

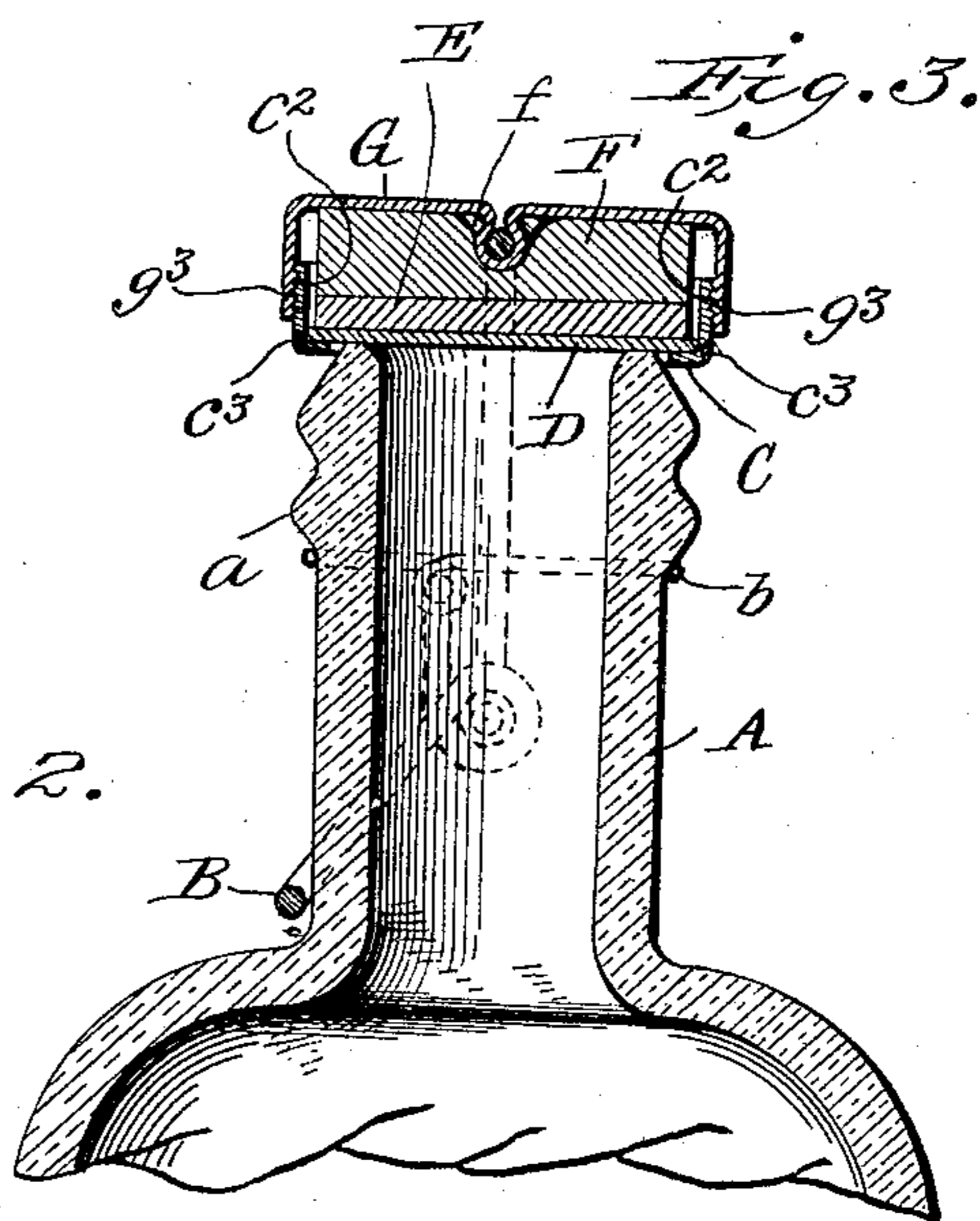
