

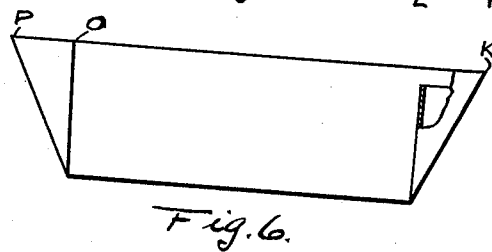
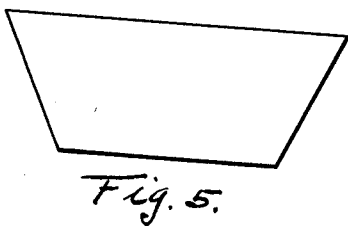
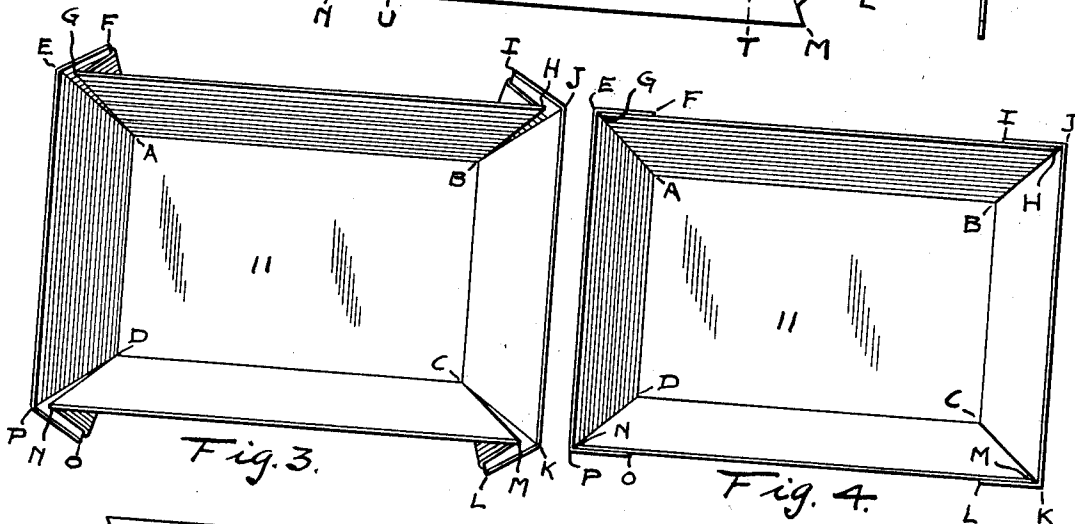
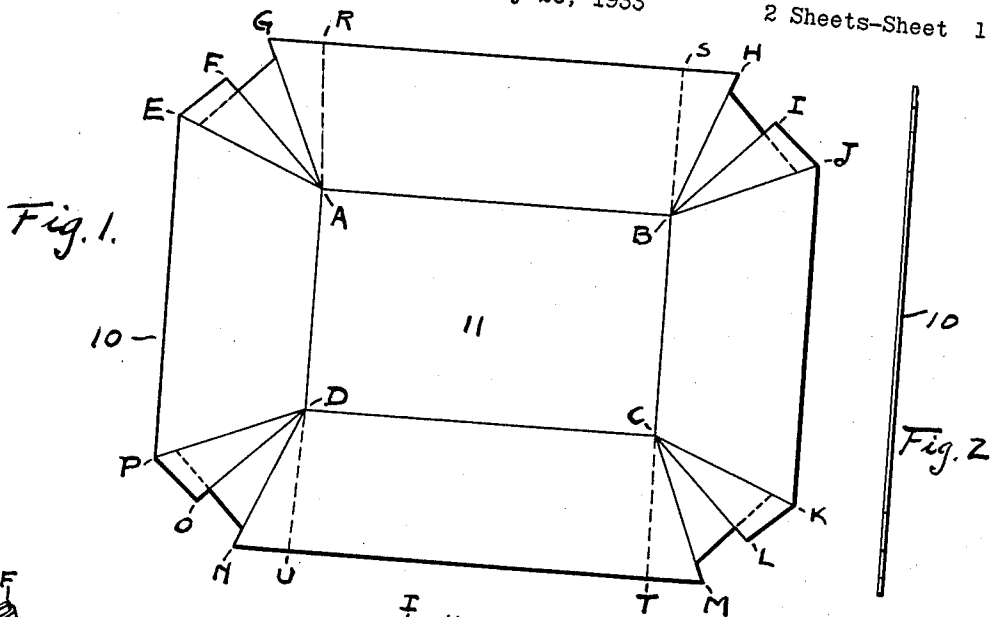
May 22, 1934.

