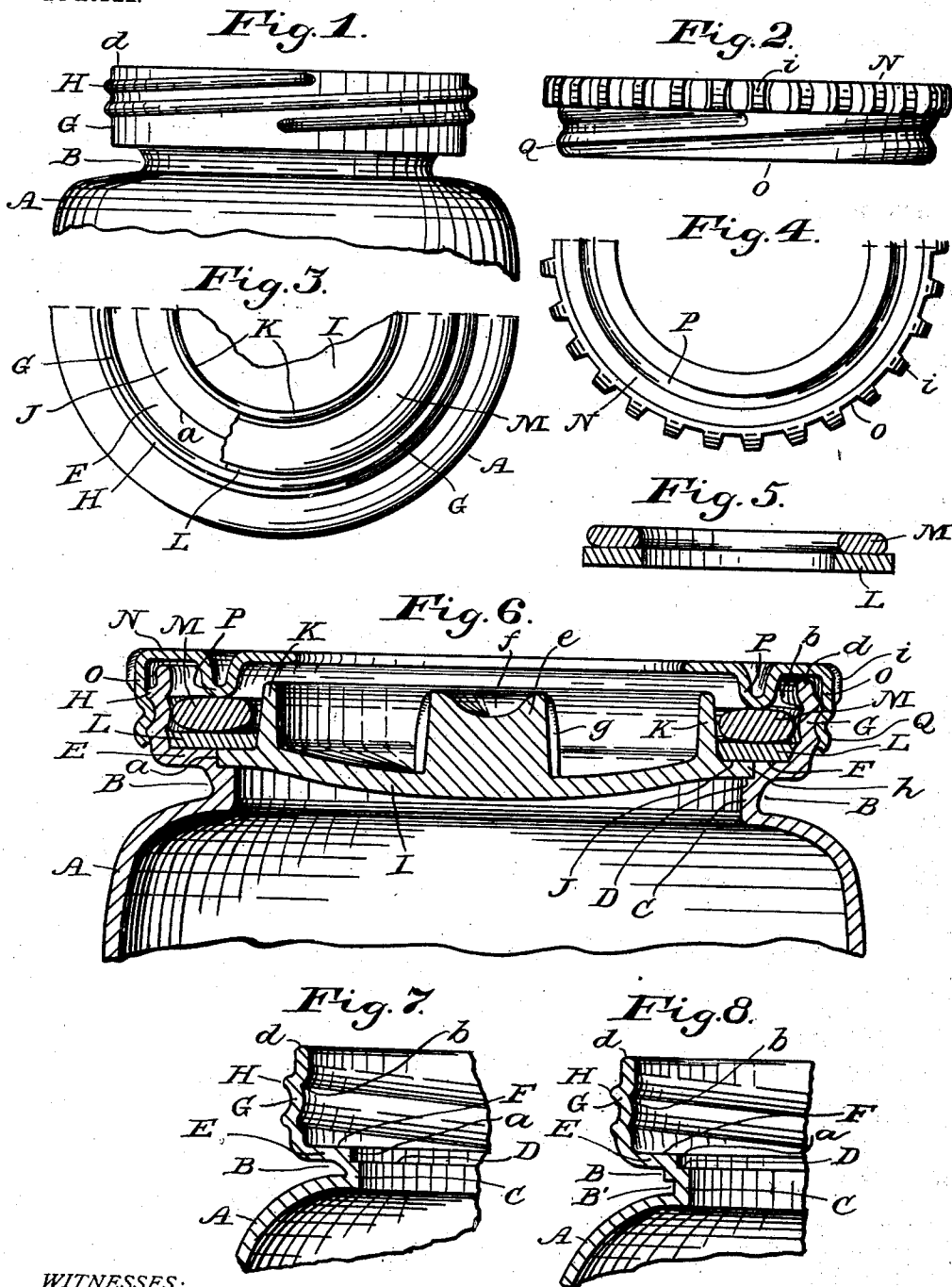


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A. SMELKER.
JAR NECK AND CLOSURE.
APPLICATION FILED AUG. 1, 1902.

NO MODEL.



WITNESSES:

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JAR NECK AND CLOSURE.

SPECIFICATION forming part of Letters Patent No. 727,470, dated May 5, 1903.

