

No. 712,751.

Patented Nov. 4, 1902.

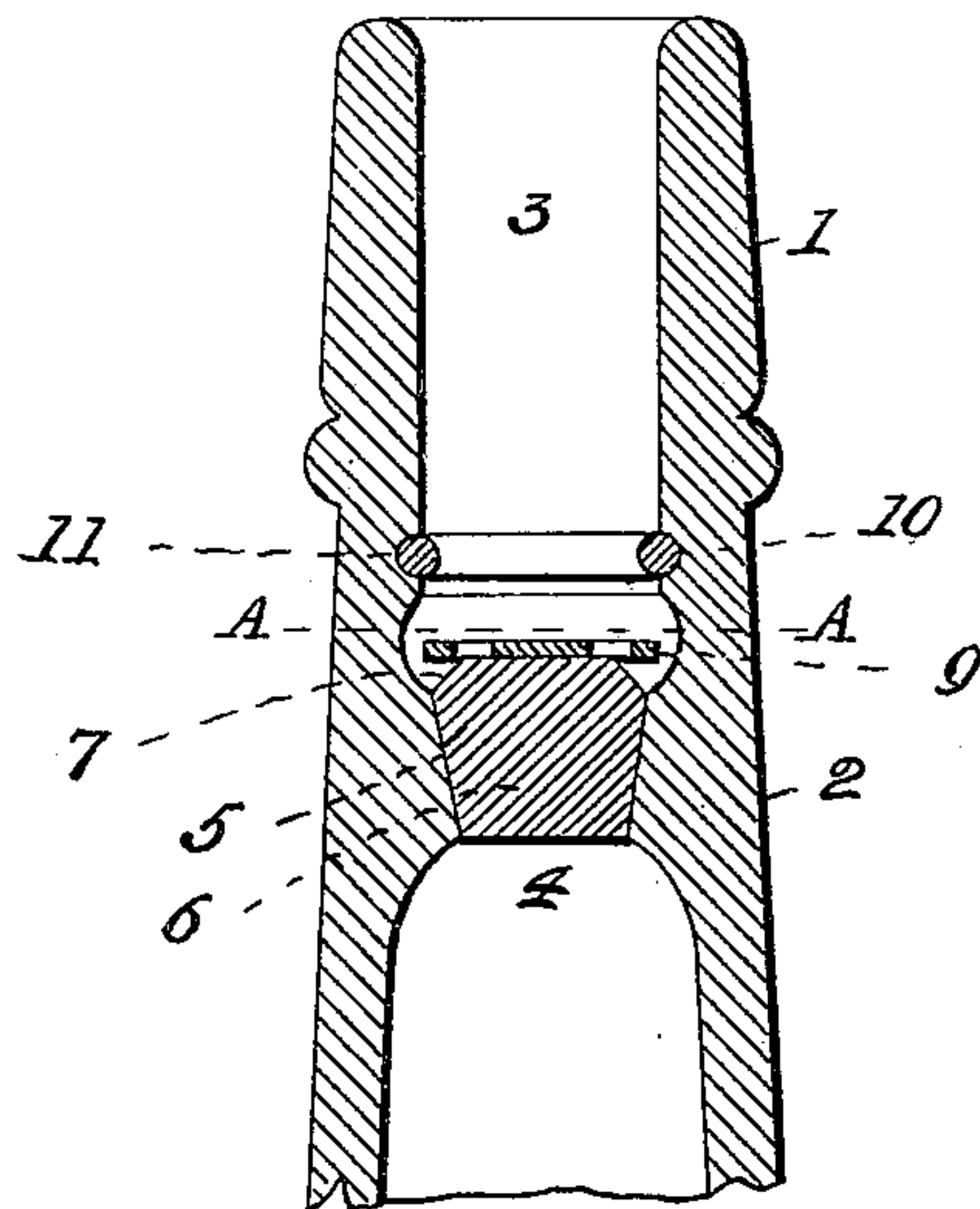
G. P. AHLERS & G. A. SCHAAL.

NON-REFILLABLE BOTTLE.

