

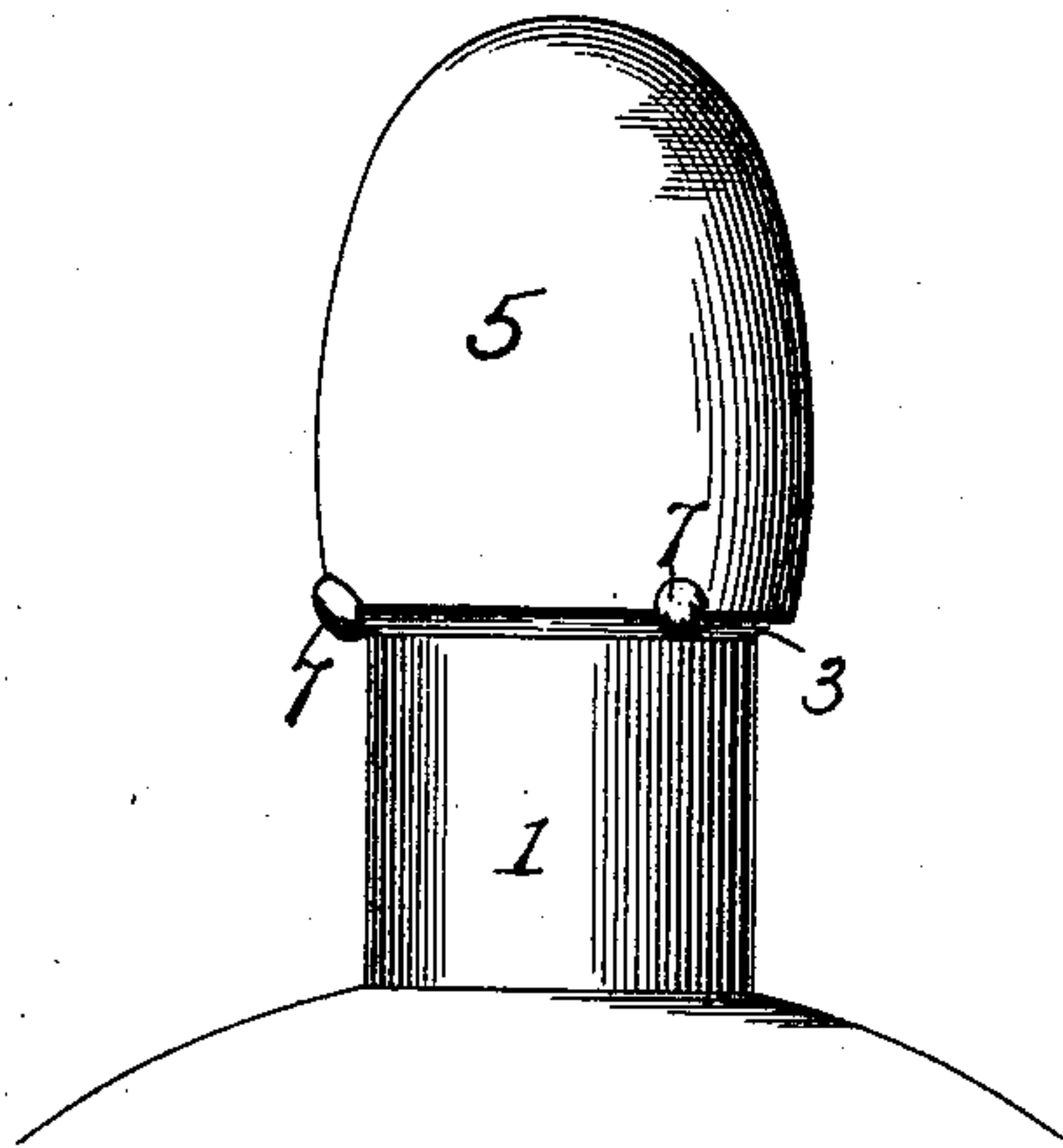
(No Model.)