J. H. CARSON
FORMED CONTAINER

1,959,613

Filed May 26, 1933

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 8.

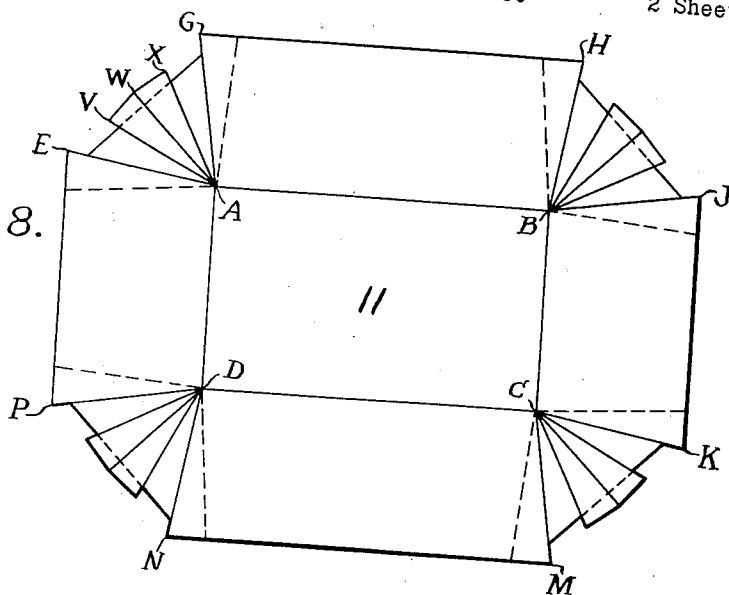


Fig. 9.

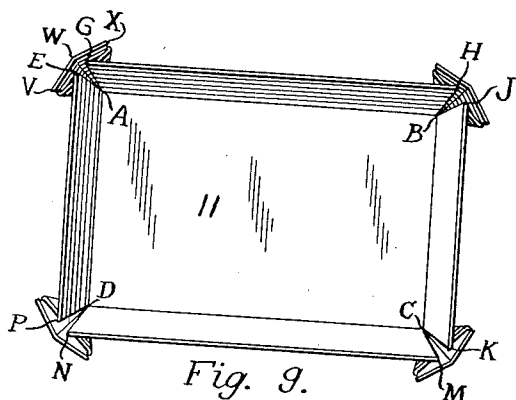


Fig. 10.

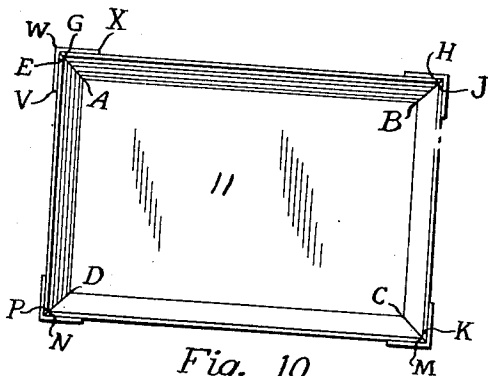
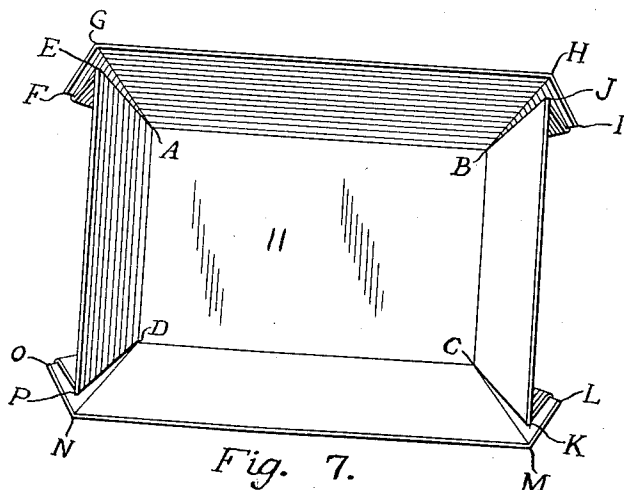


Fig. 7.



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UNITED STATES PATENT OFFICE

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FORMED CONTAINER

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5 Claims. (Cl. 229—31)

This invention relates to the art of dishes and particularly to a dish formed into shape from a material such as paper, fiber board, and the like, where the dish is first cut out in blank form and then folded to bring it to the desired shape.

