

No. 749,457.

PATENTED JAN. 12, 1904.

A. SMELKER.
JAR NECK AND CLOSURE.
APPLICATION FILED JUNE 15, 1903.

NO MODEL.

Fig. 1.

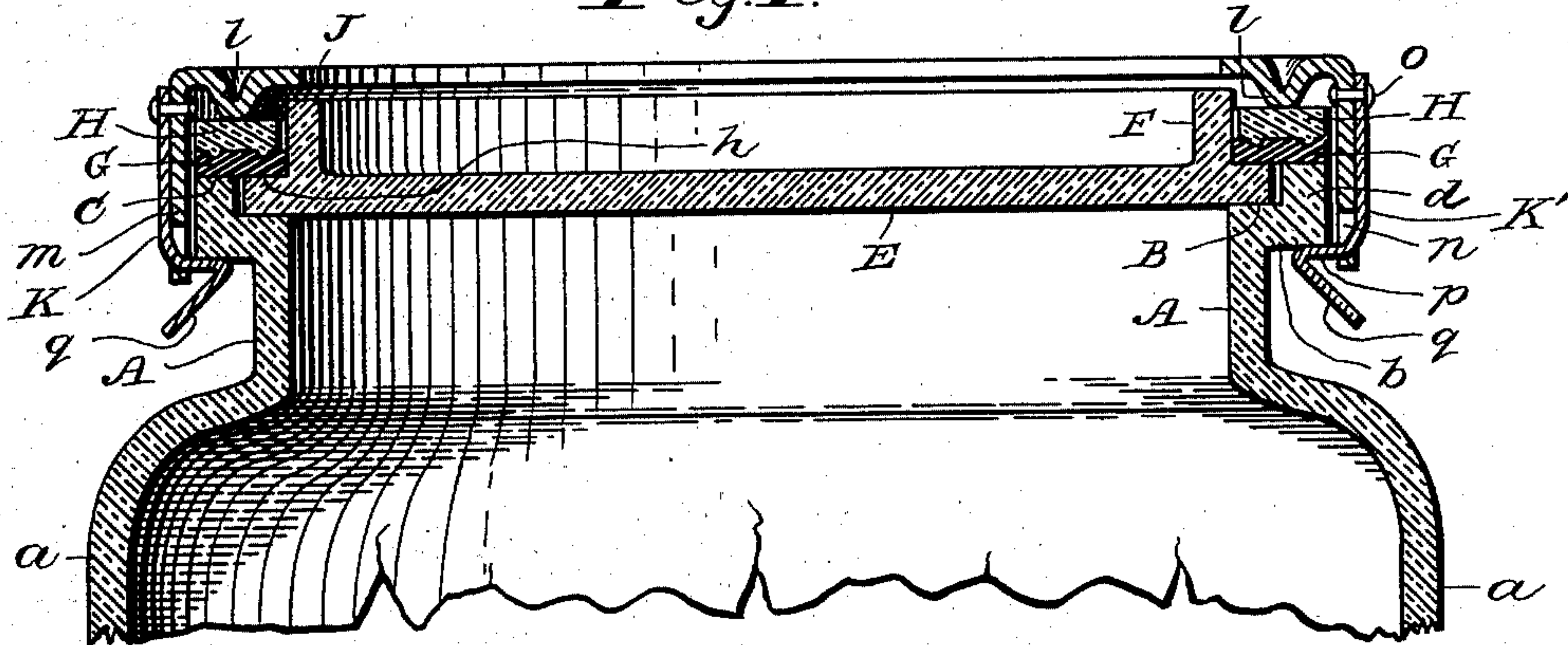


Fig. 2.

