Sept. 11, 1934. L. KULPINSKI 1,973,633

LEAKPROOF CARTON

Filed May 14, 1934

Fig. 1

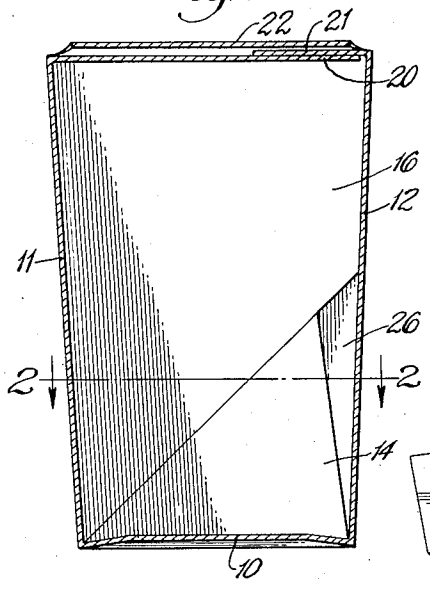


Fig. 3

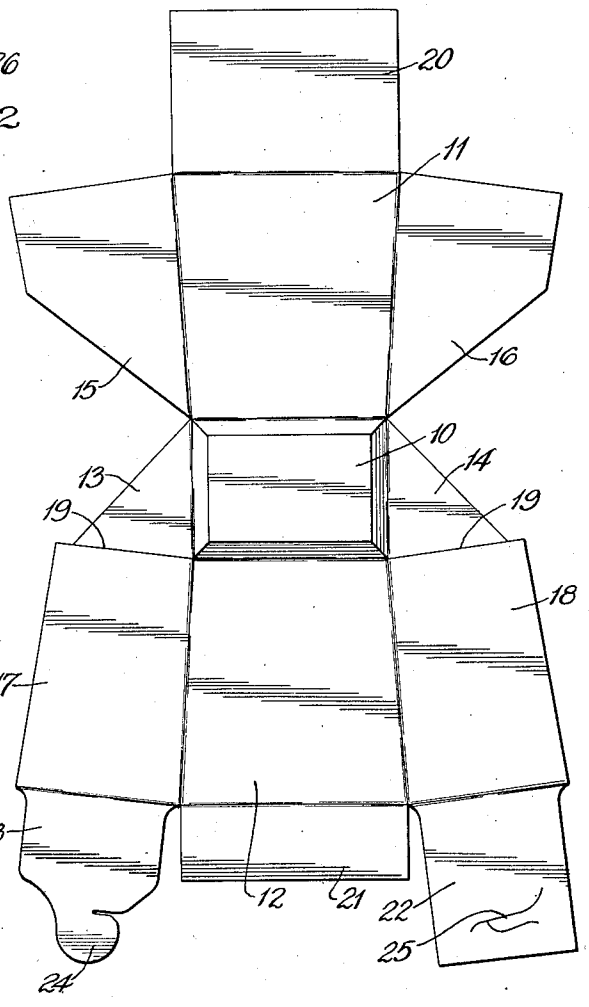
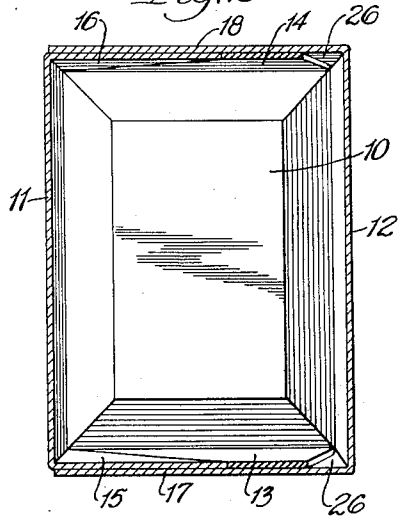


Fig. 2



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LEAKPROOF CARTON

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5 Claims. (Cl. 229—16)

An object of this invention is to provide an improved carton for ice-cream or the like in which the overlapping side flaps are arranged so as to form a substantially leak-proof joint at the points where they are joined.

Another object is to provide such a carton wherein there is a minimum number of thicknesses in the overlapping flaps and wherein these flaps are of uniform thickness throughout so that the stresses thrown on the press during assembling are greatly reduced.

These and other objects, as will hereinafter appear, are accomplished by this invention which is fully described in the following specification and shown in the accompanying drawing, in which

Figure 1 is a vertical section through the assembled and closed carton;

Fig. 2 is a horizontal section on the line 2—2 of Fig. 1; and

Fig. 3 is a plan view of the blank from which the carton is folded.

