

G. A. BROSIUS.
JAR CAP.
APPLICATION FILED MAY 11, 1915.

1,186,274.

Patented June 6, 1916.

Fig. 1.

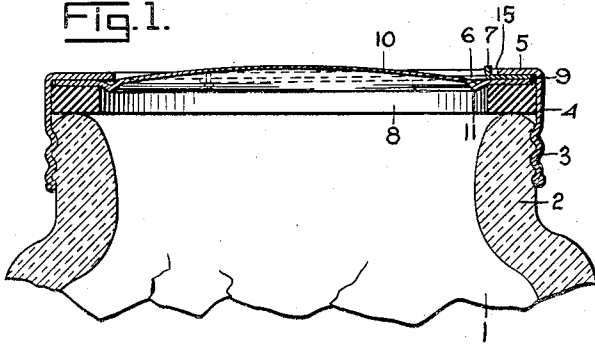


Fig. 2.

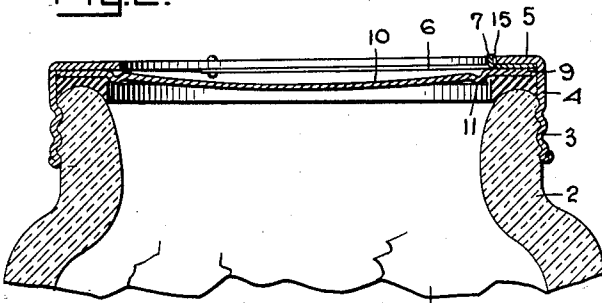


Fig. 3.

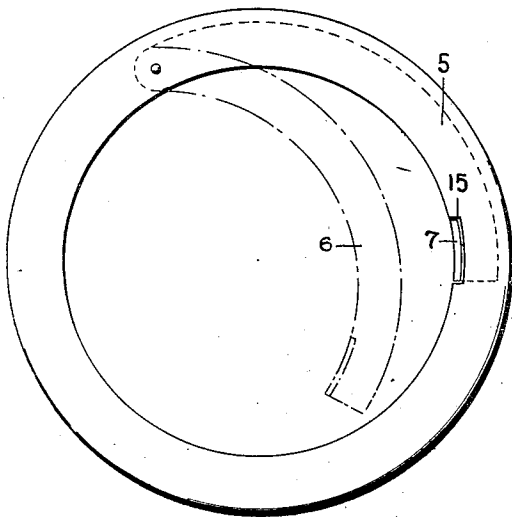
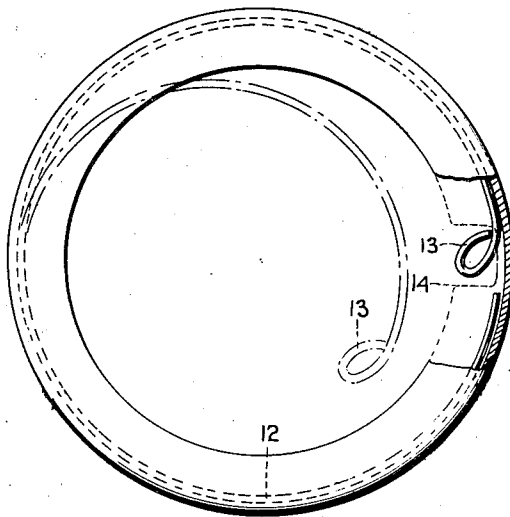


Fig. 4.



WITNESSES

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GEORGE A. BROSIUS, OF RAUCHTOWN, PENNSYLVANIA.

JAR-CAP.

1,186,274.

Specification of Letters Patent.

Patented June 6, 1916.

Application filed May 11, 1915. Serial No. 27,354.

To all whom it may concern:

Be it known that I, GEORGE A. BROSIUS, a citizen of the United States, and a resident of Rauchtown, in the county of Clinton and State of Pennsylvania, have invented a new and Improved Jar-Cap, of which the following is a full, clear, and exact description.

