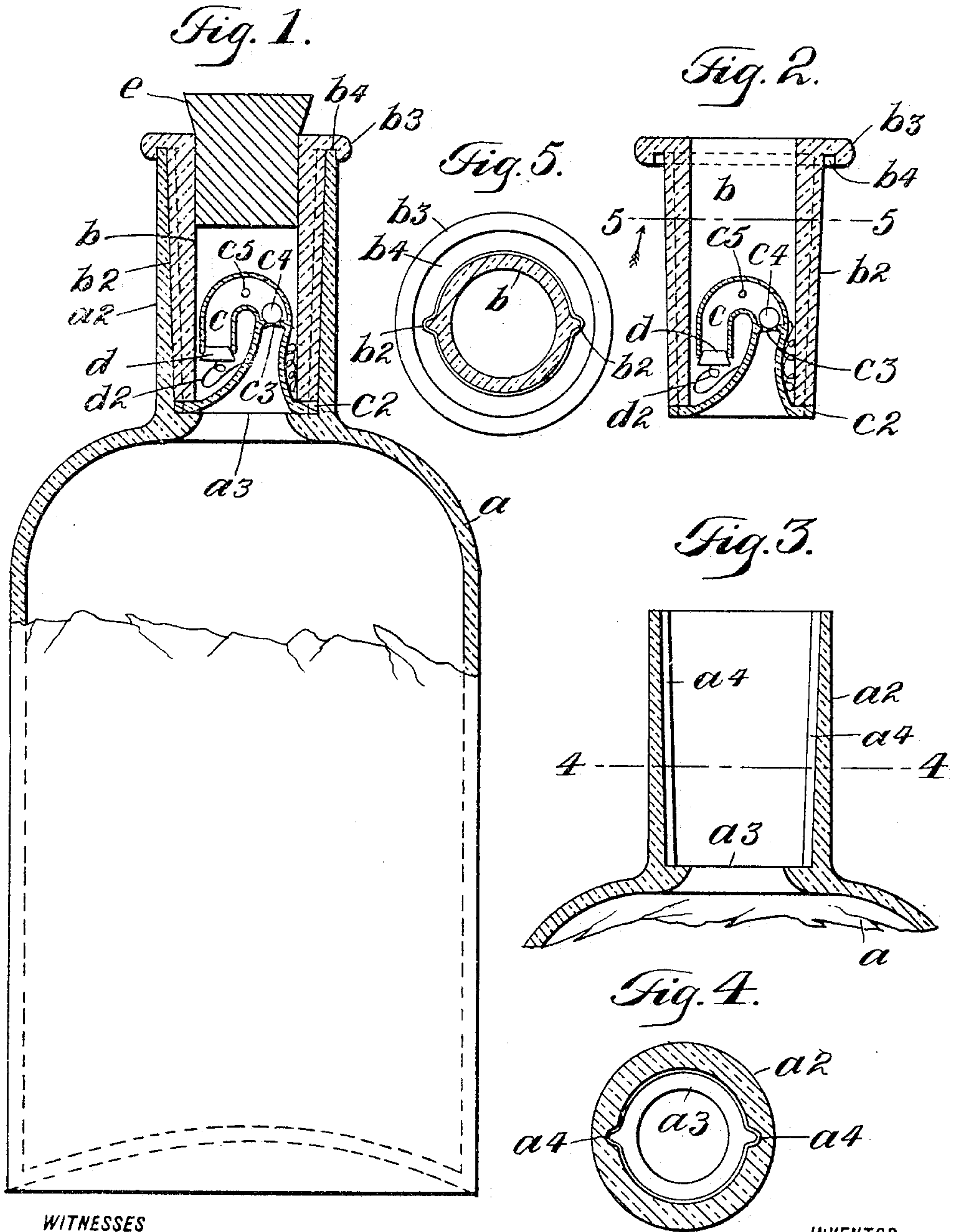


J. L. PRIOR.  
NON-REFILLABLE BOTTLE.  
APPLICATION FILED MAY 2, 1904.



WITNESSES  
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## UNITED STATES PATENT OFFICE.

