June 11, 1929. C. E. PHILLIPS 1,716,975

COLLAPSIBLE BOX

Filed March 5, 1928

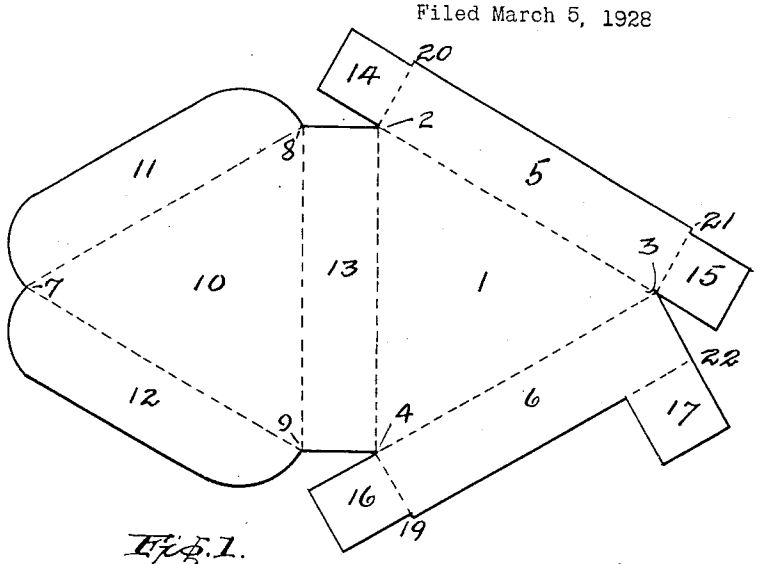


Fig. 1.

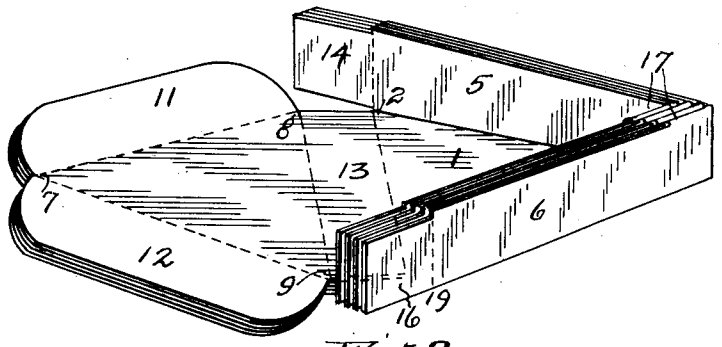


Fig. 2.

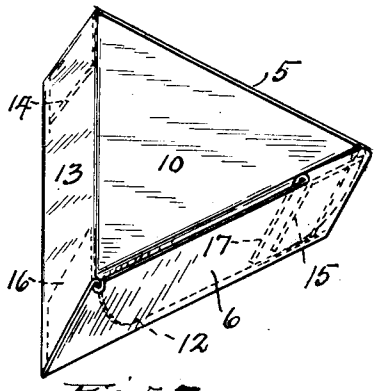


Fig. 3.

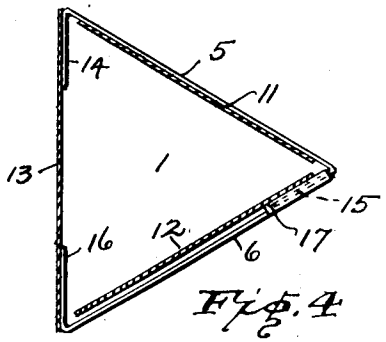


Fig. 4.

Inventor,
Charles E. Phillips,
By Minturn & Minturn
Attorneys.

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UNITED STATES PATENT OFFICE.

CHARLES E. PHILLIPS, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO HARRY B. MAHAN COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

COLLAPSIBLE BOX.

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The object of this invention is to form a collapsible box or carton from a single flat sheet of card board, and of a triangular shape to receive a piece of pie which is the segment of a circle, or the like, for temporary storage and transportation.

A further object is to provide such a carton which can be partially made up and the piece of pie placed in final position on the box bottom before the top and end members are closed, to avoid injury to the icing and crust of the pie, and also to adapt such partially made up cartons to convenient nesting whereby a quantity of them may occupy a comparatively small space within convenient location for filling.

Another object is to provide a carton which readily unfolds and in that condition forms a good lap protector or guard to receive and hold crumbs while the pie is being eaten.

