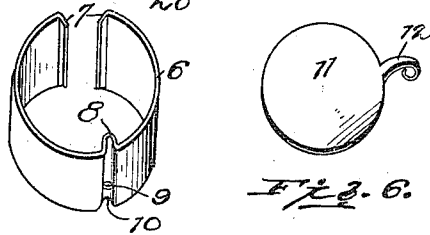
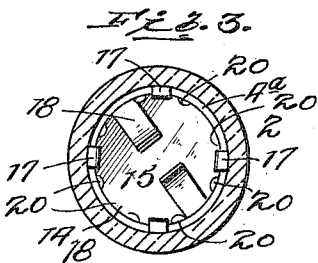
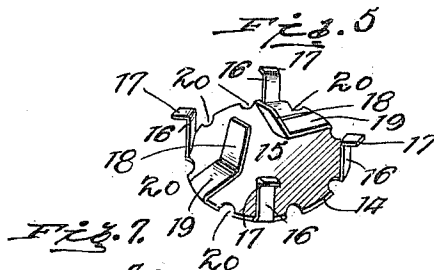
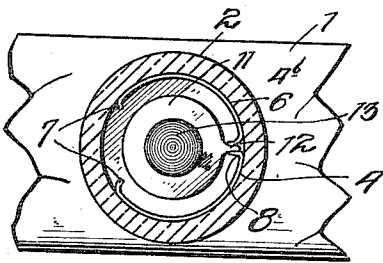
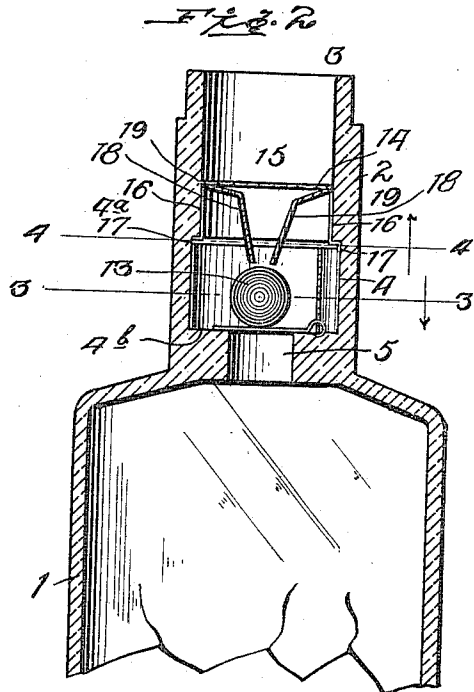
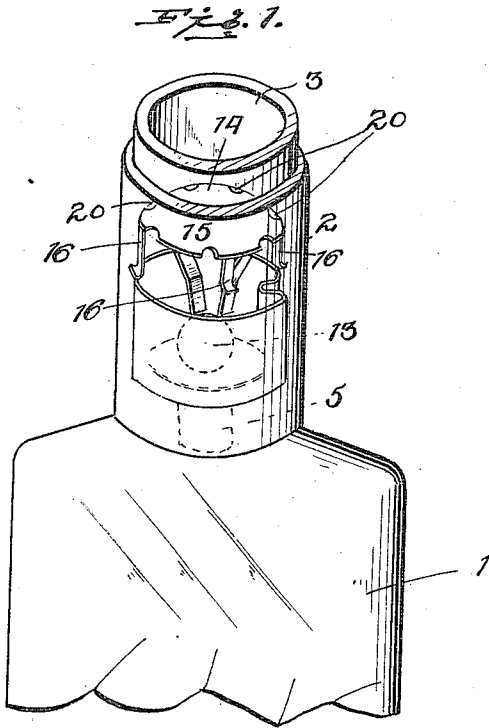


R. WRIGHT.
NON-REFILLABLE BOTTLE.
APPLICATION FILED SEPT. 13, 1910.

986,114.

Patented Mar. 7, 1911.



Witnesses

J. W. Wree
Stewart Rice.

Inventor

Roy Wright.

By

E. C. Vrooman,

Attorney.

UNITED STATES PATENT OFFICE.

ROY WRIGHT, OF TROY, OHIO.

NON-REFILLABLE BOTTLE.

Patented Mar. 7, 1911.

986,114.

Specification of Letters Patent.

Application filed September 13, 1910. Serial No. 581,815.

To all whom it may concern:

Be it known that I, ROY WRIGHT, a citizen of the United States, residing at Troy, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in non-refillable bottles, and has for its object to provide a bottle of that character, which is simple in construction and cheap to manufacture, and from which the contents can be readily removed but which cannot be refilled.

Other objects and advantages of my invention will appear in the course of the following specification.

