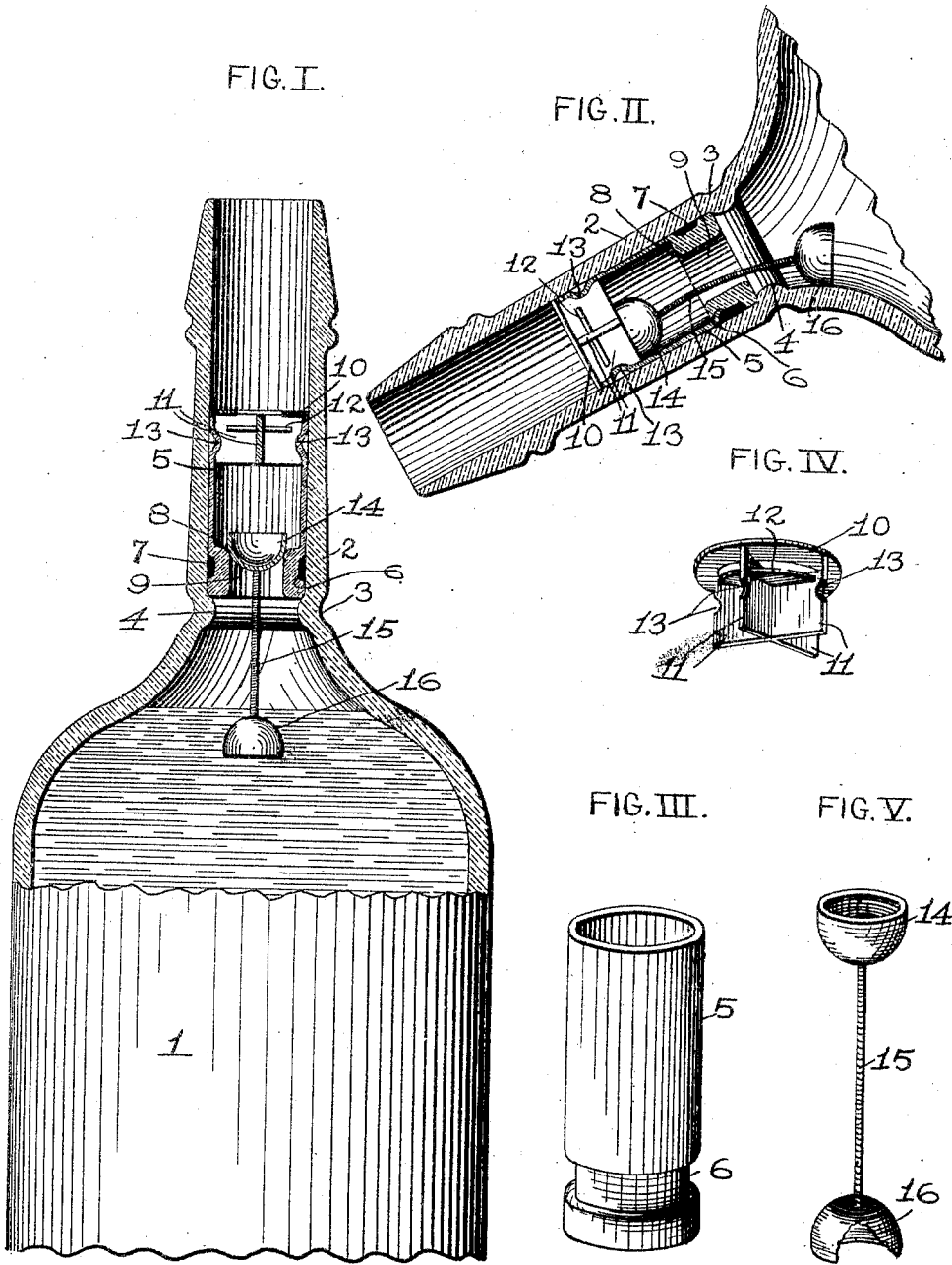


No. 776,759.

PATENTED DEC. 6, 1904.

E. RISSE.
NON-REFILLABLE BOTTLE.
APPLICATION FILED MAR. 29, 1904.

NO MODEL.



ATTEST
St. G. Fletcher.
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UNITED STATES PATENT OFFICE.

EMILE RISSE, OF ST. LOUIS, MISSOURI.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 776,759, dated December 6, 1904.

Application filed March 29, 1904. Serial No. 200,546. (No model.)