E. GAY.  
DEVICE FOR SEALING BOTTLES.

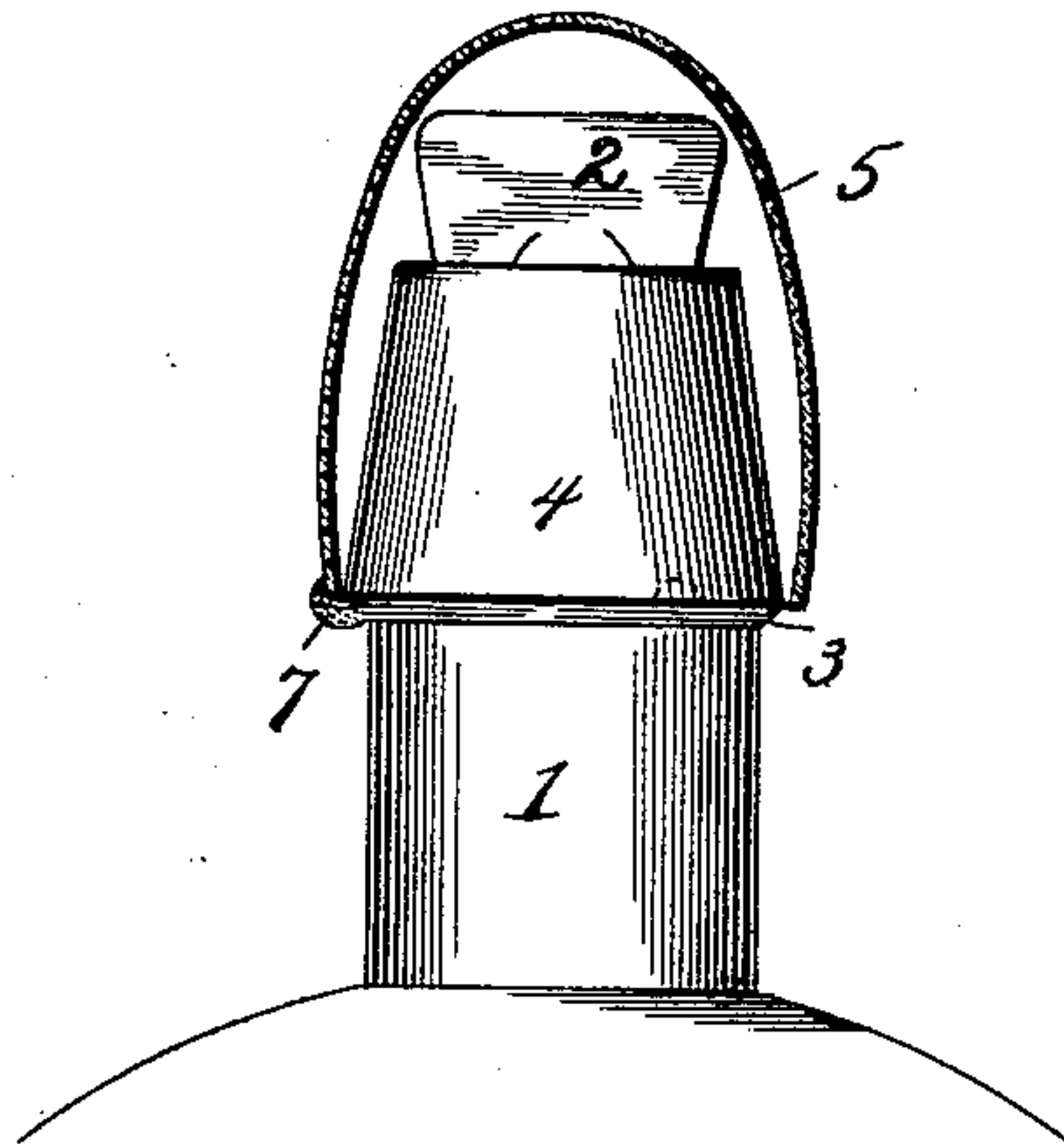
No. 547,781.

Patented Oct. 15, 1895.

