April 16, 1940. D. BENSEL 2,197,739

SANITARY SHIELD FOR CONTAINERS

Filed Dec. 24, 1936

Fig. 1.

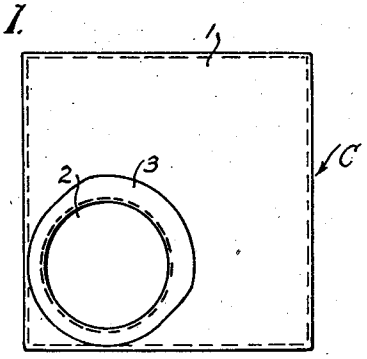


Fig. 2.

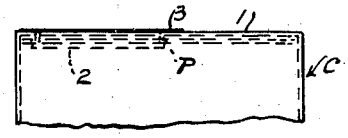


Fig. 6.

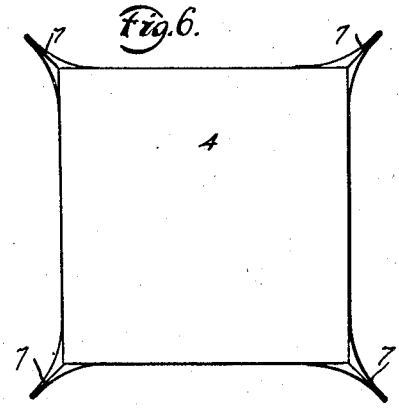


Fig. 5.

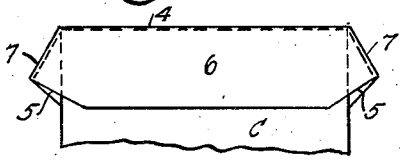


Fig. 7.

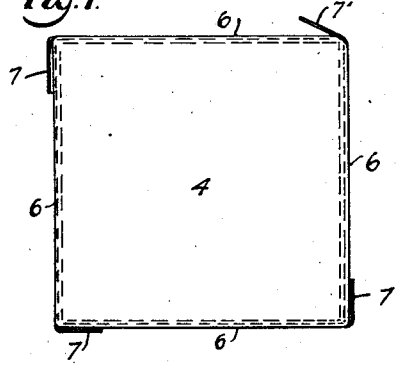


Fig. 8.

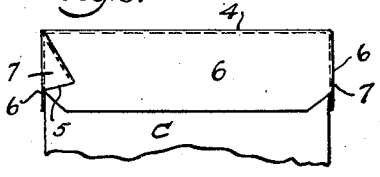


Fig. 4.

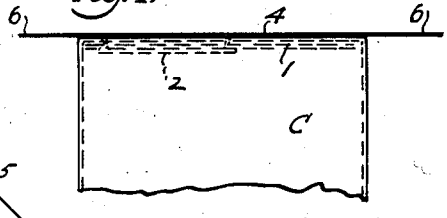
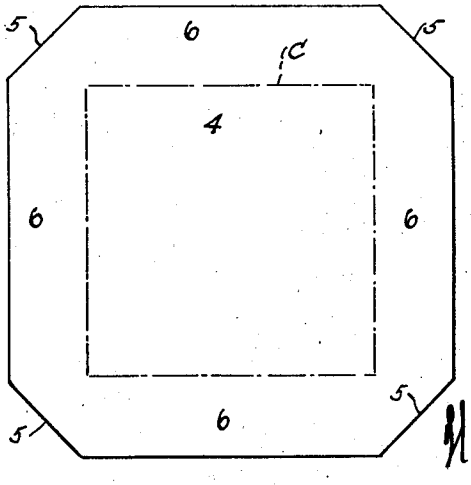


Fig. 3.



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SANITARY SHIELD FOR CONTAINERS

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Application December 24, 1936, Serial No. 117,532

4 Claims. (Cl. 229—7)

The present invention relates to paper board liquid containers for use in vending liquids such as milk and the like, and has for its principal object the provision of a protective, sealed on, but removable shield upon the pouring portion of the container at all points where the milk contacts with the container when being poured therefrom.

The shield not only keeps the top or pouring portion of the container sanitary, but is extended down over the adjacent side panels of the container at which points upon the panels the folded-down margins of the shield are sealed and the extending marginal corners are overfolded and sealed to the said margins to thus effectively lock the shield firmly to the container against inadvertent loosening during the handling thereof, and to protect the adjacent portions of the body-forming panels.

The foregoing and other features of advantage will be noted as the herein description proceeds and it will be obvious that modifications may be made in the structure and method of applying the shield without departing from the spirit thereof or the scope of the appended claims.

In the drawing:

Fig. 1 is a plan view looking at the pouring top of a container;

Fig. 2 is a fragmentary side view of Fig. 1;

Fig. 3 is a plan view of the shield;

Fig. 4 is a view similar to Fig. 2 showing the shield in position on the top of the container before the step of closing down the marginal edges thereof;

Fig. 5 is a view similar to Fig. 4 showing the marginal edges closed down with the marginal corners unfolded and unsealed;

Fig. 6 is a plan view of Fig. 5;

Fig. 7 is a plan view of the container with shield finally sealed to the container top; and

Fig. 8 is an enlarged, fragmentary view in elevation, of Fig. 7, showing the form of corner lap after it has been sealed to the corner margins of the shield.