A primary advantage of my invention is that the dish is formed by a bellows fold at each corner whereby leakage is prevented. A further important advantage of the invention is that there are no inside exposed folds under which liquids may flow and the entire inner or upper surface of the finished dish prevents continuous smooth surfaces. A still further important advantage of my invention is that the upper surface may be waxed or paraffined without interfering with the forming of tight corners and without the necessity of using staples.

Further advantages are that the device may be produced very rapidly at a low cost and at the same time provide a more serviceable, durable, and more sightly product. These and other objects and advantages will become apparent to those skilled in the art in the following description of one particular form of the invention, in which

Fig. 1 is a top plan view of a blank cut and scored prior to being formed;

Fig. 2, an end elevation;

Fig. 3, a top plan view of the dish partly formed;

Fig. 4, a top plan view of the finished dish;

Fig. 5, an end elevation;

Fig. 6, a fragmentary side elevation;

Fig. 7, a top plan view of a dish with the folds turned in the opposite direction to those in Fig. 3;

Fig. 8, a top plan view of a blank for a modified form of container;

Fig. 9, a top plan view of a modified container partly formed; and

Fig. 10, a top plan view of the finished container.

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

Referring first to the form shown in Figs. 1-6, I form a blank generally indicated by the numeral 10 to have a bottom portion defined by the score lines AB, BC, CD, and DA. From each of the corners of this bottom section designated by the numeral 11 extend diagonal score lines AE, AF and AG from the corner A; BH, BI, and BJ from the corner B; CK, CL, and CM from the corner C; and DN, DO, and DP from the corner D. The lines from each corner are similarly placed.

Each outer corner of the blank is cut off diagonally and further cut back with a notch between the lines AF and FG, BH and BI, CL and

CM, and DN and DO. The upper surface of the blank 10 is coated with some water proofing material such as paraffin over the entire surface thereof with the exception of those surfaces beyond the dash lines in each of the triangles AEF, BIJ, EKL, and DOP, these dash lines being continuations of the lines across the inner ends of the notches cut out of the adjacent triangular sections formed by the score lines. The underside of the blank 10 is given a coating of an adhesive over the surface only immediately below the score line AG and the line AR as indicated by dash lines, a score line BH and the line BS indicated by dash lines, a score line CM and over to a line CT indicated by dash lines, and the score line DN back to a line DU indicated by dash lines.

The blank is then ready to be formed into shape by folding it on the various score lines to bring it into some such shape as indicated in Fig. 3 wherein those parts of the blank AGHB and CMND form opposite sides, with the portions AEPD and BJKC forming opposite ends. The intervening portions are folded and turned around against the sides as suggested in Fig. 3 following which, the parts are further compressed against the sides to bring the under sides of the portions lying between the score lines AF and AG, BH and BI, CL and CM, and DN and DO, around and against the adhesive on the then outer sides of the respective side members of the dish. These portions being presented against the adhesive, by reason of the notches having been cut out, terminate below the top edges of the sides of the dish so that the then upper ends of the portions between the score lines AR and AF, BI and BJ, CK and CL, and DO and DP, which are above the dash lines and are not paraffined or waxed project above the portions then against the adhesive. These upwardly extending portions are pressed on over the upper ends of the underlying members to be pressed against the adhesive so as to tie in the ends of the dish firmly and to leave a smooth finished appearance.

It is thus to be seen that by placing the adhesive along the outer ends of the respective side members, and by leaving the outer ends of the indicated folding lap members unwaxed, the fold is held tightly together without having to provide adhesive on the upper or inner side of the dish at any point. Furthermore by providing the notches as above indicated in certain portions of the bellows folds, the adhesive unites not only the adjacent portions of the folds with the respective

sides of the dish but also catches the outer portions of the folds adjacent those portions directly in contact with the dish sides by reason of such outer portions having the short lengths overlapping the then underlying portions to come into contact through the adhesive with the dish sides. Not only is this fact true, but a much neater appearance is obtained since the top ends of the folds present but a single thickness along the edges of the sides since the underlying portion is covered over.

In the foregoing description, the invention has been described as having the bellows folds turned around on the dish or container sides. It is obvious, as illustrated in Fig. 7, that these folds may just as well be turned around against the ends, the notches, however, in this case, are cut from the upper ends of the fold sections EFA, IJB, CLK, and PDO instead of from the adjacent sections as above indicated. It is to be noted that the notches in either case are cut from those fold sections adjoining the side or end to be folded against. Therefore, the terms "end" and "side" of the dish or container are merely relative and interchangeable and are not used in a limiting sense in the claims hereinafter set out, since from one viewpoint a "side" may be an end, and from another viewpoint, an "end" may be a side.