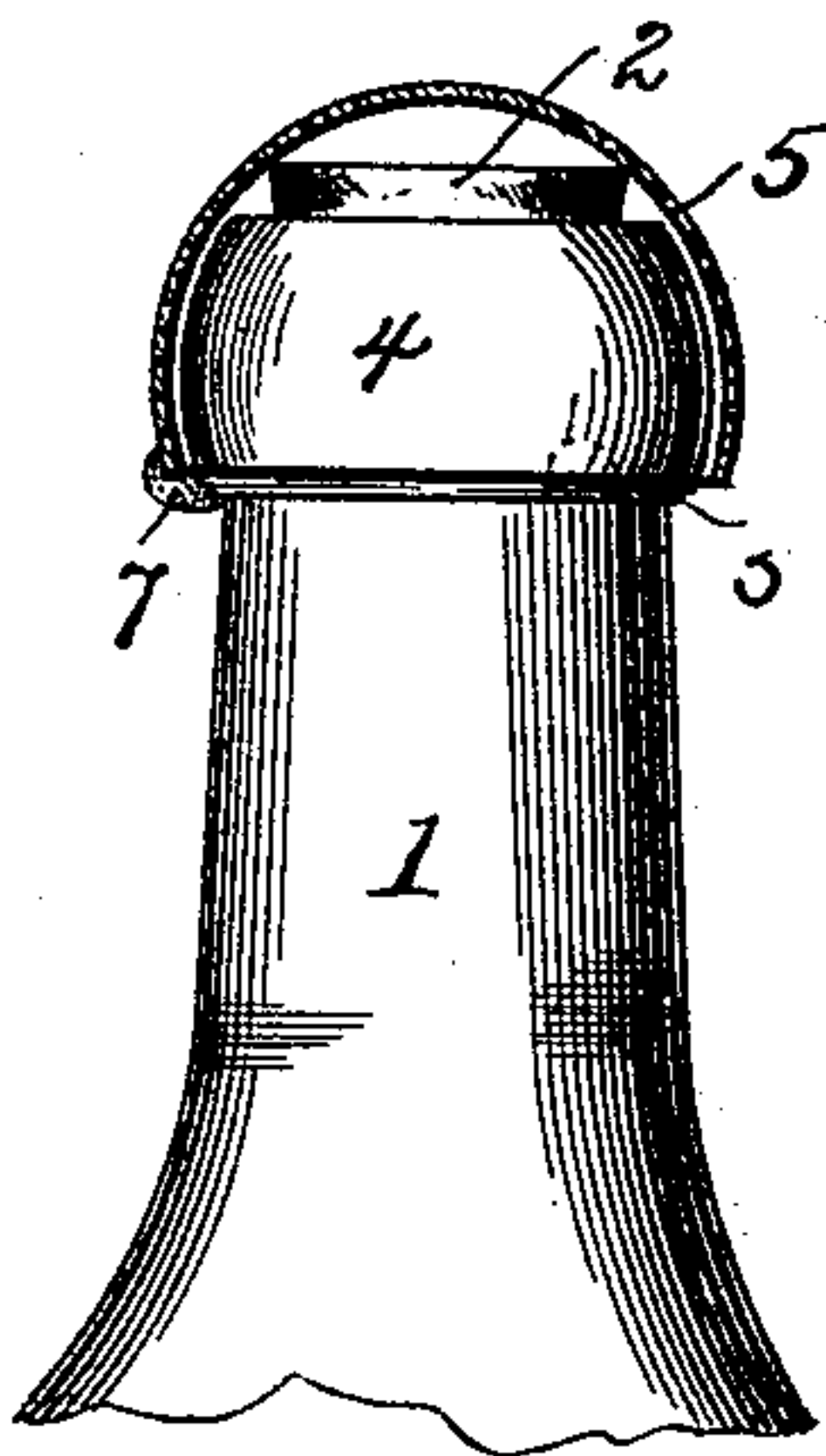
*Fig. 1.*



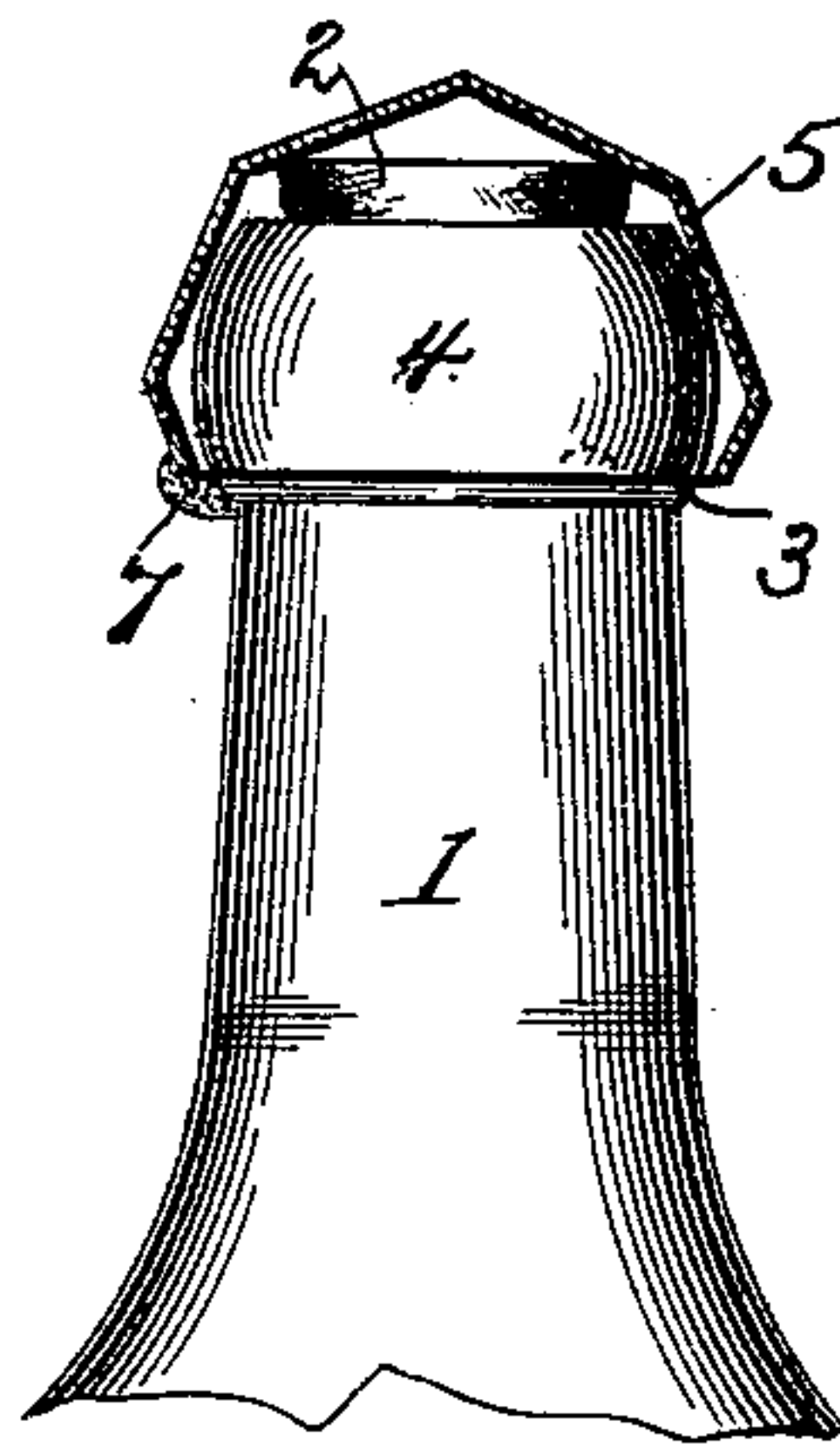
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES

*Jos. C. Stack.*  
*Franc. D. Blackstone*

INVENTOR

*Elijah Gay*  
by *Benj. R. Catlin* Attorney

# UNITED STATES PATENT OFFICE.

ELIJAH GAY, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-HALF TO MARTIN RILEY, OF SAME PLACE.

## DEVICE FOR SEALING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 547,781, dated October 15, 1895.

Application filed July 16, 1895. Serial No. 556,130. (No model.)

*To all whom it may concern:*

Be it known that I, ELIJAH GAY, a resident of Washington, in the District of Columbia, have invented certain new and useful  
5 Improvements in Devices for Sealing Bottles; and I 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 pertains to make and use the  
10 same.