The embodiment illustrated comprises a carton formed from a blank as shown in Fig. 3, having a bottom 10 having opposing sides 11, 12 formed integral with the bottom but separated therefrom by fold lines. The bottom also has bottom flaps 13, 14, while the side 11 has inner flaps 15, 16 separated therefrom by fold lines, and the side 12 has outer side flaps 17, 18 also separated therefrom by fold lines, the flaps 13, 14 being severed from the flaps 17 and 18 on the lines 19 which stop when they reach the corners of the bottom 10. The side 11 has a cover flap 20, and the side 12 has an overlying flap 21 also separated from their respective sides by fold lines. The outer side flaps 17, 18 have locking flaps 22, 23 which are adapted to overlie and to form an end lock for holding the carton in assembled closed relation.

To fold the blank so as to form a carton the bottom flaps 13, 14 are folded nearly at right-angles to the bottom. The inner flaps 15, 16 are then folded up in the same way and the side 11 folded until it assumes a position a little less than 90° from that of the bottom. The flaps 13, 15 and the flaps 14, 16 are so formed that their adjacent edges meet throughout, as shown in Fig. 1. This is accomplished by making the flap, as 14, triangular by severing it on one side along the line 19, which is fixed by the required shape of the outer flap 18 which defines the end of the package. The other side of the triangular bottom flap 14 is then cut so as to utilize the material of the flaps 14 and 16 to the best advantage, so that when they are folded up and brought into the same plane the adjacent edges of the flaps 14, 16 will meet along a line as shown in Fig. 1 so as to make substantially a leak-proof joint, particularly when it is overlapped by the outer side flap 18. The same is true of the flaps 13, 15 and 17 at the opposite side.

The side folds are then secured in this overlapping position by adhesive and after drying the carton is ready for filling. After filling with ice cream or the like the cover flap 20 is folded down so as to close the top of the container, after which the overlying flap 21 is folded over it and the locking flaps 22, 23 folded over the flaps 20, 21 and locked by inserting the tongue 24 in a locking slot 25 in a well known manner.

This arrangement of the inner side and bottom flaps 16, 14 together with the outer side flap 18 provides an end wall of the carton which is of two thicknesses of material throughout except for the narrow triangular portion 26, Figs. 1 and 2. This has several advantages over the type of carton now commonly used wherein the bottom flap lies between the inner and the outer side flaps, with the result that the lower portion of this end wall is of three thicknesses, whereas the upper portion is of two thicknesses. This throws heavy and unequal strains on the presses used to assemble these cartons, because with cartons of that type very heavy pressure was required to make the carton leak-proof. By using the present invention the end wall consists of substantially two thicknesses throughout which saves much wear and tear on the presses because of the relatively low pressure required to make the carton leak-proof, and provides a carton which stacks better because its end walls are thinner and of uniform thickness throughout.

While I have shown and described but a single embodiment of my invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made which do not depart from the spirit and scope of the invention as disclosed in the appended claims.

I claim:

1. A carton formed from a paper blank and comprising a bottom and opposite side members, the bottom having bottom flaps and the side members having side flaps, the inner side flap and the bottom flap on the same side of the carton lying in the same plane, the outer side flap overlying the inner side flap and the bottom

flap and adhesive securing the outer side flap to the inner side flap and to the bottom flap.

2. A carton formed from a paper blank and comprising a bottom and opposite side members, the bottom having bottom flaps and the side members having side flaps, the inner side flap and the bottom flap on the same side of the carton lying in the same plane and being substantially contiguous throughout the length of their adjacent edges, the outer side flap overlying the inner side flap and the bottom flap and adhesive securing the outer side flaps to the inner side flap and to the bottom flap.

3. A carton formed from a paper blank and comprising a bottom and opposite side members, the bottom having triangular bottom flaps and the side members having side flaps, the inner side flap and the bottom flap on the same side of the carton lying in the same plane, the outer side flap overlying the inner side flap and the bottom flap and adhesive securing the outer side flap to the inner side flap and to the bottom flap.

4. A carton formed from a paper blank and comprising a bottom and opposite side members, the bottom having triangular bottom flaps and the side members having side flaps, the inner side flap and the bottom flap on the same side of the carton lying in the same plane and being substantially contiguous throughout the length of their adjacent edges, the outer side flap overlying the inner side flap and the bottom flap and adhesive securing the outer side flaps to the inner side flap and to the bottom flap.

5. A carton formed from a paper blank and comprising a bottom and opposite side members, the bottom having triangular bottom flaps and the side members having side flaps, the inner side flap and the bottom flap on the same side of the carton lying in the same plane and being substantially contiguous throughout the length of their adjacent edges, the outer side flap overlying the inner side flap and the bottom flap and adhesive securing the outer side flaps to the inner side flap and to the bottom flap, the other side of the triangle being severed from the bottom edge of the outer side flap.

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