

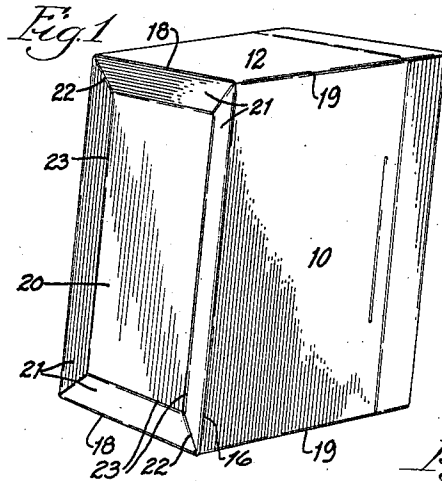
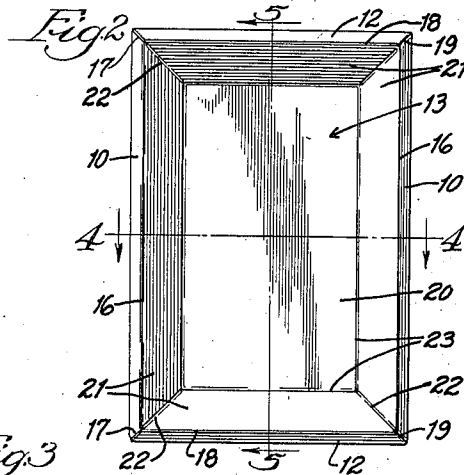
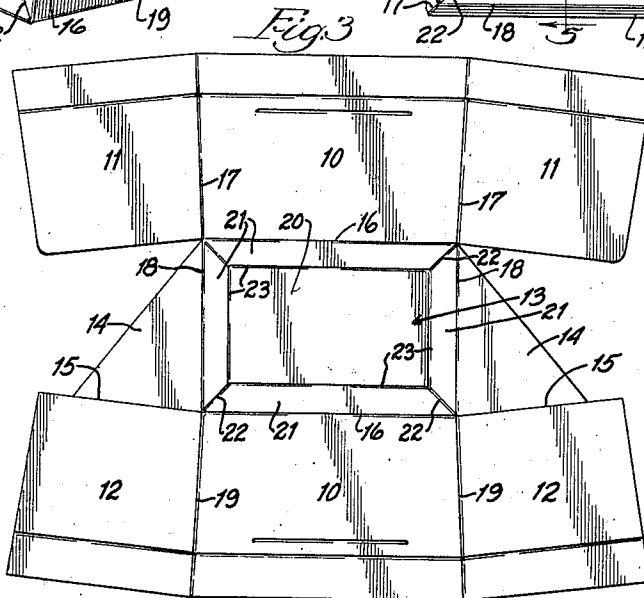
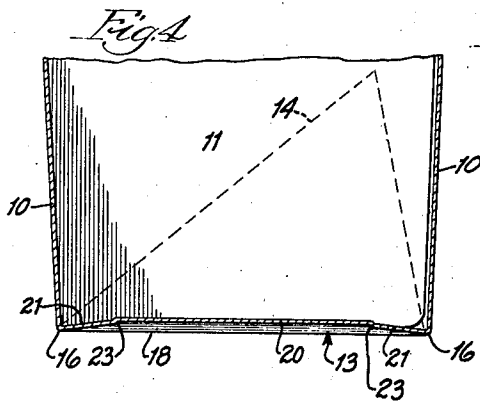
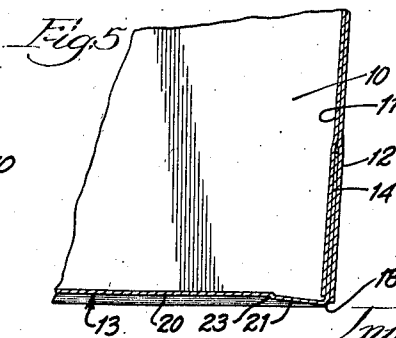
Jan. 2, 1934.

L. KULPINSKI

1,941,843

CARTON

Filed Nov. 30, 1932



Inventor:
Leo Kulpinski.
By *Wm. H. Wm. H.*
Attys.