Application filed August 1, 1902. Serial No. 117,931. (No model.)

To all whom it may concern:

Be it known that I, ANGELINE SMELKER, a citizen of the United States, residing at Greenville, in the county of Darke and State of Ohio, have invented new and useful Improvements in Jar Necks and Closures; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to jars and cans for preserving fruits, jellies, and the like; and it has reference more particularly to the jar neck and mouth and the devices for closing the mouth.

The object of my invention is to provide a jar having a neck and closing devices which may be cheaply constructed of inexpensive material, such as glass and tin-plate and similar materials, and particularly a jar and neck that may be formed of plate of uniform thickness throughout, the walls of which may be pressed or molded into the requisite shapes without requiring the attachment of additional thicknesses of the material to the walls.

My present invention consists in certain improved forms of construction relating to the neck, the lid, and the sealing-ring presser and in the novel parts and the combination and arrangement of parts, as hereinafter particularly described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a fragmentary elevation view of a jar or can, showing the neck thereof constructed substantially in accordance with my invention; Fig. 2, a view in elevation of the retaining-ring; Fig. 3, a fragmentary top plan view showing one-half of the jar and the lid thereon and showing also a portion of the sealing-ring presser upon the sealing-ring; Fig. 4, a top plan view of one-half of the retaining-ring; Fig. 5, a vertical central sectional view of the sealing-ring and the sealing-ring presser in their relative positions; Fig. 6, a central vertical sectional view of the upper portion of the jar and neck, the lid, and the sealing devices, all being in operative positions; Fig. 7, a fragmentary vertical sec-

tional view of the jar and neck; and Fig. 8, a fragmentary vertical sectional view of the jar and neck, showing slight modification in the form of the neck.

In the drawings, similar reference characters indicate corresponding parts throughout.

The jar A in construction may be composed of either glass formed in suitable molds and blown in the usual manner, or of tin-plate pressed in formers, or of any other suitable material, and the neck may be either less in diameter or substantially the same as that of the body portion. Near the upper end or top of the jar is the neck proper, above which is the enlarged portion, termed the "mouth," in which the lid and the sealing-ring are seated.

In forming the neck an external annular groove B is formed, the wall C of the neck being pressed inwardly, and in most cases an additional shallow groove B' will be formed at the bottom of the main groove B as a part thereof. At the top of the wall C is a slight annular recess forming the lid-seat D, the outer wall of the recess serving as a lid-guide α and corresponding to the sealing-joint between the lid and the jar-neck. A substantially horizontal flange E extends outwardly from the upper portion of the wall C, the upper face of the flange providing the neck portion of the sealing-ring seat F, which is flat and horizontal at the bottom of the mouth in a plane above the seat D. The annular mouth-wall G extends upwardly from the extremity of the flange E and is substantially vertical and has the external screw-thread H pressed thereon, so formed with an internal groove b . The top d of the wall G is preferably finished smoothly and slightly rounded, so that a paper cap may be fitted thereon, if desired, when the retaining-ring is not used.

The lid I is preferably dished or depressed, the center having a knob e , in the top of which is a depression f and at the sides of which are vertical ribs g , the latter to provide finger-holds for lifting the lid. The peripheral portion h bears upon the seat D and provides the sealing-ring seat J of the lid part of the seat, the lid fitting neatly within the guide-wall α . An annular flange K extends up-

wardly from the top of the lid near the portion *h*, although in some cases this may be omitted, or it may be somewhat shorter than indicated.

- 5 The elastic sealing-rings L are preferably flat and rectangular in cross-section, so as to be cheaply produced, a ring being relatively thick, so as to provide a tight joint and seated upon the seat parts F J, being of such diameter as to fill the space between the wall G and the flange K.

A non-elastic annular sealing-ring presser M rests upon the sealing-ring L and may be composed either of metal or other suitable material and is somewhat elliptical, as in Fig. 6, in cross-section, or the upper and lower faces may be flat and parallel with rounded edges, as in Fig. 5.

The retaining-ring comprises annular angle-flanges, the body-flange N being horizontal and the flange O vertical relatively. The body-flange N has an annular bearing-rib P, pressed downwardly so as to centrally engage the presser L below the top *d* of the wall G. A screw-thread Q is pressed in the flange O, adapted to engage the thread H, and external vertical ribs *r* are formed at the upper part of the flange O as finger-holds, extending in a row about the rings.

