April 29, 1941. D. E. MACKENZIE 2,240,045

CONTAINER

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FIG. 1

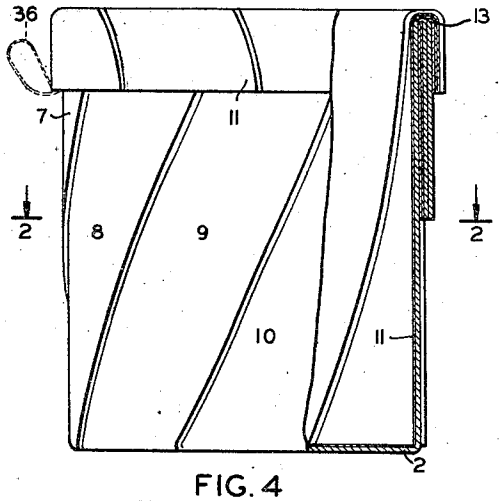


FIG. 2

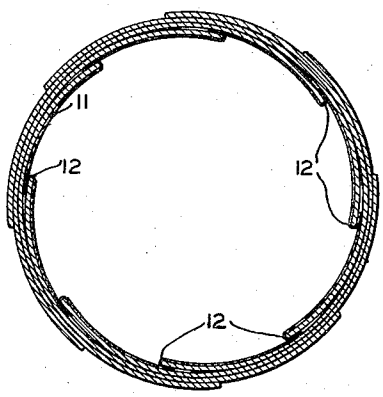


FIG. 4

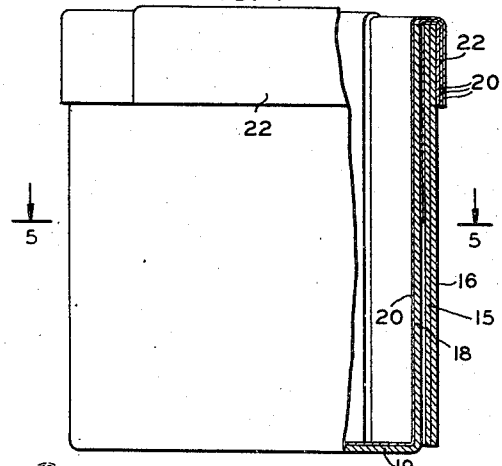


FIG. 5

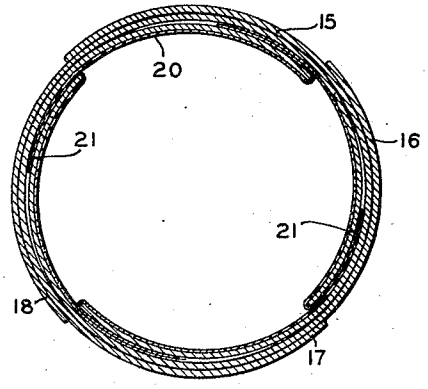


FIG. 7

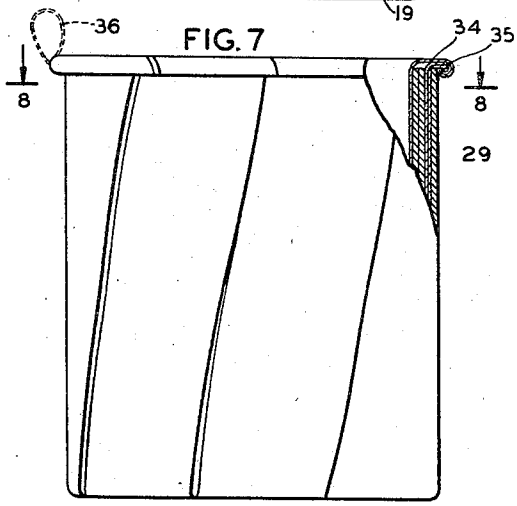
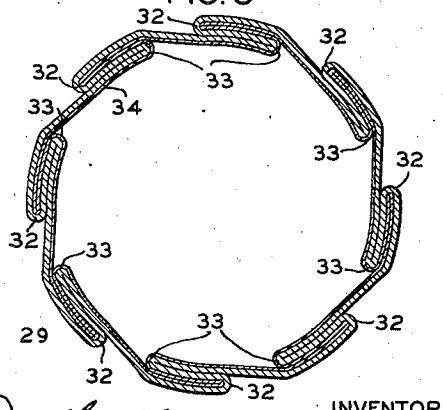


