

No. 779,611.

PATENTED JAN. 10, 1905.

L. KUNTZ.
ANTIREFILLING BOTTLE.
APPLICATION FILED APR. 19, 1904.

Fig. 1.

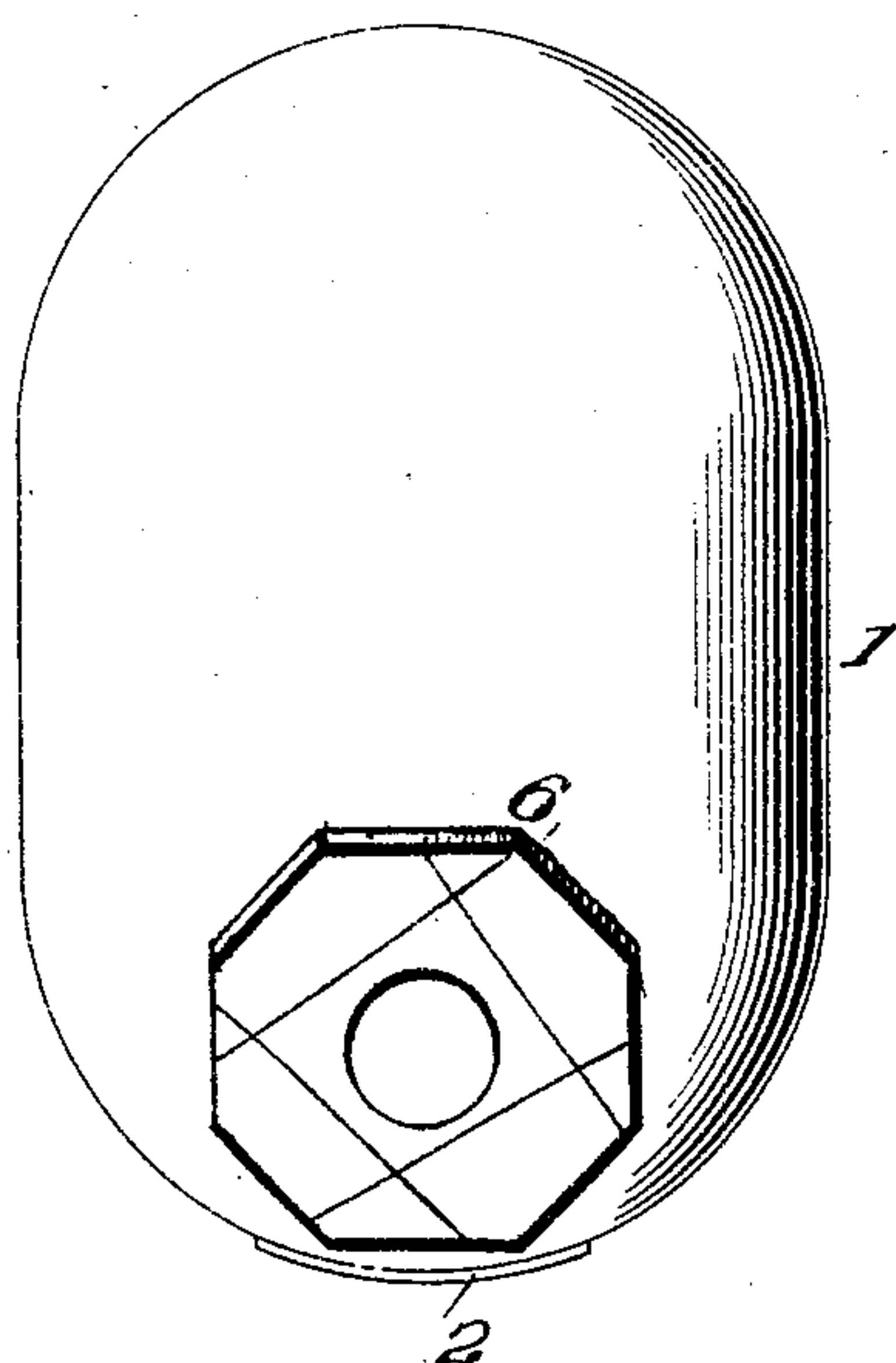


Fig. 2.