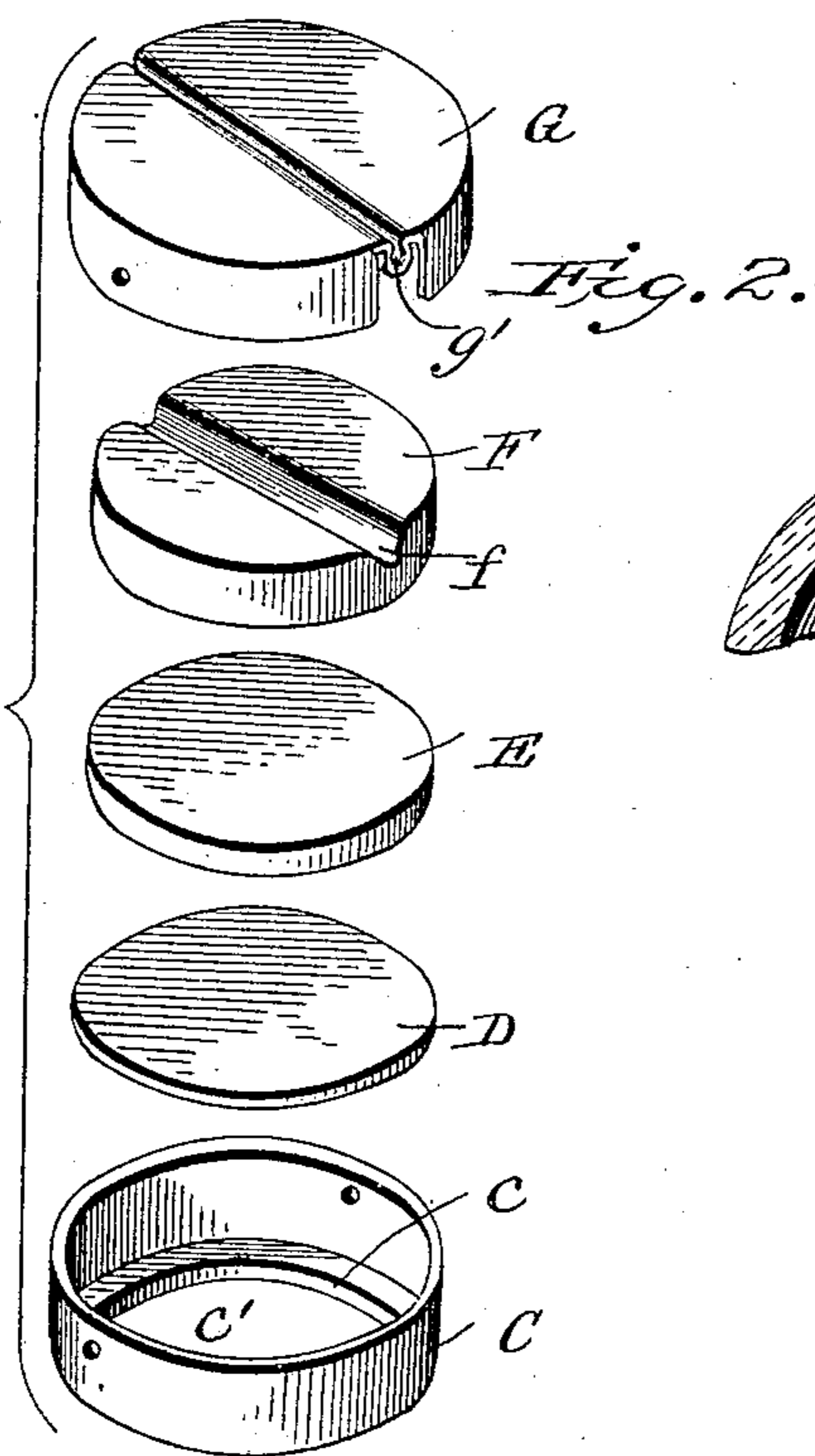
