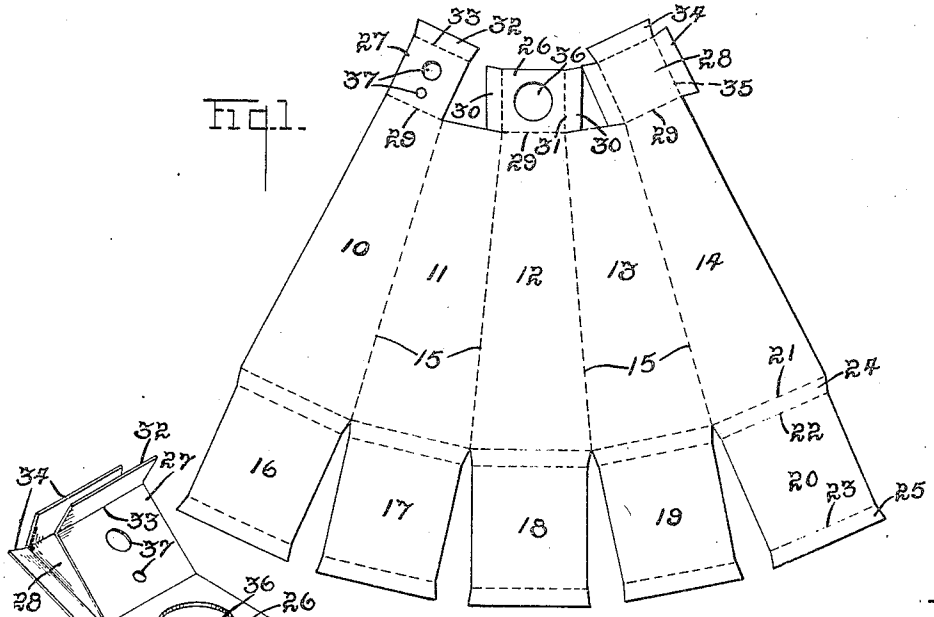
June 23, 1931. S. E. BUTLER 1,811,074

CONTAINER

Filed March 7, 1929

Fig. 1.



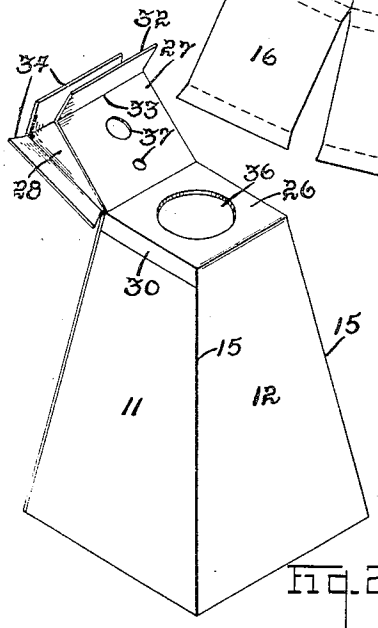




Fig. 2.

Fig. 4.

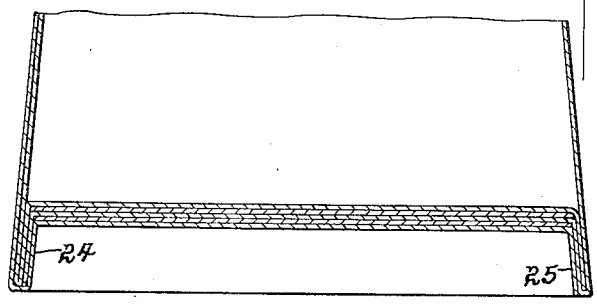
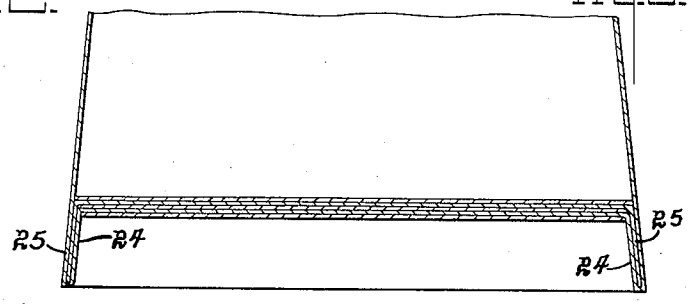



Fig. 5.



