No. 841,896. PATENTED JAN. 22, 1907.

A. W. RICHARDSON.

BOTTLE.

APPLICATION FILED JUNE 27, 1906.

Fig. 1.

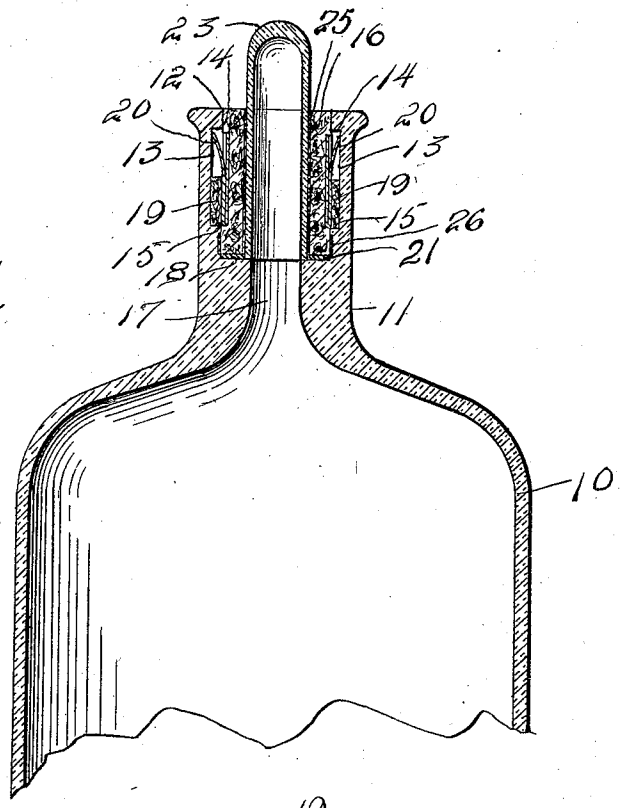
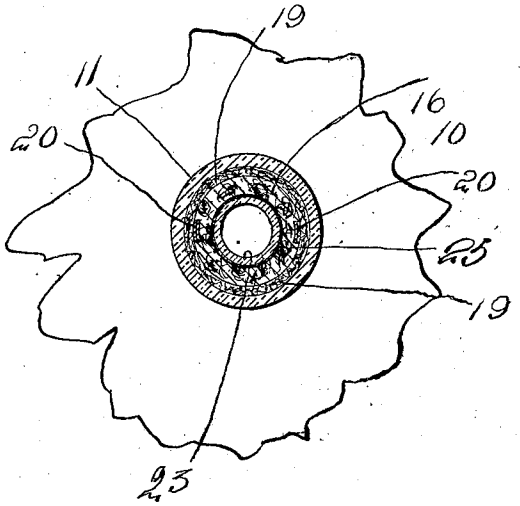


Fig. 2.



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BOTTLE.

No. 841,896. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed June 27, 1906. Serial No. 323,642.

To all whom it may concern:

Be it known that I, ANSEL W. RICHARDSON, a citizen of the United States, residing at Hadley, in the county of Hampshire, State of Massachusetts, have invented certain new and useful Improvements in 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 has relation to bottles that are capable of being once filled and serving the purpose of distributing and dispensing their contents once, but rendering them useless for service for the distribution of any liquids a second time without disclosing the fact that they have once been used.

The nature of the invention embodies a bottle having a stopple or cork of peculiar structural characteristics that will permit the bottle to be once filled with entire readiness, but that in order to decant the first contents of the bottle necessitates the destruction of the stopple and its support and the breaking of the neck of the bottle, so that the latter is made useless for further practical service.

The invention will first be described in detail and in connection with what was old and in view of the annexed drawings, forming a part of this specification, and then be pointed out with distinctness and particularity in the subjoined claims.

Of the said drawings, Figure 1 is a central longitudinal sectional view of a bottle embodying my improvements. Fig. 2 is a transverse sectional view across the neck of the bottle after filling and sealing through the packing in the spring-chamber.