The present improvement embodies, in part, the forms of pouring spout cap seal shown in my co-pending U. S. application Serial No. 115,912, filed December 15, 1936, and with the present improvement, forms a double sealing means for the prevention of leakage of contents, as well as improving the sanitary conditions in the use of the container.

As in Figs. 1 and 2, the present container, generally denoted as C, is of rectangular contour having a four-sided body-forming portion, with plural end closing flaps generally denoted by 1, the upper shown flaps of Figs. 1 and 2 being overfolded upon one another, after the paper container has been coated with molten paraffin and thus sealed together. Before sealing together the plural flaps are provided each with access and pouring apertures P, Fig. 2, whereby when the flaps are sealed the plural apertures are registered together to form a single, plural walled aperture.

This aperture, after the container is filled, is sealed by a pressed-in, flanged, drawn, paper cup-like cap, the cap seal 2 being pressed into said aperture until its flange 3 rests upon the outer top flap, as shown in Fig. 2. The cup portion 2 of the cup-seal may slightly be tapered so as to render the fitting of the aperture by the cup frictionally effective. When desired the cup-seal may be broken by lifting the seal by its flange 3, and may be resealed as desired.

After the cup sealing of the container, the sealed top thereof is covered by a thin paper shield, generally denoted by 4, the shield being made of a suitably tough paper, such as glassine and being paraffin coated, to both render it transparent so that symbols printed upon the pouring top of the carton may be easily read and to permit the heat-sealing of the shield to the container sides, in the final steps of closure. Sheet Cellophane may be substituted for paper, as a shield.

The shield 4, Fig. 3, is of larger dimension than the container top and is preferably symmetrically mounted on the container, as in Fig. 3, leaving an even, marginal extension 6 all round, as shown in Figs. 3 and 4. The marginal corners 5 may be cut at an angle if desired.

By a suitable means, not shown, which is preferably heated, to soften the paraffin coating on the container and shield, the marginal edges 6 are preferably simultaneously all drawn down together and pressed against those top portions of the body-forming panels which are adjacent the pouring top. This action effectively joins the shield 4 to the container top. If desired, the entire shield may be sealed to both top and sides in this manner. After this step the marginal corners 7, Figs. 5 and 6 are left in outstanding angular positions at the container corners.

The next step consists in overfolding the outstanding corners 7, to cause them to engage the adjacent marginal portions 6, to lie flat thereon, as illustrated at 7—7 and 7, Fig. 7. Corner ex-

tension 7', Fig. 7, shows one corner overfolded and about to be closed down flat. This step in the method of closing down the shield is the final one, and is completed by a suitable, heated tool, not shown.

After the flat folding of the extended corners, they appear as shown in Fig. 8.

To remove the shield, is easily peeled from its engagement with the container, thus exposing the cup-seal 2 for removal.

From the foregoing it will be observed that the container has double protection for leakage, is sanitarily protected against contamination in handling and icing, and permits the reading therethrough of any printed matter upon the container top.

Having thus described the invention what is claimed is:

1. A container comprising walls forming a trihedral corner; and a cover sheet including a part adhered to one wall and margins extending from said part and directly adhered to adjacent portions of the other walls respectively and each having an edge, spaced from first-named wall; adjacent end portions of said margins adjacent to the corner edge being folded and adhesively secured flat to each other to form an extension secured flat against the adjacent directly adhered portion of one of said margins; said directly adhered portion of each of said margins near said corner being provided with inclined edges forming directly adhered portions tapered toward said corner edge.

2. A container comprising walls forming a trihedral corner; and a cover sheet including a part adhered to one wall and margins extending from said part and adhered to adjacent portions of the other walls respectively and each having an edge spaced from first-named wall; adjacent end portions of said margins adjacent to the corner edge being folded and adhesively secured flat to each other to form an extension having superposed edges and secured flat against the adjacent directly adhered portion of one of said margins; the major part of said superposed edges being disposed remotely from said spaced edges.

3. A container comprising walls forming a trihedral corner; and a cover sheet including a part adhered to one wall and margins extending from said part and adhered to adjacent portions of the other walls respectively and each having an edge spaced from first-named wall; adjacent end portions of said margins adjacent to the corner edge being folded and adhesively secured flat to each other to form an extension secured flat against the adjacent adhered portion of one of said margins; said adhered portion of each margin near said corner being provided with sharply inclined edges forming adhered portions tapered toward said corner; the major portion of the edges of the material of said extension being disposed remotely from said spaced and inclined edges.

4. A container comprising walls forming a trihedral corner; and a cover sheet adhered to one wall and having margins adhered to adjacent portions of the other walls respectively and each margin having an edge spaced from first-named wall; adjacent end portions of said margins adjacent to the corner edge being folded and adhesively secured flat to each other to form an extension having superposed edges and secured flat against the adjacent adhered portion of one of said margins; said adhered portion of each of said margins near said corner being provided with sharply inclined edges forming adhered portions tapered toward said corner; said superposed edges extending from the corner edge and converging toward the first-mentioned wall; whereby the superposed edges are disposed remotely from said spaced and inclined edges, thereby to avoid a three ply edge at said spaced edge; said inclined edges providing cam edges over which superposed containers may slide without catching on the folded parts; the angle of the adhered portions at said inclined edges being such as to assist in the adherence of the parts of said margins at the corners.

DURYEA BENSEL.