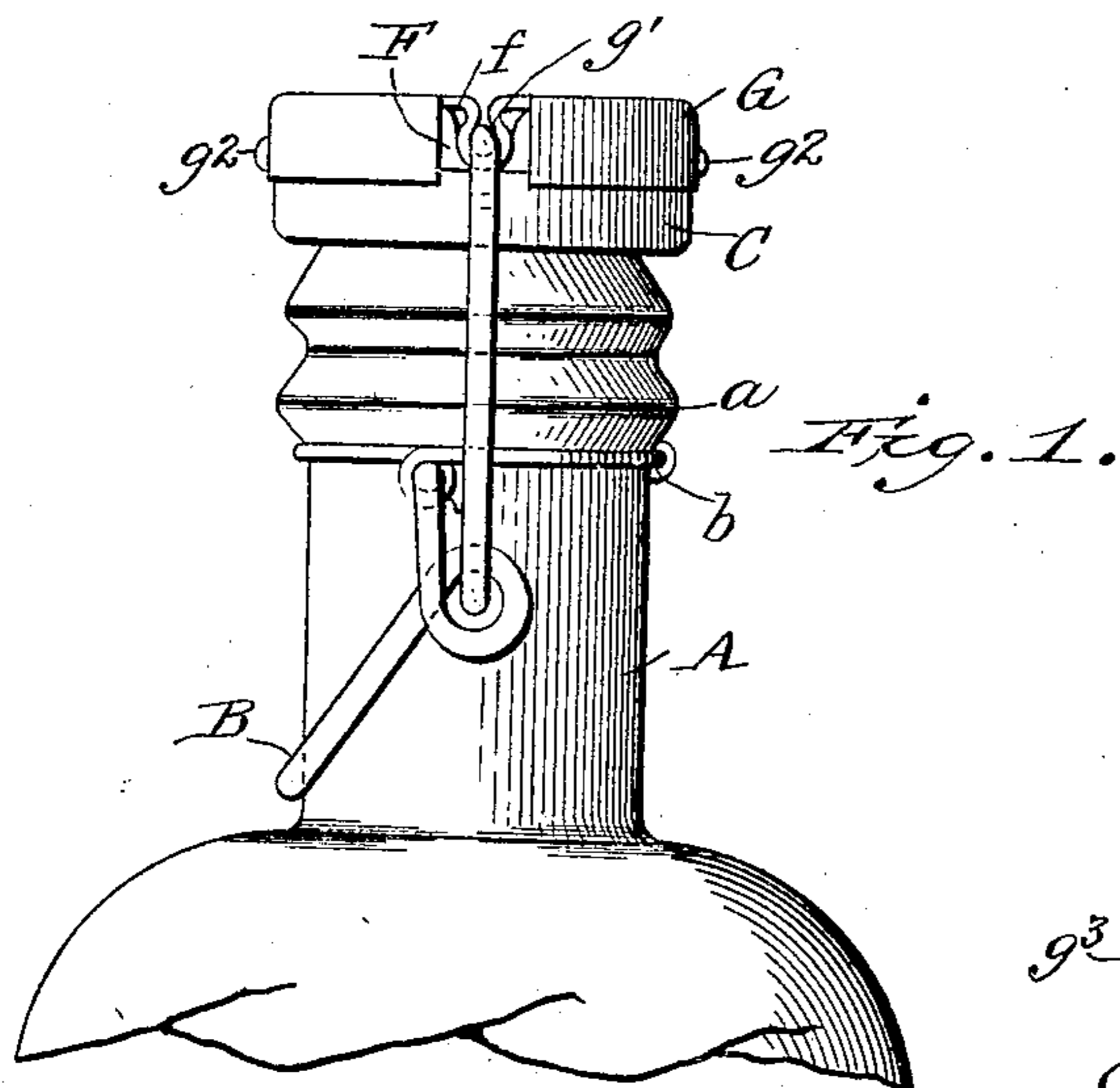
No. 865,405.