Similar numerals of reference designate similar parts or features, as the case may be, wherever they occur.

In the carrying out of my invention I may employ a glass bottle of any suitable form or size, and since I deal with the neck alone it is that part only that should be conveniently constructed.

It is of course proposed that the invention will be applied to bottles specially constructed for the purpose. As shown in the drawings, the body 10 of the bottle may be of usual form or it may be of special design, having a neck 11, through which it may be filled and its contents discharged.

Interiorly the neck immediately below the mouth 12 is provided with an enlarged chamber 13, called for the purposes of this specification the "spring-chamber." This enlargement creates an annular flange or ledge 14 at the top of the spring-chamber and also an offset 15 at its bottom. As the opening through the neck of the bottle for the stopple or cork 16 is of greater diameter than the decanting-opening 17, a second offset 18 is created for the seat of the cork.

The lower part of the spring-chamber 13 is provided with an annular packing 19, making this part of the same diameter as the part between the two offsets mentioned and so that it will receive the cork snugly therein. Above the packed portion of the spring-chamber the latter is of quite greater diameter than the stopple proper. Below the decanting-opening 17 the receptacle for fluids may be of any suitable size.

The stopple may be composed of any suitable substance and has an opening formed longitudinally therethrough which may be used, primarily, for filling or emptying the bottle. In opposite sides of the stopple, in slats formed for the purpose, are fixed springs 20, set in flush at their lower ends, but allowed to stand out at their upper ends, as shown, so that when the cork or stopple is in place in the neck of the bottle the upper ends of the springs 20 will expand into the spring-chamber above the packed portion and project against the annular ledge or flange 14 thereabove. This construction and arrangement of parts will prevent the stopple 16 from being withdrawn from the neck of the bottle once having been forced therein past the ledge 14 and the packing 19 and onto the washer 21 on the seat or offset 18.

The stopple has a dome or tube 23, closed at the top, cemented, as at 25, in the hole formed through the stopple into which it extends, so that it is made one with the stopple and cannot be removed from it without breakage of the stopple, as well, perhaps, as of the neck of the bottle.

In use the bottle is filled like one of ordinary construction, when the stopple 16 will be inserted through the top and be seated at its lower end on the packing or seal washers on the lower ledge, the springs in the sides of the stopple expanding into the spring-chamber in the top of the neck of the bottle, effectively preventing the removal of the stopple.

When it is desired to decant the bottle, the top of the tube or dome 23 must be broken off and the contents of the bottle poured out

through the same, which destroys the stopple and unfits it and the bottle for second use, since the damaged stopple cannot be gotten out of the bottle-neck without breaking the neck of the bottle, which destroys the latter.

Where it can be done, a suitable cement 26 may be used for securing the cork in the neck of the bottle, and in some cases it is desirable to do this.

What is claimed as the invention is—

1. In a bottle, the combination with its neck, a spring-chamber therein, a ledge at the top, a stopple having an opening through it, and expansible springs in its sides, a glass tube having a dome-closed top cemented in the opening in the stopple and made one with the latter, the said stopple being inserted in the bottle-neck with the springs expanded in the spring-chamber below the ledge.

2. In a bottle, the combination with its neck, a spring-chamber therein, a ledge at the top, a stopple having an opening through it, and expansible springs in its sides, a glass tube having a dome-closed top cemented in the opening in the stopple and made one with the latter, the said stopple being inserted in the bottle-neck and cemented therein with the springs expanded in the spring-chamber below the ledge, and a ledge below the stopple and a packing-washer thereon on which the stopple is seated.

3. A stopple for bottles having an opening through its center, springs in its sides adapted to expand at one end beyond the normal bounds of the stopple, and a glass tube having a closed dome-shaped top securely cemented in the opening and made as one integrally with the stopple.

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

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