This invention relates to improvements in caps for jars, bottles and the like, and has for an object to provide an improved construction which may be readily unscrewed whenever desired.

Another object in view is to provide a cap having a removable plate or wire which when removed will release the tension of the cap and thereby allow the same to become unscrewed without unusual effort.

A still further object of the invention is to provide a cap arranged with a flexible covering plate which normally is convex but will respond to the action of vacuum and move to a concave position when the vacuum in the jar has reached a certain tension.

In the accompanying drawings: Figure 1 is a section through the upper part of a jar and a cap embodying the invention; Fig. 2 is a view similar to Fig. 1 except that the flexible plate at the cap is shown in a depressed or concave position; Fig. 3 is a top plan view of the cap shown in Fig. 1; Fig. 4 is a view similar to Fig. 3 but disclosing a slightly modified form of the invention.

Referring to the accompanying drawings by numeral, 1 indicates a jar, bottle or other receptacle of any desired kind having a threaded neck 2 for receiving the threads 3 of a cap 4. The cap 4 is provided with an overhanging flange 5 to which is pivotally mounted the swinging arc-shaped plate 6 having an operating extension 7 upstanding therefrom. The extension 7 normally fits into a notch 15 when the cap 4 is in use. Arranged in cap 4 is a washer 8 of any unusual or preferred structure, and between the washer 8 and flange 5 is arranged the thickened edges 9 of a plate 10. Plate 10 is made comparatively thin from the annular indentation or groove 11 so as to respond to the action of a vacuum when the same reaches a certain tension. When anything hot is placed in a jar and the cap is screwed in place thereon until the jar is airtight, a vacuum will usually be formed in the jar as soon as the article placed in

the jar has become cold. This creates a tension on the sides of the jar and cap and sometimes may be objectionable. In order to overcome all or most of this vacuum the flexible plate 10 is provided which will automatically bow downwardly, as shown in Fig. 2, and destroy the vacuum without admitting any air into the jar.

In applying a cap the same is screwed down tight, as shown in Fig. 3, whereupon washer 8 is compressed and makes a tight joint while the plate 10 is held rigidly in place, although the center is allowed a movement as just described. When it is desired to remove the cap, member 7 is operated by a suitable pull or push until the plate 6 moves to the dotted line position shown in Fig. 3. This will relieve the tension on the washer 8 and will thus allow the cap to be unscrewed without any considerable effort.

In Fig. 4 a slightly modified form of a cap releasing means is shown. In this form of the invention a wire or rod 12 is provided which is formed with a loop 13 arranged normally in notch 14. When it is desired to remove the cap shown in Fig. 4, loop 13 is grasped and the various parts moved to the position shown in dotted lines in said figure, whereupon the parts will become loosened and the cap may easily be removed without the use of instruments.

It is evident that the members 5 and 12 may be made of any desired material without departing from the spirit of the invention, and also that plate 10 may be made of any desired material. Preferably plate 10 is made from some form of sheet metal, as for instance, tinned sheet iron, aluminium or other comparatively cheap material which presents a sufficiently flexible nature to answer the purpose intended. When the plate 10 moves from the position shown in Fig. 2 the same will naturally press somewhat against the inner edge of the gasket or packing ring 8 and thereby provide an even better airtight joint.

What I claim is:—

In a cap of the character described, a body provided with an annular flange, a gasket arranged below said flange, a plate arranged between said gasket and said flange, said plate being formed thin centrally so as to produce a central flexible portion in order to respond to atmospheric pressure, and a pivotally mounted filling member connected with said body and normally arranged

therebeneath, said pivotally mounted filling member having an upstanding thumb portion whereby the same may be moved from beneath said body and thereby release the
5 pressure on said plate for permitting an easy removal of the cap.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

GEORGE A. BROSIUS.

Witnesses:

C. M. MEIXEL,
H. E. SMITH.