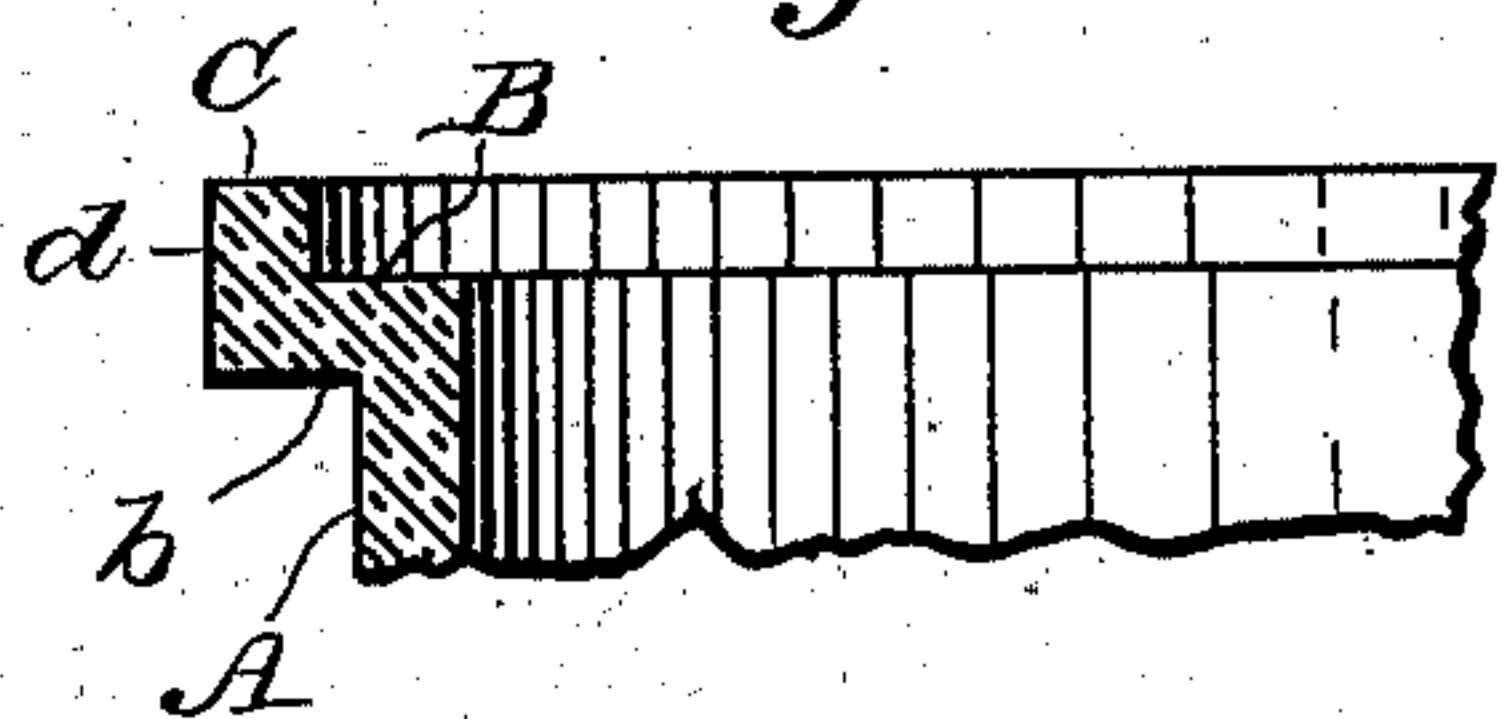


Fig. 3.