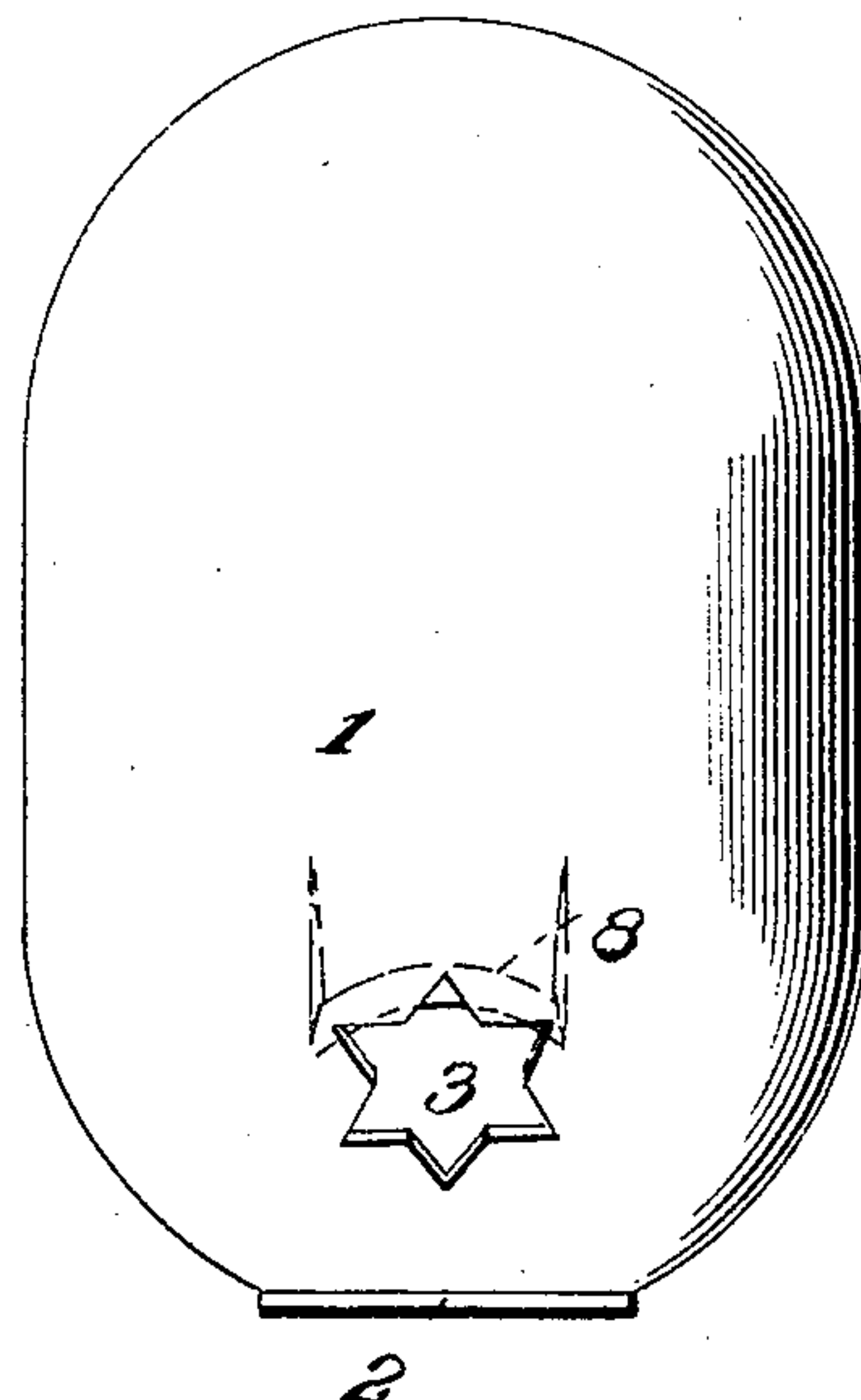


Fig. 3.

