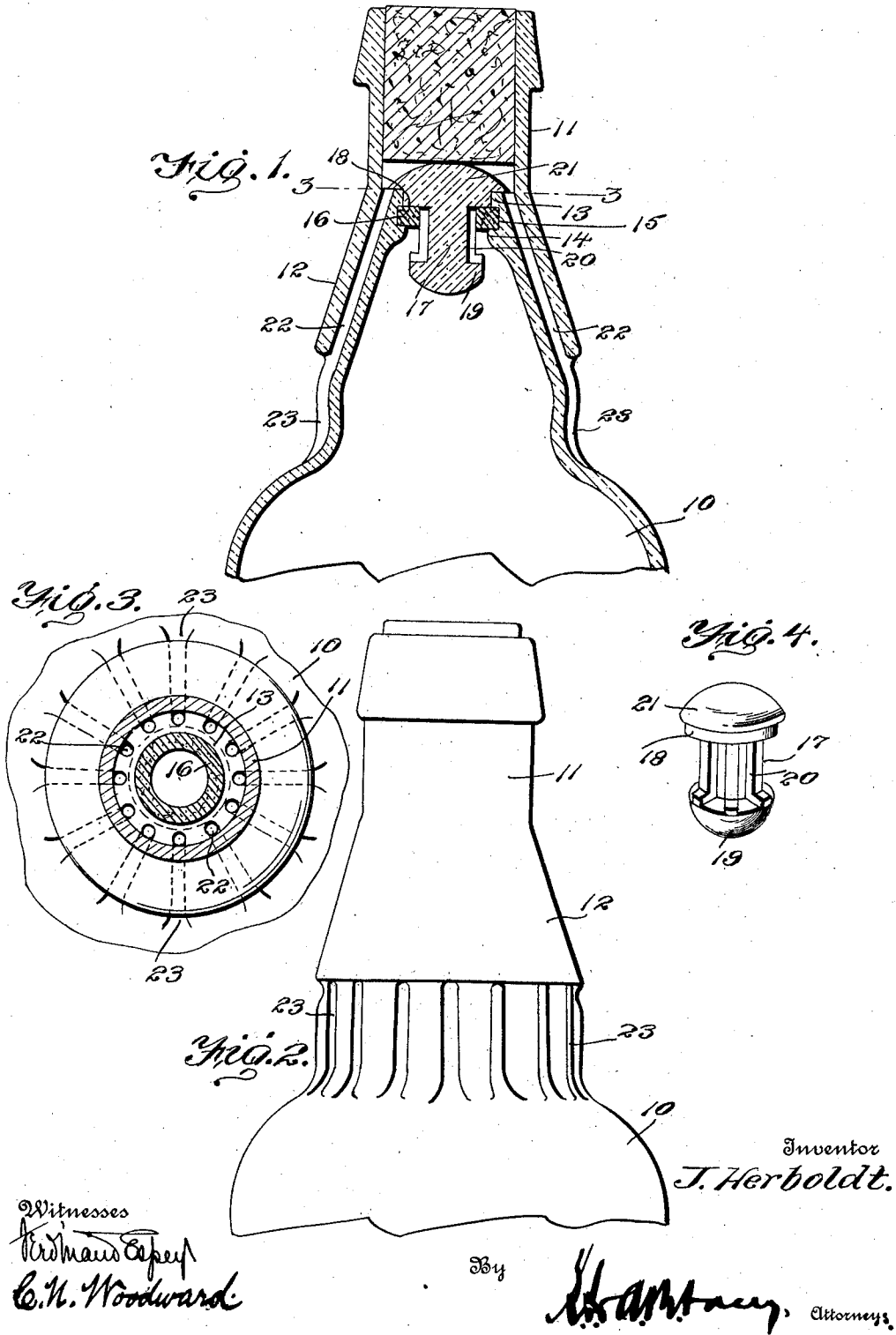


J. HERBOLDT.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAY 1, 1912.

1,058,973.

Patented Apr. 15, 1913.



UNITED STATES PATENT OFFICE.

JOHN HERBOLDT, OF WOODSIDE, IDAHO, ASSIGNOR OF ONE-THIRD TO GEORGE H. CONWAY, OF WOODSIDE, IDAHO.

NON-REFILLABLE BOTTLE.

1,058,973.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed May 1, 1912. Serial No. 694,498.