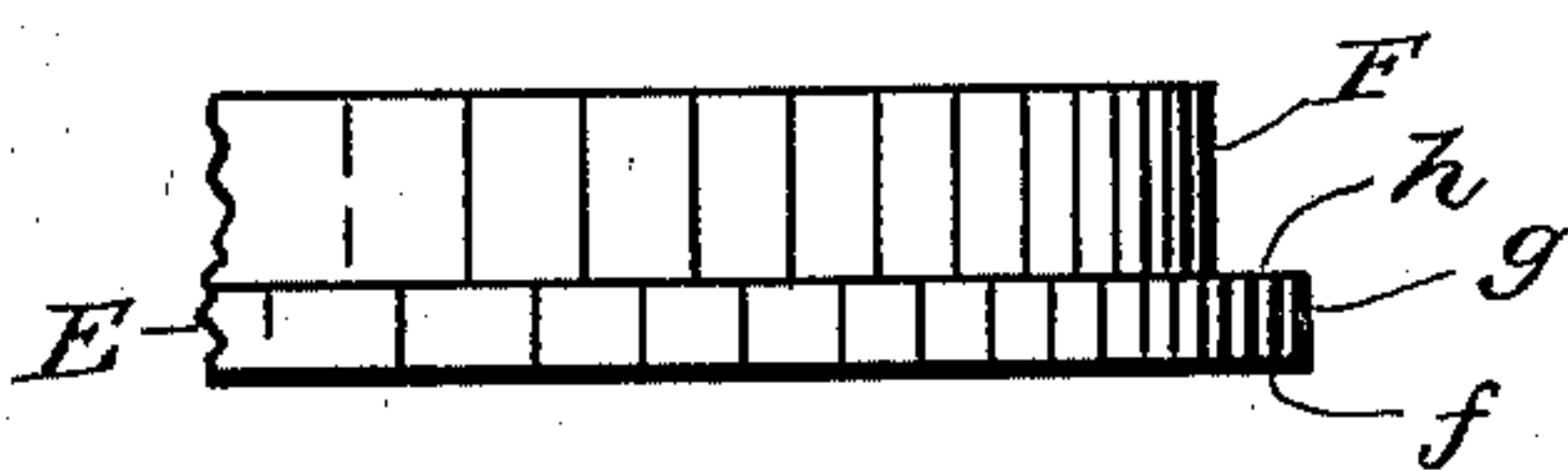


Fig. 4.

