Oct. 25, 1938. J. BIDERMAN 2,134,427

CONTAINER

Filed April 27, 1937

Fig. 1.

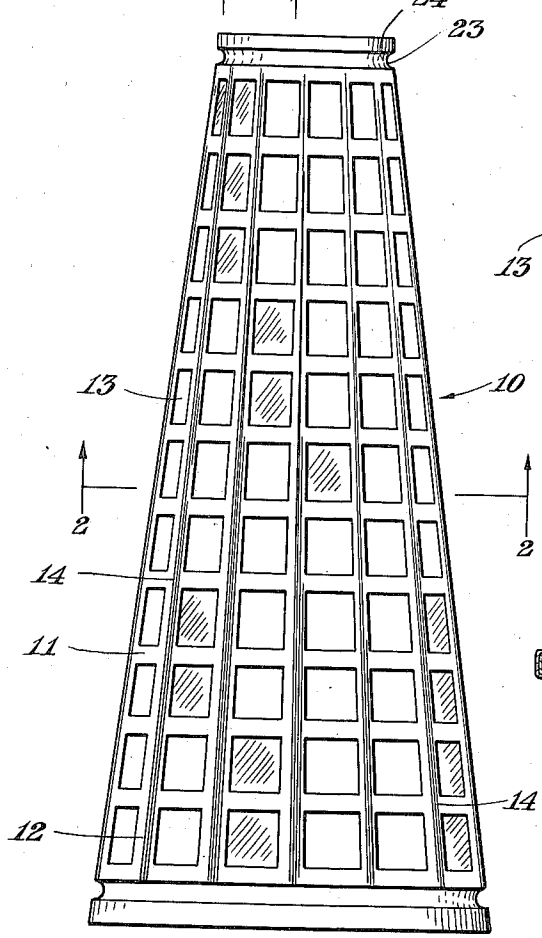


Fig. 2.

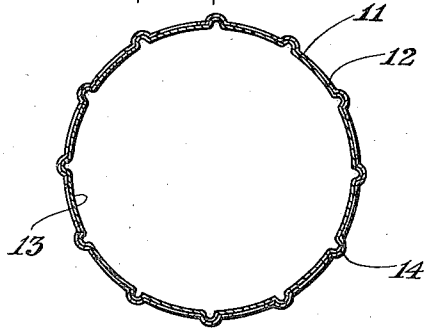


Fig. 3.

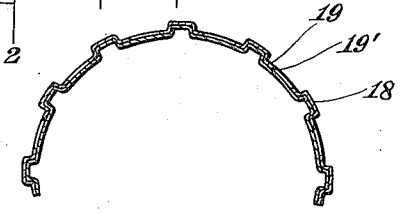


Fig. 5.

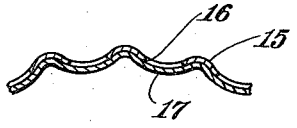


Fig. 4.

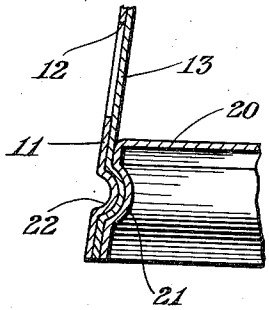


Fig. 6.

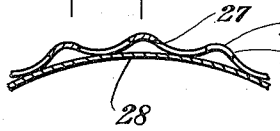
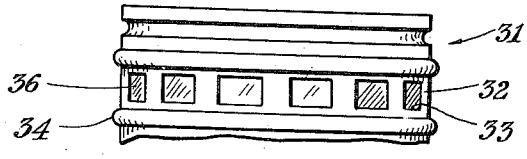


Fig. 7.



INVENTOR.

BY Julius Biderman

John P. Chandler

ATTORNEY.

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CONTAINER

Julius Biderman, Brooklyn, N. Y.

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2 Claims. (Cl. 229—3.5)

This invention relates to containers and relates more particularly to an improved container made of paper, cardboard or other disposable material and having means for permitting the contents of the container to be seen.

A container constructed in accordance with the present invention may be employed for either liquids or solids, although it is designed primarily as a container for milk, cream and other similar foods.

Paper or cardboard containers which are used but once and then discarded are known to be far more sanitary than glass bottles which must be returned to the dispensing institution, cleaned and then refilled. There is a psychological objection on the part of the average purchaser, however, to a paper container for milk and the like in that such purchaser fancies that inasmuch as the cream content cannot be determined by inspection of the container, the seller will necessarily give less cream or add more water to the milk. Various containers have been made to permit the purchaser to view the contents, but these have been largely unsatisfactory for the principal reason that the side walls of the container have been weakened by providing suitable windows and no effective reinforcing means have been provided to compensate for this necessarily weakened structure.