To all whom it may concern:

Be it known that I, JOHN HERBOLDT, citizen of the United States, residing at Woodside, in the county of Nez Perce and State of Idaho, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to improvements in bottles of the class wherein provision is made for preventing the surreptitious refilling of the same, and has for one of its objects to simplify the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character which may be repeatedly used, but will effectually prevent the surreptitious refilling of the bottle.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention: Figure 1 is a sectional elevation, and Fig. 2 is a side elevation, of a portion of a bottle including the neck constructed in accordance with the invention; Fig. 3 is a transverse section on the line 3—3 of Fig. 1; Fig. 4 is a detached perspective view of the valve.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved device comprises a body portion 10 having a neck comprising an upper portion 11 preferably slightly tapering to receive a cork of ordinary material, and a lower downwardly flaring portion 12. At the juncture of the upper neck portion 11 and the lower flaring neck portion 12, inwardly directed annular ribs or flanges 13—14 are formed spaced apart vertically with the flange 14 slightly smaller than the flange 13. By this arrangement an annular channel 15 is formed between the flanges, and inserted in the channel is a yieldable ring or collar 16 of rubber or like material, the opening through the ring being smaller than the smaller flange 14, as shown in Fig. 3. By this simple means two shoulders or

seats of different diameters are produced, an outer shoulder or seat composed of the upper face of the flange 13, and an inner seat composed of the upper face of the inwardly projecting portion of the yieldable collar 16. Disposed in the bottle and its neck, is a valve 17 having a flange 18 at its upper end bearing upon the yieldable ring 16, and a smaller collar 19 at the lower end projecting beyond the inner line of the ring 16. The body of the valve between the flanges 18—19 is formed into a plurality of vertical channels 20. At its upper end the valve 17 is enlarged into an upwardly curving head 21 which projects at its edges over the upper face of the flange 13 upon which it is seated. By this simple means the valve is formed with two seats, one upon the flange 13, and the other upon the yieldable ring 16.

Formed in the flaring portion 12 of the neck a plurality of apertures or passages 22 are formed and opening at their upper ends into the upper neck portion 11 just above the flange 13 and at their outer ends opening through the sides of the tapered portion 12 of the neck. The sloping portion of the neck of the bottle is formed with downwardly sloping and curved channels or grooves 23 which gradually merge into the passages 22. The cork when inserted, bears upon the upwardly curving head 21 of the valve and thus maintains the latter in closed position and effectually prevents the escape of the liquid. When it is desired to withdraw the liquid from the bottle the cork is removed and the bottle is overturned, the valve moving outwardly under the pressure of the liquid in the bottle and permitting the latter to freely flow through the neck of the bottle in the ordinary manner, while at the same time when the bottle is returned to its vertical position the valve automatically closes and thus effectually prevents the insertion of any liquid into the bottle. The passages or grooves 22 being inclined do not permit the liquid to flow therethrough when the bottle is tilted in the act of discharging the liquid, but will effectually prevent the bottle from being refilled, as any liquid inserted into the neck of the bottle will run off over the head of the valve and out through the passages 20. The valve including its flanges, channels and upwardly curving top is formed in a single

piece, preferably of glass, while the body of the bottle including the flanges 13—14 is also glass or other non-corrosive material.

Having thus described the invention, what is claimed as new is:

1. A bottle including a neck having an upwardly directed valve seat intermediate its ends and with a plurality of passages communicating at their upper ends with the interior of the neck above the valve seat and communicating at their lower ends with the open air below the valve seat, said bottle neck having an annular channel adjacent to the valve seat, a valve including a stock and an enlarged lower end and an enlarged upper end engaging over said seat, said stock having a plurality of longitudinal channels and said lower enlargement having corresponding lateral recesses merging into the channels, and a ring of elastic material engaging around the stock of the valve and through which the latter is slidable and adapted to expand into the annular channel of the bottle neck and support the valve

from displacement and likewise form a backing for the valve when the same is in downward position.

2. A bottle including a neck having an upwardly directed valve seat intermediate its ends and with an annular channel adjacent to the valve seat, a valve including a stock and with an enlarged upper end engaging over said seat and with an enlarged lower end, said stock having a plurality of longitudinal channels and said lower enlargement having corresponding lateral recesses merging into the channels, and a ring of elastic material engaging around the stock of the valve and through which the latter is slidable and adapted to expand into the annular channel of the bottle neck and support the valve from displacement.

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

JOHN HERBOLDT. [L. S.]

Witnesses:

A. A. ROGERS,
J. R. ST. JOHN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."