UNITED STATES PATENT OFFICE

1,941,843

CARTON

Leo Kulpinski, Wausau, Wis., assignor to The
Menasha Products Company, Menasha, Wis.,
a corporation of Wisconsin

Application November 30, 1932
Serial No. 644,929

12 Claims. (Cl. 229—16)

This invention relates to cartons intended particularly as containers for ice cream or other food products, although the features of the present invention may be applied to cartons intended for various purposes and variously constructed.

The present invention is intended to insure the provision of a base, the marginal portions of which will lie in an even plane, and the center portion of which will be slightly elevated so that the carton will rest or stand on its margin, which insures a firm and even support, which is of particular advantage in the case of cartons intended to be filled with ice cream or the like from an automatic filling machine.

In filling operations of this character, it is quite important that the carton stand firmly on its base, and previous experience with similar cartons which lacked the bottom features presently to be described, has shown that such cartons tended to wobble or twist easily, which occasioned difficulty during the filling operation and at the same time resulted in the production of a carton which lacked the necessary stiffness and rigidity in its base to furnish a firm and even support for the filled package.

Further objects and details of the invention will appear from the description thereof in conjunction with the accompanying drawing, wherein,—

Figure 1 is a perspective view of a carton embodying the bottom features of the present invention;

Fig. 2 is a bottom view of the same.

Fig. 3 is a developed view showing the completed carton opened up or laid out to indicate the form of the blank and position of the folding lines;

Fig. 4 is an enlarged sectional view of the base taken on line 4—4 of Fig. 2; and

Fig. 5 is a similar view taken on line 5—5 of Fig. 2.

For purposes of illustration, a carton will be described which is formed from a blank which includes side walls 10—10, which are of generally rectangular formation but slightly divergent from the inner edge outwardly; inner end walls 11—11, outer end walls 12—12; a rectangular base or bottom 13, which in the blank occupies the space between the side walls 10—10; and the triangular tongues 14—14 which extend outwardly from the ends of the base and are cut free from the adjacent outer end walls 12—12 along slits 15.

The blank thus formed is folded into a carton by bending the side walls 10—10 upwardly along folding lines 16—16, after which the inner end walls 11—11 are folded inwardly along folding

lines 17—17. The tongues 14—14 are next folded upwardly along folding lines 18—18 to lie adjacent the inner end walls 11—11, after which the outer end walls 12—12 are folded along folding lines 19—19 to register with the inner end walls 11—11, which brings the tongues 14—14 into interposed relation between the inner and outer end walls.

The carton thus folded is held by gluing applied to the opposed faces of the inner and outer end walls, which results in a carton having side walls and a bottom of single thickness, and end walls of double thickness throughout, and of triple thickness throughout the lower portion of the ends of the carton. This formation also results in a base or bottom which is defined around its entire margin by folding lines, so that no raw edges are exposed along the edge of the base.

The carton thus constructed, and without the special features presently to be described, provides a base which is seldom plane or flat, by reason of the fact that the bending up of the side and end walls has a tendency to slightly bulge the base downwardly, so that it presents a somewhat rounded or outwardly bulged surface which fails to afford the firm contact required in the handling of the cartons by automatic filling machines, and the present invention is designed to improve the base formation so that a firm plane marginal contact is afforded. This result is secured by embossing the base in such a way as to afford a rectangular elevated center panel 20 surrounded by a relatively narrow margin 21, the ends and side of which are separated by diagonal scoring lines 22 extending from the corners of the rectangular center panel to the outer corners of the base.

The material of which the carton is composed—preferably paper board or the like—is distorted or displaced by the embossing operation, so that along the lines of juncture between the panel and the margin, the material is displaced in the form of an abrupt shoulder or offset 23 and affords a margin which preferably extends in oblique relation from the shoulder 23 to the marginal outer bending or folding lines for the side and end walls of the carton. This gives to the marginal folding lines a slightly acute angular formation, and this, in conjunction with the diagonal scoring lines 22 in the corners, serves to stretch or deform the paper stock of the base sufficiently to permanently hold the center panel in elevated relation and afford a marginal base support in a uniform plane, so that the folded margin will possess not only an accurately formed base but one which affords added stiffness to the carton as a whole, by

reason of the permanent deformation of the material in the base of the carton.

The formation also is one which gives to the base the advantage of an arch formation, in which depression of the center is resisted by the surrounding side and end walls of the carton, which, being glued or otherwise permanently secured, are incapable of yielding, so that the margin will permanently retain its base configuration and will better resist bulging of the walls or base incidental to the pressure of the contents of the carton.

