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W. B. POWELL ET AL

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CONTAINER

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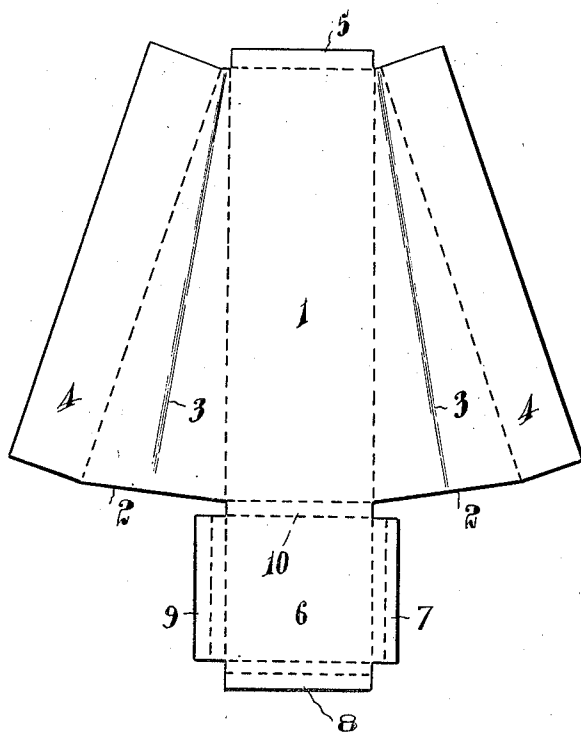


Fig. 1.



Fig. 2.

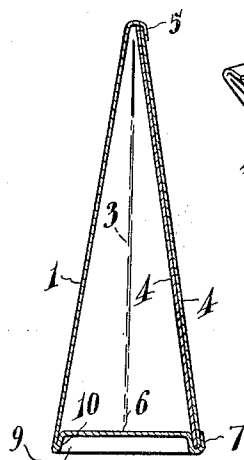


Fig. 3.

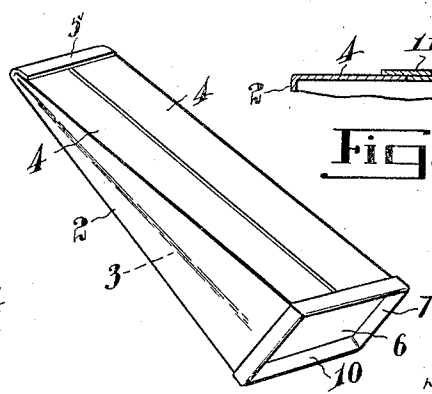


Fig. 4.

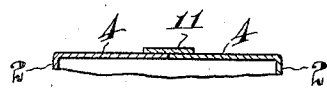


Fig. 5.

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CONTAINER

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This invention relates to containers, and more particularly waxed paper containers for milk or other liquids.

The object of this invention is to construct a simple, collapsible container having means for firmly and securely sealing it and retaining it in its extended position when in use.

This object is attained by making a wedge-shaped container having collapsible sides of bellows construction, and a rectangular open end provided with a stiff substantially non-collapsible closure adapted to be inset in the open end of the container and having a double flange adapted to fit over the edges of the said end. One side of the closure may be integrally connected to the container.

This invention is hereinafter more particularly described and illustrated in the accompanying drawings in which.

Fig. 1 is the blank from which the container is made,

Fig. 2 is a side view of the container in its folded condition,

Fig. 3 is a vertical section of the container in its open or extended condition,

Fig. 4 a perspective view of the container in its extended condition, and

Fig. 5 a sectional detail of a modification of the joint for the parts of the divided side of the container.

In the drawings like numerals of reference indicate corresponding parts in the different figures.

The container is made of stiff cardboard, fibre board, or similar material. The blank is shown in Fig. 1 in which 1 represents a rectangular side of the container; 2, a pair of triangular side portions divided centrally by a line of weakness or crease 3. A pair of rectangular flaps 4 are appended to the triangular portions 2, and when the container is set up the flaps 4 are adapted to overlap and to be glued together in a liquid tight seam. A small transverse tab 5 at the narrow end of the container is adapted to be turned over and glued to the rectangular flaps to provide a liquid-proof closure for the small end of the container. At the other end of the rectangular side 1 is a rectangular closure 6 which is connected with the side 1

by means of a connecting strip 10. Extensions 7, 8 and 9 are formed on the closure 6. Each of the extensions are longitudinally creased so that they may be readily folded to form flanges to embrace the edges of the open end of the receptacle as hereinafter referred to. When the container is assembled the closure 6 is inset in the rectangular opening of the container and the extensions 7, 8 and 9 are folded and fitted over the edges of rectangular opening and glued thereto to form a liquid-proof closure for the container.

