

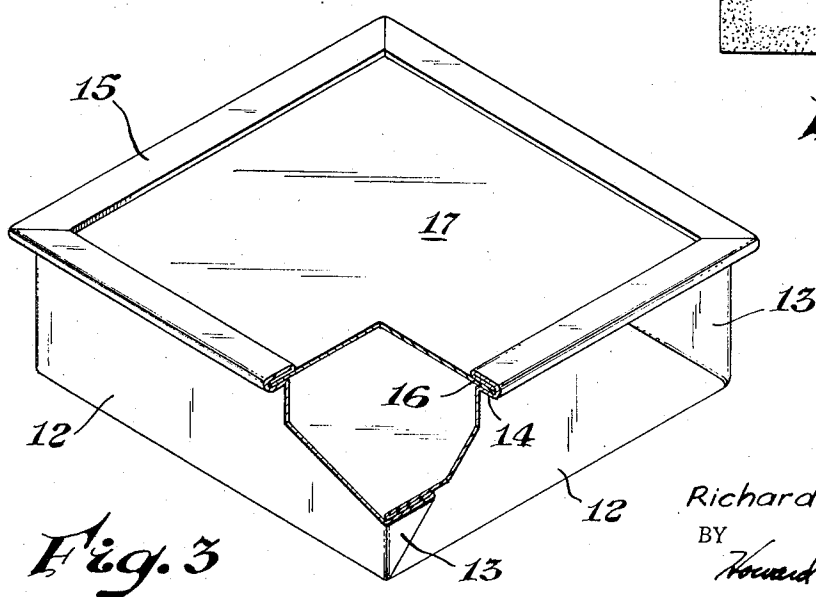
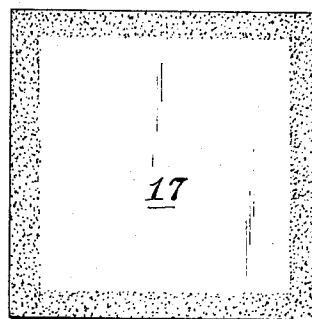
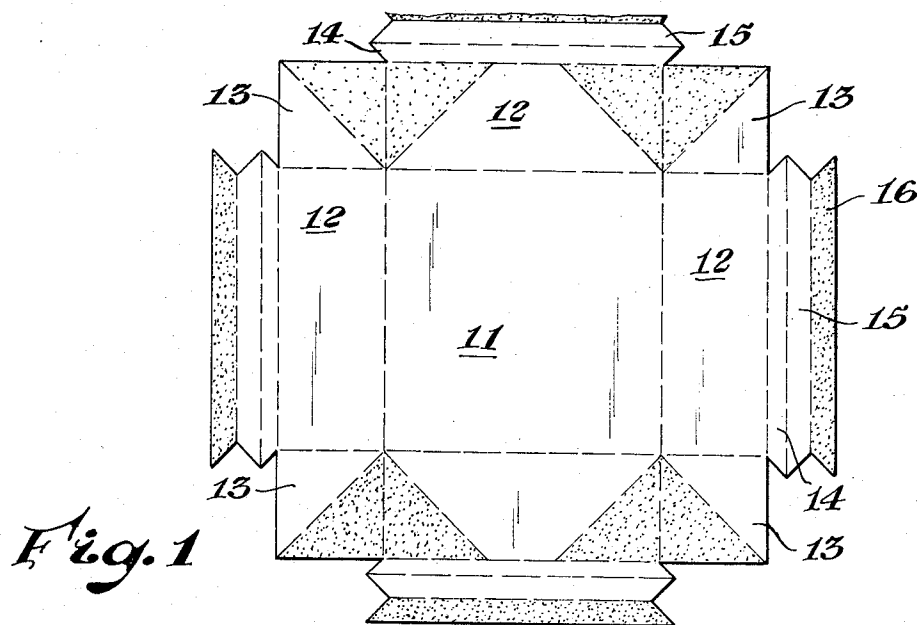
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CONTAINER CONSTRUCTION

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CONTAINER CONSTRUCTION

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ABSTRACT OF THE DISCLOSURE

Container construction folded from a flat blank adapted to have all glue areas applied to one side of the blank and a release coating applied to the other side. The sidewalls of the container are interconnected by gusset folds and at the top of the sidewalls there is provided a first outwardly folded flange member, a second flange member folded inwardly over the first flange member and an inwardly folded flap tucked under the second flange member and adapted to be glued to a container cover.

This invention relates to container construction and more particularly to containers folded from flat blanks. It is aimed particularly at container constructions wherein the inner surface of the container is provided with a release coating.

There are available in food stores today numerous types of foods packaged to save labor for those who must prepare them. For example, there are complete meals which have been quick frozen and need only be heated in an oven for a short time to become ready to eat. Various types of individual food items are likewise available in frozen form.

A major portion of frozen food products available today is packaged in stamped aluminum containers. While such containers are serviceable, they are also expensive. With the advent of eye level merchandise display, labeling became a problem on metal containers since labeling must appear on the end of the container rather than the top to be visible to the viewer. As a result, the aluminum containers are often packaged within a cardboard container which may be printed to provide information to the buyer and/or consumer. This adds even more cost to the package.

While paper packaging has been used for various types of food for purposes of economy, it has up to the present time suffered from a number of serious disadvantages. Paper is inherently porous and must be treated to prevent absorbance of liquids and sticking of the contents to the walls of the container. Additionally, it has been difficult to provide sealable paper containers which have not suffered from the danger of leakage at the joints. Many desirable coating materials prevent or inhibit gluing. This is true, for example, of the silicones which are heat stable release agents over a wide range of temperatures and are generally hydrophobic and thereby prevent absorbency by the paper.

