

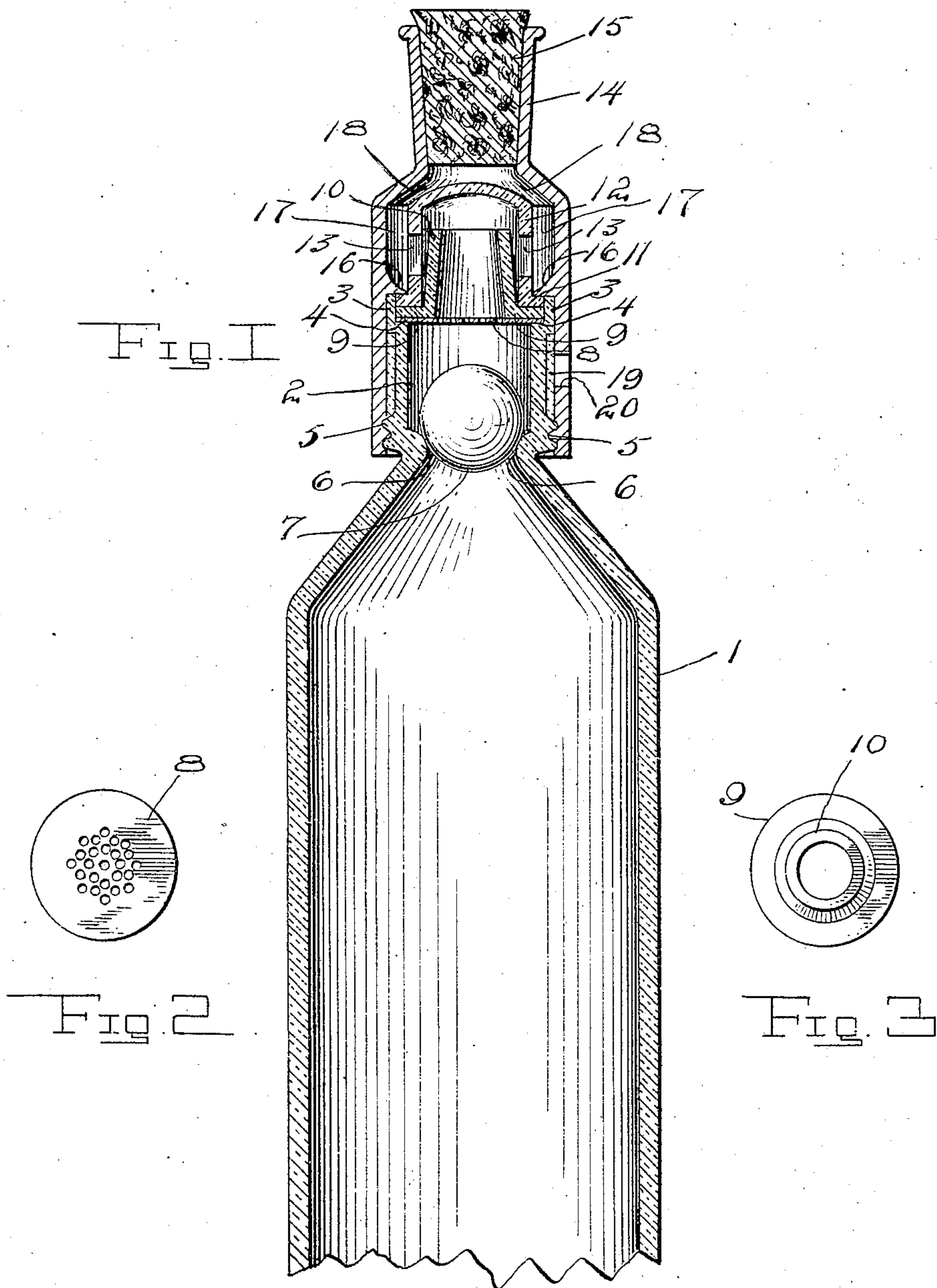
No. 843,540.

PATENTED FEB. 5, 1907.

P. J. LEONARD.
NON-REFILLABLE BOTTLE.

APPLICATION FILED AUG. 9, 1905. RENEWED JULY 11, 1906.

