

April 12, 1938.

F. BRESEE, JR

2,113,824

CONTAINER

Filed Oct. 22, 1935.

FIG. 1

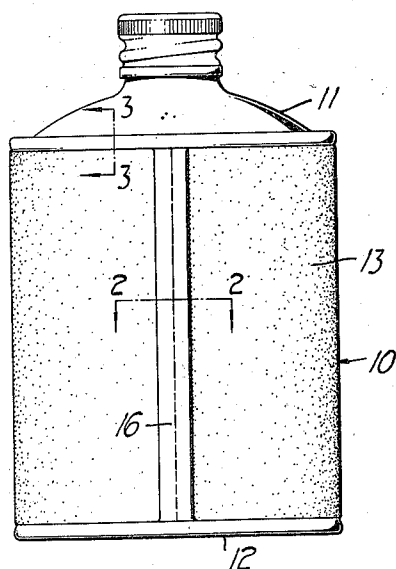


FIG. 2

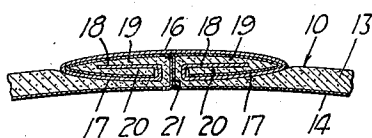


FIG. 3

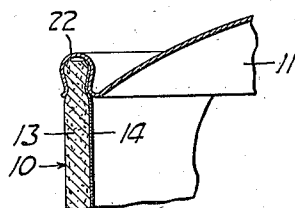
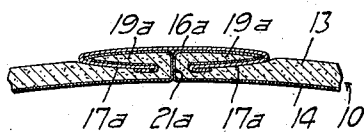


FIG. 4



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2,113,824

CONTAINER

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Application October 22, 1935, Serial No. 46,109

2 Claims. (Cl. 229-3.5)

This invention relates generally to containers or cartons such as are employed for the marketing of various products.

It is an object of the invention to provide a relatively inexpensive container making use of foil lined paper stock, and which will be liquid and air tight. It is characteristic of the present container that joints are sealed without the necessity of using cements or lacquers, such as might be dissolved or deteriorated to cause eventual leakage or to contaminate the contents.

Further objects of the invention will appear from the following description in which the preferred embodiments of the invention have been set forth in detail in conjunction with the accompanying drawing.

Referring to the drawing:

Fig. 1 is a side elevational view, illustrating a container incorporating the present invention.

Fig. 2 is a cross sectional detail taken along the line 2-2 of Fig. 1.

Fig. 3 is a cross sectional detail, on an enlarged scale, taken along the line 3-3 of Fig. 1.

Fig. 4 is a view similar to Fig. 2, but showing a modified means for retaining longitudinal edges of the paper stock.

The container illustrated in the drawing consists of a body 10, forming the main side walls, together with the upper and lower caps 11 and 12. Instead of forming the body of sheet metal, such as ordinary tin, it is formed of a rectangular sheet of relatively stiff paper stock, having one surface of the same covered with suitable thin metal foil, such as aluminum foil. Numeral 13 of Fig. 2 represents the paper stock, while numeral 14 represents the metal foil, which is secured to the paper stock by glue or like suitable adhesive. The manner in which the paper stock is bent to form the side walls will of course depend upon the shape of the container desired. In some instances the paper will be bent to the form of a cylinder, while in other instances it will be bent to an oval contour, or to a contour substantially square or rectangular. The metal foil forms an interior lining for the side walls, and is of itself water tight.

A simple form of seam for the longitudinal edges of the paper stock, such for example as is frequently employed in all-metal containers, will not suffice to afford a liquid-tight seal. If it were attempted to make such a joint liquid-tight by the use of cement or lacquer, most liquids would dissolve or deteriorate the cement or lacquer, with the result that the container would eventually leak, and the contents of the container

would be contaminated by the cement or lacquer.

In the present invention a special form of seam or joint is provided, which forms a liquid-tight seal by pressure engagement between portions of the metal foil liner. In that form of the invention illustrated in Figs. 1 and 2, a metal retaining clip 16 is employed, in the form of an elongated strip of sheet metal. This strip is bent and interfolded with adjacent edge portions of the paper stock, in a manner such as illustrated in Fig. 2. Thus the strip of metal has symmetrically inwardly extending portions 17, and symmetrically outwardly extending portions 18. Between the portions 18 and the outer face of the metal strip, are the portions 19 of the paper stock, while portions 20 of the paper stock are between the metal portions 17 and 18. In connection with this type of joint, it is important to note that the opposed edge faces 21, are surfaced by the metal foil, and are brought into direct abutting contact. In applying the metal clip to the paper stock, the thickness of the joint is of course brought to minimum dimensions, by pressure, and the clip is so proportioned that considerable pressure is applied in opposite directions on the paper stock, to force the end faces 21 together with considerable pressure. It is by virtue of this engagement between the end faces 21, that a liquid-tight seal is formed extending longitudinally of the body of the container. Such a seal need not be supplemented by cement or lacquer.

The metal caps forming the top and bottom of the container, may be of conventional construction. The top 11 is shown crimped upon the upper edge portions of the paper stock, as indicated at 22 in Fig. 3. Thus peripheral sealing contact is established between the inner metal foil, and the inner portion of the crimp. The outer portion of the crimp accommodates any irregularity on the outer surface of the container, caused by the clip 16. The bottom cap is similarly crimped upon the lower edge of the paper stock.

A similar type of clip 16a is illustrated in Fig. 4. In this case portions 17a of the metal clip are symmetrically bent inwardly, and underlie the outwardly folded portions 19a of the paper stock. As in the case of Fig. 2, the edge faces 21a are brought into direct engagement, and held in engagement under pressure to effect a liquid-tight seal.

I claim:

1. In a liquid-tight container, a single sheet of relatively stiff paper stock having at least one side thereof surfaced with a metal foil, said

sheet being bent to form side walls for the container, with the foil faced inwardly, adjacent longitudinal edge portions of the sheet being folded to present opposed foil surfaced edge faces, and a clip secured to said edge portions and serving to force said edge faces into tight sealed engagement, said clip being formed of a strip of sheet metal bent on longitudinal fold lines, the longitudinal edges of said strip terminating within the confines of the clip and the overall thickness of the clip being less than twice the normal thickness of the paper stock.

2. In a liquid-tight container, a single sheet of relatively stiff paper stock having at least one side thereof surfaced with metal foil, said sheet being bent to form side walls for the container,

with the foil faced inwardly, adjacent longitudinal edge portions of the sheet being folded to present opposed foil surfaced edge portions, and a metal clip secured to said edge portions and serving to force said edge faces into tight sealed engagement, said clip comprising a strip of sheet metal, the longitudinal edges of said strip representing spaced longitudinal folds formed by bending edge portions of the strip inwardly, said portions being again folded upon themselves whereby the edges of the strip are disposed within the first-named folds, longitudinal edge portions of the sheet being interfolded within said first-mentioned folds and over said edges of the strip.

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