Accordingly, the present invention has for a primary object the provision of an improved paper container for food products.

Another object is to provide a sealable internally coated container which may be economically manufactured.

In accordance with these and other objects, there is provided by the present invention a novel container construction which eliminates many of the aforementioned problems of the prior art, and which is useful not only for packaging foods, but various other items as well. The container is made from a blank of cardboard, or the like, which has the protective coating applied only to one side and all glue areas applied to the other side. The term "glue" as used herein is to be understood to include

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any type of material for joining two surfaces of the container. The blank is folded and glued and is provided with a cover to form a sealed package.

Other objects and advantages of the invention will become obvious to those skilled in the art from a consideration of the following detailed description when read in conjunction with the accompanying drawings wherein:

FIG. 1 is a plan view of a blank suitable for fabricating a container according to the present invention;

FIG. 2 is a plan view of a cover blank for the container constructed from the blank shown in FIG. 1; and

FIG. 3 is a prospective view of a container made from the blanks of FIGS. 1 and 2 with portions broken away and in sections.

Referring now to the drawings wherein like reference numerals designate like or corresponding parts throughout the figures thereof, there is shown in FIG. 1 a container blank which may be of cardboard or any other suitable material and which has at the center thereof a bottom member 11. The side of the blank which is illustrated will form the exterior of the completed container. Hingedly connected to the bottom 11 and adapted to be folded downwardly therefrom are four sidewalls 12, each sidewall being attached to the next adjacent sidewall by a rectangular member 13, which is adapted to be folded diagonally to form a gusset fold as the sidewalls 12 are folded. Sequentially attached to the outer periphery of the blank and to what is to be the upper portion of each sidewall are a foldable flange member 14, a second foldable flange member 15 and a foldable flap 16. The uses of the members 14, 15 and 16 will become more apparent hereinafter.

In FIG. 2 there is shown a second blank 17 which forms the cover for the container constructed from the blank shown in FIG. 1. It will become apparent hereinafter that, if desired, the cover 17 may be formed directly on one of the side members 12 in place of the flange members 14, 15 and the flap 16 on that side member. However, to facilitate placing the cover on the container by conventional sealing equipment, the separate blanks are preferred at the present time.

The construction of the container from the blanks shown in FIGS. 1 and 2 will become more readily apparent when described with respect to FIG. 3. Preferably before construction, a layer of adhesive is applied to the shaded areas of the blanks shown in FIGS. 1 and 2. The sidewalls 12 are then folded away from the bottom 11 with the adhesive-coated portions on the outside and the gusset fold in the members 13 is also formed during this process. The adhesive-coated area of each of the gusset folds should now correspond to the adhesive-coated areas of the sidewalls 12 and may be glued in place forming a box with four corner tabs sticking out. Each of the corner tabs consists of the flange member 14, the second flange member 15 and the flap 16.

The first flange member 14 is now bent outwardly from the sidewalls and the flap 16 is bent inwardly over the second flange member 15. The cover member 17 is now placed over the open box and substantially coincides dimensionally with the outer edges of the flanges 14. With the cover member in place, the second flange member 15 is folded over the cover member and the flap 16 is tucked between the second flange member 15 and the cover, so that the adhesive-coated areas on the flap 16 and the peripheral portions of the cover 17 coincide. The container structure is now completed with the exception of any desired over coat which may then be applied.

By using coated materials for the container blanks, a leaf-proof, moisture vapor barrier releasing container can be provided by the present invention. Gluing and/or sealing may be accomplished by the use of pressure-sensitive adhesives, cohesive coatings, heat seals, hot melt glues,

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conventional pastes or any other type of gluing or sealing process known to those skilled in the art. For a heat seal coating, no adhesive need be applied, but an overall heat sealed coating, for example, of polyethylene can be applied to the outside of the package while the folds are held in place. It is to be understood that scoring of the blank at the fold lines may be provided to facilitate folding. While the container has been described with reference to cardboard, it is to be understood that any other foldable substrate may be utilized in its stead.

The only restriction in the manufacture of the container and the choice of materials is that the release coating be kept to one side of the container blanks so as not to interfere with gluing. While the container has been shown as generally rectangular in configuration, it is to be understood that the same invention may also be applied to containers of other geometrical configurations. The relative sizes of the flanges and flaps and the gusset folds may be varied for aesthetical or other purposes without detracting from the functionality of the structure. It is to be understood, additionally, that opening tabs or the like may be applied to the structure without detracting from the sealability thereof.

Obviously, many other modifications and variations of the above-described invention will become obvious to those skilled in the art from a reading of the foregoing description. It is, therefore, to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

That which is claimed is:

1. A sealable container comprising:
a bottom,

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a plurality of sidewalls folded upwardly from said bottom,

said sidewalls being interconnected by gusset folds at each corner between adjacent sidewalls;

an outwardly folded flange member at the top of at least a portion of said plurality of sidewalls,

a second flange member affixed to said outwardly folded flange member and folded inwardly of said outwardly folded flange member,

a cover member sealed between said outwardly folded flange member and said second flange member, and an inwardly folded flap affixed to the extremity of said second flange member and tucked between said second flange member and said cover member.

2. A sealable container as defined in claim 1 wherein said inwardly folded flap is glued to said cover member.

3. A sealable container as defined in claim 2 wherein said flange members are provided on each of said plurality of sidewalls.

4. A sealable container as defined in claim 1 wherein said flange members are provided on each of said plurality of sidewalls.

References Cited

UNITED STATES PATENTS

2,485,704	10/1949	Cranshaw	229—31
2,577,305	12/1951	Brooks	229—43
2,902,204	9/1959	Moore	229—43
3,301,465	1/1967	Flaherty	229—43

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