

No. 717,073.

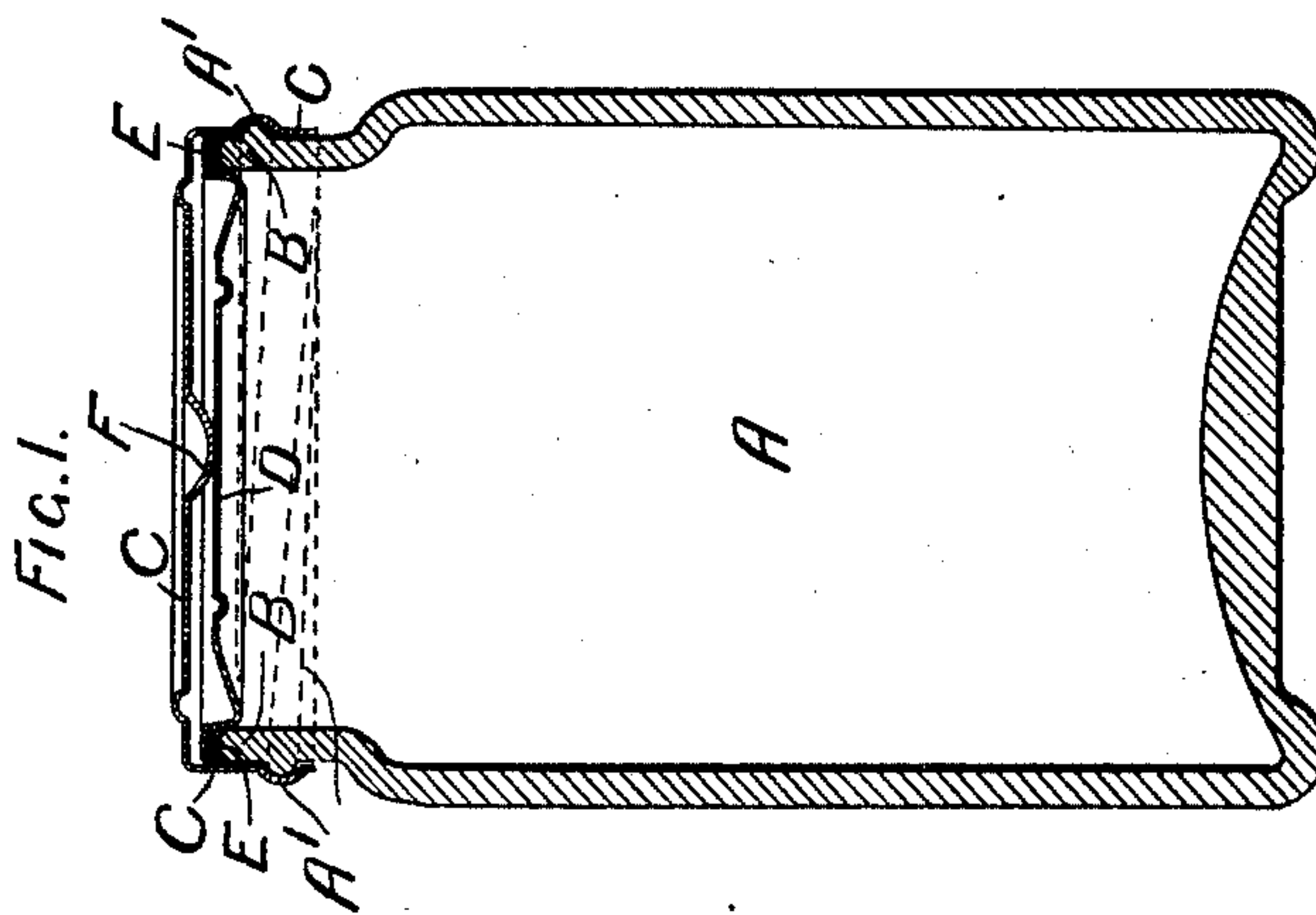
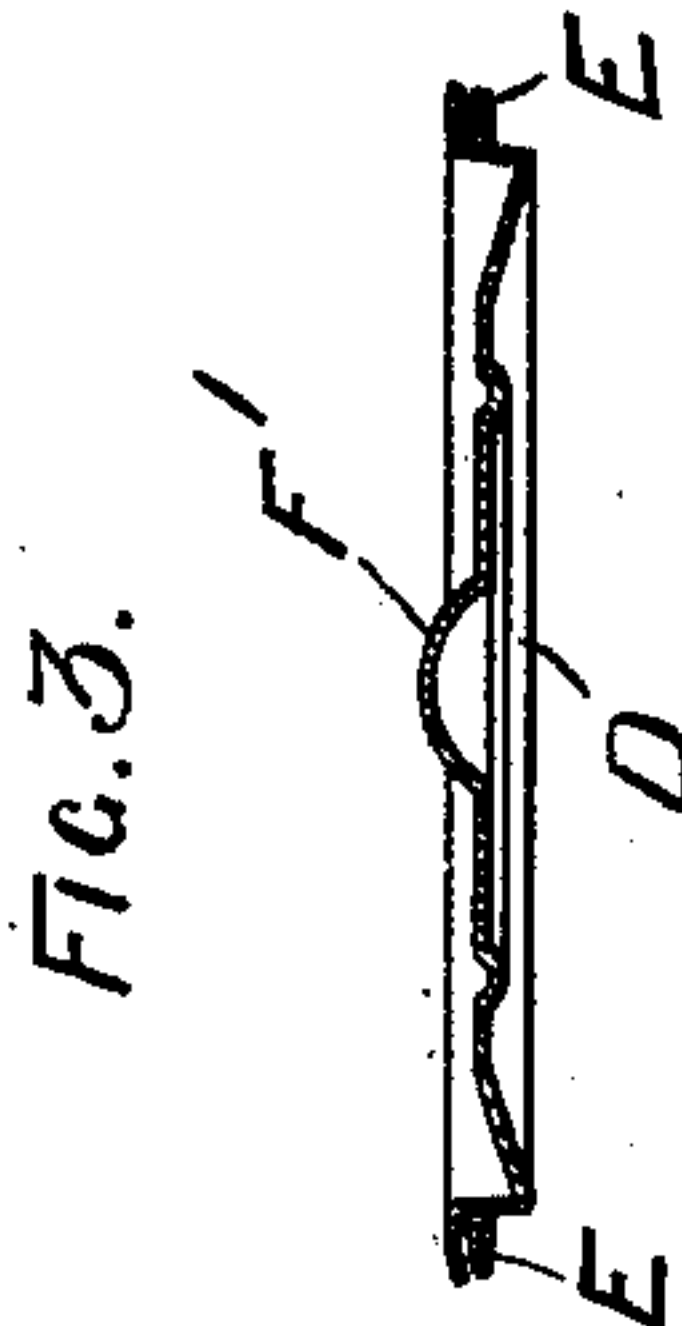
