H. R. CROOKS.

BOTTLE.

APPLICATION FILED JAN. 30, 1914.

1,106,191. Patented Aug. 4, 1914.

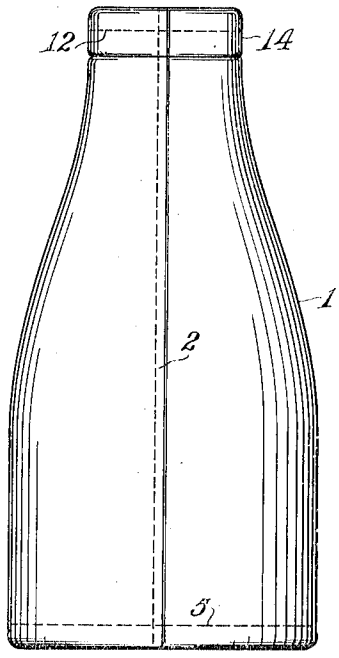


Fig. 1.

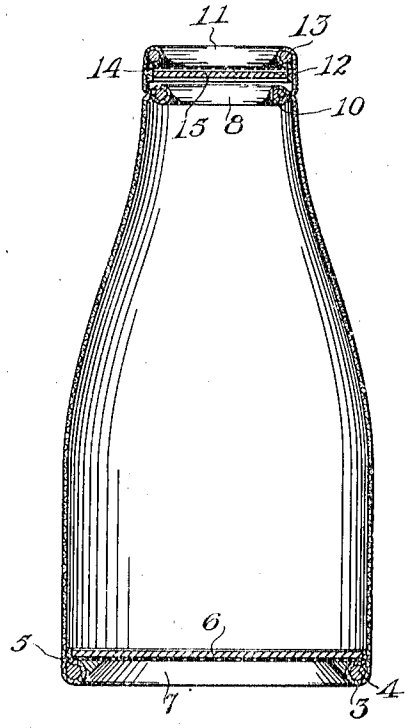


Fig. 2.

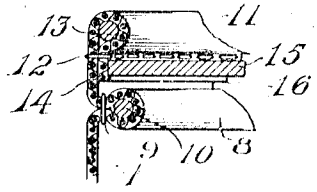


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

HARRY R. CROOKS, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE.

1,106,191. Specification of Letters Patent. Patented Aug. 4, 1914.

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To all whom it may concern:

Be it known that I, HARRY R. CROOKS, a citizen of the United States, residing at Germantown, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to vessels for containing liquid substances, especially bottles, and more particularly to that class known as "milk bottles."

The object of the invention is to provide such a bottle composed primarily of a suitable woven, fibrous fabric stiffened and made impervious to moisture by saturating the same with any suitable material while in a liquid state.

Another object of the invention is to provide a simple, efficient and inexpensive means for stiffening and closing the lower end thereof and a similar stiffening means for giving to the top of the bottle a substantially permanent predetermined shape.

Another object is to provide a suitable closure for the bottom of the bottle, held permanently in place by the adjacent stiffening means, and a suitable removable closure for the top of the bottle and, while in place, maintained in a given position vertically by the coöperation therewith of the adjacent stiffening means.

Further objects and advantages of the invention are hereafter fully brought out in the following specification when read in conjunction with the accompanying drawings, in which—

Figure 1 is a side elevation of a bottle embodying the preferred form of my invention; Fig. 2 is a vertical, diametrically transverse section of a bottle such as that shown in Fig. 1; and Fig. 3 is an enlarged, detail sectional view of one side of the upper edge of the bottle.

Referring to the drawings, the preferred embodiment of my invention comprises a body portion 1 of any suitable woven fabric circularly shaped and having its ends brought together to form a seam 2. The lower edge portion of said fabric is turned inwardly at 3, to surround a suitable ring 4 of suitable material such as stiff cord or wire, and secured upon itself by a row of stitching 5. This inwardly turned stiffened portion forms a shoulder or seat upon which rests the periphery of a disk 6 of suitable material such as stiff cardboard, said disk being held in place and having its union with its seat sealed by a ring 7 of plastic material substantially triangular in cross section.

Adjacent to its upper end the material 1 is folded inwardly and outwardly to form a loop or tuck 8 bound by a row of stitching 9 and inclosing a ring 10 of material preferably similar to that used at the bottom, while the uppermost edge portion of the material 1 is folded inwardly to form a loop 11 and secured by a line of stitching 12 to inclose a suitable stiffening ring 13, the edge of said material extending slightly below said stitching 12, to reinforce that section 14 of the material 1 lying between the tuck 8 and loop 11. A removable closure of suitable material such as cardboard 15 is provided and the same is forced by pressure into the position shown in Figs. 2 and 3 between said tuck and loop and coöperating with the reinforcing edge 16 of the fabric 1.

After the bottle has been made as hereinbefore described, and the plastic material 7 has sufficiently hardened, the removable closure 15 being removed, the bottle as a whole is dipped into melted paraffin or other suitable substance whereby the pores and the interstices of the fabric are thoroughly filled and a coating of such material remains upon the outer surfaces thereof. With this hardening or congealing of the paraffin or material used in its place the bottle becomes stiff, hard and water-proof, as well as acid proof to a greater or less degree. Such a bottle can be packed and shipped in great quantities in a flat or collapsed form and dipped in the melted paraffin but a relatively short time before using. Furthermore, after the bottle has been in use it may be readily collapsed and later extended to again serve in its intended capacity, though in such case the cracking of the stiffening material may create minute holes through which a liquid can trickle, in which case the bottle can be readily and inexpensively redipped in melted paraffin. In this last case it is to be noticed that no additional paraffin is used or taken up by the bottle fabric since the melted material serves simply to reliquefy and make homogeneous the material previously absorbed and carried by the fabric.

While I have described a device which embodies all of the essential details of the invention, it is obvious that many modifications as to shape, size and method of stiffen-

ing the same may be employed without departing from the spirit of the invention or the scope of the appended claims.

I claim:—

1. A bottle comprising sides of cloth shaped at the bottom by an annular member, and at the top by a pair of annular members, a disk closing the bottom and restrained from displacement by said member, and a disk closure for the top removably secured in place between the members of said pair.

2. A bottle comprising sides of cloth shaped at the bottom by an annular member, and at the top by a pair of annular members, a disk closing the bottom and restrained from displacement by said member, and a disk closure for the top removably secured in place between the members of said pair, the edge of said first member being sealed by plastic material, and the whole device made water-proof by saturation with a suitable material while liquefied.

3. A bottle comprising sides of cloth shaped at the bottom by an annular member, and at the top by a pair of annular members, a disk closing the bottom and restrained from displacement by said member, and a disk closure for the top, removably secured in place between the members of said pair, the edge of said first member being sealed by plastic material, and the whole device stiffened and made water-proof by saturation with liquid paraffin.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY R. CROOKS.

Witnesses:
H. GILBERT LIGHTCAP,
HOWARD A. DARLING.