

(No Model.)

J. A. DONAHUE & F. H. LEACH.
MOUTH GUARD AND PROTECTOR FOR BOTTLES OR DRINKING GLASSES.
No. 591,778.

Patented Oct. 12, 1897.

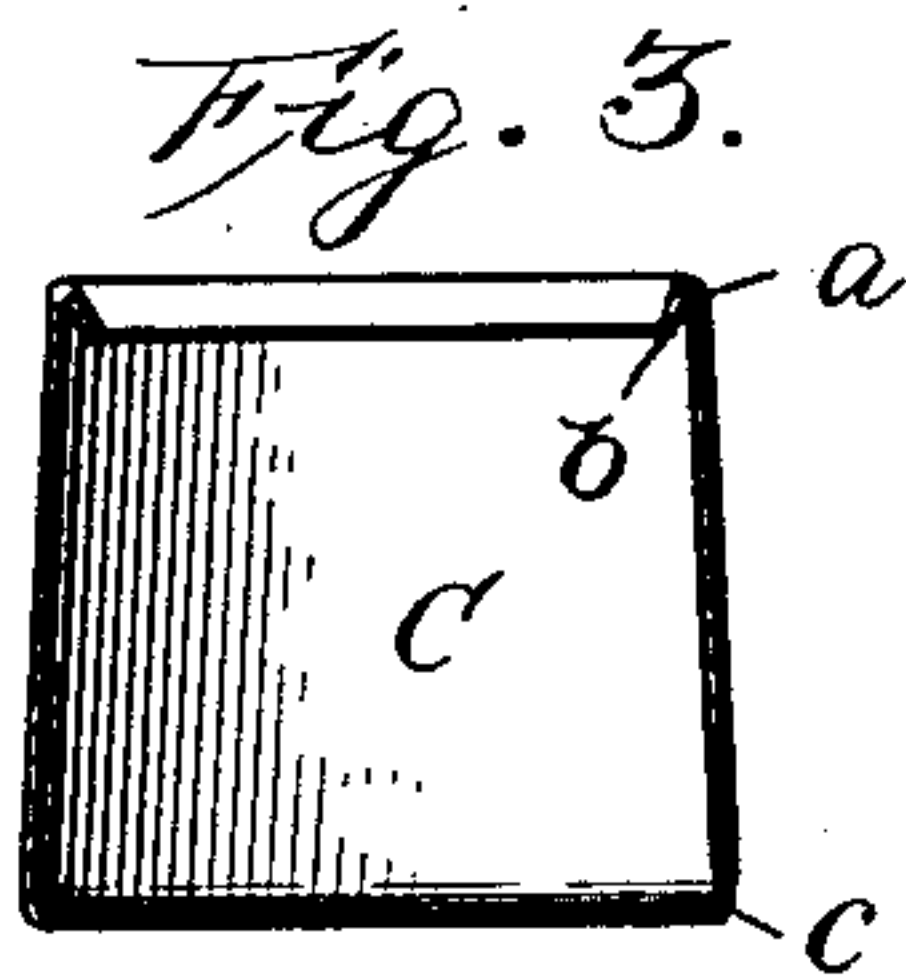
