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J. J. PIPER & J. P. BORMAN.

BOTTLE.

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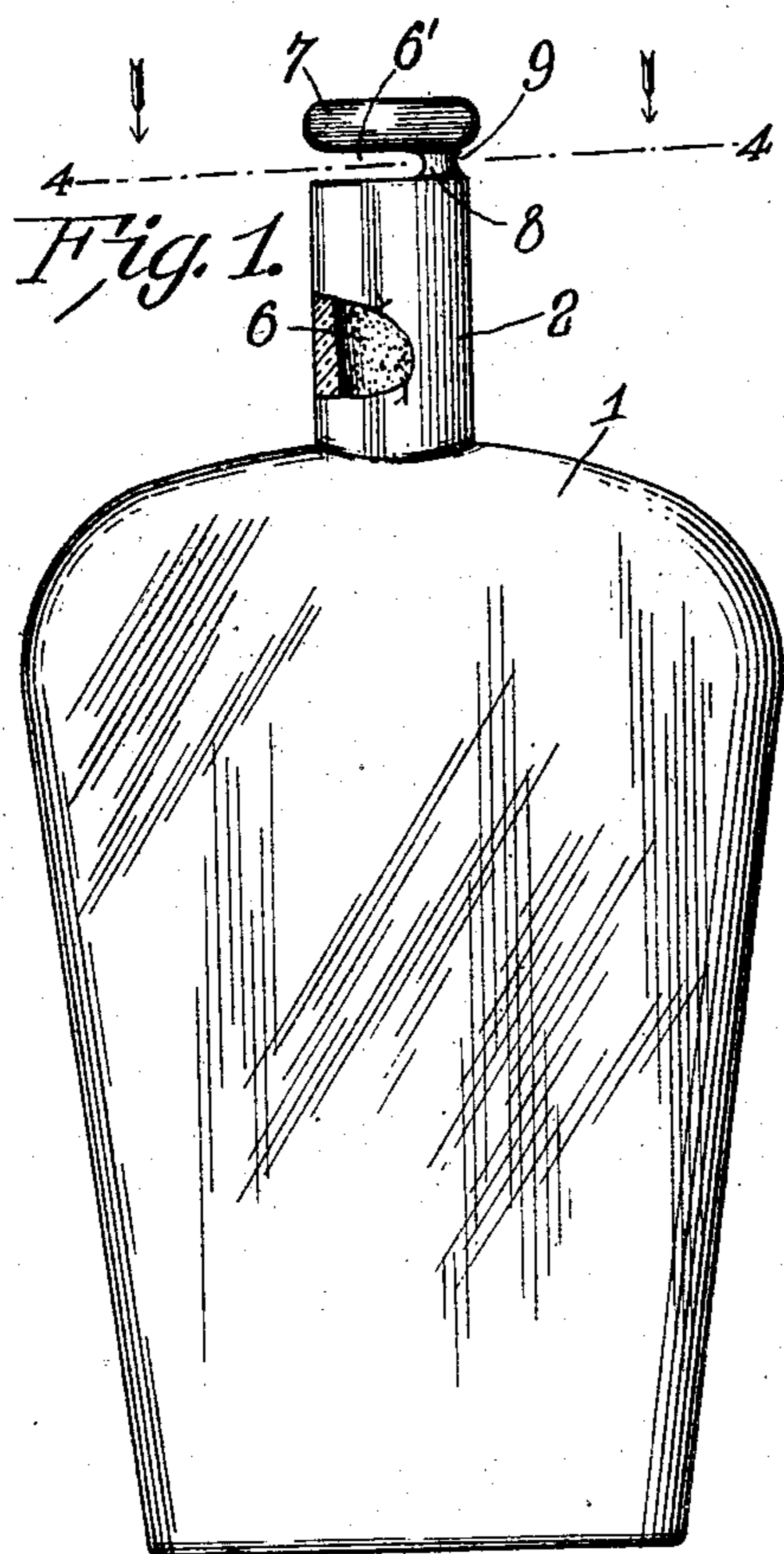


Fig. 1.