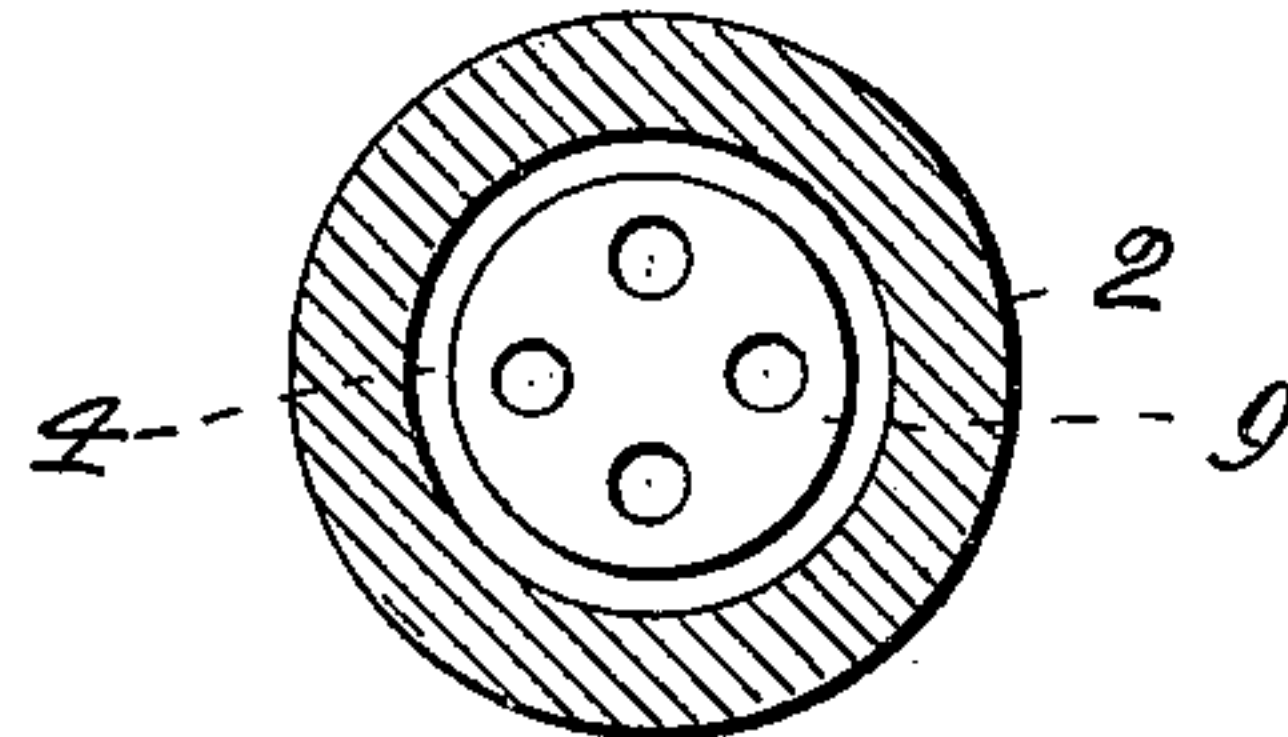
(Application filed Sept. 25, 1901.)

(No Model.)

