverge angularly from a junction centrally of the respective tongues,

said tongues being folded over and their pairs of prongs respectively being inserted within the webs folded against the corresponding end wall with the diverging edges of said pairs of prongs coinciding with and nested in the median fold lines of said webs to anchor said webs and lock said side and end walls in upright position, openings centrally in said end walls and interrupting the fold lines between said walls and their tongues to open at the top of said end walls when said tongues are folded over, and hook-like tabs folded down from the end edges of said top wall for insertion through said openings and between said end walls and their folded over tongues, said tabs being centrally of said top wall with the hooks extending rearwardly of said openings and insertable and retractable relative to said openings by flexure of said top wall between said hooks and its hinge fold.

LINCOLN D. LEHMAN.

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