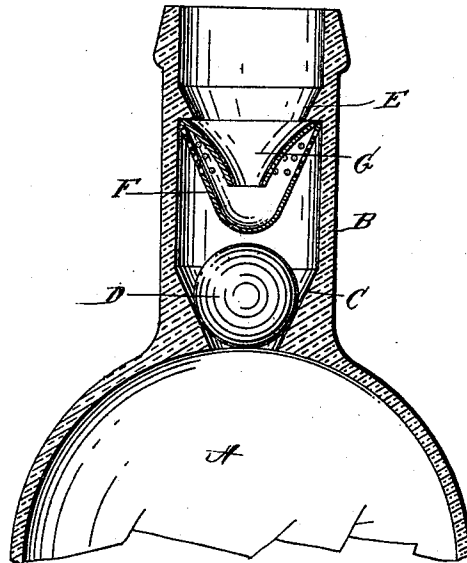


(No Model.)

A. M. RILEY & J. D. CRARY.
BOTTLE.

No. 581,517.

Patented Apr. 27, 1897.



WITNESSES:

John Buckler,
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INVENTORS

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UNITED STATES PATENT OFFICE.

ALFRED MATHEWS RILEY AND JAY DENISON CRARY, OF WASHINGTON,
DISTRICT OF COLUMBIA.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 581,517, dated April 27, 1897.

Application filed December 5, 1895. Serial No. 571,165. (No model.)

To all whom it may concern:

Be it known that we, ALFRED MATHEWS RILEY and JAY DENISON CRARY, citizens of the United States, and residents of Washington city, District of Columbia, have invented certain new and useful Improvements in Bottles, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to bottles, jugs, jars, and similar vessels; and the object thereof is to provide a vessel of this class with a neck attachment which is so constructed and arranged that when the vessel has once been filled it may be emptied of its contents, but cannot be refilled or reused.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, said drawing being a central vertical section of the upper part of a bottle and the neck thereof provided with our improvement.

In the drawing forming part of this specification we have shown our invention applied to a bottle, although, as will be understood, it may be applied to any of the vessels of the class hereinbefore named or to others similar thereto.

In the practice of our invention we provide a bottle or other vessel A, having a neck B, the lower inner walls of which are inwardly directed, so as to form a conical valve-seat C, which is adapted to receive a valve D, which is preferably an ordinary ball-valve. Formed in the inner walls of the neck at a predetermined distance above the valve-seat is an annular inwardly-directed shoulder E, below which is placed a hollow conical attachment F, the base of which is directed upward, and the apex of which is closed and directed downward and extends to near the ball-valve D when in position. The side walls of the base of the conical attachment F are perforated, and within said conical attachment is placed a supplemental hollow cone G, the base of which is open and directed upward, and the apex of which is also open and directed downward, and the apex of the cone G

extends, preferably, below the perforated portion of the conical attachment F.

The conical attachment F and the cone G, placed therein, may be secured in position in any desired manner, and, as will be observed, both of these devices are irremovably secured within the neck, and it will also be apparent that the neck B may be formed in sections, if desired, so as to provide means for the insertion of the conical attachment F, the cone G, and the valve D, and after the bottle has been filled and said devices placed in position the separate sections of the neck may be united in any desired manner. This feature of construction is not shown, however, for the reason that it forms no part of this invention, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawing.

When the bottle has been filled with the desired contents, the valve D and the attachment G and F are placed in position and the neck or nozzle of the bottle may then be closed by a cork or stopper in the usual manner. When it is desired to empty the bottle or discharge a portion of its contents, it is only necessary to remove the cork or stopper and then invert or tilt the bottle, when the valve D will leave its seat under the action of gravity and the pressure of liquid within the bottle, and the latter will flow out around said valve through the perforations in the conical attachment F and through the cone G, and this operation may be continued or repeated until the bottle is entirely empty.

If an attempt be made to refill the bottle, the valve D will at once be resealed and no liquid can enter the bottle, and this operation of the valve will be the same in any position in which the bottle can be held in an attempt to pour liquid thereinto, and, if desired, we may so construct the valve D as to cause it to act as a float-valve, and in this event the liquid cannot be forced into the bottle, as said valve will rise to its seat and close the port or opening through the neck.

It will be observed that the apex of the conical attachment F, which is directed downward, comes within a short distance of the

valve D when the latter is seated, and by reason of this arrangement the valve is capable of but slight movement and is therefore always held approximately near its seat, and
5 the operation, therefore, as hereinbefore described, is facilitated by this arrangement. It will thus be seen that we provide a simple and effective device for accomplishing the purpose hereinbefore set out, and one which
10 does not add materially to the cost of the vessel to which it is applied.

Having fully described our invention, we claim and desire to secure by Letters Patent—

15 The herein-described non-refillable bottle, the inner lower walls of the neck of which are inwardly directed forming a valve-seat C, adapted to receive a ball-valve D, said neck having formed therein above said valve-seat

an inwardly-directed annular shoulder E, below which is placed a hollow inverted conical attachment F, the apex of which is closed and projects adjacent to and limits the upward movement of said valve D, the upper sides of said attachment being perforated, 25 and a supplemental conical attachment the apex of which projects downwardly below the lines or perforations and is open, substantially as shown and described.

In testimony that we claim the foregoing as 30 our invention we have signed our names, in presence of the subscribing witnesses, this 2d day of December, 1895.

ALFRED MATHEWS RILEY.
JAY DENISON CRARY.

Witnesses:

C. J. NEWCOMER,
JOHN D. HOOVER.