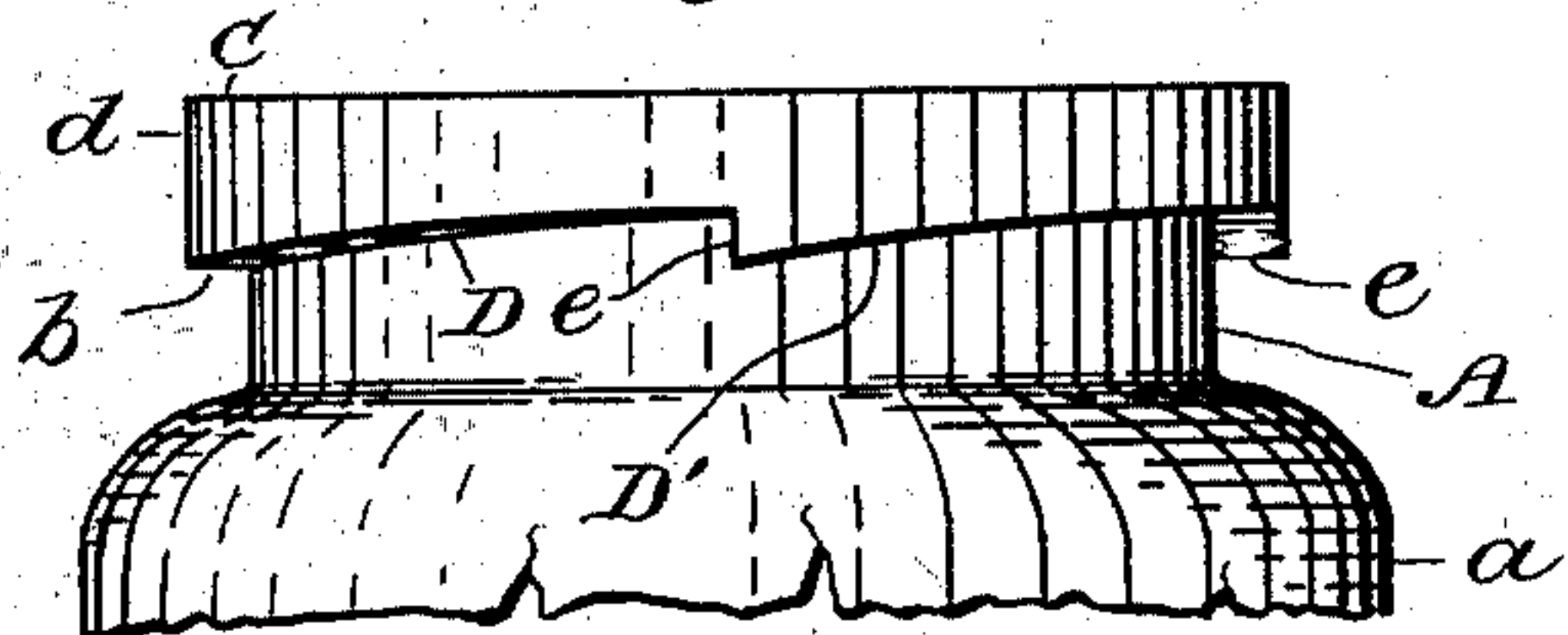


Fig. 5.

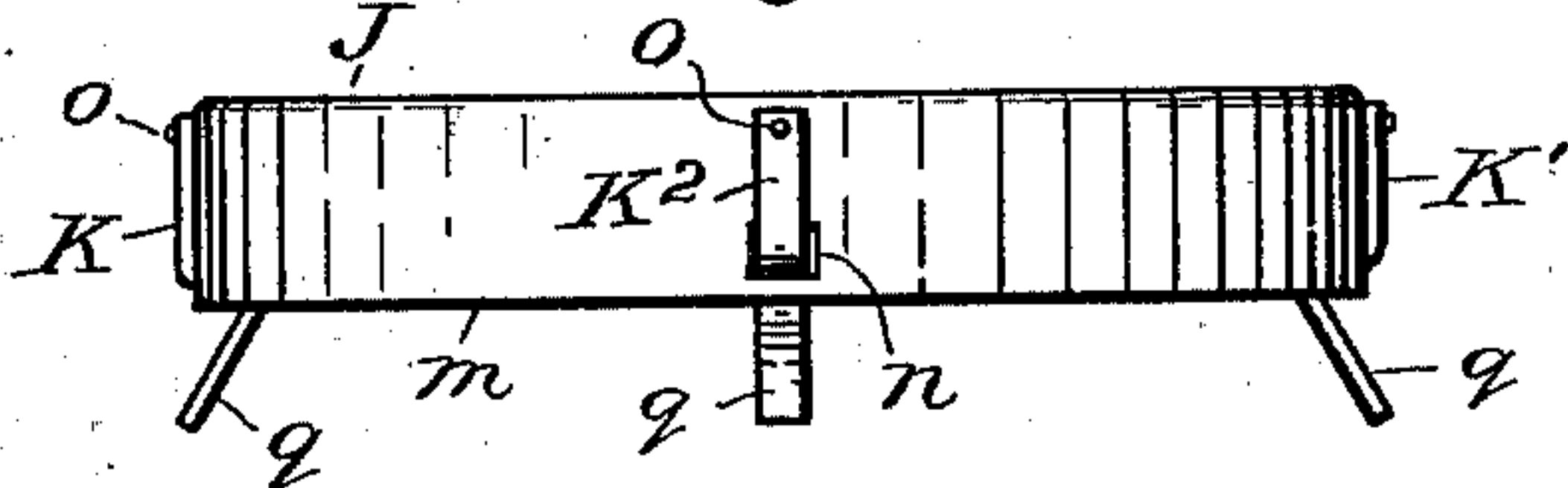


Fig. 7.