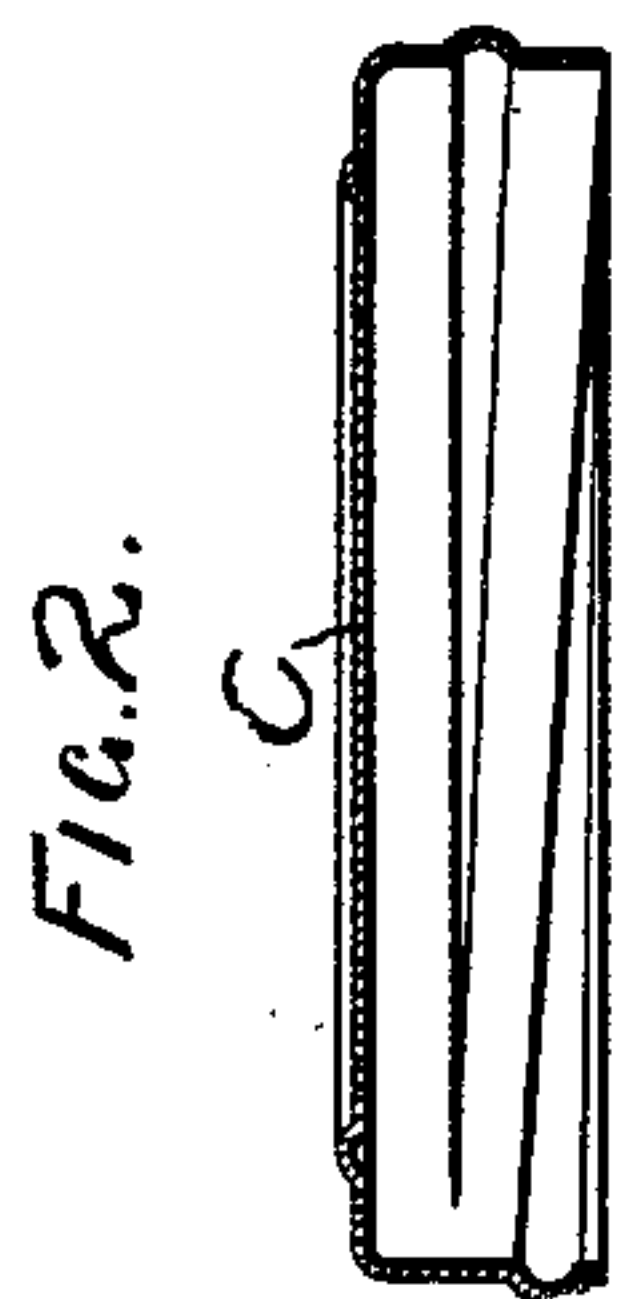
Patented Dec. 30, 1902.