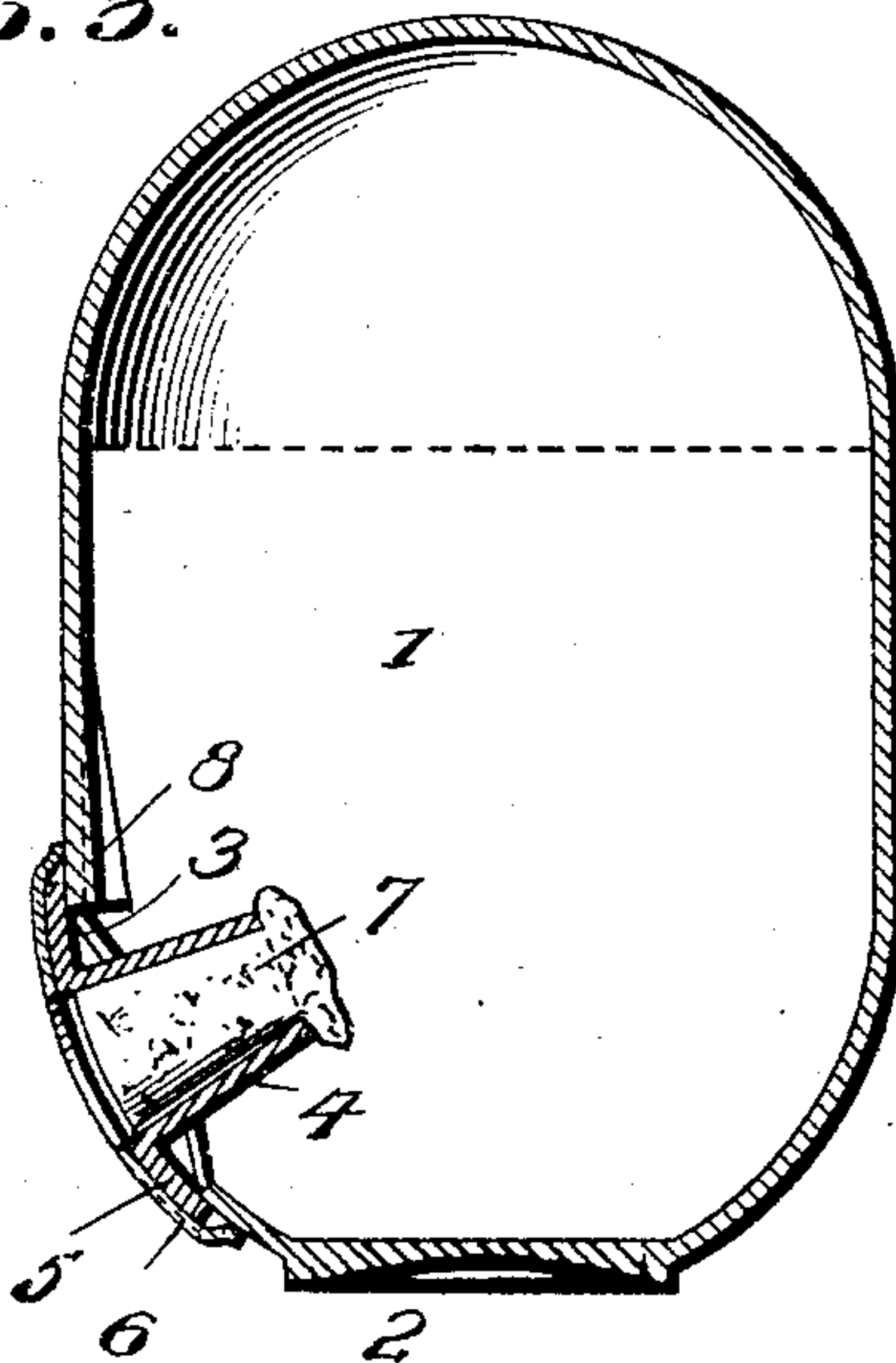


Fig. 4.