The closure 6 is of the same stiff cardboard material as the other parts of the container and is not provided with lines of weakness or creased in any way, with the exception of the connecting strip 10 and the side extensions 7, 8 and 9. Thus the closure is substantially non-collapsible as far as normal strains and stresses are concerned and when properly glued in position acts as a brace between the walls and retains the container in its extended or open condition.

When the container is being made, the small end will be closed and the flaps 4, 4 will be secured together. The triangular sides 2, will be bent inwardly or outwardly along their central line of weakness 3, bellows fashion, thus permitting the sides 1 and 4 to be pressed together as shown in Fig. 2. The closure 6 which is adapted to close the rectangular opening of the container may be bent over the end of the container and pressed against the side 4 as shown in Fig. 3, or may be bent backward and pressed against the side 1. The container is shipped in this collapsed condition.

The user, who may be a milk dealer or vendor of other liquids, will extend the sides of the container and, just before filling, will spray the interior thereof with hot wax which will waterproof the container and sterilize it. He will then insert the liquid through the rectangular open end of the container. The closure 6 will then be bent over and inset in the rectangular open end of the container and the extensions 7, 8 and 9 will be bent along their central creases over the edges of the opening and glued down on the out-

side of the container to form a liquid-proof closure.

The containers containing, let us say, milk, will be delivered by the dealer to the consumer, and, when its contents are to be used, a container will be stood upon its rectangular end. To remove the contents the consumer will pierce a hole in the small end of the container, or will cut one or both sides of the container at the small end. After some of the contents have been removed, the container may be closed in any convenient manner as for example, by bending over the small end thereof.

A metal clip may be substituted for the tab 5, or may be secured over the tab 5 to supplement the same. The closure 6 need not necessarily be made integral with the side of the container, although it is preferably so made. Other departures from the specific construction shown and described may be made without departing from the spirit of this invention. For example, the flaps 4 may be butted and secured together by an overlapping strip 11 (see Fig. 5).

A container such as described possesses all the advantages due to the material of which it is made. It also possesses the advantage over others now in use, that shipments may be made or containers stored in either knock-down or nested form.

The wedge form employed has several advantages since with perfect nestability and foldability, the container, as it leaves the manufacturer, has only one opening to be sealed by the party filling it, and its inner surfaces are so favorably presented to the spray of hot wax to which it is subjected before filling, that a perfect coating is easily applied.

When shipped the containers may be packed without waste of space, as they may be positioned alternately with the rectangular end in reversed positions.

The closure presents a strong stiff triple rim which is not easily damaged and holds the closure, which is the bottom when the container is in possession of the ultimate consumer, well above any surface on which the container may be placed. The bottom is therefore not liable to be damaged by absorbing liquids from such surfaces. The wedge form with inserted closure is also very strong and stiff, and no stiffening of the flat sides is necessary.

What we claim as our invention is:

1. A blank for a wedge-shaped container comprising a rectangular side; a pair of triangular sides, having a longitudinal crease extending centrally thereof; rectangular flaps on each triangular side adapted to be secured together when the container is set up to form a second rectangular side; a tab at the one end of the rectangular side adapted to turn over the vertical flaps to close the

small end of the container; and a closure hinged to the other end of the first rectangular side, comprising a rectangular member having a hinge member and side extensions creased longitudinally to form a double flange adapted to fit over the edges of the container to retain the closure inset therein.

2. A wedge-shaped container open at the base of the wedge and having two rectangular sides and two substantially parallel triangular sides longitudinally creased to enable them to be folded, and a closure adapted to be inserted into the open end of the container and to fit against the walls a short distance from the rim, said closure having side extensions creased longitudinally to form a double flange adapted to fit over the edges of the container to retain the closure inset therein.

3. A blank for a wedge-shaped container comprising a rectangular side; a pair of triangular sides, having a longitudinal crease extending centrally thereof; rectangular flaps on each triangular side adapted to be secured together, when the container is set up, to form a second rectangular side; and a closure hinged to the other end of the first rectangular side, comprising a rectangular member having a hinge member and side extensions creased longitudinally to form a double flange adapted to fit over the edges of the container to retain the closure inset therein.

Signed at Toronto, Canada, this 21st day of November, 1929.

WILLIAM B. POWELL.

Signed at Toronto, Canada, this 21st day of November, 1929.

VICTOR G. WILLIAMS.