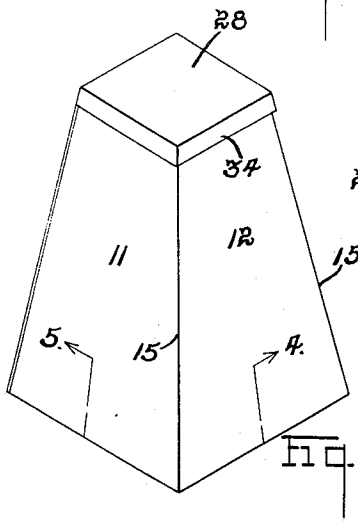




Fig. 3.

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Patented June 23, 1931 1,811,074

# UNITED STATES PATENT OFFICE

SILAS E. BUTLER, OF TOLEDO, OHIO

## CONTAINER

Application filed March 7, 1929. Serial No. 345,044.

This invention relates to a container adapted to be made from paper or similar material and primarily designed to contain liquid or semi-liquid commodities.

In handling such commodities as milk for instance, the use of refilled glass bottles not only leaves much to be desired for sanitary reasons, but the handling of the bottles involves a great deal of labor and expense and many losses are incurred.

It is my purpose, therefore, to provide a sanitary container which may be advantageously used for delivering milk or similar commodities to the consumer, either from the milk wagon or from a store, a container which is not likely to break or leak and which may be produced at such low cost that it may be thrown away after it has been used once.

It is also an object of my invention to provide in a container of this character, various improved features which will be more particularly explained in connection with the accompanying drawings, illustrating one embodiment thereof.

In the drawings:

Figure 1 is a plan view of the blank from which the container is made.

Figure 2 is a perspective view of the container completed, with two top flaps open.

Figure 3 is a perspective view of the container with the top sealed.

Figure 4 is a sectional view of the lower part of the container, taken on the section line 4 of Figure 3.

Figure 5 is a similar view taken on the section line 5 of Figure 3.

In its preferred form, the container is made from a single paper blank having five panels, 10, 11, 12, 13 and 14, adapted to be folded along the lines 15, which may be creased for that purpose. Bottom flap 16, 17, 18, 19 and 20 are integrally connected to the lower ends of the respective panels and are formed with creases 21, 22 and 23 to form fold lines.

In forming the container, the blank is first folded on the lines 15 to form the four walls of the container, with the panel 14 overlying the panel 10 and pasted thereto. The bottom flaps 16, 17, 18, 19 and 20 are then successively folded to form a five-ply bottom. The order in which the flaps are folded is immaterial. In forming the bottom, the narrow strip 24 of each bottom flap is folded against the inner face of the side wall and pasted thereto and the narrow end strip 25 is folded downwardly and pasted against the opposite wall. Thus a raised bottom is formed with five separate layers, with a peripheral flange projecting downwardly therefrom and made up of five plies on one side and four plies on the opposite side as shown in Figure 4, while the other two sides consist of three plies as shown in Figure 5.

Certain of the side panels, as the panels 12, 10 and 14, have respective top flaps 26, 27 and 28 integrally connected thereto and adapted to be successively folded along the lines 29 to constitute a top with three layers. The inner top layer 26 is formed with side strips 30 which are folded downwardly on the lines 31 to lie against the sides 11 and 13, as shown in Figure 2. The top layer 27 is formed with a strip 32 which is folded on the line 33 to lie against the side 12. The final top layer 28 is formed on three sides with strips 34 which are then folded on the lines 35 to lie against the walls 11, 12 and 13 respectively.

The inner top layer 26 is formed with a comparatively large opening 36, the second top layer 27 is preferably formed with two small openings 37, while the final top layer 28 is imperforate.

