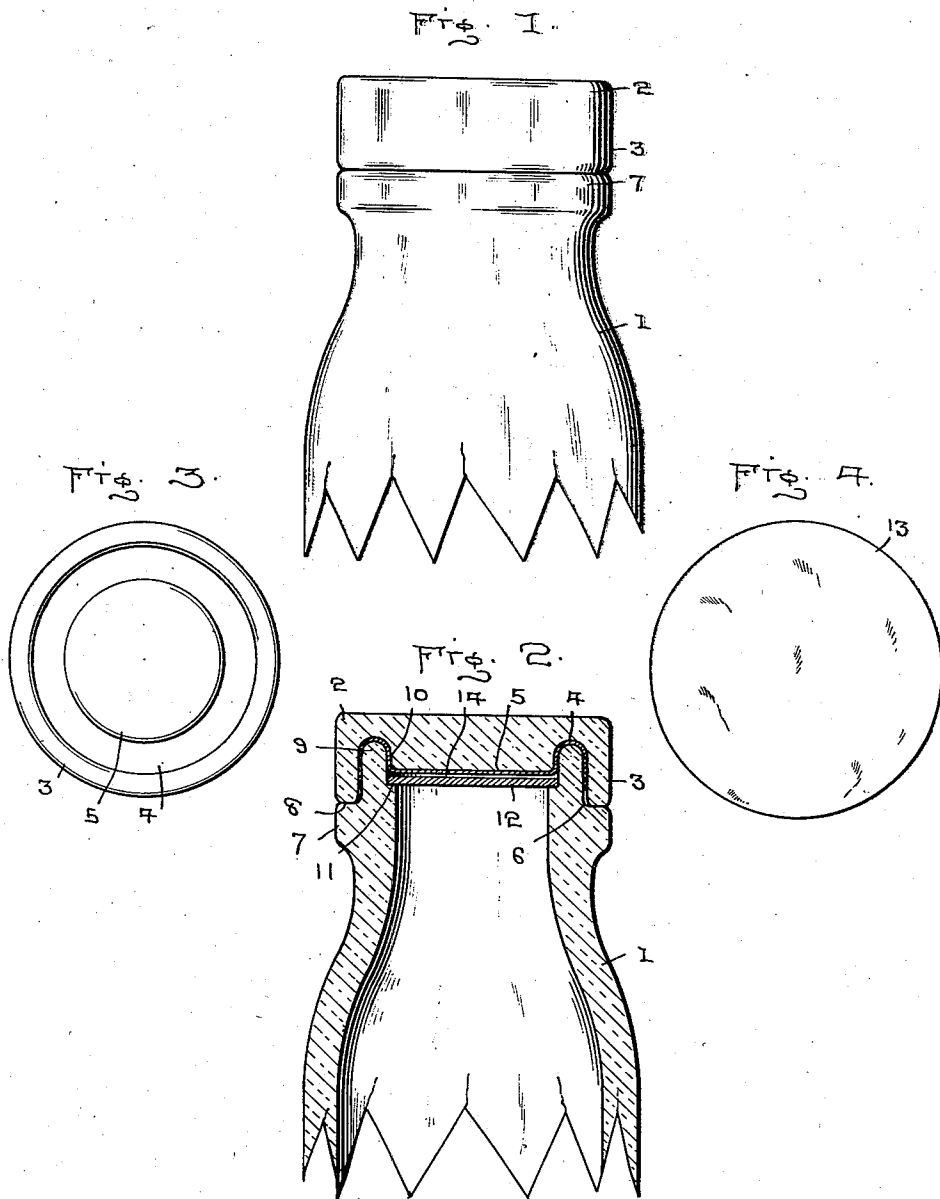


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MILK BOTTLE CLOSURE.
APPLICATION FILED JULY 13, 1914.

1,136,418.

Patented Apr. 20, 1915.



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UNITED STATES PATENT OFFICE.

GEORGE W. GOMBER, OF CONYNGHAM, PENNSYLVANIA.

MILK-BOTTLE CLOSURE.

1,136,418.

Specification of Letters Patent.

Patented Apr. 20, 1915.

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To all whom it may concern:

Be it known that I, GEORGE W. GOMBER, a citizen of the United States, residing at Conyngham, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Milk-Bottle Closures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention is on the nature of improvements in closures for jars or bottles and particularly for milk bottles.

The object of the invention is to provide such bottles with sanitary and reliable closures of simple, cheap and reliable construction.

With this object in view, the invention consists in the construction, arrangement and combination of the parts of a bottle closure which will be hereinafter fully described and afterward specifically claimed.

