J. D. MULVEHILL.

NON-REFILLABLE BOTTLE.

APPLICATION FILED JULY 31, 1912.

1,054,982. Patented Mar. 4, 1913.

FIG. 1.

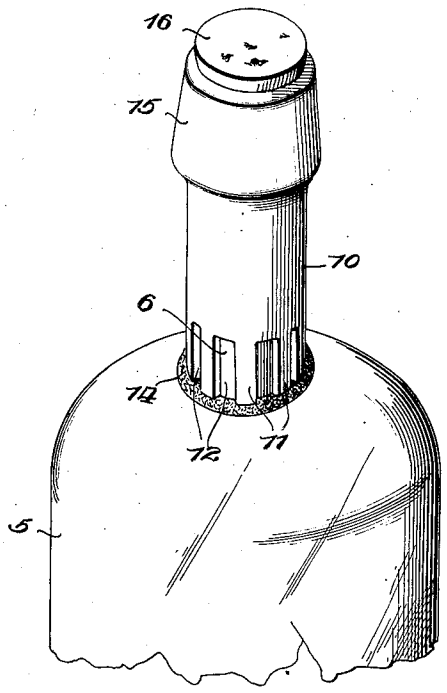


FIG. 2.

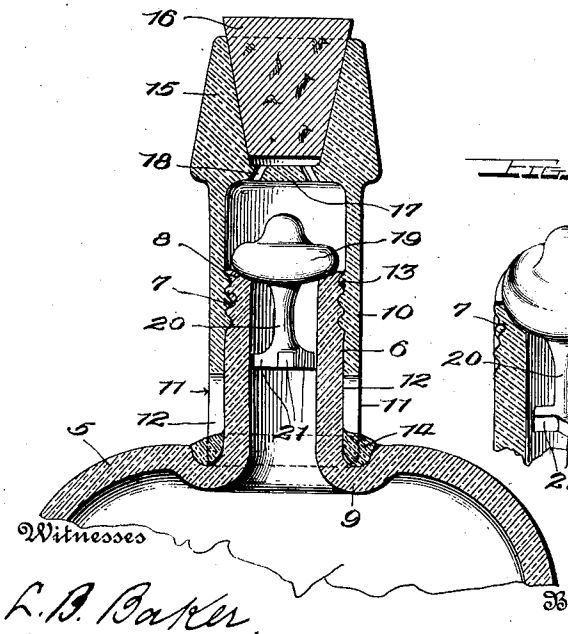


FIG. 4.

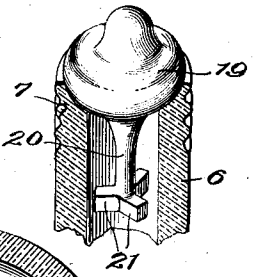
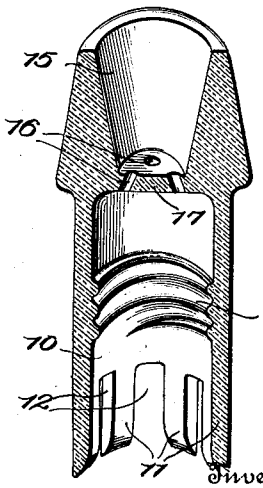


FIG. 3.



Witnesses

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NON-REFILLABLE BOTTLE.

1,054,982. Specification of Letters Patent. Patented Mar. 4, 1913.

Application filed July 31, 1912. Serial No. 712,536.

To all whom it may concern:

Be it known that I, JOHN D. MULVEHILL, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

My invention relates to certain new and useful improvements in non-refillable bottles, and the object of my invention is to produce a device of this character which will be simple in construction, cheap to manufacture, efficient in operation, and which cannot be tampered with and re-filled without such fact being apparent.

With these and other objects in view my invention consists in certain constructions, combinations and arrangements of parts, the preferred form of which will be first described in connection with the accompanying drawings and then the invention particularly pointed out in the appended claims.