I accomplish the above and other objects which will hereinafter appear, by the means illustrated in the accompanying drawing, in which—

Fig. 1 is a plan view of a blank from which the carton shown in Fig. 3, is formed.

Fig. 2, is a perspective view of a number of cartons in partly folded condition, nested and ready to receive the contents.

Fig. 3 is a perspective view of a completely folded carton embodying my invention, and Fig. 4 is a horizontal section taken just below the carton lid showing the manner in which the carton is folded.

Like characters of reference indicate like parts in the several views of the drawing.

The shape of the card board blank is shown by full lines in Fig. 1, and the score-lines on which the material is folded are shown by dotted lines. The bottom member 1 of the carton is triangular in shape as outlined by the score-lines 2—3, 2—4 and 3—4. The three sides of the carton are designated by the numbers 5, 6 and 13, and are defined from the bottom 1 by the respective score-lines above noted. The sides 5 and 6 have the tongue extensions 14 and 16, respectively, next to the side 13 to fold inwardly of the side 12 and close the corners between the sides at their respective places. At the opposite end of side 5 is a tongue 15, in alinement with that side, and at the adjacent end of the side 6 is a tongue 17, extending laterally of the side 6 and adapted to fold within the carton, with the tongue 15 between it and the side 6. The tongues 14, 15 and 16, are slightly narrower than their sides thereby forming shoulders 19, 20 and 21, and the tongues are narrowed to avoid interference with adjacent members of the folded carton. Score lines 19, 20 and 21, insure the bending of the tongues at the proper places.

A carton top 10 is separated from the side 13 by a score 8—9. The top 10 is defined by the three score-lines 7—7, 7—9 and 8—9, and it is substantially of the same size as the bottom 1.

The top 10 has side reenforcing flanges 11 and 12, which fold on the score-lines 7—8 and 7—9, inwardly of and close to the sides 5 and 6, as shown in Figs. 3 and 4. The ends of the flanges are curved as shown to make their insertion easier in closing the carton.

In using my improved carton the sides 5 and 6 are folded up at right angles with the bottom 1, on their respective score lines, with the tongue 15 folded under the tongue 17. It is then in position to receive a piece of pie. As many cartons as desired may be nested in a compact and convenient manner as shown in Fig. 2 where four cartons are nested. The segment of pie is deposited upon the top carton on its bottom 1, with a sliding movement, through the open side above the member 13, without injury to the icing or crust of the pie; then the ears 14 and 16 are bent inwardly and the side 13 is folded up against the ears. At the same time the top 10 is swung up toward position over the bottom 1, and the flanges 11 and 12 are bent to position at right angles with the top and as the top is closed upon the sides 5 and 6, the flanges 11 and 12 are inserted in the carton against the inner sides of the members 5 and 6.

By a reverse operation the carton is opened and access is had to its contents, and all of the bent members are flattened out and the resulting product is used as a lap cover or guard to protect the lap from broken pieces of the pie while the pie is being eaten.

While I have here shown the preferred form of my invention it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the matter herein claimed.

I claim:

1. A collapsible box formed from a unitary blank and comprising a bottom member triangular in shape, a side member for each of the three sides of the bottom defined therefrom by score lines on which the sides are folded, a pair of said sides having tongue extensions on their ends adjacent to the third side, one of said pair of sides having a second tongue extension at its other end from its first tongue folded against the inside of the other member of the pair, and the other member of the pair of sides having a laterally extending tongue which is folded over the last tongue, a triangular top member separated from the third side by a score-line, and flanges one for each of the two remaining sides of the top hinged on score-lines to the top member and adapted to be folded inside of the closed carton.

2. A collapsible box formed from a unitary blank and comprising triangular shaped top and bottom members, flanges extending longitudinally of two sides of the top separable therefrom by score lines and curved at their ends, a box side connecting the top and bottom defined therefrom by score lines on which the members hinge, a pair of box sides connected with the bottom and defined therefrom by score lines on which the sides hinge, a tongue extension on one of the sides of said pair defined by a score line on which the tongue folds in against the inside of the other member of the pair, a tongue extension laterally of the last member of the pair defined by a score line on which the tongue folds in and down around the first tongue, and tongue extensions on the other ends of both of said pair of box sides defined by score lines on which the tongues fold in toward each other inside of the box side of the closed box.

In testimony whereof I affix my signature.

CHARLES E. PHILLIPS.