In order that the invention may be readily understood, I will proceed to specifically describe it in connection with the accompanying drawings which illustrate an approved embodiment and in which drawings—

Figure 1 represents in elevation a milk bottle equipped with this invention, the lower part of the bottle being broken away, Fig. 2, a sectional view on a vertical plane passing through the construction of Fig. 1, Fig. 3, an inside view of the cap or cover, and Fig. 4, a view of the sealing disk before application to the bottle.

Like reference characters mark the same parts in all of the figures of the drawings.

Referring to the drawings, 1 indicates a milk bottle of ordinary construction except as to the parts of the closure, and 2 the cap or cover, the latter being provided with a depending outer flange 3, a central plug or stopper 5 shorter than the flange, and a circular groove 4 between the flange and plug and having a transversely curved bottom.

At 6 is indicated the angle at the junction of an outside enlargement or shoulder 7 surrounding and encircling the bottle near its mouth, said enlargement providing a horizontal ledge 8, and serving as a hand hold in handling the bottle.

At 9 is indicated the mouth proper of the bottle, having a rounded edge the diameter of which mouth, at 10, is slightly greater than that of the neck below an inner rabbet,

whereby is formed a ledge 11 upon which may be seated a disk or closure 12 of suitable material, such as is used in known forms of bottle closures. The diameter of the plug 5 is very slightly less than the inner diameter of the mouth proper 9 and the said mouth 9 is of a size to fit loosely in the groove 4 of the cap.

13 indicates a fiber disk, preferably of waxed paper of a suitable diameter and thickness to serve the purposes hereinafter mentioned.

In using this closure, the disk 12 is crowded into the mouth of the bottle in the usual manner until it is seated on the ledge 11. The disk 13 is now laid on the curved or rounded edge of the mouth 9 with its edge projecting beyond said rounded edge, the cap being now placed upon the disk and pressed thereupon. The flange 3, owing to its length, will first press the projecting edge of the disk downward and tightly grasp said edge upon the outside of the mouth 9. Further pressure upon the cap will cause the flange to carry the edge of the disk down until the plug 5 engages the central portion of the disk, and in the final pressing of the cap to its seat with its edge resting upon the ledge 8, the disk will be tightly stretched over the plug 5 and the rounded edge of the mouth, and will be squeezed and tightly held between the plug and the inner side of the mouth and between the outer side of the mouth and the flange. The plug 5, with the disk 13 surrounding it, closely fitting in the mouth 9 during the closing operation, serves as a piston to compress the air between it and the disk 12 which will serve to keep the latter firmly in place on the ledge 11 and thus assist in a perfect closure.

The flange 3, when the closure is complete, rests with its edge on the ledge 8, and the outer diameter of the flange being the same as that of the shoulder 7, the closed bottle does not present any sharp corners or edges to gather refuse or to injure the hands of persons handling it, while the smooth outer surface of both cap and bottle greatly facilitates cleanliness.

The disk 13 is firmly held between the cap and the bottle, and, supplemented by the disk 12, leakage of the contents, or the admission of air, is rendered impossible.

What I claim as new is:—

1. A bottle closure comprising a bottle

mouth having its outer edge transversely rounded, a cap having an outer depending flange, a central plug or stopper shorter than the outer flange, and an annular groove with
5 a transversely curved bottom between the flange and plug, and a disk of flexible material squeezed between the cap and bottle, the central portion of said disk being tightly stretched over the plug to cause it to fit
10 tightly in the mouth proper, and the outer part of the flexible disk being stretched over the mouth proper and being tightly squeezed in the groove and between the mouth proper and the plug and flange of the cap.
15 2. A bottle closure comprising a bottle mouth having an enlargement or rib on the outside thereof forming an annular ledge, an annular inner ledge, and a mouth proper between these two ledges having its outer
20 edge transversely rounded, a closure disk resting on the inner ledge, a cap having an

outer depending flange of a width to rest upon the outer ledge when the closure is complete, a central plug or stopper shorter than the outer flange, and an annular groove
25 with a transversely curved bottom between the flange and plug, and a disk of flexible material squeezed between the cap and bottle, the central portion of said disk being tightly stretched over the plug to cause it to
30 fit tightly in the mouth proper, and the outer part of the flexible disk being stretched over the mouth proper and being tightly squeezed in the groove and between the mouth proper and the plug and flange of the cap. 35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. GOMBER.

Witnesses:

HARRY F. GOMBER,
ERVIN GOMBER.