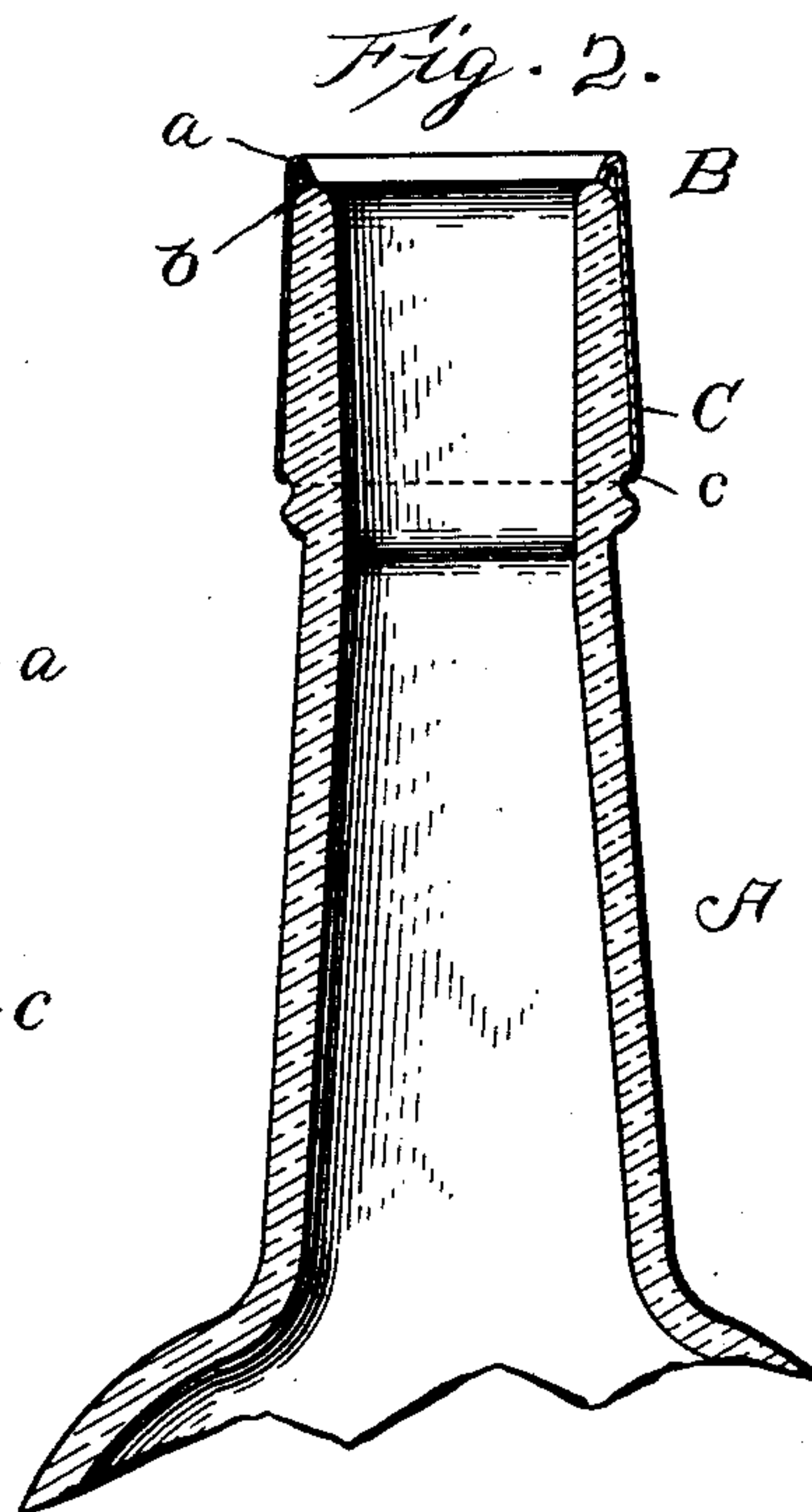
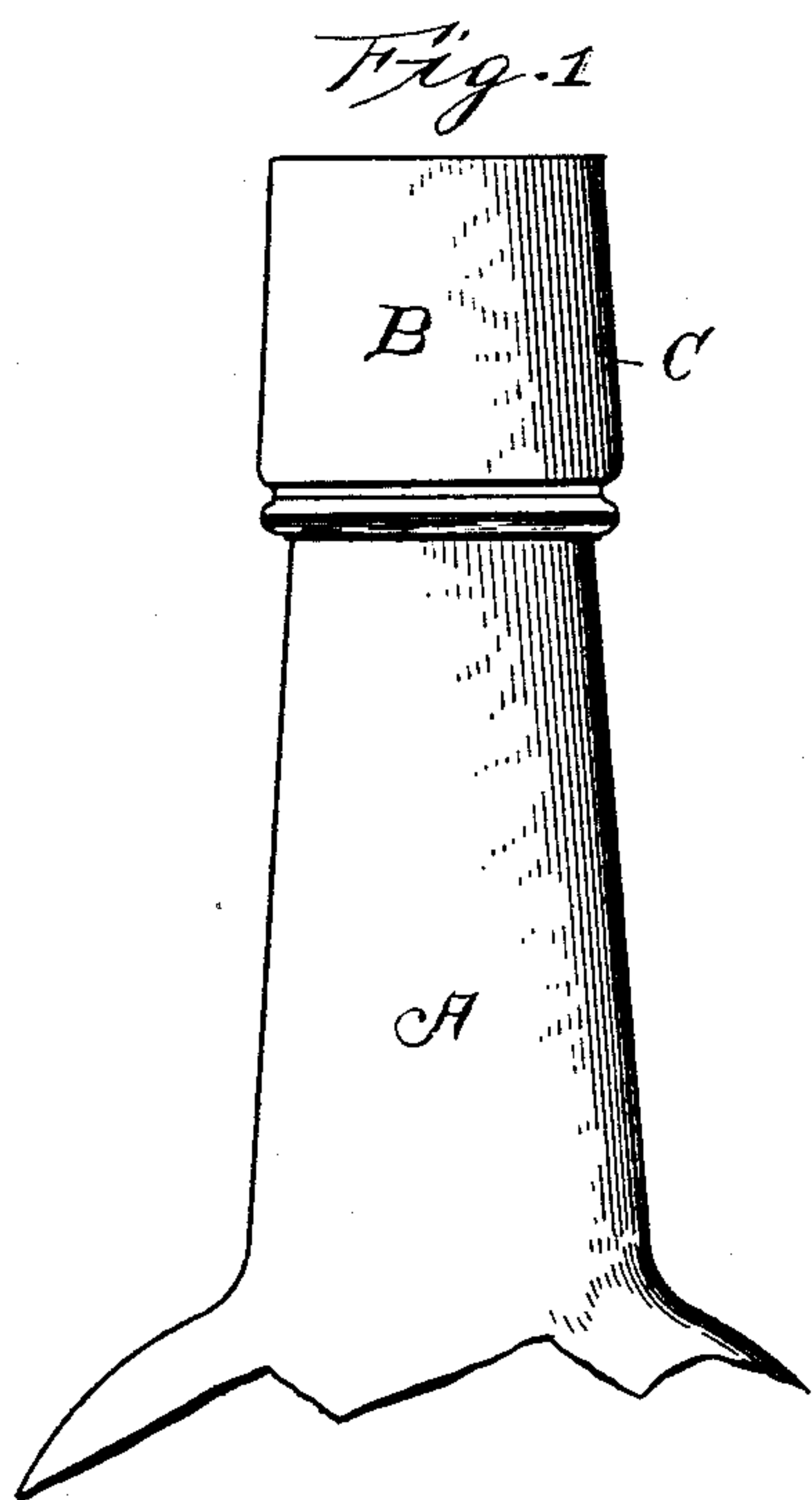