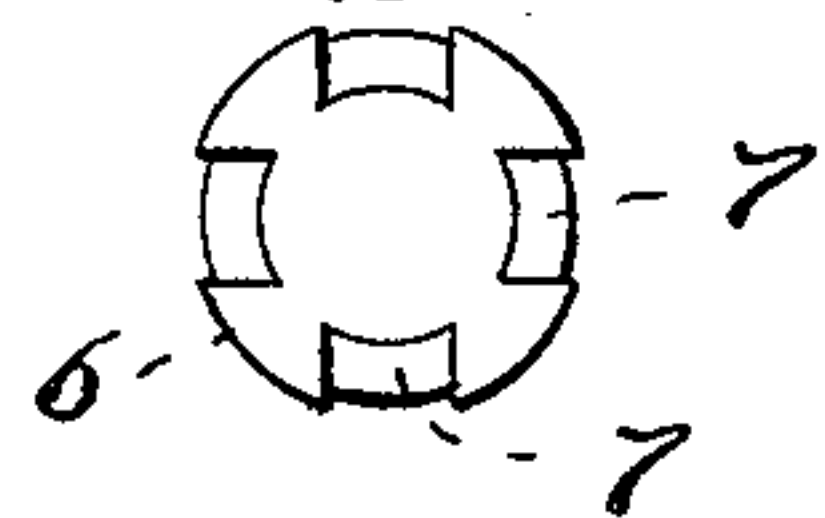
—Fig. 1.—



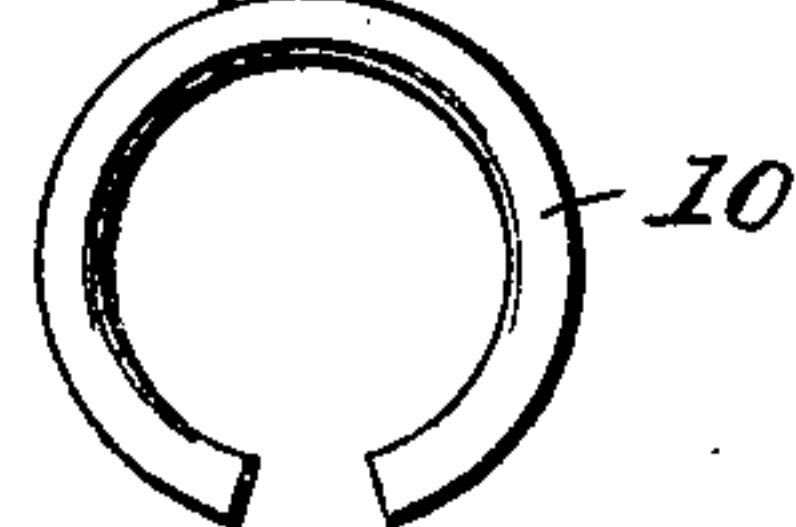
—Fig. 2.—



—Fig. 3.—



—Fig. 4.—



Witnesses:

Estes J. Gott
O. M. Dennis

Inventors:

George P. Ahlers,
George A. Schaal,
by W. H. N. J. Howard,
Attor.

UNITED STATES PATENT OFFICE.

GEORGE P. AHLERS AND GEORGE A. SCHAAL, OF BALTIMORE, MARYLAND

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 712,751, dated November 4, 1902.

Application filed September 25, 1901. Serial No. 76,452. (No model.)

To all whom it may concern:

Be it known that we, GEORGE PETER AHLERS and GEORGE ALEXANDER SCHAAL, of the city of Baltimore, State of Maryland, have invented certain Improvements in Non-Refillable Bottles, of which the following is a specification.

In the description of the said invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a vertical central section of the upper end of the improved non-refillable bottle. Fig. 2 is a section of Fig. 1, taken on the dotted line A A. Figs. 3 and 4 are top views of certain parts of the invention.

Referring now to the drawings, 1 is the bottle-head, and 2 its neck.

3 is the bottle-mouth, and 4 its throat.

The ordinary cork whereby the bottle is closed is not shown in the drawings.

Within the throat 4 is a frusto-conical valve-seat 5, the larger diameter of which is slightly less than that of the mouth 3. Seated in this valve-seat is the frusto-conical valve 6, which is inserted through the mouth 3. The upper edge of the valve 6 is preferably cut away at, say, four points to form channels 7 for the passage of the contents of the bottle from around the valve toward its center as they are poured out, the valve being unseated as the bottle is partially or wholly inverted.

9 is a loose plate laid on the valve 6 to prevent access to the latter from the bottle-mouth in an effort to unseat the valve and so admit of refilling the bottle. This plate is preferably perforated to facilitate the discharge of the contents of the bottle. The removal of the valve and plate is prevented by an open round-wire spring-ring 10, which rests within an annular groove 11 in the bottle-mouth, and its distance above the plate 9

is such that it and the valve 6 may have the proper lift.

The bottle is filled before the valve and its attachments are in place, after which the spring-ring is forced into its groove, the ring being contracted in diameter in the operation. The bottle is finally corked in the usual way.

After the cork is drawn the bottle may be emptied in the ordinary manner by tilting, the valve rising from its seat by the efflux of the liquor, assisted by gravity if the bottle is sufficiently inverted.

It will be understood that as the open ring is made of round wire it affords no projections with which a withdrawing instrument could engage, and as long as the said ring is in position tampering with the valve is prevented.

We claim as our invention—

A bottle having in its throat a frusto-conical valve-seat, and above the valve-seat an annular groove, combined with a valve which is smaller in diameter than the bottle-mouth and thereby adapted to enter the bottle through its mouth to close the opening within the valve-seat, a loose perforated plate which rests on the valve and is susceptible to an upward movement in common with the said valve, and an open spring-wire ring having an inner diameter which is less than that of the perforated plate, which ring is seated in the said annular groove and serves to limit the upward movement of the said valve and its loose perforated plate, substantially as, and for the purpose specified.

GEORGE P. AHLERS.

GEO. A. SCHAAL.

Witnesses:

OREGON MILTON DENNIS,
ESTEP T. GOTT.