Referring to Figs. 8, 9 and 10, a container is indicated wherein there is a double bellows fold at each corner, which construction affords greater contacting area for the adhesive which secures the folds against the sides and ends. This type of corner is particularly advantageous in deep containers such as may be employed to hold berries and the like.

In Fig. 8 is shown a blank cut and scored preparatory to being folded to the shape indicated in Fig. 9. In this blank the base of the container remains the same as in the first described form being bounded by the lines AB, BC, CD, and DA. The chief distinction between this form and the first described form is found in the cutting and scoring of the corner portions. In this modified form the lines AE and DP form score lines defining one end, while the lines BJ and CK define score lines bounding the sides of the other end. Similarly the lines AG and BH are formed as score lines to define one side, while the lines DN and CM as score lines define the other side.

Between each set of these score lines thus defined meeting at the junction of the lower adjacent corners of a side and an end of the container, are the three score lines AV, AW and AX. The triangular sections thus defined by these score lines are brought one against the other as indicated in Fig. 9 as the sides and ends of the container are bent upwardly from the base 11. Notches are cut down from the top in those sections immediately adjacent the container end and the container side respectively so that the upper ends of the triangular sections AVW and AWX have ends projecting upwardly beyond those adjacent sections as indicated by those portions above the dash lines, which projecting ends are the ones that are not waxed over so that they may be brought up against the respective end and side of the container to be adhesively united thereto. The edges of the sides and ends of the container are thus brought together in abutment with the triangular section AXG folded around against the side, the triangular section AWX around on top of the section AXG, the section AEV around against the container end and the section AVW around on top of the section AEV,

to have the line AW come up to coincide with the line between the abutting end and container. The other corners of the container are formed in the same manner, the finished container having the appearance as shown in Fig. 10 when viewed from the top.

While I have herein shown and described my invention in the one form as now best known to me, it is obvious that structural variations may be had without departing from the spirit of the invention and I therefore do not desire to be limited to that precise form beyond the limitations as may be imposed by the following claims.

I claim:

1. A container formed by folding from a blank comprising a bottom, upturned sides and ends, and integral bellows-folds interconnecting said sides and ends, all of said folds extending around from said ends to lap over on the outer sides of said sides and being secured thereto by an adhesive between portions of said folds and said sides, said folds each comprising two triangular portions of said blank having their apices meeting at a common point which is a corner of the bottom of the dish, said portions being defined by score lines radiating from said point, the one of said portions adjacent the dish side in each fold being shorter than the other portion therein, whereby the said other portion overlaps the under portion and is adhesively engaged directly with the dish side.

2. A container comprising a bottom, sides and ends, integral bellows folds interconnecting the sides and ends, said folds each comprising a pair of triangularly spaced portions having their apices meeting at a point coinciding with the intersection of a side and an end with the bottom of the dish, each of said portions being united along a fold line with a respective dish side and end and uniting along a common intervening fold line, said portions being brought into juxtaposition by hinging on the fold lines at the dish side and end and further turned around against the dish side to have said intervening fold line carried back from the dish end along the dish side, the portion juxtaposed with the dish side having a cut-away to expose the dish side therethrough, and the other of said portions being in contact with the dish side through said cut-away, and means securing said other portion through said cut-away to said dish side.

3. For a container, a blank of foldable material octagonally shaped and having score lines defining a central bottom with contiguous sides and ends for the dish, and intervening diagonal fold lines between the sides and ends, and having certain areas of the material between adjacent fold lines cut-away and having other areas adhesively united with each other through said cut-away areas, said blank being coated to have a waterproof surface to leave uncoated areas to permit adhesive action between adjacent fold lines on those parts of the material adjacent said cut-away areas.

4. A container comprising a bottom, upturned sides, and integral bellows folds interconnecting the sides having the portions between the folds lapped one over the other against the sides, the upper ends of the inner underlapping portions being removed to have the upper ends of the outer portions in direct contact with the sides to which said contacting portions are adhesively united through the removed portions.

5. A container comprising a bottom, upturned sides, and integral bellows folds interconnecting

the sides having the portions between the folds lapped one over the other against the sides, the upper ends of the inner underlapping portions being removed to have the upper ends of the outer portions in direct contact with the sides and adhesively united therewith through the removed

portions, said folds being arranged to have a pair of portions between folds lapped around on one side and a pair of portions between other folds lapped around on the adjacent side.

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