2 SHEETS—SHEET 1.



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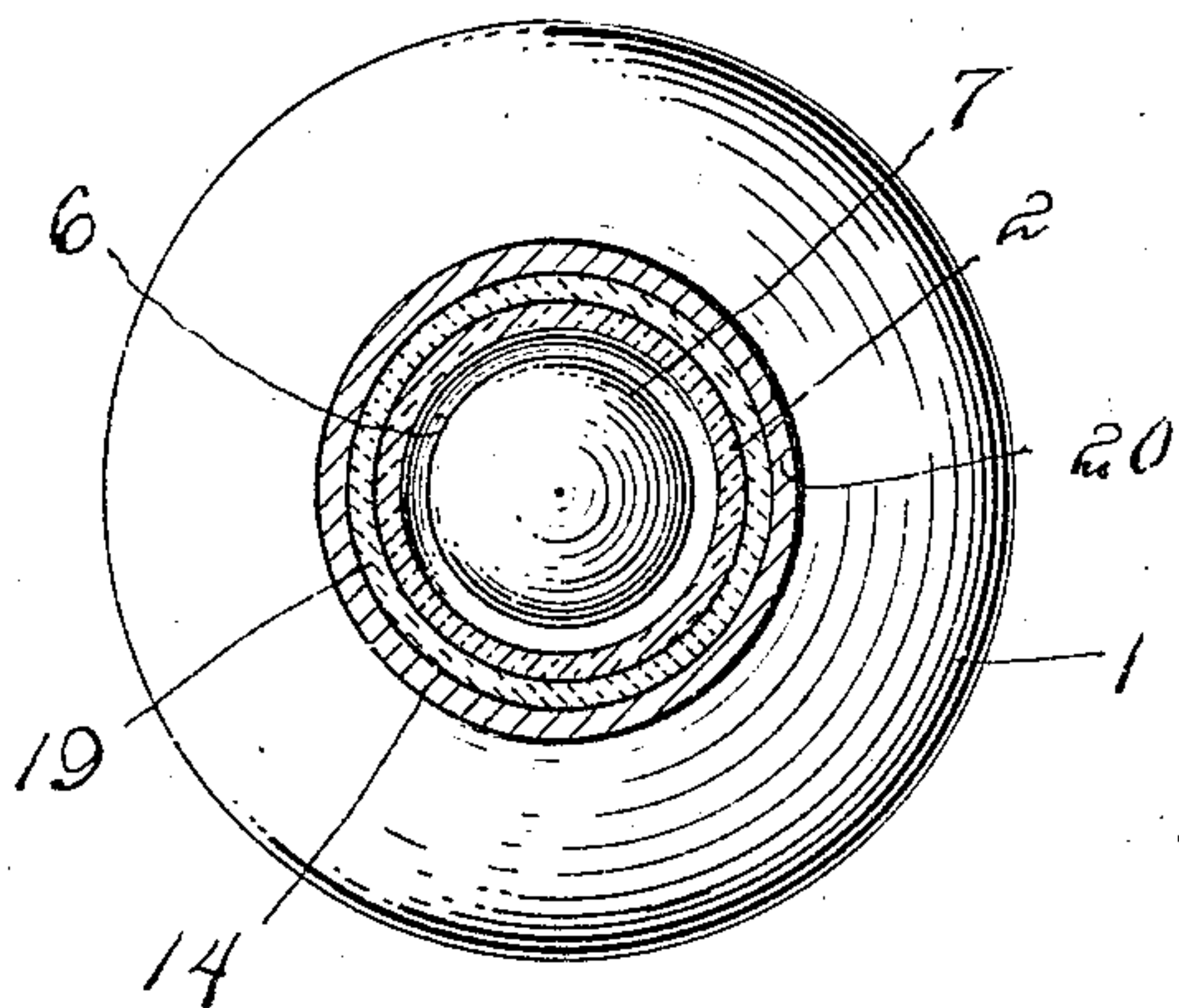


