United States Patent

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[54] **QUICKLY ERECTED SCOOP-TYPE CARTON**
6 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** ..... **229/16 B,** 229/1.5 B, 229/41 B, 229/41 D
[51] **Int. Cl.** **B65d 5/36**
[50] **Field of Search** ..... 229/21, 1.5 B, 16 R, 41 R, 41 B, 41 C, 41 D; 294/55

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ABSTRACT: A box for quick erection in the shape of a scoop made with application of glue in parallel strips parallel to the blank edges and with an arcuate bottom having curved score lines and tapered sides to the box in assembled form.

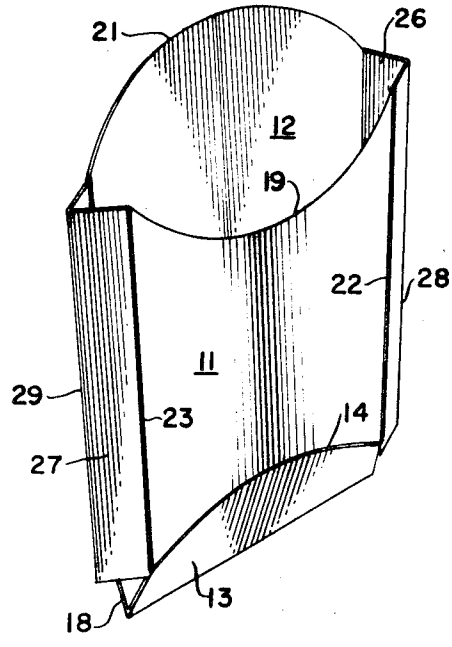


FIG. 1.

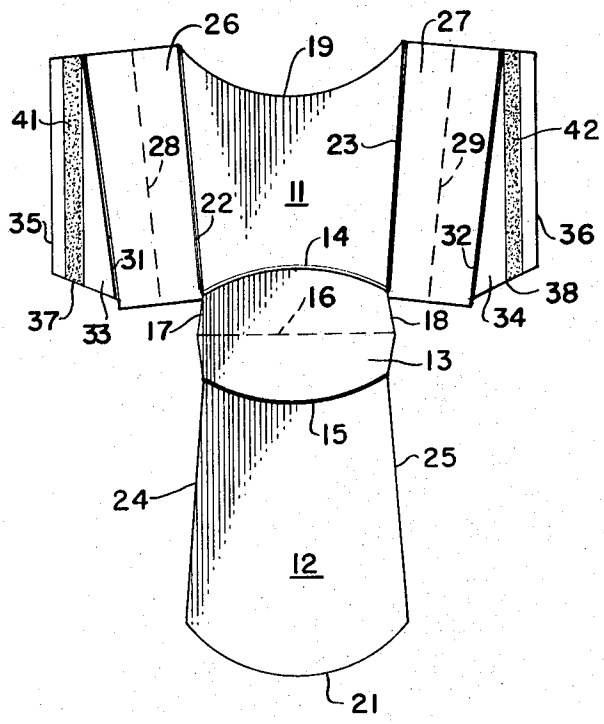


FIG. 2.

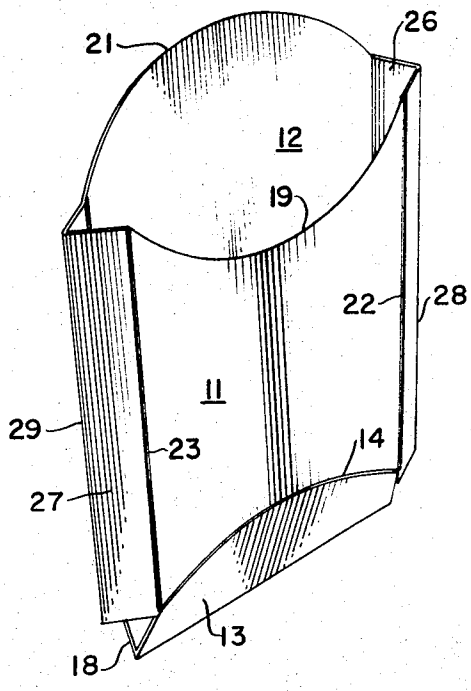


FIG. 3.