FIG. 8



Dorothy Elsie Mackenzie
INVENTOR

BY James N. Curtin
ATTORNEY

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FIG. 3

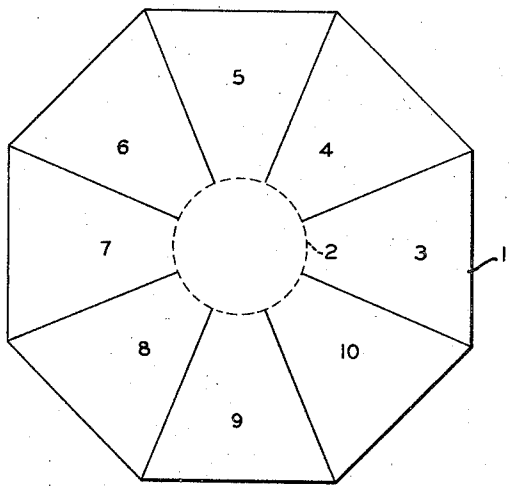


FIG. 6

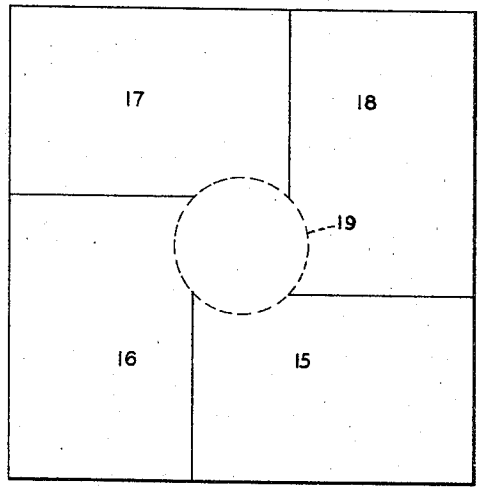
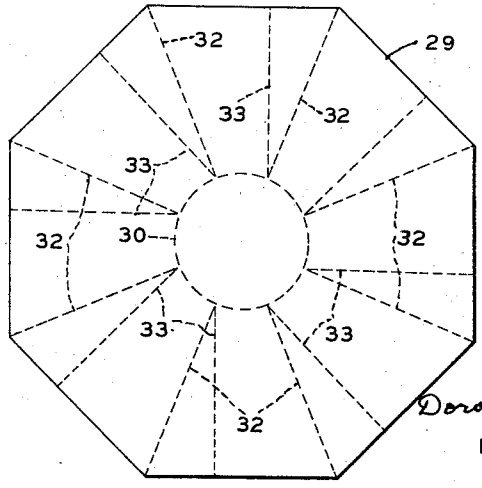


FIG. 9



INVENTOR

Dorothy Elsie Mackenzie

BY James N. Curtin

ATTORNEY

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UNITED STATES PATENT OFFICE

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CONTAINER

Dorothy Elsie Mackenzie, Brooklyn, N. Y.

Application November 19, 1936, Serial No. 111,604

5 Claims. (Cl. 229—14)

This invention relates to a container.

An object of the invention is to provide an inexpensive container for foodstuffs, and beverages which will not impart a foreign taste to its contents.

Another object of this invention is to provide a container suitable for holding oils and greasy substances.

Still another object is the provision of a low priced container suitable for soda fountain use.

A further object is the provision of a container which may be readily converted into a dinner plate.

Known containers are usually made from paper or card-board, waxed or treated in various ways for the purpose of waterproofing the container, and in some cases wax is also used to act as a stiffening and supporting agent for thin materials.

Such containers invariably impart a cardboard taste to their contents, regardless of temperature, and the taste is particularly noticeable when the containers are used for hot beverages.

It has been found that when ordinary containers are used for a salad, such as chicken salad or any food substance containing an oil or grease, the container quickly becomes saturated with oil which dissolves the protective coating, and the contents thereafter have a distinctive container taste.

It has been proposed to use the cellulose product now widely known as Cellophane for the purpose of lining containers, but thus far the results from efforts in this direction have been unsatisfactory owing to the difficulty of manipulating thin sheets of Cellophane, and when seams or splices are made in this material, they lack the strength and insoluble qualities of Cellophane. Furthermore a container lining of thin Cellophane made according to the usual practice, will not retain its shape and size as will waxed paper linings.

Accordingly, the present invention has for an object the provision of a low-priced container having a seamless lining of Cellophane or other thin material, suitably supported so that the lining will retain its shape.

It will be understood that when Cellophane is referred to hereinafter, that Cellophane or any other material suitable for lining purposes will be meant.

Other objects will appear in the following description given with the aid of the accompanying drawings of which

Figure 1 is an elevation of a container, partly in section, having a shell formed from eight members.

Figure 2 is a horizontal section taken through 2—2 of Figure 1.

Figure 3 is a plan view of the shell for the container shown in Figure 1 before folding, at a reduced scale.

Figure 4 is an elevation of a container, partly in section, having a shell formed from four members.

Figure 5 is a horizontal section taken through 5—5 of Figure 4.

Figure 6 is a plan view at a reduced scale of the shell for the container shown in Figure 4 before folding.

Figure 7 is an elevation, partly in section, of a container formed without cutting, from a pattern such as shown in Figure 9.

Figure 8 is a horizontal section taken through 8—8 of Figure 7.

Figure 9 is a plan view on a reduced scale of the sides of the container shown in Figure 7 as it appears before folding.

The invention will now be described with the aid of the accompanying drawings.

Figure 3 shows an octagonal-shaped piece of cardboard or other suitable material 1 having a circular base section at the center, indicated by dotted line 2, from which a series of regular wings or blades 3 to 10 is formed by cuts which radiate from line 2 to the corners of the octagon.