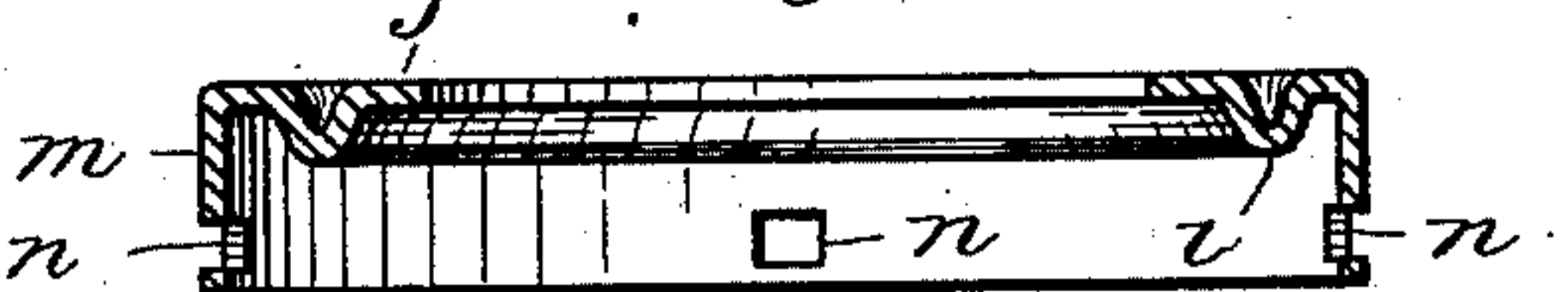


Fig. 6.

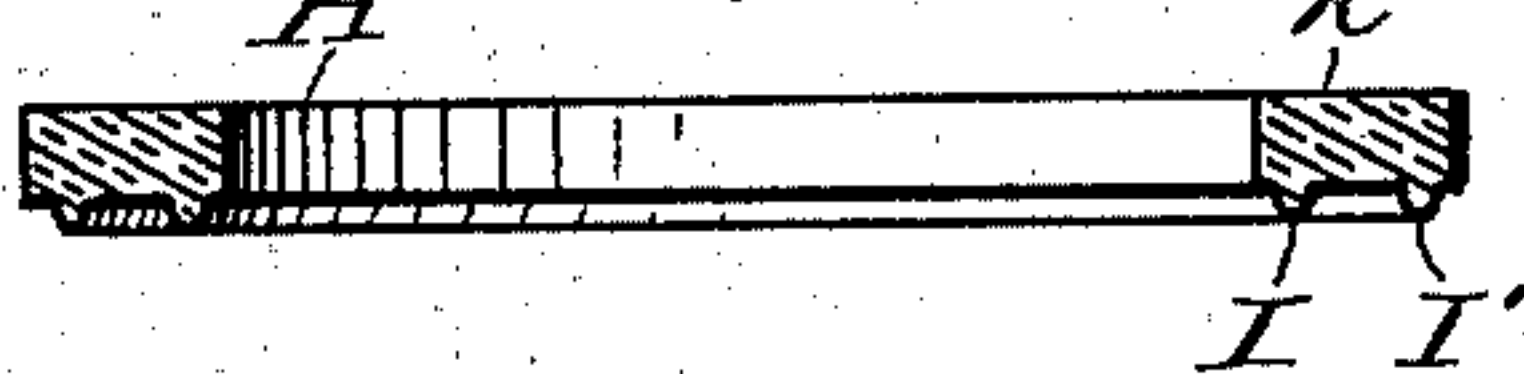


Fig. 9.