The invention relates to bottles and the like, and has for its object to provide a sealing device that will prevent any subtraction from or addition to the contents of bottles without the breaking of the seal, the latter being  
15 frangible, without injury to the bottle, and not replaceable without special instrumentalities and skill; and the invention consists in the construction hereinafter described, and particularly pointed out.

In the accompanying drawings, Figure 1 is a side elevation of the neck and head of a bottle with the sealing device applied thereto. Fig. 2 is a central vertical section of the same.  
25 Figs. 3 and 4 are side elevations of modifications of a detail.

Numeral 1 indicates the neck of a bottle or other like receptacle. 2 denotes a cork tightly closing its mouth in the usual manner.  
30 3 is an exterior shoulder or cheek, and 4 may be styled the head. These parts may be of any usual or preferred form.

5 denotes a cap or cover adapted to fit over the top of the bottle to inclose its mouth and a cork. It extends preferably down near to the shoulder 3. This cover is made of glass or equivalent frangible material and is rigidly connected to the bottle by glass bonds or  
40 connections 7. These are applied after the bottle is filled and corked by placing melted glass upon the lower edge of the cap and between it and the neck of the bottle. Drops of the molten glass, two, three, or more in number, thus applied, will effectually bind  
45 the cap on the bottle upon the hardening of the glass, which adheres to like material with considerable tenacity. The molten glass can be conveniently dropped or placed in the desired position, when the bottle, having been  
50 tightly corked, is held with the mouth down. Any desired number of drops or bonds may

be employed, or, if desired, the glass connection may be made continuous about the neck of the bottle.

The particular exterior shape of the cap is  
55 not material, provided it so covers the mouth of the bottle as to prevent access thereto, and it is preferred that it shall not closely fit the head of the bottle. The construction being such that a close fit is not required, and as  
60 the mouth and interior of the cap is or may be considerably larger than the bottle mouth, head, or neck, the same cap is thereby adapted for use with bottles having heads of different sizes. Further, the cap or cover is not  
65 defended from breaking, as it is to a large extent in case it closely fits the bottle.

In breaking my cap off, the line of fracture will usually extend to the soldered joint and separate the cap entirely from the bottle;  
70 but if not, the adherent fragments can easily be pried off by inserting a suitable metal point between the bottle and cap fragments. Small adherent remnants of the sealing-drops, if any exist, can be re-fused by a blow-pipe to  
75 seal another cap applied to the same bottle. It is proposed to make them of ovoid, spherical, and angular forms, and also to make them of various colors either to please the eye or to indicate the contents of the bottle, as may be de-  
80 termined.

To get access to the contents of the bottle the cap or its bonds must be broken and removed, and the cork or stopper subsequently removed. The cap or its lower end is preferably made quite thin, so that it may be easily broken and to insure that the cap rather than the glass connections 7 shall be broken in removing the cap, though some of the advantages of the improvement would be se-  
90 cured in the latter case.

I am aware that bottles have been sealed by means of caps and wax or caps and plaster-of-paris and the like, and also that the necks of bottles have been specially shaped with a  
95 view to breaking the same as a necessary condition of access to their contents.

It is characteristic of my improvement that the cap or its glass connections only are broken, the bottle remaining entire and uninjured, and, further, that the bottle remains  
100 corked or stoppered after the breaking of the



cap, and that a new cap can be applied and the bottle reused, but not without suitable means for melting glass and for manipulating the molten glass to seal the cap, which means, 5 such as a glass-melting flame, are not within the reach of the general public, as are the means of sealing with wax or plaster-of-paris.

Having fully described my invention, what I claim is—

10 1. In combination with a bottle or like receptacle a frangible cap covering the mouth and neck of the bottle and having its mouth attached to the bottle below its top by distinct and separate adherent portions of glass, 15 an interior space being provided laterally be-

tween the cap and bottle, substantially as set forth.

2. In combination with a bottle or like receptacle a frangible cap covering the mouth and neck of the bottle and having its mouth 20 attached to the bottle below its top at distinct points by frangible material, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib- 25 ing witnesses.

ELIJAH GAY.

Witnesses:

FRANK D. BLACKISTONE,

BENJ. R. CATLIN.