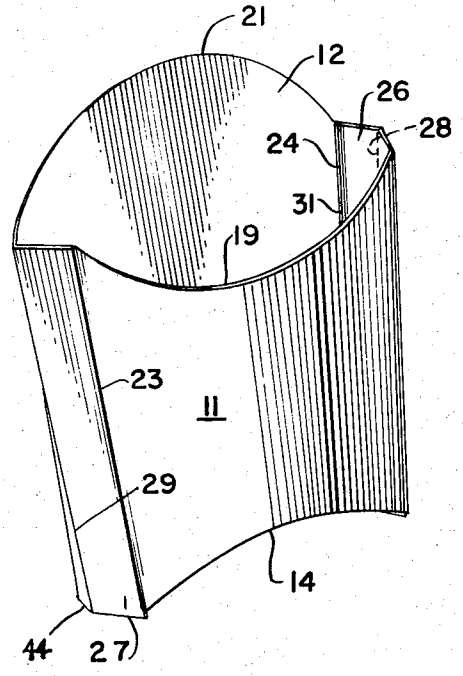
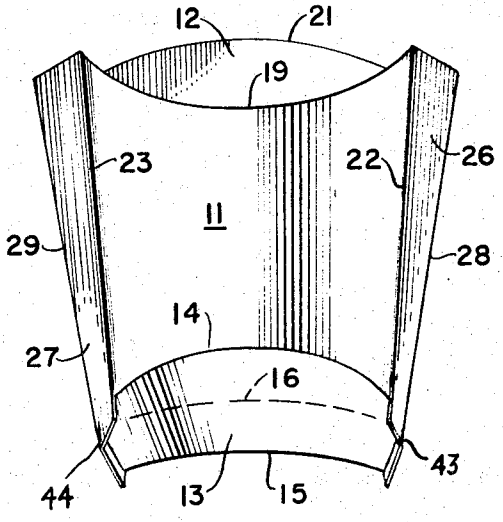


FIG. 4.



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QUICKLY ERECTED SCOOP-TYPE CARTON

BACKGROUND OF THE INVENTION

The present invention relates to cartons, and more particularly to folding cartons of the type including scored fold lines on the end and bottom wall panels so that they may be expanded readily from flat to setup position.

In restaurants, especially of the carryout type there is a need for open end cartons that can be simply and inexpensively manufactured and then can be stored in flattened condition until ready for use. These cartons must then be able to be assembled with the very minimum of effort and time and then serve a dual purpose of scooping up the items and then holding these items until they are consumed.

Such a food item for which the carton of the present invention is most useful is in the serving of french fried potatoes. It has been found most desirable if such a carton could be picked up and be assembled merely by the use of one hand and immediately be used to scoop up the food item and be handed to the customer without further effort or utensils being used.

Since the food item would of course be spilled and wasted if the box should collapse while being used by the customer it was important that although the carton be easy to assemble, the assembled carton must positively hold its shape and not tend to reassume its flattened position.

Therefore, the present invention is a carton which has the combined attributes of inexpensive manufacture, quick and easy opening into a positive locked assembled carton, and shaped for scooping.

SUMMARY OF THE INVENTION

The present invention is directed to a carton blank having parallel edges along which parallel lines of glue are applied, and arcuate bottom formed by curved score lines, glue flaps each with a sharply beveled edge to accommodate the curved score lines, and the end panels shaped for scoop and receiving tray construction.

The present invention is also directed to the carton formed from said blank forming a scoop flap with one end panel and inwardly bowed bottom having edges contoured to the side panels by score lines and free edges contoured to the end wall panels.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates the blank of the carton in accordance with the present invention;

FIG. 2 shows the blank of FIG. 1 assembled and in a partially expanded condition;

FIG. 3 is a perspective view of the carton of FIG. 2 in setup condition ready for the scooping and insertion of a product therein; and

FIG. 4 is another perspective view of the carton of FIG. 3 in setup condition, as seen from a side-bottom view.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring first to FIG. 1 the carton blank there illustrated includes a pair of sidewall panels **11** and **12** each having a shorter edge attached to opposite sides of a bottom panel **13** along arcuate score lines **14** and **15** respectively. Bottom panel **13** is bisected by score line **16**, and the edges **17**, **18** of bottom panel **13** which are not connected to side panels **11** and **12** are formed as inwardly sloping from the bisecting score line **16** toward, and connected to the ends of, arcuate score lines **14** and **15**.

Arcuate score lines **14** and **15** are curved so as to produce concave edges on side panels **11** and **12** respectively. The opposite edge of sidewall panel **11** is also inwardly curved to form a concave edge **19** to that panel. The form of sidewall panel **12** differs in that its opposite edge is curved outwardly to form a convex edge **21**. Sidewall panel **11** has score lines **22** and **23** extending laterally and outwardly tapering between arcuate score line **14** and concavely curved edge **19**. Sidewall

panel **12** also has outwardly tapering edges **24** and **25** extending from arcuate score line **15** to the ends of convex edge **21**. End wall panels **26** and **27** extend laterally along score lines **22** and **23** respectively and are thereby connected to sidewall panel **11**. End wall panels **26** and **27** are each bisected by a score line **28** and **29** respectively. Along their opposite lateral edges at score lines **31** and **32** respectively are attached glue flaps **33** and **34** respectively. Glue flaps **33** and **34** have outer free edges **35** and **36** respectively which are parallel to each other and which have their bottom edges **37** and **38** respectively forming a beveled edge between the outer free edges **35** and **36** and score lines **31** and **32** respectively. This beveled shape is of a sufficient angle to exceed the angle of the arcuate edge **15** so as not to extend below that arcuate edge when the carton is in a glued, and either folded or extended position.