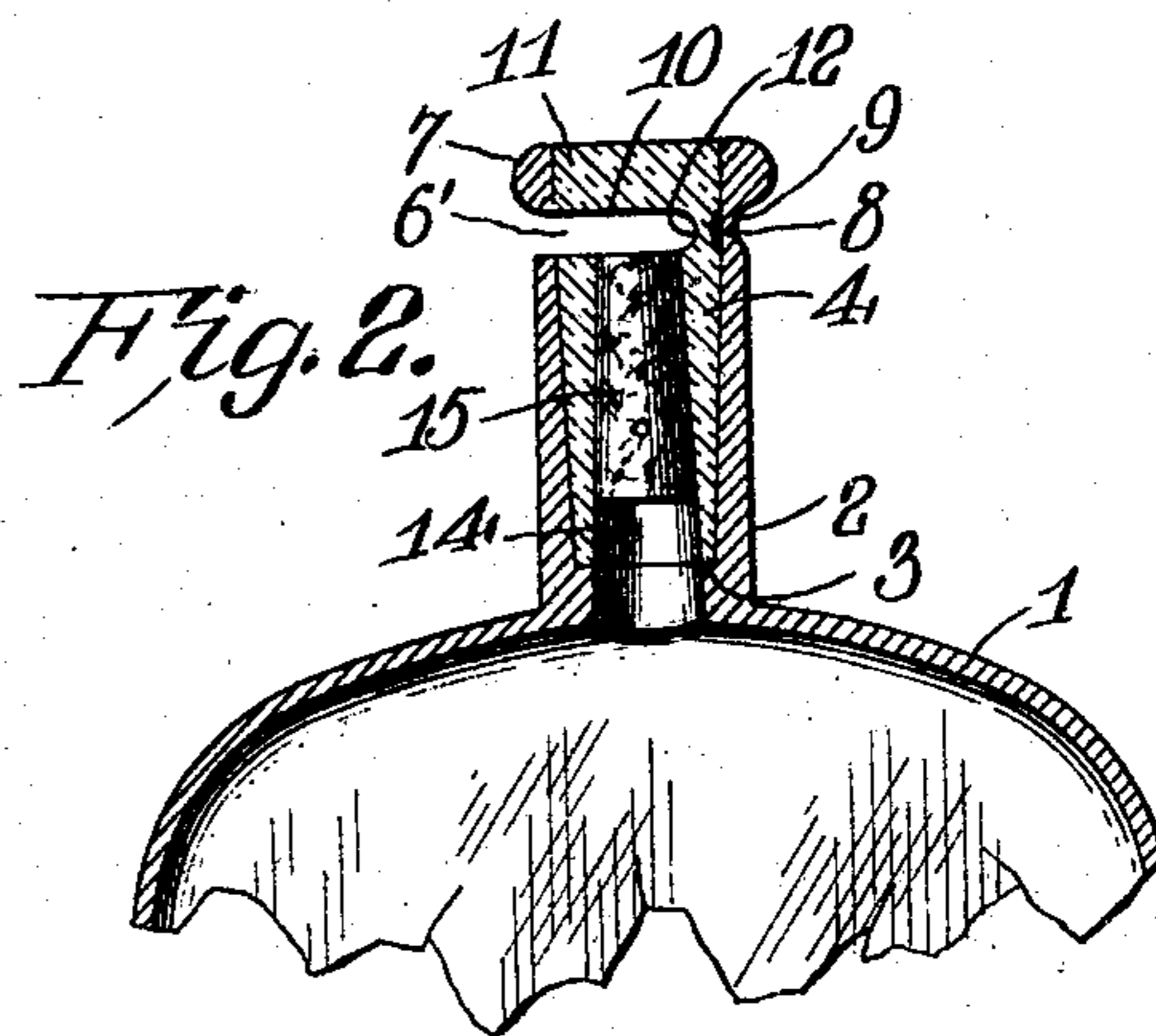


Fig. 2.