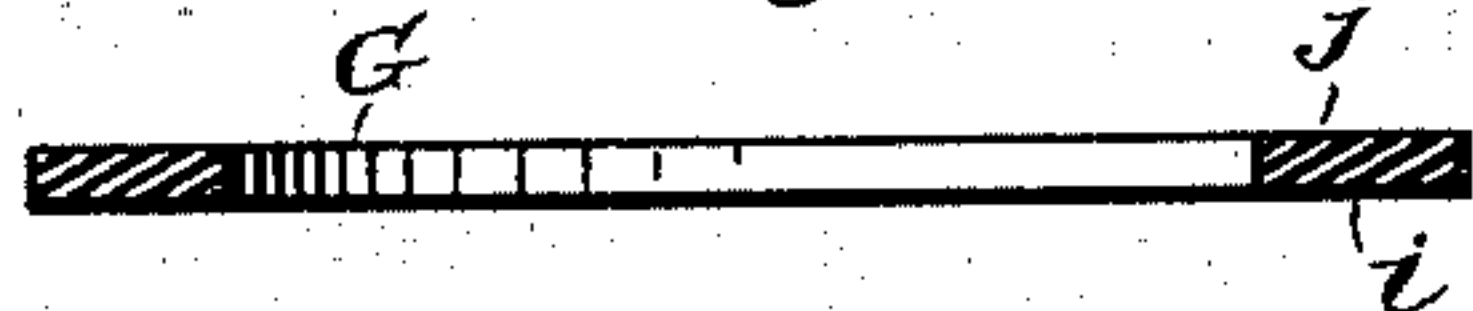
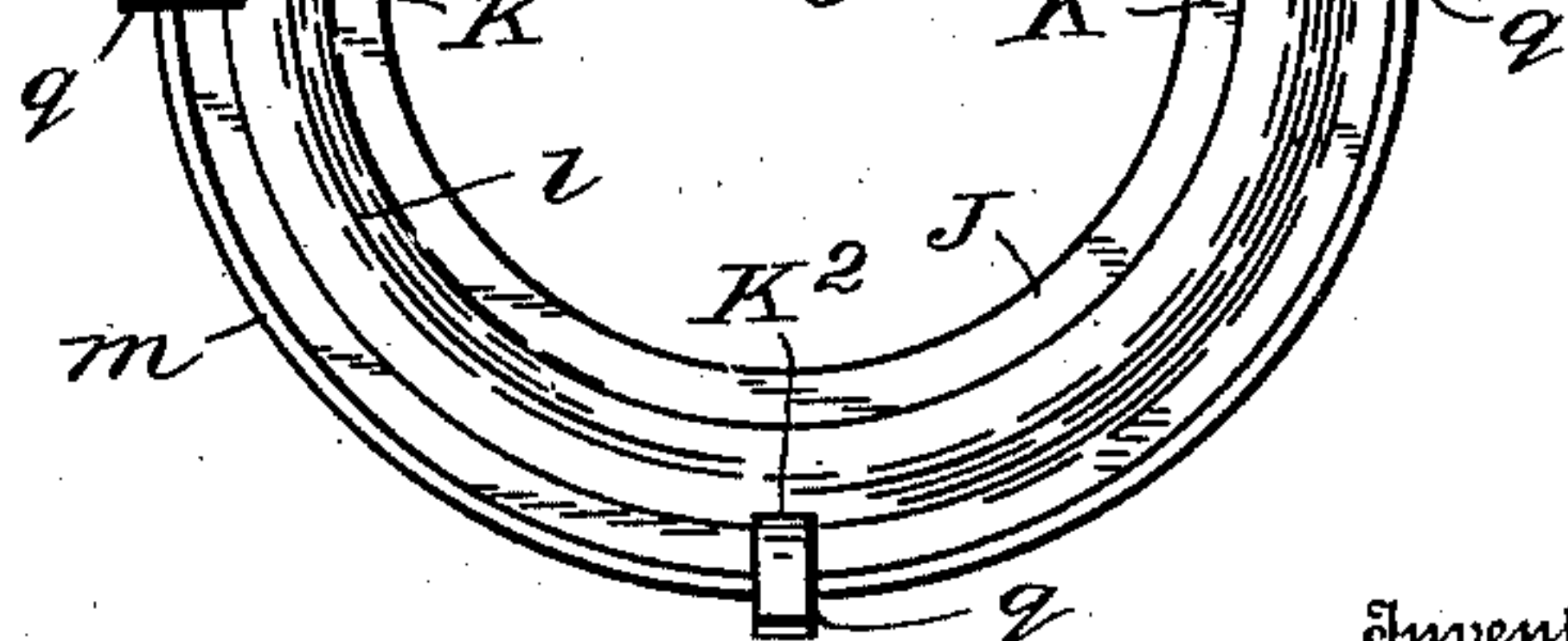


Fig. 8.



Witnesses:

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UNITED STATES PATENT OFFICE.

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JAR NECK AND CLOSURE.

SPECIFICATION forming part of Letters Patent No. 749,457, dated January 12, 1904.

Application filed June 15, 1903. Serial No. 161,476. (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.

This invention relates to vessels, such as jars and cans, for preserving fruits, jellies, and such substances; and it has reference particularly to the jar necks and mouths and to the lid and the sealing devices therefor.