Glue lines **41** and **42** are substantially parallel to each other and to outer free edges **35** and **36** respectively of glue flaps **33** and **34** since parallel application of glue on such a blank is much easier, requiring simpler gluing machinery using the technique and equipment customarily used in the folding carton industry.

End wall panels **26** and **27** extend below the intersections of score lines **22** and **23** respectively with score line **14**, so as to form legs **43** and **44** respectively which are used to support the erected carton in an upright position.

In order to better illustrate the folded flap position of a carton of the present invention, FIG. **2** shows the carton in a partially folded position. This carton which is easily formed by conventional folding machinery has been formed by first folding the carton blank along score line **16** and after applying glue lines **41** and **42**, then folding the blank along score lines **28** and **29**, thereby forming the carton in its closed and flattened position. In this position score lines **22** and **23** lies substantially parallel and immediately adjacent to score lines **31** and **32**, respectively.

When the carton is to be used it will be shaped to its useful form as shown in FIGS. **3** and **4**. This is easily accomplished by pressing with the fingers along score lines **28**, **29** and **16**. Due to the arcuate score lines **14** and **15** along bottom panel **13** the carton will be formed in a positive manner so as not to return to a flattened position and thereby spill the contents therein.

It will be noted as clearly illustrated in FIG. **4** that the end panels are tapered outwardly due to the tapered form of the respective edges **22**, **23**, **24** and **25** of end wall panels **11** and **12**. This outward taper in cooperation with the convex edge **21** of sidewall panel **12** and concave edge **19** of sidewall panel **11** form a scoop allowing better use of the carton of the present invention. By having this scoop formed in the manner shown, the carton in its use at food carryout shops allows the scooping up of a serving of french fries or the like without the use of additional utensils to fill the carton, speeding the operation since only one hand is needed for both the forming of the carton and the scooping of the food product into it. Since the picking up of a serving is so easily accomplished such foods may remain in their respective pot or pan and thus be kept hot until immediately before serving to the customer. The positive action keeping the carton open through its use of arcuate score lines allows use of the carton in carryout food shops with less chance of spilling of the contents and easier handling of the carton while eating and consuming its contents. In addition, the convex versus concave shapes in cooperation with each other and the tapered end panels eases the scooping action by providing a wide mouth end for picking up and serving of the food product.

It will be apparent that modifications in accordance with the present invention can be made by those skilled in the art without departing from the spirit thereof and it is equally apparent that the assembly involving the application of glue and folding of the carton blank may be rearranged in the order of accomplishing these steps without departing from the scope of the invention.

It will be obvious to those skilled in the art that various changes may be made without departing from the scope of the

invention and the invention is not to be considered limited to what is shown in the drawings and described in the specification.

What is claimed is:

1. A carton formed from a single blank of foldable paperboard comprising

a bottom panel having arcuate scored edges and bisected by a score line,

a pair of sidewall panels, each hingedly connected by one of said arcuate scored edges to said bottom panel,

a pair of end wall panels hingedly attached to opposite lateral edges of one of said sidewall panels by score lines tapering outwardly from said bottom panel connection,

and a glue flap hingedly attached to each of said end wall panels opposite said tapering score line by a score line substantially parallel to said tapering score line when the carton is in folded flattened condition but tapering outwardly from said tapering score line and upwardly from the bottom of said end wall panel in other than flattened condition

whereby said glue flaps overlap the other of said pair of sidewall panels when in a folded and glued position.

2. The carton of claim 1, further characterized by

said bottom panel having opposite free edges inclined inward from their intersection with said score line bisecting said bottom panel to their intersection with said arcuate scored edges.

3. The carton of claim 1, further characterized by

said pair of sidewall panels each having an outer free edge opposite said arcuate scored edge,

one of said free edges having an arcuate concave shape and the other of said free edges having an arcuate convex shape.

4. The carton of claim 1 further characterized by

each of said end wall panels bisected by a score line from top to bottom.

5. The carton of claim 1, further characterized by

said glue flaps each having a beveled edge extending from said score line attaching each said flap to its adjacent end wall panel, to the outer free edge of said glue flap,

said beveled edge having a bevel thereto extending said edge above the arcuate score line of said overlapped sidewall panel.

6. The carton of claim 1, further characterized by

each of said end wall panels extending below said bottom panel when the carton is in erected position, forming legs below said bottom panel.

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