Fig. 4

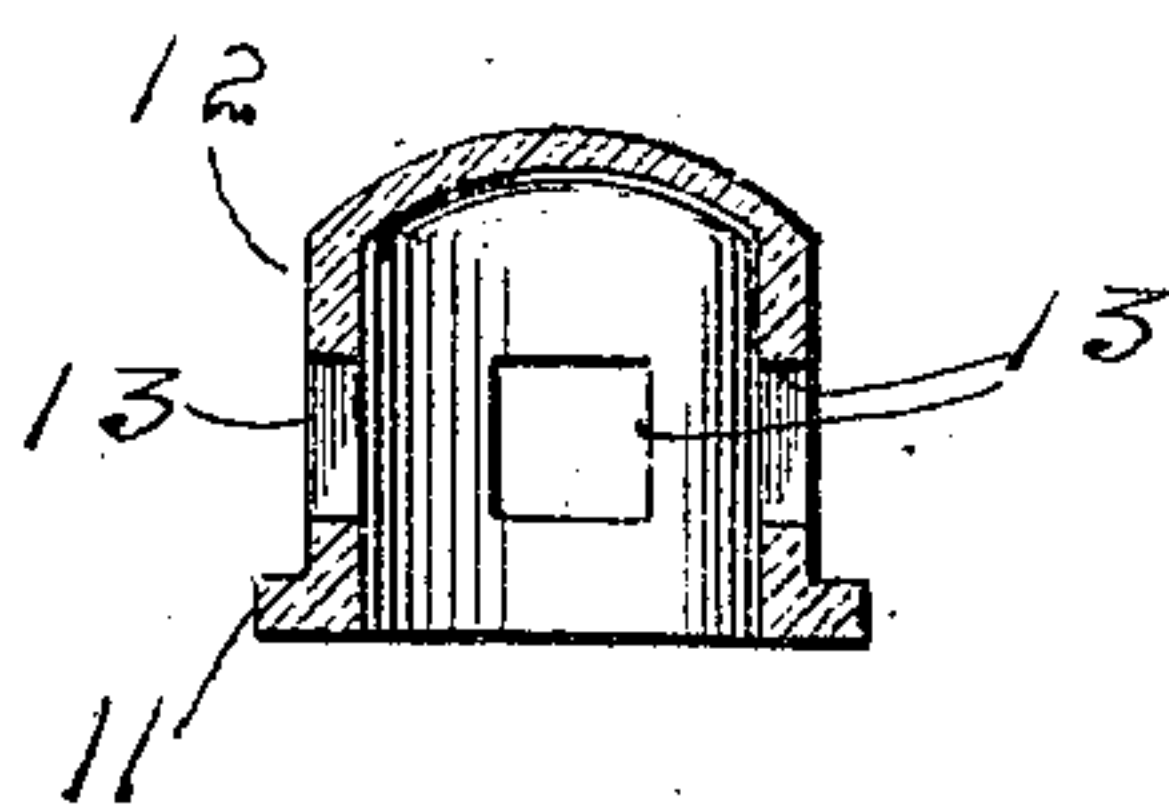


Fig. 5

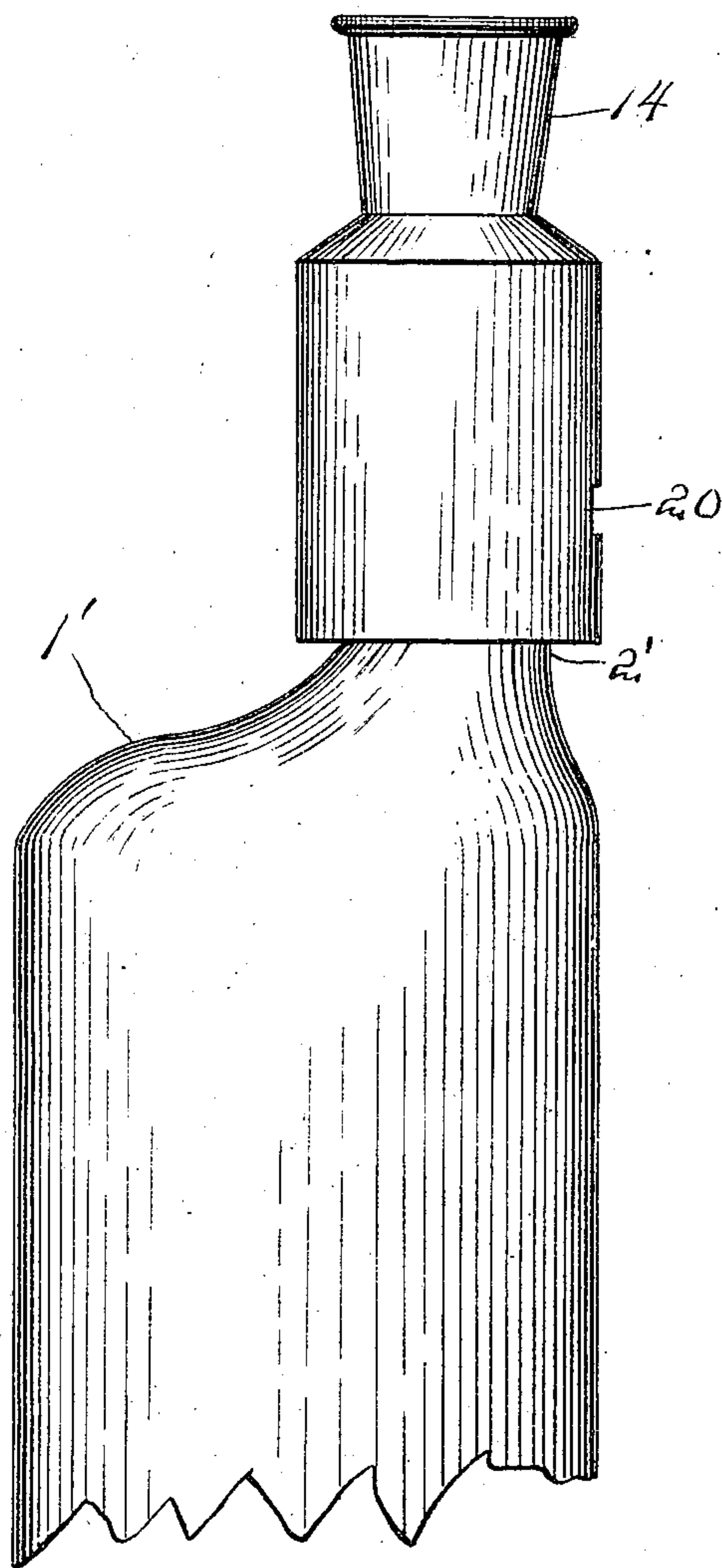


Fig. 6

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UNITED STATES PATENT OFFICE.

PATRICK J. LEONARD, OF ST. LOUIS, MISSOURI.

NON-REFILLABLE BOTTLE.

No. 843,540.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed August 9, 1905. Renewed July 11, 1906. Serial No. 325,616.

To all whom it may concern:

Be it known that I, PATRICK J. LEONARD, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Non-Refillable 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 appertains to make and use the same.

This invention relates to bottles, and more particularly to the class known as "non-refillable" bottles.

One object of the invention is to provide an exceedingly simple, inexpensive, durable, and efficient bottle embodying such characteristics that it cannot be refilled with an inferior or other class of liquids when once emptied of its original contents.

Another object of the invention resides in the provision of a bottle of the character stated embodying a valve movable within the neck of the bottle in such manner as to close the inlet and outlet ports thereof.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a vertical sectional view of a bottle embodying my invention. Fig. 2 is a detail view of the perforated disk. Fig. 3 is a detail view of the conical shield. Fig. 4 is a transverse section. Fig. 5 is a detail vertical section. Fig. 6 is an elevation showing a modification.

Referring now to the drawings, the present invention comprises a bottle 1, whose neck portion 2 is provided at its outer end with an offset flange 3, resulting in an annular shoulder 4. The base of the neck portion 2 of the bottle is provided with external threads 5 for a purpose presently explained, the base of the neck being provided opposite the said threads with an internal annular shoulder 6 for the seating of the ball-valve 7, arranged within the neck of the bottle to prevent the valve from dropping into the bottle and to also prevent the passage of liquid

through the neck into the bottle when the latter is in its upright position.