My object is to improve the construction of jar necks and closures, so that the production thereof may be cheapened, an object being to provide that the neck and mouth may be made of material of uniform thickness the same as the body of the vessel, another object being to provide a retaining-ring that may be easily disconnected from the top of the vessel to remove the contents thereof without requiring any special appliance therefor.

The invention consists in certain improved forms of construction relating to the jar-neck, the lid, the sealing-ring presser, and the retaining-ring; and it consists also in the novel parts and in the combination and arrangement of parts, as hereinafter particularly described, and pointed out in the appended claims.

Referring to the drawings, Figure 1 is a central vertical sectional view of the upper portion of a jar having the improved neck and mouth, the lid applied thereto, and the sealing devices in their operative positions connected therewith; Fig. 2, a fragmentary vertical sectional view showing the form of the mouth of the neck; Fig. 3, a fragmentary elevation of the lid; Fig. 4, an elevation of the upper portion of the jar having the improved neck and mouth; Fig. 5, an elevation of the retaining-ring having my improvements applied thereto; Fig. 6, a central vertical sectional view of the improved sealing-ring presser; Fig. 7, a central vertical sectional

view of the retaining-ring without its latches; Fig. 8, a fragmentary inverted plan view of the retaining-ring, and Fig. 9 is a vertical central sectional view of the sealing-ring of common form.

Similar reference characters in the several figures of the drawings designate like parts.

In construction the jar-body *a* may be composed of any suitable material or substance, preferably of glass, and the neck *A* is preferably less in diameter than the body, as usual. At the top of the neck proper a flat lid-seat *B* is formed, below the plane of which a horizontal annular flange *b* is formed, which extends outwardly from the neck, and at the extremity of the flange an annular mouth-flange *d* rises therefrom, extending about and above the lid-seat *B*, the top of the mouth-flange having a sealing-ring seat *C* formed thereon. At the bottom of the flange *b* a suitable number of inclined faces, as *D D'*, are formed thereon, extending as wedge-like inclined segments about the neck *A*, the ends of the segments meeting with the shoulder *e*, where the thicker part of one segment terminates at the thinner end of the adjacent segment, the purpose of which will presently appear.

The lid *E* comprises a circular plate, preferably of glass, at the under side of the edge portion of which is a seating-face *f*, the periphery *g* of the lid fitting neatly within the confines of the mouth-flange *d*. The thickness of the lid is such that when the face *f* rests on the seat *B* the sealing-ring seat *h* at the top of lid near the periphery *g* will be in the same plane as the seat *C* at the top of the mouth-flange. The lid is provided with an annular upturned rim *F* near the periphery thereof and extending higher than the seat *h*, which is for the purpose of guiding the sealing-ring and also the sealing-ring presser to their proper positions and also to serve as a finger-hold for lifting the lid.

The sealing-ring *G* is elastic and has straight parallel joint-faces *i* and *j*, being a common form of circular washer adapted to fit around the rim *F*.

The sealing-ring presser *H* is of annular

form, preferably of glass, and at one side thereof is provided with two concentric ribs I and I', one being near the inner edge and the other near the outer edge thereof, so that one rib will appear above the seat *k* and the other above the seat C when in use and adapted to be pressed into the face of the ring G. The upper or opposite face *k* of the presser has a plane surface and is adapted to be engaged by the retaining-ring. The ring H is adapted to fit loosely about the rim F.

The retaining-ring J comprises an annular body having at the under side thereof an annular rib *l* and a flange *m*, in which are a suitable number of slots or apertures *n* near the extremity thereof. A suitable number of spring-latches, as K K' K², are attached to the retaining-ring or to the flange thereof, as by means of rivets *o*, the latches extending through the slots *n* and each latch including a lug *p*, adapted to engage the inclined faces D D' and also including a finger *q*, suitably inclined, so that when placed in contact with the presser H in applying the retaining-ring the latches will be forced outwardly to permit the ring to be depressed to its proper position. The fingers are also adapted to be drawn outwardly by hand when unsealing in order to easily release the rings. There are, of course, proportionately one latch to each inclined face employed—usually from two to four.