In the accompanying drawings: Figure 1 is a side elevation of the upper portion of a bottle made in accordance with my invention. Fig. 2 is a longitudinal sectional view through the bottle shown in Fig. 1. Fig. 3 is a section on the line 3—3 of Fig. 2, looking in the direction indicated by the arrow intersecting said line. Fig. 4 is a section on the line 4—4 of Fig. 2, looking in the direction indicated by the arrow intersecting said line. Fig. 5 is a perspective view of the guard. Fig. 6 is a perspective view of the valve. Fig. 7 is a perspective view of the spring to which the valve is hinged.

Referring to the drawings, which illustrate the preferred embodiment of my invention, 1 designates a bottle, the lower portion of which is shown as broken off, and 2 is the neck thereof. Intermediate the ends of the neck 2, in the bore or passage-way 3 thereof, is an internal recess or cut-out portion 4, which, at that point, increases the diameter of the bore. The beginning and end 4^a and 4^b, respectively, of the recess 4 are shouldered or at right angles to the bore of the neck, the lower right angular portion 4^b being extended out beyond the circumference of the bore 3 whereby a reduced passage-way 5 is formed leading into the bottle.

The bottle 1 is first filled with the desired quantity of the liquid to be placed therein. Then a curved flat spring 6 having its ends 7 separated and turned inwardly, as shown, is pushed down into the passageway 3 of the neck 2 until its lower edge rests on top of the shoulder 4^b, when the spring will expand until it contacts with the sides of the recess 4. The curved spring 6 is of such height that it fits closely between the shoulders 4^a and 4^b.

Preferably opposite the spaced ends 7 of the curved spring the side of the spring is bent or curved inwardly to form an inwardly extending transverse projection or housing 8 above the lower end of which is an aperture 9 and below which, at the bottom of the projection 8, the metal is cut-out as at 10. Adapted to normally rest on the shoulder 4^b and close the passage-way 5 is a flat, circular valve 11, which is preferably of aluminum. Projecting from the periphery of the valve is an integral strip of material 12, which is passed through the aperture 9 and has its end brought around in the aperture 10 to hinge the valve in position. Adapted to firmly hold the valve 11 down on the shoulder or seat 4^b, when the bottle is in its normal position or resting on its base, is a glass or metal ball 13.

In order to keep the ball 13 in position in the recess 4 and prevent refilling of the bottle, a guard 14 is employed, which is constructed of spring metal and comprises a flat, circular body portion 15. At equidistant points at the periphery of the body 15 are preferably integral spring fingers 16, which are at right angles to the body 15 and are each provided with an outwardly-extending right angular lug or projection 17. The diameter of the body 15 of the guard is substantially that of the bore 3 of the neck, but it fits sufficiently free to permit it to be pushed down in the bore, during which operation the lugs 17 of the spring fingers 16 will be pressed inwardly, but when the lugs reach the top of the recess 4 they will spring out beneath the shoulder 4^a and then the fingers will lie flat against the inside of the bore of the neck. At opposite sides of the body 15 of the guard are arranged depending arms 18, which are bent, for a portion of their length, as at 19, up under the body and are then extended diagonally downward toward each other, as illustrated. Arranged around the periphery of the body 15 of the guard 14 are a plurality of cut-out portions or recesses 20, which serve as outlets for the liquid when it is poured from the bottle.

As is apparent from the foregoing description, when the bottle is tilted to pour the contents thereof, the ball 13 will roll forward and allow the valve 11 to rise thereby allowing the liquid to flow through the passage-way 5, and thence through the outlet openings 20 in the guard, and then out through the passage-way 3. Should an at-

tempt be made to refill the bottle, however, the guard 14 can not be withdrawn from the bore 3 as the lugs 17 of the spring fingers 16 will prevent it. The guard, of course, can
 5 be pushed down, and when pushed down, the ends of the depending arms 18 will contact with the ball 13, with the result that the arms will be spread apart and the ball pressed down on the valve 11 firmly closing it.
 10

What I claim is:

1. A non-refillable bottle provided with a passage-way, said passage-way having a recess, a curved spring positioned in said recess, said spring being bent inwardly intermediate its ends to form a housing, a valve
 15 having its hinge point within said housing, and a guard for said valve.

2. A non-refillable bottle provided with a passage way, said passage way having a lateral recess, a spring band fitted within said recess said band provided intermediate its

length with an inwardly crimped portion provided with an opening near its lower end, a valve provided with a downwardly curved
 25 lug passing through said opening to hinge said valve, and a guard for said valve.

3. A non-refillable bottle provided with a passage way having a recess, a curved spring band approximately the same height
 30 as said recess fitted within said recess, said band being crimped intermediate its length to form a housing having an opening near its lower end, the ends of said band being bent inwardly to form flanges, a valve, a
 35 downwardly curved lug formed upon said valve and passing through said opening, and a guard for said valve.

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

ROY WRIGHT.

Witnesses:

C. N. BURNS,

W. E. HARNESS.

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