Fig. 4.

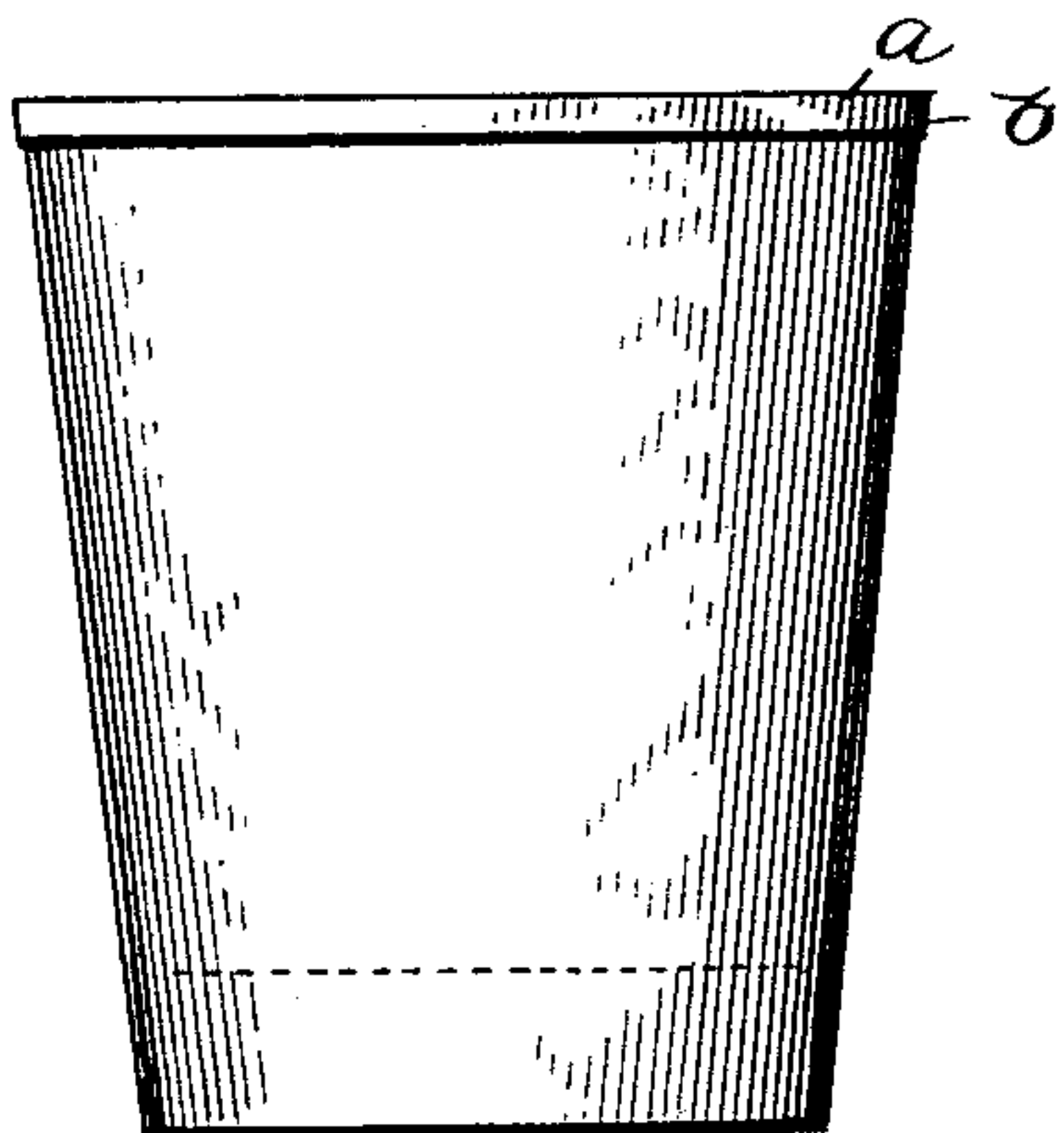


Fig. 5.

