

J. A. PINDELL.

BOTTLE.

APPLICATION FILED JUNE 25, 1912.

Patented Mar. 11, 1913.

1,055,650.

Fig. 1.

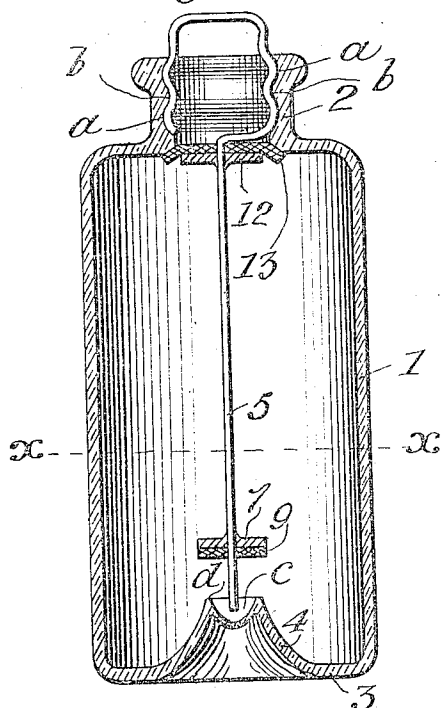
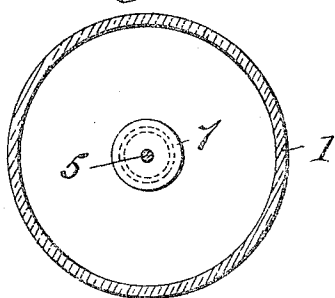


Fig. 2.



WITNESSES

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BOTTLE.

Specification of Letters Patent.

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Application filed June 25, 1912. Serial No. 705,695.

To all whom it may concern:

Be it known that I, JOHN A. PINDELL, of Cockeysville, in the county of Baltimore and State of Maryland, have invented certain Improvements in Bottles, of which the following is a specification.

This invention relates to certain improvements in bottles which in the opening or unsealing of the same, are partially destroyed and thereby rendered unfit for subsequent use as sealed containers of liquids, as will hereinafter fully appear.

In the further description of the said invention which follows, reference is made to the accompanying drawing forming a part hereof, and in which:—

Figure 1 is a vertical central section of the improved bottle; and Fig. 2 a section of Fig. 1 taken on the broken line $x-x$.

Referring now to the drawing, 1 is the body of the bottle shown as of cylindrical form; and 2 and 3 are respectively, the neck and the bottom of the bottle. The interior of the neck 2 is provided with circumferential grooves a which in a sectional view of the bottle, as in Fig. 1, exhibit waved lines b .

A portion of the bottom of the bottle is inturned, and the inturned portion 4 is practically of frusto conical shape terminating in a central depression c the bottom of which is much thinner than the material around it and being frangible can therefore be easily broken without injuring the annular edge d .

5 is a spring wire or rod having its upper end bent so that when it is placed diametrically within the neck, it will conform to and press tightly against the grooved or waved surface of the neck as shown in Fig. 1.

The portion of the wire 5 which is below the grooves a , is central of the bottle and extends downward to within the depression c but normally clear of its bottom, as shown.

7 is a disk on the wire 5 to which it is preferably soldered, and 9 a rubber gasket cemented or otherwise fastened to the underside of the disk 7. The distance of the gasket 9 from the annular edge d on the bottom 3, is slightly less than the vertical distance between the annular grooves a , in order that should the wire be pushed down that distance, and the upper bend of the wire brought from the upper to the lower groove a in the neck 2, the gasket 9, after

the end of the wire has perforated the bottom of the depression c , will bear with pressure on the annular edge d and thereby form a tight joint for the time being.

12 is a second disk fastened like the one 7, to the wire 5; and 13 is a gasket secured to the upper side of the second disk 12.

The diameter of the second disk 12 is slightly less than the smallest inner diameter of the neck 2, and the diameter of the gasket 13 is greater, so that when the wire 5 is in the position shown in Fig. 1 the gasket 13 will be held tightly against the lower edge of the neck 2 and thereby seal the bottle with a tight joint.

It will be understood that owing to the upper end of the spring rod 5 which is within the neck of the bottle, extending diametrically of the same, the portion of the said rod which is in the body of the bottle is held centrally thereof; and that in view of the annular grooves a which are at different heights, being alike in shape, the rod can be sprung into and firmly held in either one of two vertical positions, one position serving to tightly close the neck by means of the gasket 13, and the other to prevent, through the medium of the gasket 9, the discharge of the contents of the bottle after the bottom of the depression c is fractured, and in consequence of this construction and arrangement the bottle after being opened is a practical and effective container for liquids until emptied of its contents when it becomes worthless for further use as a closed receptacle.

After the bottle is filled, the rod 5 with its attachments, is inserted through the neck 2 in which operation the gasket 13 is inverted at its circumference and maintains this form until the gasket has passed to below the neck, after which it is drawn up to the position in which it is shown in the drawing and the bottle thereby sealed.

To open the bottle, the head of the wire 5 is struck a sharp blow which causes it to assume the secondary position described, and its end to perforate the bottom of the depression c . At the same time, the gasket 9 is seated tightly upon the annular edge d , and leakage of the contents of the bottle thereby prevented.

After the bottle has been emptied of its contents, it can be again filled, but not again made a sealed container for the reason that in an effort to that end, the opening made

by the puncture of the bottom of the bottle is disclosed.

I claim as my invention:—

1. In a bottle, the bottom thereof having
5 a frangible area, and a neck with projections therein at different heights, combined with a rod having its upper end bent to extend diametrically across the interior of the neck and engage the said projections,
10 whereby it may be held in either one of two vertical positions, and its lower end situated over the frangible area, the said rod carrying two gaskets one to close the neck, and
15 the rod is forced down and its end through the same, substantially as specified.
2. In a bottle, the bottom thereof having a frangible area and a neck provided with

internal circumferential grooves which produce separated projections, combined with
20 a spring rod having its upper end bent to extend diametrically across the interior of the neck and engage the separated projections, and thereby adapt the rod to be held
25 in either one of two vertical positions, and its lower end situated above the frangible area, the said rod carrying two gaskets one to close the neck and the other to close the disrupted frangible area when the rod is
30 forced through the same, substantially as specified.

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Witnesses:

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