(No Model.)

J. W. FULLER.

JAR SEALING DEVICE.

No. 433,937. Patented Aug. 12, 1890.

Fig. 1.

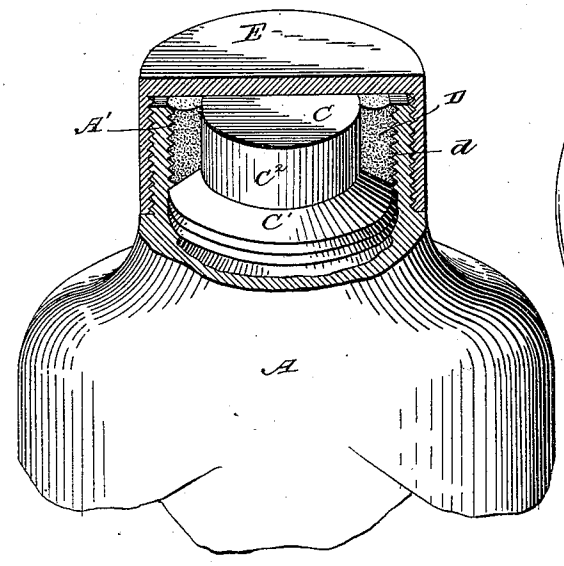


Fig. 3.

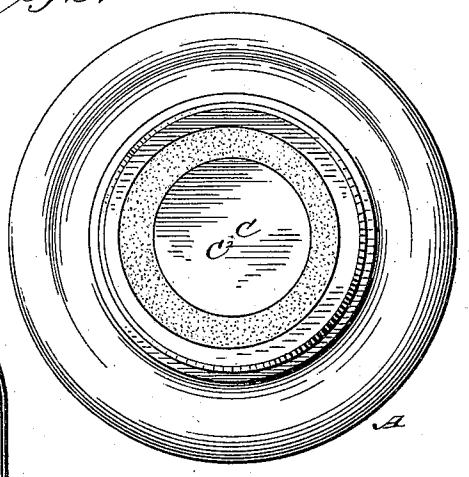


Fig. 2.

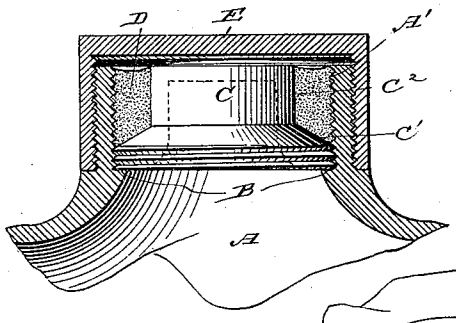


Fig. 4.

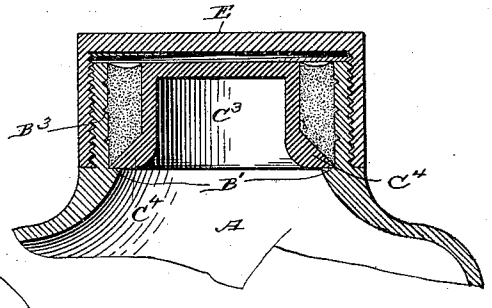
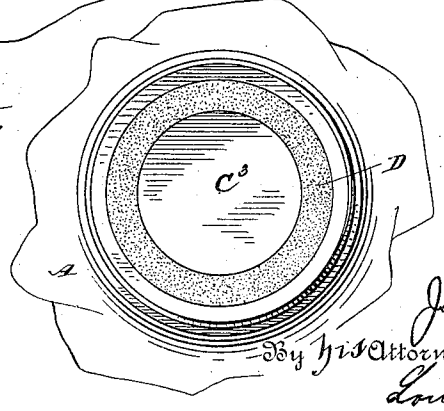


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES WILLIAM FULLER, OF ST. PAUL, MINNESOTA.

JAR-SEALING DEVICE.

SPECIFICATION forming part of Letters Patent No. 433,937, dated August 12, 1890.

Application filed January 17, 1890. Serial No. 337,229. (No model.)

To all whom it may concern:

Be it known that I, JAMES WILLIAM FULLER, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Hermetically-Sealed Jars, Cans, Bottles, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

My invention has for its object to provide a jar, can, bottle, or similar article that can be easily and quickly sealed hermetically and that can be opened with dispatch without the requirement of more than ordinary skill and without the use of special tools.