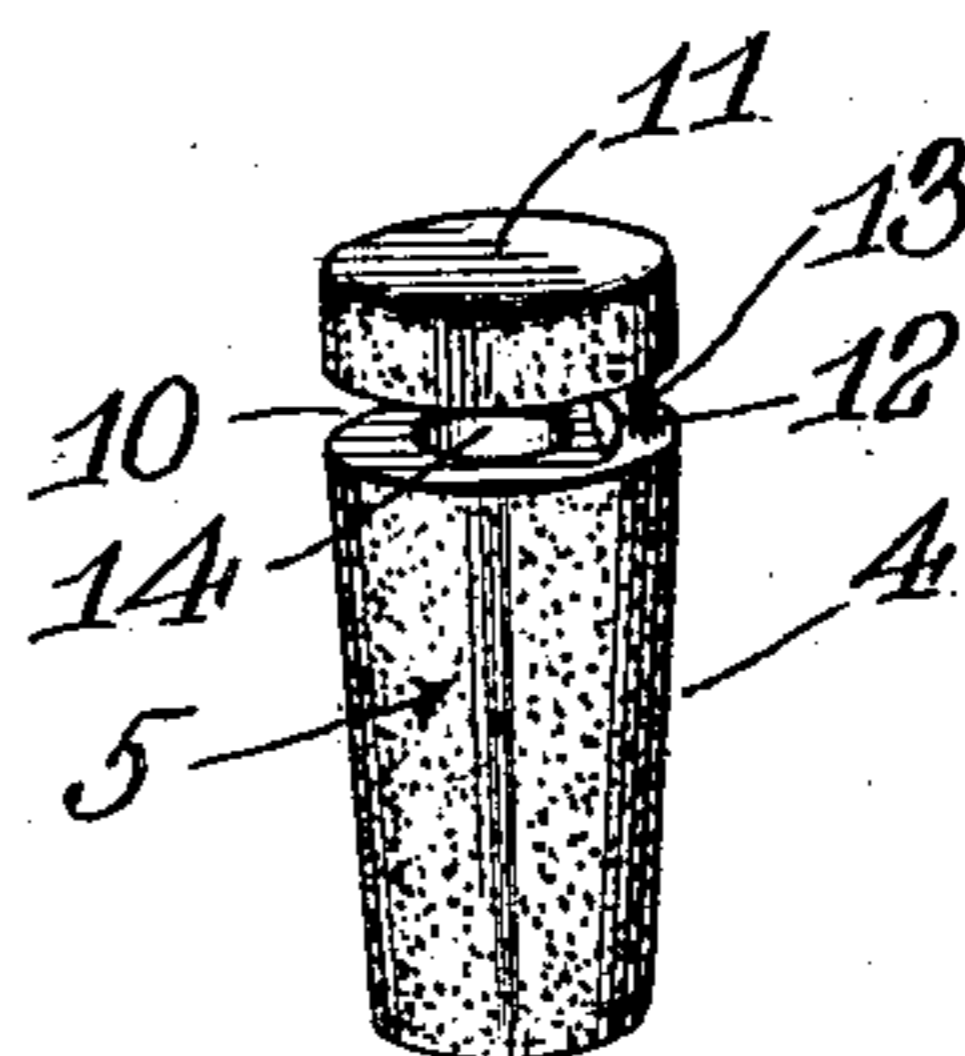


Fig. 3.