The provision of the diagonal corner scoring further assists in permanently deforming the material to the extent necessary to insure rigidity and prevent bulging, and at the same time the elevated bottom, which stands out of contact with any supporting surface save at the edges, affords better insulation against the melting of ice cream or the like, by reducing the area of contact with the table or other surface upon which the package is deposited.

I claim:

1. A carton comprising side and end walls and a bottom, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panel to the corners of the carton.

2. A carton comprising side and end walls and a bottom, all formed from a single blank of material, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panel to the corners of the carton.

3. A carton comprising side and end walls and a bottom, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and extending obliquely downward and outward to the base edges of the carton, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panels to the corners of the carton.

4. A carton comprising side and end walls and a bottom, all formed from a single blank of material, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and extending obliquely downward and outward to the base edges of the carton, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panel to the corners of the carton.

5. A carton comprising side and end walls and a bottom, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and the material at the line of juncture between the margin and the center panel being displaced to afford an abrupt shoulder, and the material, in the corners of the margin being permanently displaced by diagonally extending scoring lines

running from the corners of the inner base panel to the corners of the carton.

6. A carton comprising side and end walls and a bottom, all formed from a single blank of material, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and the material at the line of juncture between the margin and the center panel being displaced to afford an abrupt shoulder, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panel to the corners of the carton.

7. A carton comprising side and end walls and a bottom, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and extending obliquely downward and outward to the base edges of the carton, and the material at the line of juncture between the margin and the center panel being displaced to afford an abrupt shoulder, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panel to the corners of the carton.

8. A carton comprising side and end walls and a bottom, all formed from a single blank of material, the material of the bottom being permanently deformed to afford an elevated center panel and a surrounding margin, the margin furnishing a plane support for the carton, and extending obliquely downward and outward to the base edges of the carton, and the material at the line of juncture between the margin and the center panel being displaced to afford an abrupt shoulder, and the material in the corners of the margin being permanently displaced by diagonally extending scoring lines running from the corners of the inner base panel to the corners of the carton.

9. A rectangular carton comprising a rectangular bottom, flat side walls folded upwardly along folding lines constituting the side edges of the bottom, flat end wall portions folded upwardly along folding lines constituting the end edges of the bottom, and the material of the bottom being permanently deformed to provide an elevated rectangular center panel and a surrounding margin, the marginal portions extending obliquely downwardly and outwardly and making juncture with the flat side walls and the flat end wall portions at acute angles affording marginal support only for the base of the carton.

10. A rectangular carton comprising a rectangular bottom, flat side walls folded upwardly along folding lines constituting the side edges of the bottom, flat end wall portions folded upwardly along folding lines constituting the end edges of the bottom, and the material of the bottom being permanently deformed to provide an elevated rectangular center panel and a surrounding margin, the marginal portions extending obliquely downwardly and outwardly and making juncture with the flat side walls and the flat end wall portions at acute angles affording marginal support only for the base of the carton, and the material being abruptly shouldered along the line of juncture between the margin and the center panel.

11. A carton comprising a bottom, side walls

folded upwardly along folding lines constituting the side edges of the bottom, end wall portions folded upwardly along folding lines constituting the end edges of the bottom, and the material of the bottom being permanently deformed to provide an elevated center panel and a surrounding margin, the marginal portions extending obliquely downwardly and outwardly and making juncture with the side walls and the end wall portions at acute angles affording marginal support only for the base of the carton, and the material in the corners of the panel being displaced by diagonal scoring lines extending from the corners of the panel to the corners of the base of the margin.

12. A carton comprising a bottom, side walls folded upwardly along folding lines constituting the side edges of the bottom, end wall portions

folded upwardly along folding lines constituting the end edges of the bottom, and the material of the bottom, being permanently deformed to provide an elevated center panel and a surrounding margin, the marginal portions extending obliquely downwardly and outwardly and making juncture with the side walls and the end wall portions at acute angles affording marginal support only for the base of the carton, and the material being abruptly shouldered along the line of juncture between the margin and the center panel, and the material in the corners of the panel being displaced by diagonal scoring lines extending from the corners of the panel to the corners of the base of the margin.

LEO KULPINSKI.

20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
	150