Referring to the drawings wherein the same part is designated by the same reference numeral wherever it occurs, Figure 1 is a perspective view of the top portion of a non-refillable bottle made in accordance with my invention; Fig. 2 is a central longitudinal section of Fig. 1; Fig. 3 is a central longitudinal section of the portion which forms the top of the completed bottle removed, and Fig. 4 is a detail sectional view illustrating a modified form of valve.

5 designates the body of the bottle which may be of any desired shape or size, and 6 the neck portion which, as will be noted, is preferably short, and provided adjacent its upper end with the screw thread portion 7, and at its upper end with a valve seat 8. Between the body portion 5 and the neck 6 I preferably provide a circumferential depression 9 into which extends the lower end of the closing sleeve which forms the upper portion of the neck of the completed bottle. Preferably, and as shown, the lower end of the portion 10 is provided with fingers 11, separated by openings 12, the ends of these fingers extending into the depression 9. The interior of the sleeve 10 is threaded at 13 to engage the thread 7 on the neck portion 6, so that by engaging the threads 7 and 10 and then filling up the circumferential groove 9 with cement, as indicated at 14, and also the interstices 12 between the fingers 11, the sleeve will be secured in position, and as the sleeve is preferably formed of glass, porcelain, or other frangible material, any attempt to twist the sleeve off the bottle will result in the fracturing of one or more of the fingers. The sleeve is provided at its upper end with a mouth 15 of ordinary form, adapted to receive a cork 16, as indicated in Figs. 1 and 2. At the bottom of the mouth portion I provide a partition 17, having a plurality of openings 18 therethrough, said perforations preferably, and as indicated in Figs. 2 and 3, extending diagonally through the partition, so that tampering with the valve, which is located below the partition, with a wire is prevented.

19 designates the body of the valve, said valve being adapted to seat upon the valve seat 8, and 20 indicates a guiding stem extending downwardly from the body portion of the valve into the neck portion 6 of the bottle, to guide the valve to its seat. The lower end of the stem is provided with projecting arms 21, four of these arms being used in the form shown in Fig. 2 while but three are illustrated in Fig. 4.

From the foregoing description it will be seen that my non-refillable bottle is composed of three parts, namely, the body portion of the bottle having the short neck extending therefrom, the sleeve portion and the valve. It will be further noted that the valve seat is at the top of the neck portion 6, and consequently is readily accessible in the manufacture of the bottle and may be readily ground if desired to make a tight joint with the valve. Furthermore, by forming the sleeve with the projecting fingers 11, having them enter into the circumferential depression 9, and cementing the same in place, the removal of the sleeve for the purpose of re-filling the bottle is prevented. It will also be noted that sufficient clearance can be provided between the partition 17 and the top of the valve, to provide for a free flow of liquid from the bottle. Also that because of the depending stem and the projecting fingers from the stem the valve is guided to its seat.

I realize that considerable variation is possible in the details of construction and arrangement of parts without departing from the spirit of my invention, and I therefore do not intend to limit myself to the specific form shown and described.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a non-refillable bottle, the combination with a body portion, a neck portion projecting therefrom, and having a depression extending circumferentially at the juncture of the neck and body portions, of a sleeve provided with integral downwardly projecting spaced fingers adapted to extend into the circumferential depression and be cemented therein, a partition formed in the top portion of the sleeve having openings therethrough, and a valve mounted in the sleeve between the partition and the top of the neck and adapted to seat upon the top portion of the neck.

2. In a non-refillable bottle, the combination with a body portion, a neck portion projecting therefrom and having a depression extending circumferentially at the juncture of the neck and body portions, said neck portion being threaded adjacent its upper end, of a sleeve provided with integral downwardly projecting spaced fingers adapted to extend into the circumferential depression and be cemented therein, said sleeve being threaded on its interior to engage the threads on the neck portion, a partition formed in the top portion of the sleeve having openings therethrough, and a valve mounted in the sleeve between the partition and the top of the neck and adapted to seat upon the top portion of the neck.

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

JOHN D. MULVEHILL.

Witnesses:

F. L. BROWNE,

K. E. KLEIN.