PATENTED SEPT. 10, 1907.

P. H. A. LEDER & B. F. SCHUBERT.

BOTTLE STOPPER.

APPLICATION FILED NOV. 1, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

PAUL H. A. LEDER, OF BALTIMORE, MARYLAND, AND BERNARD F. SCHUBERT, OF WASHINGTON, DISTRICT OF COLUMBIA.

BOTTLE-STOPPER.

No. 865,405.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed November 1, 1905. Serial No. 285,445.

To all whom it may concern:

Be it known that we, PAUL H. A. LEDER, a subject of the German Emperor, residing at Baltimore, State of Maryland, and BERNARD F. SCHUBERT, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Bottle-Stoppers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Our invention relates particularly to that class of bottle stoppers used on bottles for beverages and the like, such bottles not being sold but are returned to the dealer and refilled. On such bottles the stoppers are usually permanently secured to the bottle neck by means of the well known wire bail, and in many stoppers of this class the sealing medium readily becomes detached from the stopper cap and is lost; or where the sealing medium is permanently secured to the bail the entire device has to be replaced when the sealing medium becomes worn.

The object of this invention is to obviate these defects by guarding against such loss and at the same time permit of ready removal of the sealing medium when necessary without removing the bail from the bottle.

The invention consists in providing a casing capable of holding a sealing medium made up of several independent disks which we prefer to use, such disks being of different materials, one of which is made very thin of some material unaffected by acids, such as mica and the like and which comes in contact with the contents of the bottle, and other disks resting on the former and upon which the pressure is brought either by the cap or by the bail itself resting directly on the top disk.

In the drawings, Figure 1 is an elevation of a bottle stopper, wherein, for the purpose of illustration, the stopper is shown secured to a bottle neck and showing one means of securing the casing together. Fig. 2 shows in perspective the several parts of the stopper before being assembled. Fig. 3 is a vertical section of a modified form, showing the cap screwed onto the casing.

A designates a bottle neck having a well known form of bail or clamping member B secured thereto in any known manner. The fastening means here shown for

securing the bail consists of a wire *b* wound around the bottle neck behind a flange *a* formed thereon.

The stopper comprises a metallic retaining ring C having an internal flange *c* formed on its lower edge forming an opening *c'* of greater diameter than the mouth of the bottle. In this ring is mounted a thin disk D, which, when the stopper is not pressed down on the bottle, is retained therein by the internal flange *c*. This disk is preferably made of mica so that if the bottle or jar contains acids of any kind the disk will not be affected thereby. But any well known substitute may be used, such as paraffined paper or the like. Resting on the disk D is a second disk E preferably composed of a flexible material such as felt, leather, cork or rubber for the purpose of making the mica disk conform to the mouth of the bottle and on the latter disk is placed preferably a wooden plug F having a transverse groove *f* formed in its top.

The disks are held in place in the ring C by means of an inclosing cap G which fits down over the ring. The cap is secured to the bail by means of a crimp *g'* in the top of cap, said crimp embracing the bail and lying in the groove *f* of the wooden plug F. The friction between the cover and ring will under ordinary circumstances hold the two parts together, but to insure against accidental separation and loss they may be secured together by pins or small screws *g''* passing through the two thicknesses and if desired into the wooden plug F. As shown in Fig. 3 both the cap and ring are provided with screw threads *g'''* and *c''* respectively for holding the two parts together. The ring in this instance has notches *c'''* formed therein for the reception of a tool or spanner to aid in unscrewing the two parts.

We do not wish to be limited to the exact number and kind of disks above described for making up the sealing medium for instead of several disks of different materials, one of any preferred material may be substituted, the aim of the invention being to provide a cap that may be easily taken apart and readily reassembled for the purpose of substituting a new sealing medium when it becomes necessary.

We claim:

1. In combination with a bottle neck, a ring having an internal flange forming an opening of larger diameter than the mouth of the bottle, a grooved sealing member seated in the ring, a cap to receive the ring having a groove taking into the groove of the sealing member, and a bail mounted in the groove of the cap.

2. In combination with a bottle neck, a ring having an internal flange forming an opening of larger diameter

than the mouth of the bottle, a flexible sealing member seated on said flange, a grooved rigid member seated on the flexible member, a cap to receive the ring having a groove taking into the groove of the rigid member and a
5 bail mounted in the groove of the cap.

3. In combination with a bottle neck, a screw-threaded ring having an internal flange forming an opening of larger diameter than the mouth of the bottle, a flexible sealing member seated on said flange, a grooved rigid
10 member seated on said flexible member, a screw-threaded

cap having a groove taking into the groove of the rigid member and a bail mounted in the groove of the cap.

In testimony that we claim the foregoing as our invention, we have signed our names in presence of two subscribing witnesses.

PAUL H. A. LEDER.

BERNARD F. SCHUBERT.

Witnesses:

CARL W. STEFFENS,

HENRY BECKER.