It will be understood, of course, that while it is preferable to employ the presser H this may in some cases be dispensed with, as the rib *l* may bear directly on the ring G, if desired. Also plastic substance may be used in connection with the presser H for sealing in lieu of the elastic ring G, if preferred.

In practical use the operations of filling the jars and applying the lids and sealing-rings and presser will be readily understood from the above description of the construction of the several parts. In placing the retaining-ring in position the fingers *q* will first engage the presser and force out the latches, which will then slide down with the ring J until the lugs spring into place adjacent to the shoulders *e*, the ring of course being suitably set so that this may be effected. Then the ring J may be rotated, the rib *l* bearing on the ring H and the lugs *p* engaging the inclined faces D D', until the sealing is accomplished. When removing the retaining-ring, the latches must be drawn outwardly until released from the inclined faces, which may be accomplished much more easily than by rotating the rings that are usually employed.

It will be obvious, of course, that when desired other suitable means may be employed for securing the retaining-ring to the jar-neck or its mouth.

Having thus described the invention, what I claim as new is—

1. A jar having a neck and mouth formed of walls contracted so as to form an annular

flange about the top of the neck and a lid-seat on the top of the neck-wall, the mouth-wall extending upwardly from the annular flange and having a sealing-ring seat on the top thereof, a lid on the lid-seat and having an up-turned rim and a sealing-ring seat beyond the rim in the same plane as the seat on the top of the mouth-wall, a sealing-ring on said sealing-ring seats, a sealing-ring presser having concentric annular ribs engaging the sealing-ring, and a retaining-ring engaging the presser and also the mouth-wall.

2. A jar having a neck provided with inclined faces about the outer side thereof, a lid, a sealing-ring, and a retaining-ring cooperating with the sealing-ring and having slots therein, and spring-latches secured to the retaining-ring and extending through the slots to the inclined faces.

3. A jar having a neck and mouth formed of walls of uniform thickness and having a sealing-ring seat on the top of the mouth-wall and also having a lid-seat in a plane below the sealing-ring seat, a lid seated on the lid-seat and extending up to the plane of the top of the wall and having a rim extending upwardly beyond the top of the mouth-wall, a sealing-ring seated on the seat on the mouth-wall and also on the top of the lid, a retaining-ring cooperating with the sealing-ring and having latches cooperating with the mouth-wall.

4. In a jar neck and closure, the combination of a neck having a mouth-wall at the exterior of the top thereof, a lid seated on the top of the neck and extending to the mouth-wall radially and also to the top thereof, a sealing-ring seated partly upon the lid and partly upon the top of the mouth-wall, a presser having concentric ribs one bearing on the sealing-ring above the mouth-wall and the other bearing on the sealing-ring above the lid, with means whereby the presser may be held forcibly upon the sealing-ring.

5. In a jar neck and closure, the combination of a neck having an external annular flange provided with inclined faces at the under side thereof, a lid seated in a plane at the top of the flange, a mouth-wall extending upwardly from the flange, a sealing-ring, a sealing-ring presser, a retaining-ring having slots therein, and spring-latches attached to the retaining-ring and extending through the slots to the inclined faces.

6. In a jar neck and closure, the combination of a neck and mouth formed of walls of uniform thickness, there being a horizontal annular flange connecting the neck-wall and the mouth-wall uniform in thickness therewith and forming a lid-seat, and the top of the mouth-wall forming a sealing-seat, with a lid seated on the lid-seat and extending up to the plane of the top of the mouth-wall, a sealing-ring, and a retaining-ring cooperating with the sealing-ring and the mouth-wall.

7. In a jar neck and closure, the combina-

tion of a neck and connected mouth-wall
formed of walls of uniform thickness, a lid
seated on the top of the neck-wall and ex-
tending to the plane of the top of the mouth-
5 wall and having a rim extending upwardly
beyond the plane of the mouth-wall, a sealing-
ring seated on the top of the mouth-wall and
also on the lid, and an annular sealing-ring
presser on the sealing-ring, with an annular

retaining-ring bearing upon the presser and so
engaging the mouth-wall.

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

ANGELINE SMELKER.

Witnesses:

WM. H. PAYNE,
E. T. SILVIUS.