In the construction above described it will be seen that the jars may be blown into molds and cheaply produced by well-known means, and the lids may be formed in molds inexpensively also. The rings L may be cut in emergency from sheet-gum packing with ordinary means at hand. It will be apparent also that the sealing may be accomplished by means of wax or plastic material placed upon the sealing-ring seat, and the ring L, the presser M, and retaining-ring dispensed with.

In ordinary use the several operations of filling the jar and sealing the same and also unsealing will be readily understood. The use of the presser M will prevent the annoyance due to adherence of a retaining-ring to the sealing-ring and permit free movements of the retaining-ring. In storing jellies wire clamps may be employed in lieu of the retaining-ring for holding down the lid or the presser.

Having thus described my invention, what I claim is—

1. A jar having a neck and mouth formed of walls of uniform thickness contracted so as to form an external annular groove below the mouth, a lid-seat in the neck, and a portion of a sealing-seat in a plane above the groove, in combination with a lid upon the lid-seat and having a portion of a sealing-seat, and sealing material covering the two portions of the sealing-seats.

2. A jar having a neck and mouth formed of walls of uniform thickness contracted so as to form an external annular groove below the mouth, a lid-seat in the neck, a horizontal sealing-ring seat above the groove, and a screw-thread about the mouth above the

groove, in combination with a lid cooperating with the lid-seat, a sealing-ring seated upon the sealing-ring seat and also upon the lid, and a retaining-ring having operative connection with the sealing-ring and also having a screw-thread cooperating with the screw-thread about the mouth.

3. A jar having a neck and mouth formed of walls contracted and forming an external annular groove below the mouth, a lid-seat in the neck, a horizontal sealing-ring seat above the groove, and a screw-thread about the mouth above the groove, in combination with a lid cooperating with the lid-seat, a sealing-ring seated upon the sealing-ring seat and also upon the lid, a sealing-ring presser upon the sealing-ring, and a retaining-ring engaging the presser and having a screw-thread cooperating with the screw-thread about the mouth.

4. A jar having a neck provided with a contracted portion at the outer side of which is an annular groove, a lid-seat at the top of the contracted portion, a portion of a sealing-ring seat in a plane above the groove, and a screw-thread above the groove, in combination with a lid upon the lid-seat and having a portion of a sealing-ring seat, a sealing-ring bearing upon the sealing-ring seat, a presser bearing upon the sealing-ring, and a retaining-ring having an annular rib bearing upon the presser and also having a screw-thread cooperating with the screw-thread above the groove.

5. A jar having a neck-wall at the outer side of which is an external annular groove above which is an outwardly-extending flange, a lid-seat in the neck-wall, a sealing-seat at the top of the flange, and a screw-thread above the flange about the mouth of the neck, in combination with a lid upon the lid-seat, a sealing-ring bearing upon the sealing-ring seat and partly upon the lid, a presser bearing upon the sealing-ring and having faces with rounded edges, and a retaining-ring having a rib bearing upon the presser and also having a screw-thread cooperating with the screw-thread above the flange.

6. In a jar neck and closure, the combination of a neck having a lid-seat therein, a horizontal outwardly-extending flange at the top of the neck, a mouth-wall extending upwardly from the flange, a screw-thread on the mouth-wall, a lid on the lid-seat and having an upwardly-extending flange, and a sealing-ring seated partly upon the horizontal flange and partly upon the lid, with a presser seated upon the sealing-ring, and a retaining-ring having operative connection with the presser and also having a screw-thread cooperating with the screw-thread on the mouth-wall.

7. In a jar neck and closure, the combination of a neck having a lid-seat therein, a substantially horizontal outwardly-extending flange at the top of the neck, a mouth-wall extending upwardly from the flange, a lid on

the lid-seat and having an upwardly-extending flange, a sealing-ring seated partly upon the horizontal flange and partly upon the lid, and a presser bearing upon the sealing-ring, 5 with means whereby the presser may be held forcibly upon the sealing-ring, substantially as set forth.

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

ANGELINE SMELKER.

Witnesses:

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O. R. KRICKENBERGER.