J. M. CAIRNS.

COVER OR STOPPER FOR PRESERVE JARS OR THE LIKE.

(Application filed Oct. 23, 1901.)

(No Model.)



Witnesses:
J. C. Hebert.
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UNITED STATES PATENT OFFICE.

JAMES MITCHELL CAIRNS, OF PAISLEY, SCOTLAND.

COVER OR STOPPER FOR PRESERVE-JARS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 717,073, dated December 30, 1902.

Application filed October 23, 1901. Serial No. 79,643. (No model.)

To all whom it may concern:

Be it known that I, JAMES MITCHELL CAIRNS, a citizen of the United Kingdom of Great Britain and Ireland, residing at St. George Preserve Works, Paisley, county of Renfrew, Scotland, have invented certain new and useful Improvements in Covers or Stoppers for Preserve-Jars or the Like, (for which patent has been obtained in Great Britain, No. 6,406, dated March 27, 1901,) of which the following is a specification.

This invention has for its object to provide an air-tight cover or stopper of simple and inexpensive construction for securing the contents of preserve-jars and the like.

In the accompanying drawings, which illustrate the invention, Figure 1 is a vertical section of a jar fitted with one form of the improved cover or stopper. Figs. 2 and 3 are vertical sections of modified forms of the parts comprising the cover.

As shown by the drawings, the jar A employed, which may be of glass, stone, or other ware, is of a kind in which a screw-thread A' is formed around the neck or mouth B, whereon a similarly-screw-threaded cap or cover C is fitted. A disk D, of metal or other material, which is preferably corrugated to impart to it strength and elasticity, is interposed between the cap C and jar-mouth B, and this disk D is recessed or dished around its edge to retain a packing-ring E, of rubber or other soft material, where it fits upon the jar-mouth B.

The cap C is dented or formed with an inverted center dome F, which when the cap C is screwed down on the jar-neck B presses on the interposed disk D, the pressure being transmitted to the packing-ring E and insuring a tight joint. As an alternative the cover C and disk D may assume the form shown at Figs. 2 and 3, respectively, the disk being provided with an upwardly-projecting dome F and the cover being flat.

In filling the jar the preserve is preferably poured in while in a hot condition, the inner disk being immediately thereafter placed with its rubber or other packing ring upon the upper edge of the jar. On the cooling of the preserve a partial vacuum is formed, which causes the inner disk to adhere to the upper edge of the jar, and on the outer cover being

screwed down further pressure is brought to bear upon the packing-ring, and the jar is thereby hermetically sealed.

The jar may be used for other purposes than holding preserves, such as fluids or substances which are filled into the jar at atmospheric temperature, in which case the hermetic sealing of the jar is effected alone by the pressure of the screwed outer cover communicated through the inner disk upon the packing-ring.

Having now described the invention, what I claim, and desire to secure by Letters Patent, is—

1. In a fruit-jar closure, a neck having an exterior screw-thread, a disk dished so as to be L-shaped in cross-section at the peripheral edge so as to fit down into as well as on top of the jar, and a cover provided with a screw-thread and a central projection which when the parts are in position bears on the disk only at the center, the disk and cover being each of resilient sheet metal, substantially as shown and described.

2. In a fruit-jar closure, a neck having an exterior screw-thread, a disk dished so as to be L-shaped in cross-section at the peripheral edge so as to fit down into as well as on top of the jar, a washer of elastic material interposed between the top of the jar and the disk, and a cover provided with a screw-thread and a central projection which when the parts are in position bears on the disk only at the center, the disk and cover being each of resilient sheet metal, substantially as shown and described.

3. In a fruit-jar closure, a neck having an exterior screw-thread, a disk dished so as to be L-shaped in cross-section at the peripheral edge so as to fit down into as well as on top of the jar, and a cover provided with a screw-thread and a central projection which when the parts are in position bears on the disk only at the center, the cover and disk being each stamped from the thin resilient metal, substantially as shown and described.

4. In a fruit-jar closure, a neck having an exterior screw-thread, a disk dished so as to be L-shaped in cross-section at the peripheral edge so as to fit down into as well as on top of the jar, and a cover provided with a screw-thread and a central projecting dishing which

when in position bears on the disk only at the center, substantially as shown and described.

5 5. An air-tight jar having a screw-threaded neck, a screw-threaded outer cover engaging said neck and an inner disk dished to hold an elastic packing-ring resting on the jar-mouth and pressed against the same by the outer cover, a central projection being provided on one of the parts, so that the contact

between the cover and disk is only at such central projecting-point, the cover and disk being formed of thin resilient sheet metal, substantially as shown and described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JAMES MITCHELL CAIRNS.

Witnesses:

WALLACE FAIRWEATHER,
JNO. ARMSTRONG, Jr.