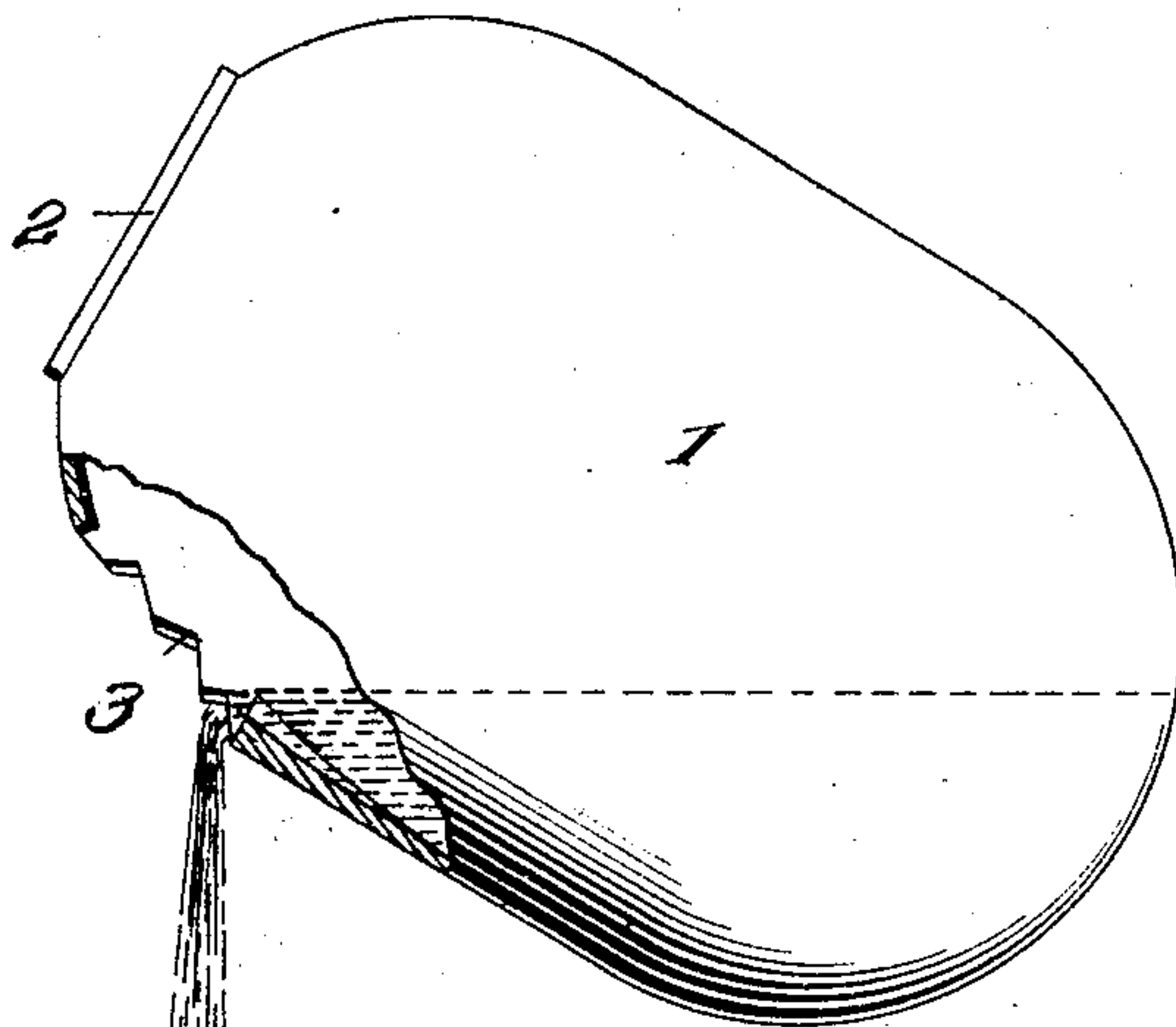
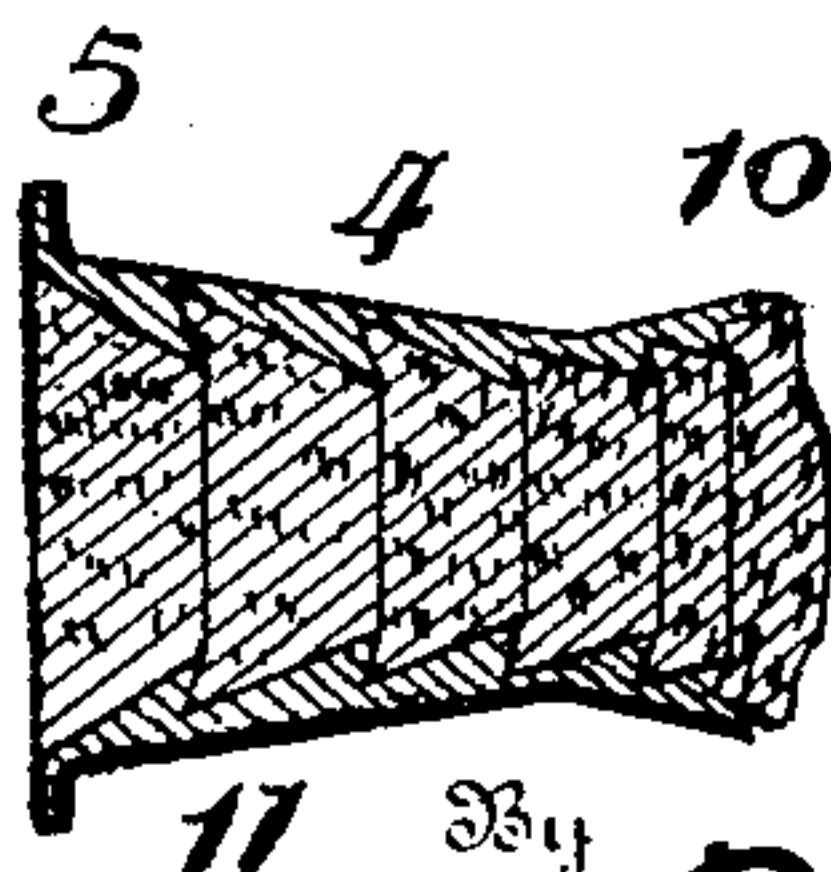