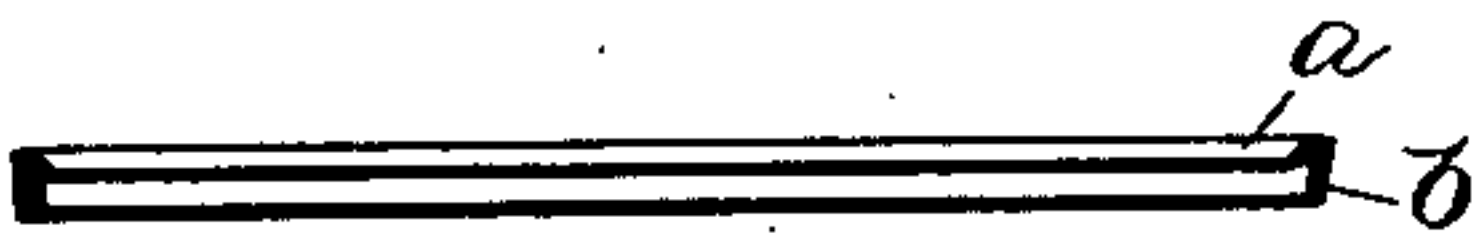
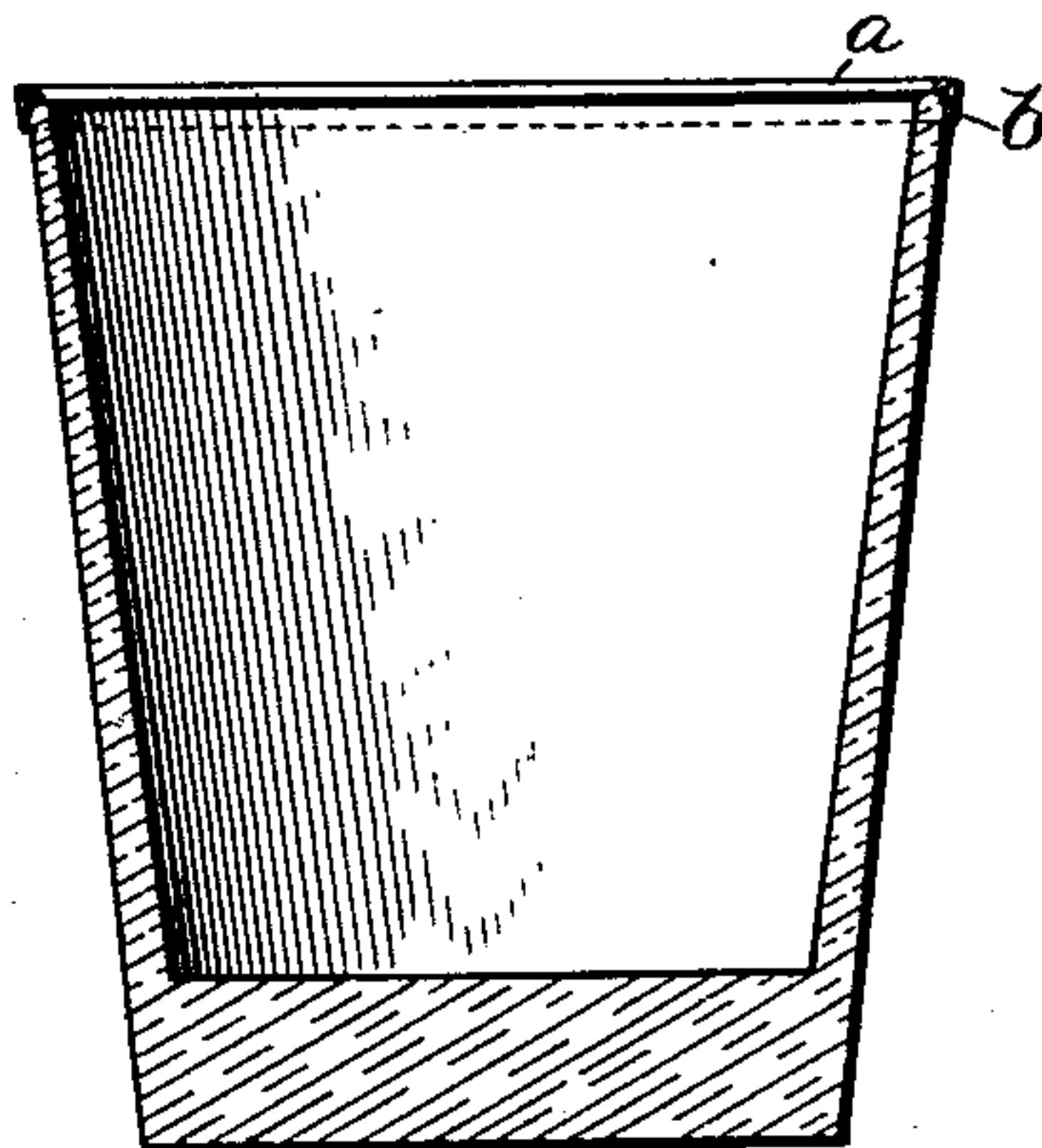


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES A. DONAHUE AND FRED H. LEACH, OF LOS ANGELES, CALIFORNIA.

MOUTH GUARD AND PROTECTOR FOR BOTTLES OR DRINKING-GLASSES.

SPECIFICATION forming part of Letters Patent No. 591,778, dated October 12, 1897.

Application filed May 7, 1897. Serial No. 635,588. (No model.)

To all whom it may concern:

Be it known that we, JAMES A. DONAHUE and FRED H. LEACH, of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Mouth Guards and Protectors for Bottles or Drinking-Glasses; and we do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the letters of reference marked thereon, which form part of this specification.

This invention has relation to glass bottles, jars, drinking-glasses, &c., by which the mouth of the vessel is protected from breakage and chipping.

