

(No Model.)

F. LA R. BANTA & C. C. MARBLE.
NON-REFILLABLE BOTTLE.

No. 591,068.

Patented Oct. 5, 1897.

Fig. 1.

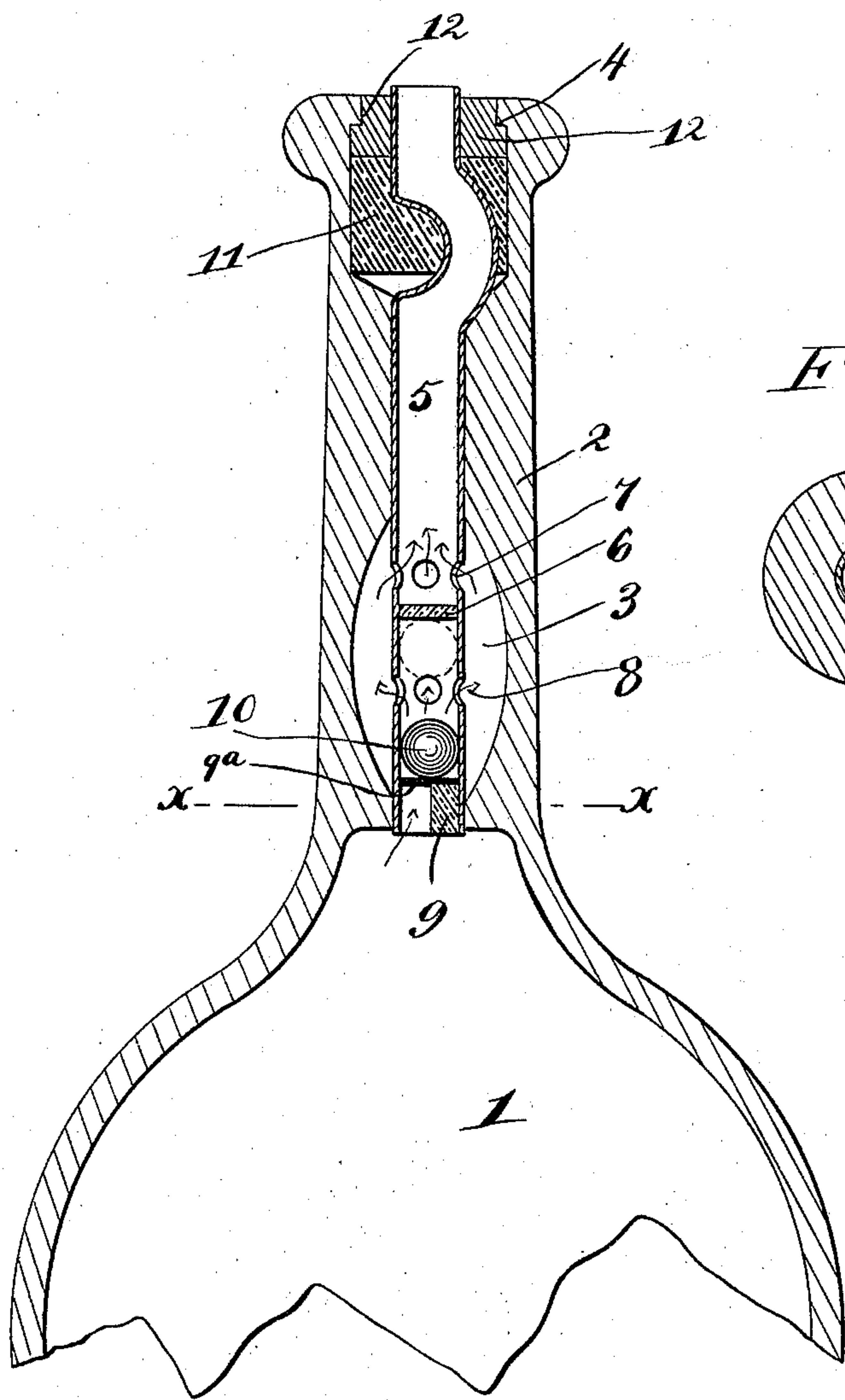
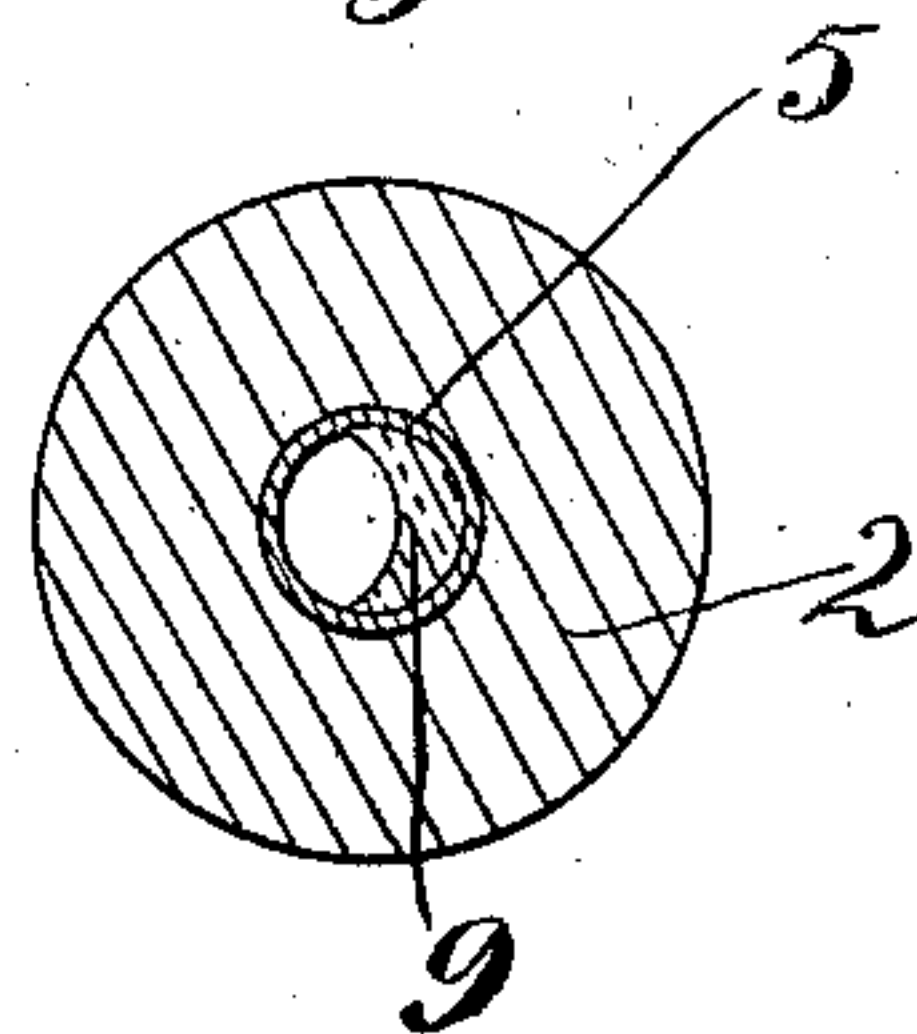