Fig. 5.



Witnesses

Wm. H. Woodson

Inventor

L. Kuntz,

By

Ph. B. Lacey, Attorneys

UNITED STATES PATENT OFFICE.

LAMBERTUS KUNTZ, OF CANUTE, OKLAHOMA TERRITORY.

ANTIREFILLING BOTTLE.

SPECIFICATION forming part of Letters Patent No. 779,611, dated January 10, 1905.

Application filed April 19, 1904. Serial No. 203,935.

To all whom it may concern:

Be it known that I, LAMBERTUS KUNTZ, a citizen of the United States, residing at Canute, in the county of Washita, Territory of Oklahoma, have invented certain new and useful Improvements in Antirefilling Bottles, of which the following is a specification.

This invention provides new and novel improvements in that class of receptacles commonly called "antirefilling bottles," which are designed to prevent the second filling of same after the original contents thereof have once been withdrawn.

The invention embodies a peculiar construction of internal sealing device forming a part of the receptacle, which device receives the closure by which the bottle is stopped.

The invention further embodies a peculiar form of secondary seal by which the sealing device above mentioned is secured in the body of the receptacle, which seal is frangible to admit of withdrawal of the contents of the said receptacle.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a bottle embodying my invention. Fig. 2 is a side elevation showing the form of the bottle before the sealing-tube has been secured thereto. Fig. 3 is a vertical sectional view partially broken away to bring out more clearly the form of the pouring-plate which is disposed within the bottle. Fig. 4 is a view of the bottle after the sealing-tube has been detached therefrom, the contents of the receptacle being shown passing therethrough. Fig. 5 is a sectional view showing a modified form of bottle-sealing tube.

Corresponding and like parts are referred to in the following description and indicated in

all the views of the drawings by the same reference characters.