Resting upon the aforesaid annular shoulder 4 is a perforated disk 8, whose periphery engages the inner face of the annular up-standing flange 3. Disposed upon the said perforated disk 8 is the lower flange 9 of a conical shield 10, the shield being open at its upper and lower ends to provide communication therethrough and the aforesaid perforated disk 8. The lower flanged portion 11 of the hood 12 is designed to rest upon the aforesaid flanged portion 9 of the shield 10 above the aforesaid shoulder 4. This hood 12 is provided with a series of ports 13 in its sides to permit of the passage of fluid from the bottle through the perforated disk, the conical shield 10, and then between the inner faces of the top of the hood 12, which latter is closed, and through the ports 13 and out between the outer face of the hood 12 and the inner face of the supplemental neck 14 of the bottle, which latter is contracted at its upper end for the reception of a cork 15, with its lower end interiorly screw-threaded for engagement with the external threads 5 of the neck 2 of the bottle. This supplemental neck 14 is also provided intermediate its ends with an internal annular shoulder 16, which is designed to bear against the outer face of the flange 11 of the hood 12 and clamp the latter, the conical shield 10, and the perforated disk 8 upon the aforesaid shoulder 4 of the neck 2.

It will be seen that the upper end of the shield 10 projects into the hood 12 above the ports 13 of the latter and that when the liquid is to be poured out of the bottle it flows against the inner face of the top of the hood 12, and then therebetween and the outer face of the conical disk 10, through the openings 13 of the hood, into the chamber 17, formed between the supplemental neck 14 and the hood, and then passes between the top of the hood and the contracted portion 18 of the supplemental neck and out through the latter in a manner well understood.

It will now be understood that when the bottle is in an upright position the liquid cannot be forced into the bottle, for the reason that the valve 7 rests upon the shoulder 6 of the neck 2. Now if the bottle should be placed in an inverted position and an attempt made to force the liquid into the bottle the pressure of the liquid would force the

ball-valve 7, which is preferably of very light material, against the said shoulder 6 of the neck 2 and effectually close the opening between the neck proper and the bottle. If a person should attempt to force an instrument of any character into the hood 12, the instrument would have to be of a very peculiar formation, and even if a person should accomplish the purpose of getting the instrument into the hood 12 he would find that he could not reach the valve 7 on account of the shield 10, and especially the perforated disk 8. If a person should find that he could not reach the ball-valve 7 through the instrumentality of an instrument to permit of the filling of the bottle with an inferior or other class of liquid, his attention would be drawn to the supplemental neck 14. However, this supplemental neck 14 is cemented to the neck 2 of the bottle through the instrumentality of suitable cement 19, which may be poured in between the necks 2 and 4 through the opening 20. Therefore in order to manipulate the valve 17 for the purpose of holding it in any desired position for the filling of the bottle it would be necessary to break the supplemental neck 14, thereby destroying the bottle as a whole and positively enlightening others of the fact that the bottle has been broken for the filling thereof of an inferior or other class of liquid. It will therefore be seen that I have provided a non-refillable bottle of an exceedingly simple and inexpensive nature and that one will be positively enlightened of the fact in the event that a person should attempt to reuse the bottle for another or inferior class of goods.

In Fig. 6 I have shown a somewhat different form of bottle proper, the only difference residing in the formation of the neck 2' of the bottle 1' off to one side of the bottle proper instead of arranging the neck centrally, as in the other form described. This second form

of bottle may be preferred under certain conditions.

What is claimed is—

1. A bottle comprising a neck provided with external threads and an internal valve-seat at its base and an annular shoulder at its top, a perforated disk fitted upon said shoulder, a shield upon the disk the shield being open at both ends a hood provided with ports in its sides, and a supplemental neck provided with internal screw-threads at its lower end for engagement with the external screw-threads at the base of the aforesaid neck and provided intermediate its ends with an internal annular shoulder for engagement with the aforesaid hood to clamp the hood, the shield and the perforated disk upon the aforesaid shoulder.

2. A bottle comprising a neck provided with external threads and an internal valve-seat at its base and an annular shoulder at its top, a perforated disk fitted upon said shoulder, a shield upon the disk the shield being open at both ends, a hood provided with ports in its sides, a supplemental neck provided with an internal screw-thread at its lower end for engagement with the external screw-threads at the base of the aforesaid neck and provided intermediate its ends with an internal annular shoulder for engagement with the aforesaid hood to clamp the head, the shield and the perforated disk upon the aforesaid shoulder, and plastic material arranged between the neck proper of the bottle and the supplementary neck for cementing the necks together.

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

PATRICK J. LEONARD.

Witnesses:

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