To all whom it may concern:

Be it known that I, EMILE RISSE, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a bottle having means embodied therein for preventing fraudulent refilling of the bottle subsequent to the removal of the original contents to prevent the reuse of the bottle by introducing thereinto a spurious liquid after the bottle has been emptied.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a view, partly in elevation and partly in vertical longitudinal section, of the upper portion of a bottle with my improvement applied thereto. Fig. II is a longitudinal section of the neck of the bottle, illustrating the parts in the position assumed in the act of pouring the contents therefrom. Fig. III is a perspective view of the valve-tube. Fig. IV is a perspective view of the guard that fits in the valve-tube. Fig. V is a perspective view of the valve and valve-controlling member and the connection between said parts.

1 designates a bottle having a neck 2, that is pressed inwardly at 3 to provide an annular bead 4, located near the lower end of the neck.

5 designates a valve-tube that is preferably of glass, but may be of any other desirable material. This valve-tube is provided near its lower end with a groove 6, that receives a packing-ring 7, preferably of rubber, and which is designed to have a coating of cement applied thereto to hold the valve-tube in the bottle-neck when it is inserted thereinto to rest upon the bead 4 in said neck. Interior of the valve-tube at its lower end is a valve-seat 8, that is located at the upper termination of the pouring-duct 9, leading into the tube from the main chamber of the bottle. For the purpose of preventing access to the lower

end of the valve-tube through the mouth of the bottle for manipulation of the valve, to be hereinafter described, I apply to the upper end of the valve-tube a guard that consists of a top ring 10, from which depend a series of vertical wings 11, between which are interposed horizontal wings 12, located slightly beneath the aperture through the ring 10. This guard is seated in the upper end of the valve-tube 5, and it is held there to by indenting the tube into notches 13 in the edges of the vertical wings to confine said members, and therefore the entire guard. Liquid may readily pass through the guard of the construction described; but it will be seen that the introduction of any implement, such as a wire, through the guard is prevented, as the passage of the implement is obstructed by both the vertical wings 11 and horizontal wings 12.

14 designates a cup-valve that occupies a position in the valve-tube 5 to rest upon the valve-seat 8 when the bottle is in a non-pouring position.

15 is a flexible connection extending downwardly from the cup-valve 14 and having secured to its lower end a cup-shaped weight 16. The connection 15 is preferably of coiled wire, so that resilience is furnished therein to provide for movement of the cup-valve 14, and weight 16 in a measure independent of each other. The coiled-wire connection between the valve and the weight is of material advantage in that the coiling of the wire provides at one and the same time for the yielding holding of the valve to its seat through the medium of the weight suspended therefrom, and the coiled feature of the connection has a certain amount of rigidity that renders it imperative that the weight and valve travel together under all conditions, which is necessary to the quick action of the parts.

When a bottle equipped with my improvement is in upright position, the cup-valve 14, which is of semispherical contour, as illustrated, occupies a position upon the valve-seat 8 of the tube 5, and it is held to its seat by the weight 16 suspended therefrom. If the bottle is tilted to one side of an upright position, the semispherical-shaped cup-valve rotates on its

seat without departing therefrom, thereby keeping the pouring-duct 9 closed to prevent the introduction of liquid into the bottle. In the event of liquid being introduced into the bottle-mouth it enters the cup-valve, and thereby serves to hold the valve more effectually to its seat. When the bottle is inverted to pour the original contents therefrom, the cup-valve moves outwardly in the valve-tube until it strikes against the guard in said tube, thereby opening the pouring-duct; but as soon as the bottle is again righted the cup-valve returns to its seat.

I claim as my invention—

1. In a non-refillable bottle, the combination with a bottle-neck, of a valve-seat member in said neck, a semispherical valve arranged to contact with said valve-seat, a weight, and a coiled-wire connection between said valve and weight, substantially as set forth.

2. In a non-refillable bottle, the combination with a bottle-neck, of a valve-seat member in said neck, a cup-valve arranged to contact with said valve-seat, a coiled-wire connec-

tion depending from said cup-valve, and a weight connected to the lower end of said coiled-wire connection and suspended within the bottle, substantially as set forth.

3. In a non-refillable bottle, the combination with a bottle-neck, of a valve-seat member in said neck, a cup-valve arranged for movement to said valve-seat, a coiled-wire connection leading downwardly into the bottle from said cup-valve, and a cup-shaped weight attached to the lower end of said coiled-wire connection, substantially as set forth.

4. In a non-refillable bottle, the combination with a bottle-neck, of a valve-tube in said neck provided with a valve-seat, and a pouring-duct; a cup-shaped valve for contact with said valve-seat, a coiled-wire connection extending downwardly from said cup-valve, and a cup-shaped weight attached to the lower end of said connection, substantially as set forth.

EMILE RISSE.

In presence of—

BLANCHE HOGAN,
NELLIE V. ALEXANDER.