I will first describe an improved jar constructed and sealed in accordance with my invention, and will then point out the particular features of novelty of the invention in the claims at the close of this specification.

In the accompanying drawings, Figure 1 represents a perspective view of a jar embodying my invention, a portion being broken away to reveal the internal construction. Fig. 2 represents a vertical section of the same; Fig. 3, a top plan view with the outer cover or cap removed. Fig. 4 is a sectional view of a modification of the invention; Fig. 5, a top view of the same with the outer cap removed.

Similar letters of reference in the several figures indicate the same parts.

Referring to Fig. 1, A represents the jar proper, constructed of glass, pottery, metal, or other usual or suitable material. This jar is preferably provided in the interior of its neck with a seat B, upon which what may be termed a "stopper" or "inner cap" C is adapted to rest. This stopper is preferably of soft metal, and it has a flanged portion C′, which rests upon the seat B on the jar, and a body portion C^2, which is of less diameter than the interior of the neck of the jar and extends flush with the top edge of said jar-neck, as shown in Fig. 2, or slightly above the same.

The space between the stopper C and the inner surface of the neck is filled with plaster-of-paris, ordinary can-sealing wax, or other material used for the sealing of cans, as shown at D, and for the purpose of making the connection more positive and secure the interior of the neck is screw-threaded, as shown at A′, and the exterior of the flanged portion C′ of the stopper is correspondingly screw-threaded, as shown.

To hermetically seal the jar the stopper is first screwed into the neck until its flanged portion C′ comes to rest upon the seat B, after which the sealing material D is poured into the annular space till nearly or quite flush with the top of the neck, such portions of it as enter the threads or grooves in the neck, forming keys *d*, operate to effectually lock it in position. As a final operation, the outer cap E is put on and screwed down, as shown in Figs. 1 and 2, thus protecting the inner soft-metal stopper from injury.

To open the jar, the outer cap is removed, after which the top of the soft-metal stopper, which, it will be remembered, is of soft metal, is cut completely off with a knife or is punctured and torn open by means of any suitable instrument and the contents in whole or in part removed through the opening thus made. The replacement of the outer cap serves to preserve the contents comparatively air-tight.

In the modification of the invention shown in Figs. 4 and 5 the soft-metal cap C^3, instead of having a screw-threaded flange, is provided with a plain flange C^4, which takes a bearing upon the seat B′ on the interior of the neck, and the neck, instead of being screw-threaded, is provided with annular grooves or ribs B^3 on its interior, with which the sealing material may co-operate to hold it securely in place.

In both forms of the invention the annular space is left between the body-stopper and the neck for the reception of the sealing material, and the top of the stopper projects flush with or slightly above the top of the neck, so that it may be cut off or punctured and the contents of the jar poured out or otherwise removed conveniently.

It is apparent that jars, cans, bottles, &c., constructed in accordance with my invention may be filled and sealed with expedition by unskilled labor, and that they may be opened by the consumer without trouble and

by the use of the ordinary tools or appliances ready at hand.

I claim as my invention—

1. The combination, with the jar or other article having its neck screw-threaded and provided with the shoulder or seat on its interior, of the soft sheet-metal stopper provided with the screw-threaded flange and the body portion extending flush, or nearly so, with the top of the neck and of such diameter as to leave an annular space between it and the neck for the reception of the sealing material, substantially as described.

2. The combination, with the jar or other article having the screw-threaded exterior, the seat or shoulder on the interior of its neck, and the soft-metal stopper having the flange for resting on the said seat and the body portion extending flush, or nearly so, with the top of the neck of such diameter as to leave an annular space between it and the neck, of the outer screw-threaded cap fitting on the exterior of the neck whereby the inner cap is protected, substantially as described.

3. The combination, with the jar or other article having its neck screw-threaded, of the soft-metal stopper provided with the screw-threads fitting the screw-threads on the jar-mouth and having the annular space for the cement and the outer cap fitting over the jar-mouth and protecting the soft-metal stopper, substantially as described.

4. The combination, with the jar or other article having its neck screw-threaded both on its interior and on its exterior and having the seat or shoulder on its interior, of the soft sheet-metal stopper having the screw-threaded flange and the body portion extending flush, or nearly so, with the top of the neck and the outer screw-cap fitting upon the neck and protecting the inner soft-metal stopper, substantially as described.

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

JAMES WILLIAM FULLER.

Witnesses:
LOUIS FEESER, Jr.,
P. W. FARICY.