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANK LA RUE BANTA AND CHARLES CHURCHILL MARBLE, OF CHICAGO,
ILLINOIS.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 591,068, dated October 5, 1897.

Application filed August 15, 1896. Serial No. 602,900. (No model.)

To all whom it may concern:

Be it known that we, FRANK LA RUE BANTA and CHARLES CHURCHILL MARBLE, citizens of the United States, and residents of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar figures of reference indicate corresponding parts.

Our invention has relation to non-refillable bottles.

Heretofore in devices of this character the great objection to their coming into common use was the fact that they were excessively expensive due to their intricate mechanical construction and the great amount of labor involved to assemble the various parts of the device in proper position.

Our object in constructing the non-refillable bottle about to be described was to overcome this serious objection and at the same time to produce a device of this general character which will be cheap to manufacture, durable in use, and adapted to accomplish the object for which it was designed.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a sectional view of a bottle provided with our improvement, and Fig. 2 is a view in section on the line $x x$ of Fig. 1.

Referring to the drawings, 1 indicates a bottle whose body portion is of the usual ordinary configuration. The neck 2 is provided with a channel enlarged, as at 3, to form a reservoir, while the upper portion of the neck is countersunk for the reception of the cork and is provided with an overlapping shoulder 4.

Adapted to fit within the neck is a tube 5, whose upper portion is bent in order to effectually prevent the introduction of a wire or string designed to tamper with the bottle or its contents. The lower portion of the tube which occupies the cavity formed by the curved walls of the reservoir 3 is provided with a partition 6, above which are a series of holes or openings 7, while below the partition

6 are another series of holes 8 for a purpose to be hereinafter described.

The lower end of the tube is plugged with a crescent-shaped stopper 9, made of any suitable material, preferably rubber, and this stopper is adapted to serve as the seat for the movable ball 10, and inlet thereto is prevented by means of a normally-closed flap-valve 9^a.

An ordinary cork is indicated at 11.

When it is desired to provide a bottle with our improved attachment, the tube and cork are inserted in the neck thereof. Molten glass 12 is then poured over the cork, filling up all interstices and making the tube practically an integral portion of the bottle.

When it is desired to pour from the bottle a portion of its contents, the bottle is tilted, thereby allowing the ball to assume by means of gravity the position shown in dotted lines.

The contents of the bottle will flow through the opening of the stopper 9 into the tube and out of the holes 8 into the reservoir and from the reservoir through the holes 7 into the main tube and out through the neck of the bottle to the glass or receptacle intended for it, as indicated by the arrows. As soon as the bottle assumes its normal position the ball 10 drops to its seat on the stopper.

If an attempt be made to fill the bottle, the liquor or other liquid will readily pass down through the tube 5 and into the lower portion of the tube; but here it will be effectively stopped by means of the ball 10, and the more persistent effort to get the liquid into the bottle will only result in making the ball set tighter on its seat.

Of course any attempt to raise the ball by means of a cord or wire will be prevented by the twist or bend in the tube.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a non-refillable bottle having a reservoir for liquid in the neck thereof, substantially as specified; the combination therewith of a tube having a curve above the reservoir and provided at its lower portion with a ball adapted to move between a partition and valve, a crescent-shaped plug in the tube serving as a seat for the valve 9^a, normally closed

to prevent downward flow, ports below the partition for the admission of liquid from the tube to the reservoir and ports above the partition for admission of liquid from the reservoir to the main tube, substantially as shown and described.

2. In combination with a bottle; a neck in which is a groove for sealing material and a portion of which is provided with a reservoir, a tube adapted to fit within the neck of the bottle, having a curve in its upper portion and provided at its lower end with a crescent-shaped plug adapted to serve as a seat for the valve 9^a, normally closed to prevent inflow from the neck, and ports for the admission of the liquid from the bottle into the reservoir, and ports in the main tube above a partition for the admission of the liquid to the main tube, substantially as shown and described.

3. A non-refillable bottle, comprising a bottle having a neck, a portion of which is provided with a reservoir, a tube adapted to fit

within the neck of the bottle, having its upper end bent and its lower end provided with a flap-valve and crescent-shaped plug, a ball between the partition and valve, ports for the admission of the liquid from the bottle into the reservoir, ports in the main tube above a partition for the admission of the liquid to the main tube from the reservoir, and means for holding the tube in place comprising a cork secured around the bent portion of the tube, and a covering of molten glass above the cork and around the straight portion of the tube, substantially as shown and described.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 7th day of August, 1896.

FRANK LA RUE BANTA.

CHARLES CHURCHILL MARBLE.

Witnesses:

W. A. PENGELLY,

FLORENCE WESTFORD.