Accordingly, it is one of the principal objects of the present invention to provide an improved container for milk or other liquids and for solid foods as well, which will have a plurality of spaced apertures extending over the full depth of the container, if desired, which will permit all of the contents of the container to be readily seen by the purchaser thereof, the container at the same time being strong and durable and capable of withstanding any strains which may be put thereon.

Another object of the invention is to provide an improved container having a plurality of spaced apertures on all sides thereof and a liner of transparent material and wherein means are provided for effectively sealing the container and preventing leakage of the liquids which may be contained therein.

In the drawing,

Fig. 1 is a side elevation of the embodiment of the invention in its preferred form;

Fig. 2 is a transverse horizontal section taken substantially midway between the ends of the container;

Fig. 3 is a broken transverse section showing a modification in the construction of the side wall portions;

Fig. 4 is a broken vertical section showing one means of securing the bottom wall in the containers;

Figs. 5 and 6 are broken horizontal sections showing modifications in the construction of the container; and

Fig. 7 is a broken side elevation of another form of the invention.

The embodiment of the invention chosen for illustration in the drawing is a generally cylindrical container which is somewhat larger at the bottom than at the top, although it will be appreciated that the container may be made in any desired shape without departing from the spirit of the invention. The container, which is designated generally by the reference numeral 10, is made from a single blank 11 of material which may be either cardboard, heavy paper or other suitable material, the blank being generally quadrantal in shape. In the blank there are cut a plurality of vertically and horizontally aligned substantially rectangular apertures 12, which apertures in the illustrated embodiment of the invention become progressively smaller as they approach the upper edge of the blank.

After the apertures have been formed in the blank, a second blank 13 of transparent flexible material of the same size as the blank 11 is adhesively joined thereto. A plurality of spaced, longitudinal corrugations or ribs 14 are now formed in the laminated blank by any suitable method known in the art. As illustrated in Fig. 2, it is desired to form these corrugations between the apertured areas, the corrugations desirably being outwardly disposed. The apertured areas may be substantially flat, as illustrated in Fig. 2, or they may be inwardly curved, as illustrated in Fig. 5. In this latter instance, the outwardly protruding ribs or corrugations 15 between the apertures 16 are illustrated as being somewhat larger than the ribs 14 in Fig. 2, which latter construction is to be desired in cases wherein a higher order of strength is required. In this container a liner 17 of transparent flexible material is also provided as in the first embodiment.

In Fig. 3, the ribbed areas 18 the intermediate areas 19 having the aperture 19' are illustrated as being substantially flat with slightly curved corners. One method of securing the lower wall of the container in place is illustrated in Fig. 4. The bottom wall 20 is formed with a downwardly extending flange 21 lying on the same plane as the side walls of the container. After the blank has been formed into the shape of the truncated cone illustrated in Fig. 1, the bottom wall is put in

place and the flanged portion 21, together with the laminated side walls, are placed in a suitable machine which forms the inwardly disposed, annular recess 22, which firmly secures the bottom wall in place. If desired, a suitable amount of adhesive may also be used to further secure this lower wall. At the upper end of the container an inwardly disposed annular recess 23 is also formed, which annular recess serves as a seat which is indicated at 24 for the top closure disk, which is not shown.

In Fig. 6, the side walls of the container are formed with alternate raised areas 25 and depressed areas 26, which latter are formed with apertures 27 and in this instance the transparent flexible liner 28 is placed within the container after the corrugations or ribs have been formed and merely engages the inner surface of the container adjacent to the apertured areas. This type of construction presents a somewhat different appearance from the container shown in the preferred embodiment and may be successfully used as a container for dry or powdered materials as distinguished from liquids.

The preferred embodiment of the invention is of considerably greater depth than width and accordingly the ribs are vertically disposed. In many instances, however, a more shallow container is desired for such materials as cheese, butter and the like, and in this case, the ribs will be annularly rather than vertically disposed.

A container of this type is illustrated in Fig. 7 and is indicated by the numeral 31. The outer side wall portion 32 is formed with aperture 33 and a plurality of annular ribs 34. The container is likewise provided with a liner 36 of transparent material.

What I claim is:

1. In a container of the class described, the combination of an outer wall constructed of substantially flexible fibrous material and an inner wall adhesively joined thereto, the inner wall being made from a sheet of flexible, transparent cellulosic material, the outer wall having a plurality of spaced apertures therein which are in substantial alignment vertically, the walls of the container having a plurality of spaced vertical ribs disposed between the apertures in the outer wall, and a bottom closure secured at the lower end of the container.

2. A substantially cylindrical container of the class described, comprising in combination, an outer wall constructed of substantially flexible fibrous material and an inner wall adhesively joined thereto, the inner wall being made from a sheet of flexible, transparent material, the outer wall having a plurality of vertically and annularly aligned spaced apertures therein, the walls of the container having a plurality of outwardly disposed spaced ribs positioned between the apertures in the outer wall, and a bottom closure secured at the lower end of the container.

JULIUS BIDERMAN.