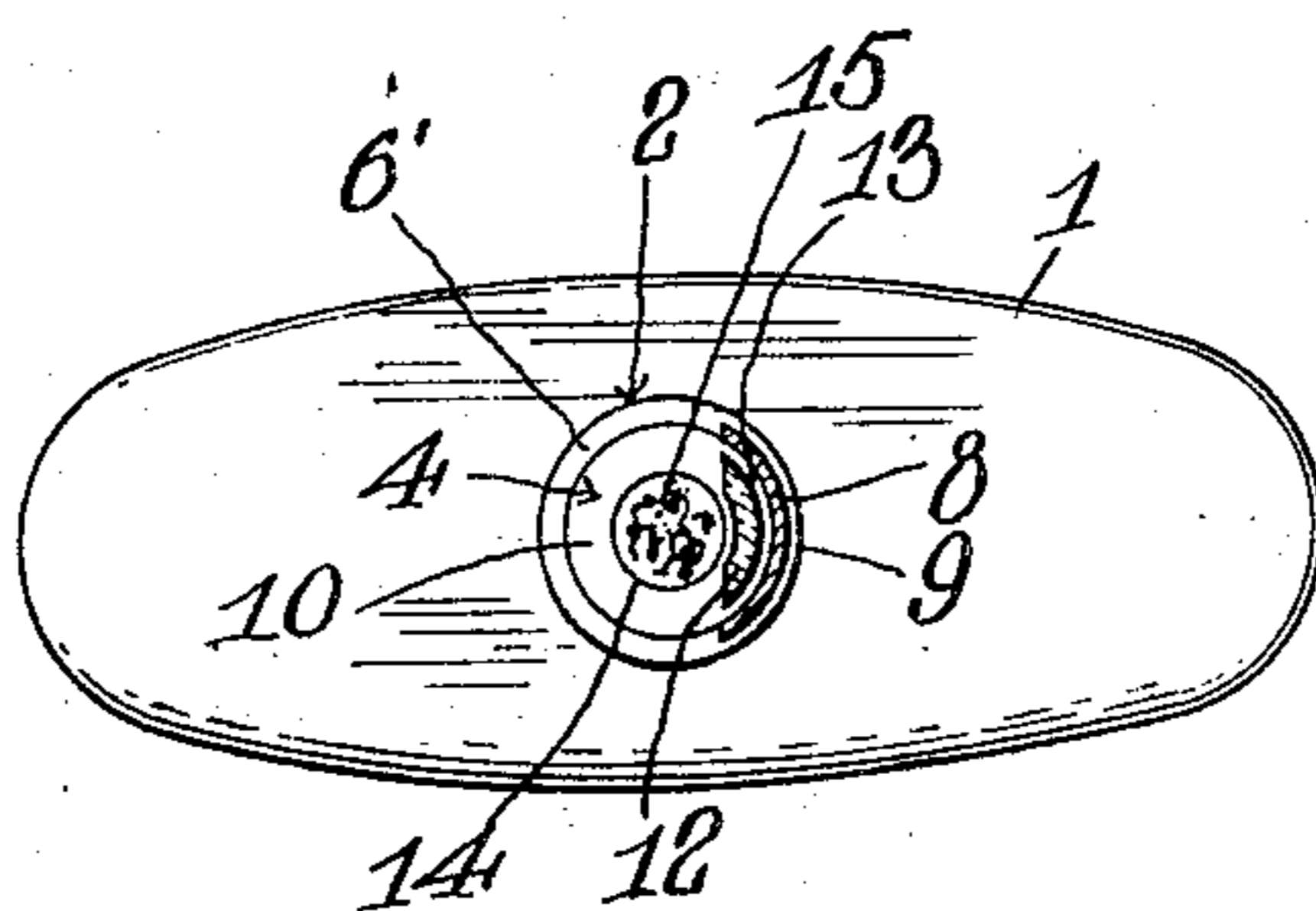


Fig. 4.

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UNITED STATES PATENT OFFICE.

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BOTTLE.

No. 897,139.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JAMES JACKSON PIPER and JOSEPH PHILLIP BORMAN, citizens of the United States, residing, respectively, at Centralia, in the county of Marion and State of Illinois, and Edwardsville, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to that class of vessels or receptacles for the sale and distribution of liquids which are generally known as non-refillable bottles; the object of the same being to provide a structure which will positively prevent the refilling of the receptacle with a spurious article, without detection, after the receptacle has once been emptied of its original contents, in order that purchasers may be protected and guarded against spurious imitations of the original article.

The present invention has particular reference to that class of bottles which must be broken or fractured before access can be had to the contents thereof and which, being thus fractured or destroyed, give plain and visible evidence of having been once opened.