In view of the peculiar form of and manner of securing the internal sealing device of the bottle thereto the body 1 of the bottle itself is of a special form particularly adapted for the purpose of the invention. The said body may be described to be of somewhat oval form, being provided at one end with a depressed or flattened portion 2, so as to admit of ready disposal of the receptacle in an upright position. The depressed portion 2 would therefore constitute the bottom of the bottle in the preferred construction of the invention. It will be understood, however, that the exact form of the body 1 of the bottle may be varied largely in accordance with the special use for which the receptacle may be designed. Adjacent the lower portion of the bottle is provided an opening 3, through which the contents of the bottle are passed and withdrawn in the practical use of the receptacle. This opening 3 is of peculiar form, having the peripheral portion thereof deflected or serrated for purposes which will appear more fully hereinafter. The serrations are preferably of angular form, as shown most clearly in Fig. 2.

The sealing device is insertible into the body 1 of the receptacle, and this comprises a tube 4, adapted to receive a cork 7, and said tube preferably tapers toward its inner end. An annular bead or collar 5 is formed integral with the outer end of the tube 4, and this bead abuts against the serrated peripheral portion of the opening 3, so as to limit the inward disposition of the tube 4. In other words, after the tube 4 has been inserted into the body 1 the bead 5 rests against the outer side of the body adjacent the peripheral portion of the opening 3. The bead and general shape of the other portion of the tube would of course conform to the contour of the bottle. The means for securing the tube to the bottle comprises a secondary or frangible seal, which, as before mentioned, constitutes a very important feature of my invention. The frangible seal, which is designated 6, consists of a plate, preferably of glass or similar substance, which

plate is provided about centrally thereof with an opening to admit of introduction of a cork 7 into the tube of the bottle after the said tube has been placed in position. The frangible plate 6 is designed to entirely cover the opening 3 and is secured at its outer portions by being fused to the body of the bottle or otherwise suitably held in place. The portions of the seal or plate 6 surround the opening in this plate, which portions are in contact with the bead or collar 5 of the tube and are likewise fused or secured to the said collar, and thus the tube is firmly held in its position within the bottle. The plate 6 is made comparatively thin, so that it will readily break at the edge portions thereof, which portions are secured to the body 1 when it becomes necessary to withdraw the cork and tube of the bottle. The plate itself affords, together with the cork or closure 7, an effectual seal for the receptacle, preventing contamination of the contents thereof.

In order that the contents of the bottle may be readily poured therefrom through the opening 3 after the tube 4 and closure 7 have been removed, a pouring-plate 8 is preferably molded within the bottle at a point adjacent the opening 3 aforesaid. This pouring-plate in cross-section is of concave form and projects to the outermost portions of the serrated edges of the opening 3. The portion of the plate 8 adjacent the opening 3 is inclined, so as to facilitate the pouring operation.

In the use of my invention the tube 4 is introduced within the body 1 of the bottle through the opening 3 until the bead 5 rests against the peripheral portions of the opening 3. The frangible seal 6 is next disposed in position and properly secured to the body 1 and the tube 4 in the manner before described. This having been done, the contents of the receptacle may be readily disposed therein and the stopper or closure 7 forced into the tube. As is well known, it is customary to wet the stopper preparatory to forcing same into the tube of the bottle, and because of the tapered form of the tube 4 the stopper or cork 7 will swell so as to bind within the walls of the tube. Preferably the stopper is forced until its inner end projects beyond the inner end of the tube so that the inner end of the cork will swell and project laterally. In removing the cork the pressure exerted thereon will break the seal 6, as shown most clearly in Fig. 4, and the tube 4 will be withdrawn with the cork. The contents of the receptacle may then be readily poured therefrom.

Because of the serrated form of the opening 3 it is impracticable for any one to recork the bottle, and the formation of the opening is very advantageous in that it admits of use of a comparatively small tube, though the area of the opening is sufficiently large for all the purposes of the invention. The portions of the seal or plate 6 which remain

upon the bottle after the same has been broken are also indicia of the fact that the original contents of the receptacle have been withdrawn.