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## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 782,268, dated February 14, 1905.

Application filed May 2, 1904. Serial No. 205,865.

*To all whom it may concern:*

Be it known that I, JACKSON L. PRIOR, a citizen of the United States, residing at Fayetteville, in the county of Cumberland and State of North Carolina, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to bottles, jugs, jars, and similar vessels; and the object thereof is to provide a vessel of this class which having been once filled and sealed may be emptied of its contents, but cannot be refilled or reused.

The invention described and claimed herein is an improvement on that described and claimed in United States Letters Patent No. 737,137, granted to me on the 25th day of August, 1903, and is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, in which—

Figure 1 is a sectional side view of an ordinary bottle provided with my improvement; Fig. 2, a sectional side view of the neck attachment which I employ; Fig. 3, a similar view of the neck of the bottle with the neck attachment detached; Fig. 4, a section on the line 4 4 of Fig. 3, and Fig. 5 a section on the line 5 5 of Fig. 2.

In the practice of my invention as shown in the drawings I provide a bottle *a*, having a neck *a'*, at the bottom of which is an inwardly-directed annular shoulder *a''*, and in the form of construction shown the inner walls of the neck *a'* are slightly tapered, the diameter thereof being greater at the top than at the bottom thereof, and the inner walls of said neck in the form of construction shown are provided with vertically-arranged side grooves *a'''*, two of which are shown. I also provide a tubular neck attachment *b*, having vertically-arranged side ribs *b'*, adapted to fit in the grooves *a'''* and tapered to correspond with the taper of the inner walls of the neck *a'*, and in the form of construction shown the tubular neck attachment *b* is provided at the

top thereof with an annular flange or rim *b''*, in the bottom of which is a groove *b'''*, adapted to receive the upper end of the neck *a'* of the bottle *a*, as shown in Fig. 1.

Within the bottom portion of the tubular neck attachment *b* is placed an inverted-U-shaped tubular attachment *c*, one side of which is longer than the other and is bell-shaped or flared outwardly and provided with a flange or rim *c'*, on which the bottom of the tubular attachment *b* rests, and in practice the tubular attachment *b* is preferably secured to the flange or rim *c'* of the U-shaped tubular attachment *c*. The longer side of the U-shaped tubular attachment *c* is provided with a port or passage *c''*, over which is placed a valve *c'''*, above which is placed a transverse stop or pin *c''''*, and the shorter arm of the U-shaped attachment *c* is provided with a closure device *d*, with which is connected a flexible cord or similar device *d'*.

In assembling the parts of the bottle-closing device or neck attachment the closure device *d* is secured in the end of the shorter arm of the U-shaped tubular attachment *c* by means of a suitable paste or cement, and the tubular attachment *b* and the U-shaped tubular attachment *c* are connected by cement or in any desired manner, and the cord *d'* remains coiled or folded in the bottom of the tubular attachment *b*, and said tubular attachment *b* is then closed by a cork, plug, or stopper *e* in the usual manner.

In practice the bottle or vessel *a* is filled with the desired contents, after which the tubular neck attachment *b*, with the parts secured thereto or therein, is inserted into the neck *a'* and rests on the annular shoulder *a''* and is secured in position by liquid glass-cement or in any desired manner, and whenever it is desired to empty the bottle or discharge a portion of its contents the stopper *e* is drawn out in the usual manner and the cord or other flexible device *d'* is pulled out, so as to remove or detach the stopper or closure device *d*, after which the contents of the bottle may be discharged by tilting it or inverting it in the usual manner, and in this operation the valve *c'''* leaves its seat and rests against the stop *c''''*.

