(No Model.)

T. BURBIDGE.

BOTTLE STOPPER.

No. 589,544. Patented Sept. 7, 1897.

Fig. 1

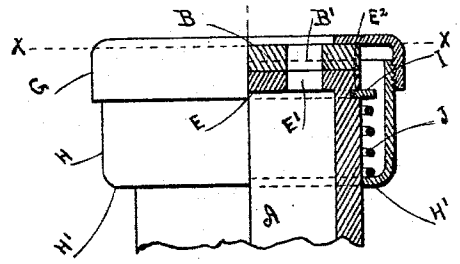


Fig. 2

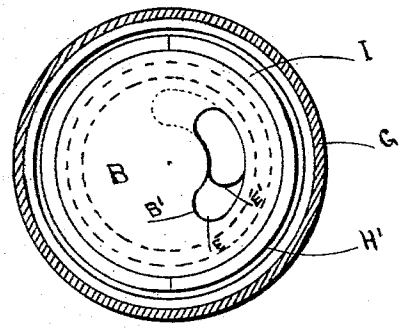
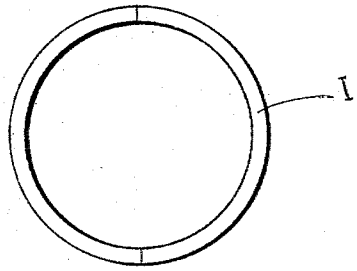


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS BURBIDGE, OF LONDON, ENGLAND.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 589,544, dated September 7, 1897.

Application filed February 10, 1896. Serial No. 578,795. (No model.) Patented in England November 11, 1893, No. 21,554; in France March 16, 1894, No. 237,064, and in Belgium March 21, 1894, No. 109,094.

To all whom it may concern:

Be it known that I, THOMAS BURBIDGE, a subject of the Queen of Great Britain and Ireland, and a resident of 91 Vassall Road, Brixton, London, in the county of Surrey, England, have invented certain new and useful Improvements Relating to Bottle-Stoppers, (for which I have obtained patents in Great Britain, No. 21,554, dated November 11, 1893; in France, No. 237,064, dated March 16, 1894, and in Belgium, No. 109,094, dated March 21, 1894,) of which the following is a full, clear, and exact specification.

The object of my invention is to provide a means whereby jars, bottles, and the like can be hermetically closed and air excluded from the contents thereof.

According to my invention I form the mouth of the jar or bottle with a plane surface, preferably of glass. In the case of glass vessels this may be done by grinding the top edge of said vessel. For closing the vessel I provide a plate, preferably of glass, with a plane surface, which is applied tightly against the plane at the mouth of the vessel. The said plate is kept in position by means to be hereinafter described.

Referring to the drawings which form a part of this specification, Figure 1 is a view, half in vertical central section and half in elevation, of the neck of a bottle with my improved stopper appliance. Fig. 2 is a top plan view in cross-section, while Fig. 3 shows a detachable ring forming a part of said bottle-stopper.

Like letters of reference indicate like parts in the several figures.

With reference to the drawings A is the neck of a bottle provided with a plane annular surface at E.

B is a plate, preferably of glass, with a plane face, which is applied tightly against the plane E at the mouth of the vessel.

The plates B E are circular and are provided with concentric orifices that are the same distance from the center in each plate and that are adapted to register when brought one over the other. The upper plate B is connected to the ring G, which is screw-threaded to engage with the upper end of a screw-threaded collar H, flanged inward at H'.

I is a ring in two sections that forms a laterally-extending projection which is received in a groove E^2 in the exterior of the neck.

J is a spring which is compressed between the flange H' and the projecting parts of the ring I, so that it will act to maintain a downward pull on the collar H' and through the said collar on the ring G, which will keep the plate B against the fixed plate E.

Bottles, jars, and the like stoppered according to this invention will be found to preserve their contents for a considerable length of time. Moreover, owing to the nature of the stoppering device said contents do not come into contact with any cork or rubber or the like by which their flavor might be injured.

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

1. In a bottle, jar or the like, the combination with the neck having a detachable ring I and a flat circular plate that is provided with a concentric port, of a rotatable cap-plate having a concentric port and a downwardly-extending screw-threaded flange mounted on the edge of said cap-plate, a screw-threaded collar provided with an inwardly-projecting flange I and adapted to engage with the screw-threaded portion of the cap-plate; and a spring interposed between the detachable ring on the neck and the inwardly-projecting flange of the collar, substantially as and for the purpose described.

2. In a bottle, jar or the like, the combination with the neck having a groove and a washer engaging therein and projecting therefrom, and a flat circular plate that is provided with a concentric port, of a rotatable cap-plate having a concentric port and a downwardly-extending screw-threaded flange mounted on and secured to the edge of said cap-plate, a screw-threaded collar provided with an inwardly-projecting flange and adapted to engage with the screw-threaded portion of the cap-plate; and a coiled spring interposed between the extended portion of the washer and the inwardly-projecting flange of the collar, substantially as and for the purpose described.

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

THOMAS BURBIDGE.

Witnesses:
GEORGE ISAAC BRIDGES,
ARTHUR CARRICK.