To facilitate the removal of the tube and closure, the seal may be cut on lines adjacent the opening therein by an ordinary glass-cutting tool or the like, and the broken edges of the seal after the tube has been removed will be straight and not ragged, as might otherwise be the case. Fig. 1 indicates the lines upon which the seal may be readily cut, above described.

The construction of tube illustrated in Fig. 5 is particularly adapted to firmly retain the closure or cork 7 within the tube, so as to make it practically impossible to withdraw the cork without doing likewise as regards the tube. In the modified form as illustrated in the figure above mentioned the inner end of the tube 4 flares outwardly, as shown at 10, and at intervals upon the inner periphery of the tube the same is provided with a plurality of annular ribs or the protuberant portions 11. The portions 11 are preferably inwardly inclined, so as to more firmly grip and engage the cork 7 after the latter has once been forced into position within the tube. The formation of the engaging ribs or projecting portions 11 materially increases the difficulty of removal of the cork without injuring the seal 6. The ribs 11 adjacent the outer portion of the tube are larger than those arranged toward the innermost end of the tube, so as to frustrate any attempt of pricking out the cork by means of a knife or other instrument. If desirable, the cork 7 may be forced into the tube beyond the outer extremity thereof, so that the space remaining may be filled with cement or composition which would harden and prevent tampering in the manner above described. Any suitable imprint, such as a trade-mark or the like, may be formed on the outer surface of the cement or plastic material above mentioned.

Having thus described the invention, what is claimed as new is—

1. In an antirefilling bottle, the combination of a receptacle-body provided with an opening, a sealing device extending from said opening into the body, and frangible means for securing the sealing device to the body.

2. In an antirefilling bottle, the combination of a receptacle-body provided with an opening having deflected peripheral portions, a sealing device extended from said opening, and frangible means for securing the sealing device to the body.

3. In an antirefilling bottle, the combination of a receptacle-body provided with an opening the peripheral portion of which is serrated, a sealing device extended from said opening into the body, and frangible means for securing the sealing device to the body.

4. In an antirefilling bottle, the combina-

tion of a receptacle-body provided with an opening, a sealing device extending from said opening into the body, and a frangible seal securing the sealing device to the body.

5 5. In an antirefilling bottle, the combination of a receptacle-body provided with an opening, a sealing-tube extended from said opening into the body, and frangible means engaging the sealing-tube and secured to the
10 body.

6. In an antirefilling bottle, the combination of a receptacle-body provided with an opening therein, a tube extending from the said opening in the body aforesaid, a closure
15 in said tube and a frangible seal securing the tube to the body and provided with a closure-opening.

7. In an antirefilling bottle, the combination of a receptacle-body provided with an
20 opening, a tube extending from said opening into the body, a closure in said tube and a frangible plate securing the tube to the body.

8. In an antirefilling bottle, the combination of a receptacle provided with an opening
25 therein, a tube projected inwardly from the opening of the body, a closure in said tube and a frangible plate secured at its central portion to the tube and at its outer portions to the body.

9. In an antirefilling bottle, the combination of a receptacle-body provided with an opening therein, an inwardly-extending tube projected from the opening aforesaid, a closure in said tube, frangible means securing the tube in position, and a pouring-plate arranged within the body of the bottle adjacent the opening therein. 30 35

10. In an antirefilling bottle, the combination of a receptacle-body provided with an opening therein, an inwardly-extending tube projected from the opening aforesaid, a closure in said tube, frangible means securing the tube in position, and an inclined pouring-plate arranged within the body of the bottle adjacent the opening therein. 40 45

11. In an antirefilling bottle, the combination of a receptacle-body provided with an opening, an inwardly-extending tube projected from the bottle adjacent the opening aforesaid, a closure in said tube, a bead formed with the tube at the outer end thereof, and frangible means securing the tube to the bottle. 50

In testimony whereof I affix my signature in presence of two witnesses.

LAMBERTUS KUNTZ. [L. s.]

Witnesses:

GEO. F. WEINRICH,
F. T. SMALLWOOD.