In recent years glass has largely come into use in the manufacture of vessels used in commerce, particularly in bottles and jars, and in their transportation many of them are broken, particularly at their necks and mouths, and thus a great waste and loss of material are incurred.

To obviate this waste and loss is the object of our invention, and also to decorate the bottle or glass, and by making the metal of different colors the contents of each bottle is designated by its color or shade of color of the guard or protector. These guards may also be stamped with the name of its contents—such as wine, cologne, &c.—which makes it a ready reference for bottles in daily or general use.

To these ends my invention consists in forming a metal mouthpiece provided on its upper end with a flange so formed that it will conform to the mouth of the bottle and be smooth to the stopple and at the same time not come in contact with the liquid as it passes the mouth. This flange is turned inwardly in such manner as to form a spring, the edge of the flange resting on the top of the mouth of the bottle. The lower end of the guard, the metal being drawn or thinned by suitable means, such as on a mandrel, or hammered, and turned inwardly, also forms a spring, which permits it to expand and contract. By this means the thin edge springs into the or-

dinary groove formed on the necks of bottles, and by its springing into the groove it pulls upon the upper flange and is thus made tight, retaining it in place.

Our invention consists in further details of invention, which will be more fully hereinafter described, and specifically pointed out in the claims.

In the drawings the same letters will indicate like parts in all the figures.

Figure 1 shows the neck of a bottle in elevation having our invention secured thereto. Fig. 2 illustrates a longitudinal section of the same, clearly showing the guard or protector in position. Fig. 3 is a vertical longitudinal section of the guard detached. Fig. 4 shows a drinking-glass with the guard in a modified form; Fig. 5, the guard of the drinking-glass detached; and Fig. 6, a vertical longitudinal section of a drinking-glass, showing the guard in section.

A is the neck of a bottle, and B the mouth thereof.

C is the guard or protector; *a*, the mouth-flange of the guard.

b is the inwardly-turned-down portion of the flange, the edge of which rests on the top of the mouth of the bottle and flares outwardly, forming a lip by which the liquid when flowing from the bottle does not touch the metal.

c is the lower inturned flange, which springs into the ordinary groove formed on the bottle. As before stated, the lower flange is much thinner than the body of the guard, and when the guard is slipped on the neck this flange springs into the groove with considerable force, and in doing so pulls down on the flange *b*, producing a tension between the two flanges. The guard or protector is made to snugly fit the neck of a bottle, so that when it is in place it produces a neat and pretty appearance. By the tapering contour of the bottle and of the corresponding taper of the guard and the tension of the two flanges the guard is kept rigidly in place.

These guards may be made of any metal and are cheap and effective, and by their use a great saving is produced.

In operation should the mouth of the bottle come in contact with a greater body with

force to chip or break it without the guard the elasticity of the spring formed by the flange, if on the bottle, would prevent it, and the same may be said of the body of the guard and of the band around the drinking-glass.

This guard may be made of the various sizes to fit the varied-sized bottles and may be put up in packages for the purpose of trade and commerce. As they are intended to be sold separately from the bottles or glasses, the design may be varied; but in all cases where they are manufactured in quantities they must be made to conform to the size of bottle or glass to which they are intended and may be made to fit the bottle already in the market and in general use.

It is evident that various slight changes might be made in the forms, construction, and arrangement of the parts described without departing from the spirit and scope of our invention. Hence we do not wish to limit ourselves to the exact construction herein set forth, but consider ourselves entitled to all such changes that fall within the scope of our invention.

Having thus fully described our invention,

what we claim, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a metallic guard having its top and its bottom respectively terminating in an inturned spring-flange, whereby when adjusted it will conform to the neck of a bottle as set forth.

2. As an article of manufacture, a metallic guard having a smooth body portion with its top and bottom terminating in an inturned spring-flange, the lower flange being thin whereby when sprung into position the guard will be in tension as set forth.

3. In combination with the neck of a bottle a guard having an inturned spring-flange conforming to the mouth of the bottle, and a thin lower spring-flange fitting a groove in said neck as set forth.

In testimony that we claim the foregoing as our own invention we affix our signatures in presence of two witnesses.

JAMES A. DONAHUE.
FRED H. LEACH.

Witnesses:

GEO. B. HANNAMAN,
T. M. KILLIAN.