In manufacturing the container as a commercial proposition, the container blank will be stamped out and creased, then folded on the lines 15 and the panel 14 glued or pasted to the panel 10. The container will then be shipped flat to the dairy. The dairyman will fold and glue the bottom and will then dip the container in paraffin or the like. The container is then ready to be filled. After filling, the top will be closed and sealed merely by applying heat and pressure to the sealing strips 34 by any suitable means. Ordinarily the melted paraffin will afford a sufficiently secured closure without the application of any other fastener.

The consumer may easily pry up the strips 34 and open the outside layer 28 of the top and may use one of the holes 37 for pouring out cream, while the other hole is for admitting air. If preferred, a straw may be used in one of the holes 37. If it is desired to pour out a large proportion of the contents of the container, the second top layer 27 may be raised and the hole 36 used. To empty the container entirely, the final top layer 26 may be opened.

There are many advantages in using a container of this kind, which may be thrown away after it is used. In the first place, it is much more sanitary, since it is practically impossible to clean glass bottles by the methods now in use with sufficient thoroughness to remove all dangerous germs or all traces of other substances which may have been put into the bottles. There is a great deal of expense in washing milk bottles, resulting not only from the expensive washing machines used, but from the labor involved. The delivery of milk in glass bottles necessitates the carrying of a great deal of surplus weight, not only in the delivery but in the return of the empty bottles. The collection of the bottles also requires a great deal of the driver's time.

The container to which my invention relates cannot be broken by the freezing of the milk and will rarely be broken by dropping. The date of filling the container may be stamped thereon. Advertisements may also be printed on the surface of the container. No deposit for the container is required when milk is bought at the store and there is no loss through breakage or from bottles which are not returned.

The provision of the raised bottom prevents possible contamination of the milk from contact with an unclean surface and the multiply bot om prevents possible leakage or breakage. The several top layers, two of them folding over one another from opposite sides of the container make a particular strong closure which will not be likely to open, even if the full container is dropped. These several top layers also provide convenient means whereby either a small amount of cream may be taken from the container or a substantial part of the contents may be quickly poured out if desired.

While I have shown and described the container in its preferred form, it is to be understood that the invention in its broadest aspect is not limited to a one piece container nor to the specific means by which either the bottom or the top are secured. It is to be understood, therefore, that the invention includes all such modifications as may fall within the scope of the appended claims.

What I claim is:

1. A container of the class described, made from a one piece blank and comprising five panels folded to form four sides, one of said sides being double, and a flap connected to the bottom end of each panel, each flap being folded to extend a short distance upwardly adjacent the panel from the bottom end thereof, thence across the bottom of the container and thence downwardly adjacent the opposite panel to the bottom edge thereof, thereby forming a peripheral downwardly disposed flange about the bottom of the container, one side of said flange being five-ply, another side thereof being four-ply, and the other two sides being three-ply.

2. A container of the class described, formed from a single blank and having flat side walls with integral continuations forming a top for the container, said top being made up of a plurality of separate layers, the inner layer having an opening therethrough, the outer layer being imperforate and provided with means for forming a liquid tight seal for the top.

3. A container of the class described having flat side walls, a plurality of said walls having integral continuations secured across the top of the container thus forming a top with a plurality of layers, of which the inner layer has a hole in it and the next layer has two smaller holes directly above the hole in the inner layer.

4. A container having a top with more than two separate layers, the innermost layer having a hole in it, the next layer having one or more smaller holes over the hole in the inner layer, the outermost layer being imperforate and provided with means for forming a liquid tight seal for the top.

5. A container of the class described, made from a one piece blank and comprising five panels folded to form four sides, the two edge panels being superposed to form a double side, said superposed panels and the middle panel being extended and folded to form a three ply top, the inner ply having a comparatively large hole, the middle ply having two smaller holes directly over the first mentioned hole, the outer ply being imperforate and sealed so as to be liquid tight.

6. A container of the class described, comprising five integrally connected panels folded to form four flat side walls, one side wall being double, and a raised bottom with a downwardly disposed flange about the periphery of the bottom, said flange having three or more plies sealed together, each of the exposed plies of the flange at each side of the bottom having an integral continuation extending across the bottom, whereby the container is rendered capable of holding liquids.

In testimony whereof I have hereunto signed my name to this specification.

SILAS E. BUTLER.