(No Model.)

M. CAMPBELL.

BOTTLE AND JAR STOPPER.

No. 303,558. Patented Aug. 12, 1884.

Fig. 1.

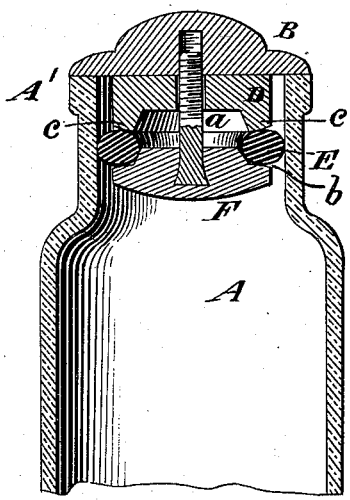


Fig. 2.

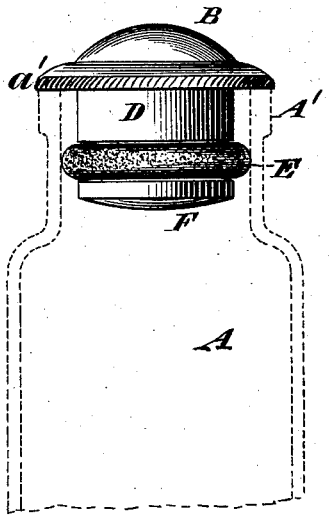


Fig. 3.

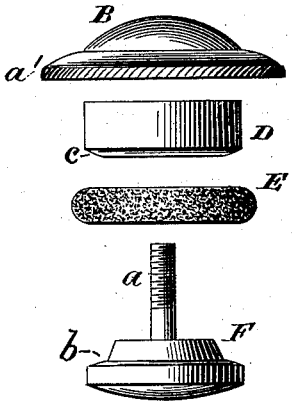
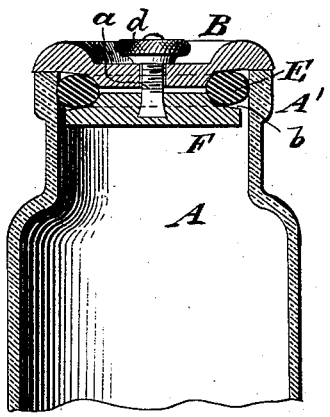


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

MARK CAMPBELL, OF CHICAGO, ILLINOIS.

BOTTLE AND JAR STOPPER.

SPECIFICATION forming part of Letters Patent No. 303,558, dated August 12, 1884.

Application filed November 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, MARK CAMPBELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bottle-Stoppers and Jar-Stoppers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in stoppers for bottles, jars, cans, &c.

The object of my invention is to provide a safe, secure, and durable stopper for bottles and cans and other vessels, which may be securely stopped and made air-tight for the purpose of preserving fruits, acids, chemicals, and other articles from the air. I attain these objects by means of the peculiar arrangement and construction of the various parts of my device, which will be more fully pointed out and described in the specification and claim, reference being had to the drawings accompanying this application and forming part of the same.

Figure 1 represents a vertical section of a jar provided with my improvement. Fig. 2 is a side view of the stopper, the jar being indicated in dotted lines. Fig. 3 represents the several parts of the stopper detached. Fig. 4 is a vertical section showing a modification in construction of stopper.

Similar letters of reference refer to similar parts in the several figures of the drawings.

A designates a jar or bottle, formed of glass or other suitable material, and having a mouth at the top, which is usually formed with an annular rib or enlargement, A′. The cap B is formed to close over the mouth of the jar, and may be roughened on its edge *a′* to afford a grip for the hand of a person turning it to open or close the jar.

D indicates a washer or plate placed under the cap B. It is somewhat smaller in size than the mouth of the bottle or jar, so that it may be passed into it readily, and has a concavity in its under surface, forming an annular projecting edge or rim, *c*. A screw-bolt, *a*, having a head, F, the latter being downward, passes up through a central aperture in washer D into a threaded hole or recess in the cap B. The head F forms the lowest part of the stopper, and has at its upper edge an annular recess or rabbet, *b*.

E is a ring, made of rubber or other suitable flexible material, and placed so that it rests in the recess *b* in position to be compressed between the parts D and F, as seen in Fig. 1, the said recess forming a seat for the ring and serving to keep it in proper place and position.

The several parts of the stopper being properly placed together and applied to the jar, and the cap B being turned in the proper direction, the screw *a* is drawn upward, causing the parts D and F to compress the flexible ring E, which is thereby expanded laterally and closes against the inner surface of the neck of the jar, thus tightly closing the mouth.

It will be seen from the formation of the parts D and F that the head F can be drawn upward, so that its upper part enters the concavity in the plate D, if found necessary in order to compress the flexible ring sufficiently.

In Fig. 4 a modification in construction is shown, the stopper consisting of cap B, screw *a*, with head F, ring E, and a thumb-nut, *d*, placed on the upper end of the screw. The cap and head are each formed with an annular recess or rabbet to form a seat for the ring E, and the screw *a* passes up through an aperture in the cap, the parts being secured by means of thumb-nut *d*, which bears on the cap, and is used in compressing or releasing the flexible ring.

I claim—

The combination of the cap B, having central threaded recess, the washer D, having a central opening, a concavity on its lower side, and a beveled edge, screw *a*, having head F, that is provided with an annular recess, *b*, and flexible ring E, that is adapted to be compressed in the annular recess between the washer D and head F, substantially as described.

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

MARK CAMPBELL.

Witnesses:

J. FRED MARSHALL,

STEPHEN H. LADD.