In constructing this modification of the invention, a sheet of Cellophane or other lining material, octagonal in shape but larger than the cardboard, indicated in Figures 1 and 2 by reference character 11, is placed over the cardboard, so that the latter is centered in respect to the lining material. It is preferred that the lining material be cemented to corresponding parts of the respective blades or wings 3 to 10 formed by the cuts in the cardboard at some place off-center, thus leaving the Cellophane unattached to the opposite half of the wing. This cementing is largely used to aid in retaining the parts in position during a subsequent folding operation as the structure is such when completed that no cement is required to make the respective parts keep their shape.

The cardboard and Cellophane are then folded about a suitable mandrel, with the successive wings 3 to 10 overlapping each other, forming regular folds 12 of Cellophane which are caught between the overlapping edges of the shell formed by the wings.

Since the Cellophane octagon was larger than the cardboard, edges of the lining will extend beyond the tops of the wings and this edge is folded over the outside of the vessel at 13, and secured thereby any suitable means, such as by cement, rolling or by a suitable annular strip, or by combinations of these, thus forming a container or cup from which it is possible to drink without the lips coming in contact with the cardboard exterior. Obviously, a low grade of untreated cardboard, or other suitable material could be used to form the outside of the shell as there is no way for the contents of the container to come in contact with the shell or with any cement preparation. Furthermore, the shell material may be quite thin, and not necessarily very strong, as one layer of the material reinforces the others.

Figures 4, 5, and 6 show a modification in which the outer shell is formed by four wings 15 to 18, which are divided by cuts extending outwardly from a central portion 19 which forms the base of the container, to the edges of a square. In this embodiment a square of Cellophane is superimposed on the cardboard square, the Cellophane square being the larger, and after being cemented together in desired places, the arms and the lining material, indicated generally in the drawings by reference character 20, are folded upward and curved about a suitable form so that the respective wings overlap each other retaining tucks 21 of Cellophane 20 between the wings. As in the case with Figure 1, the excess of lining material is folded over on the outside of the cup forming an outside rim 22 of lining material which may be held in position by any desired method.

Figures 7, 8, and 9 show still another modification of the invention, differing from the others in that the shell material is not cut but folded together with the lining material following the entire surface of the folds.

Figure 9 shows an octagonal shaped piece of cardboard 29 with the center or base portion indicated by the reference character 30, from which radiate a series of dotted lines 32 regularly spaced and extending to the corners of the piece, while a second series of regularly spaced dotted lines extend to the perimeter of the octagon, in the present embodiment, they are shown as intersecting the faces at a point off center. The dotted lines indicate the places where the cardboard 29 and a larger, similarly shaped, piece of lining material 34 superimposed thereon and secured thereto by suitable means, are to be folded.

As in the previous cases piece 29, together with the lining material, are formed about a suitable mandrel and tucks are made where indicated by the dotted lines, so that the completed article appears in section as shown in Figure 8. The excess Cellophane is shown in this embodiment as being rolled over the edge at 35.

An advantage of this invention, particularly in the embodiments shown in Figures 1 and 7, is that they are especially adapted for food containers, because with the folding arrangement described, means such as a wire or any similar device might be incorporated in the edge of the container during its manufacture so that the rims might be broken or torn after the container is opened in order that the shell and lining material might be spread open to a greater or less extent, whereupon the container will be in effect, an octagonal food plate, the partially open folds made during the original forming of the container serving to keep the parts in a concave condition. A wire loop, indicated by dotted lines and reference character 36 shows an arrangement for breaking the rim.

What is claimed is:

1. The method of making a container which comprises superimposing a layer of lining material over a piece of cardboard having a plurality of cuts radiating from a central base section, and forming the sides of the container by bending the sections of the cardboard formed by the cuts upward so that the respective sections overlap each other and support tucks formed in the lining material, and thereafter folding said lining material over the edge of the cardboard in the form of an annular ring.

2. The method of making a container which comprises dividing a regularly shaped geometric figure of container material by cuts extending from the edges thereof to a central section to be used for a base, then superimposing lining material of greater area than said figure thereon, then forming the sides of the container by bending the sections formed by the cuts so that they overlap each other and retain tucks of lining material, and thereafter forming a rim on the outside of the container from said lining material.

3. The method of making a container which comprises dividing a regularly shaped geometric figure by cuts extending from the edges thereof to a central section to be used for a base, then superimposing lining material of greater area than said figure thereon, then forming the sides of the container by bending the sections formed by the cuts so that they overlap each other and retain tucks of lining material, and thereafter forming a breakable rim on the outside of the container from said lining material.

4. A container comprising an outer shell consisting of a plurality of flaring, overlapping wings integral with a base section, a seamless lining therefor provided with a series of external triangular-shaped tucks retained by said overlapping wings.

5. A container comprising an outer shell consisting of a plurality of flaring overlapping wings integral with a base section, a seamless lining therefor provided with a series of external triangular-shaped tucks retained by said overlapping wings, and a ring on the outside of said shell at the top thereof formed integral with said lining material, means associated with said ring for breaking the same whereby said container can be converted into a dinner dish.

DOROTHY ELSIE MACKENZIE.