After the bottle has been emptied of its con-



tents it cannot be refilled by pouring liquids into the neck  $a^2$  thereof, for the reason that when the liquids rise to the discharge end of the U-shaped neck attachment  $c$  the air in the bottle  $a$  will prevent said liquids from flowing into said bottle, and the shape of the U-shaped neck attachment  $c$  will also prevent liquids from being forced into the neck of the bottle even when said bottle is held in an inverted position, and in an effort of this kind the valve  $c^4$  will also rise to said seat and close the port or passage  $c^3$ , and no liquids can be forced into the bottle.

The invention described and claimed herein is not limited to the annular inwardly-directed shoulder  $a^3$  at the bottom of the neck; but if this annular shoulder is not employed it will be necessary to connect the tubular attachment  $b$  and the U-shaped tubular attachment  $c$ , as shown in Fig. 2, and this connection may be made in any desired manner, and the complete attachment, consisting of the parts  $b$  and  $c$ , may be secured in the neck of the bottle in any preferred way.

My invention is not limited to the exact form of the U-shaped neck attachment  $c$  nor to the connection of said attachment with the tubular attachment  $b$ , as these parts may be made and kept separate, in which event the U-shaped tubular attachment  $c$  in assembling the parts would first be inserted into the neck of the bottle, after which the tubular attachment  $b$  could be inserted and secured in said neck.

My improved closure device for bottles and similar vessels is simple in construction and operation and comparatively inexpensive and is perfectly adapted to accomplish the result for which it is intended and may be applied to all vessels of the class specified having a neck.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A closure-device attachment for vessels of the class described provided with a neck, at the bottom of which is an internal annular shoulder, said attachment consisting of two parts one of which comprises a tube adapted to be secured in said neck and the other an inverted-U-shaped tubular attachment located in the bottom of said tube and one side of which is longer than the other and flared outwardly and provided with a flange or rim which rests on said annular shoulder, substantially as shown and described.

2. A closure-device attachment for vessels of the class described provided with a neck, at the bottom of which is an internal annular shoulder, said attachment consisting of two parts one of which comprises a tube adapted to be secured in said neck and the other an inverted-U-shaped tubular attachment located in the bottom of said tube and one side of

which is longer than the other and flared outwardly and provided with a flange or rim which rests on said annular shoulder, the shorter side of said U-shaped tubular attachment being provided with a detachable closure device, substantially as shown and described.

3. A closure-device attachment for vessels of the class described provided with a neck, at the bottom of which is an internal annular shoulder, said attachment consisting of two parts one of which comprises a tube adapted to be secured in said neck and the other an inverted-U-shaped tubular attachment located in the bottom of said tube and one side of which is longer than the other and flared outwardly and provided with a flange or rim which rests on said annular shoulder, the shorter side of said U-shaped tubular attachment being provided with a detachable closure device, and the longer side thereof being provided with a valve which opens outwardly, substantially as shown and described.

4. A closure-device attachment for vessels of the class described provided with a neck, said attachment consisting of a tube adapted to be secured in the neck of a bottle and in the lower end of which is placed an inverted-U-shaped tubular attachment one side of which is longer than the other and flared outwardly so as to close the lower end of the first-named tube, substantially as shown and described.

5. A closure-device attachment for vessels of the class described provided with a neck, said attachment consisting of a tube adapted to be secured in the neck of a bottle and in the lower end of which is placed an inverted-U-shaped tubular attachment one side of which is longer than the other and flared outwardly so as to close the lower end of the first-named tube, and the shorter side of which is provided with a closure device for the end thereof, substantially as shown and described.

6. A closure-device attachment for vessels of the class described provided with a neck, said attachment consisting of a tube adapted to be secured in the neck of a bottle and in the lower end of which is placed an inverted-U-shaped tubular attachment one side of which is longer than the other and flared outwardly so as to close the lower end of the first-named tube, and the shorter side of which is provided with a closure device for the end thereof, and the longer side being also provided with a valve which opens outwardly, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 29th day of April, 1904.

JACKSON L. PRIOR.

Witnesses:

F. A. STEWART,  
C. E. MULREANY.