The object of the invention is to simplify and improve the construction and operation of this class of bottles or receptacles; and with these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing: Figure 1 is a side elevation, partly in section of a bottle constructed in accordance with the invention. Fig. 2 is a vertical sectional view of the upper portion of the body, including the neck and showing the stopper seated therein. Fig. 3 is a perspective view, showing the stopper, detached. Fig. 4 is a transverse sectional view taken on the plane indicated by the line 4—4 in Fig. 1.

Corresponding parts in the several figures are denoted by like characters of reference.

The vessel or bottle 1, which may be of any desired size and shape, is provided with the neck 2 which is constricted near its lower end to form an interior annular shoulder 3 affording a seat for the stopper 4. The latter, which is constructed of glass or other equivalent frangible material, is exteriorly ground, as shown at 5, so as to enable it to be tightly fitted in the neck of the bottle, which is preferably correspondingly ground upon the inside, as shown at 6 in Fig. 1, so that the stopper, when placed in position, will be tightly retained without necessitating the use of cement or fastening material of any kind, although such fastening material may be employed, if desired. The other end of the stopper, when the latter is seated in the neck of the bottle, is intended to be flush with the upper end of the neck, as will be clearly seen by reference to Fig. 2 of the drawings.

The neck of the bottle is provided near its upper end with a notch 6' extending approximately through three-fourths of the circumference of the neck, the upper extremity of which will thus constitute a ring 7; the comparatively narrow strip, 8, which connects said ring with the body of the neck is provided with an exterior groove 9, so that it may be very readily broken or fractured. The glass stopper 4 is provided near its upper end with a notch 10 which, when the stopper is seated in the neck of the bottle, is in registry with the notch 6'; the upper extremity of the stopper 4 thus constitutes a cap 11 and the strip 12 which connects said cap with the body of the stopper is provided with an exterior groove 13, enabling said cap to be readily broken apart from the body of the stopper. The latter is provided with a longitudinal upwardly tapering aperture 14 for the reception of an auxiliary cork or stopper 15, which latter, in practice, is inserted from the lower end of the stopper 4 and driven upwardly into the latter prior to the insertion of said stopper 4 into the neck of the bottle or receptacle.

The operation of this invention will be readily understood from the foregoing description when taken in connection with the drawing hereto annexed. After filling the bottle, and applying the cork 15 to the stopper 4, the latter is seated in the neck of the bottle, where it will be securely retained by

friction between the ground exterior surface of the stopper and the correspondingly ground interior surface of the neck. In order to open the bottle, the ring 7 constituting the upper extremity of the neck and the cap 11 constituting the upper extremity of the stopper 4 are broken off, by striking against the hard surface or by inserting a suitable implement, such as the edge of a knife blade into the notches 6' and 10, and prizing upward; the cork or auxiliary stopper 15 may then be drawn by means of an ordinary cork screw, and the bottle may then be emptied in the usual manner. The bottle, being fractured, may not be refilled without detection.

Having thus described the invention, what is claimed is:

1. A bottle having a neck provided with a notch near its upper end, in combination with a stopper of frangible material having a notch registering with the notch in the neck of the bottle, the body of said stopper being provided with a longitudinal tapering aperture, and an auxiliary stopper fitted in said aperture.

2. The combination with a bottle having a notch near its upper end and an exterior groove registering with said notch, of a correspondingly notched frangible stopper hav-

ing an exterior groove corresponding with the notch therein, the body of said stopper being provided with a longitudinal tapering aperture, and an auxiliary stopper seated in said aperture.

3. A bottle having a neck constricted near its lower end to form an annular shoulder, said neck being interiorly ground and provided with a lateral notch near its upper end and with an exterior groove alining with said lateral notch, in combination with an exteriorly ground frangible stopper seated upon the interior annular shoulder of the neck and provided near its upper end with a lateral notch alining with the lateral notch in the neck of the bottle, and with an exterior groove, the body of said stopper being provided with a longitudinal tapering aperture, and an auxiliary cork or stopper seated in said aperture.

In testimony whereof we affix our signatures, in presence of two witnesses.

JAMES JACKSON PIPER.

JOSEPH PHILLIP BORMAN.

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