

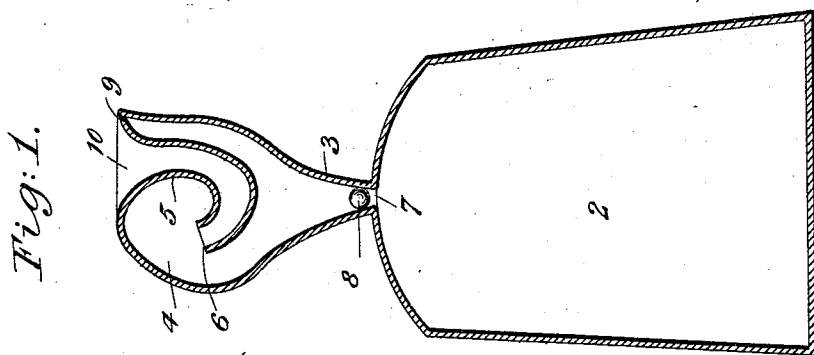
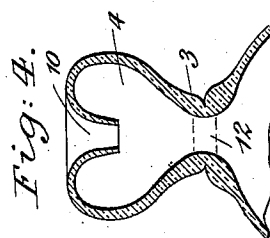
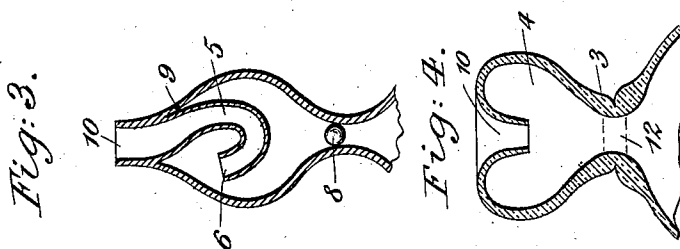
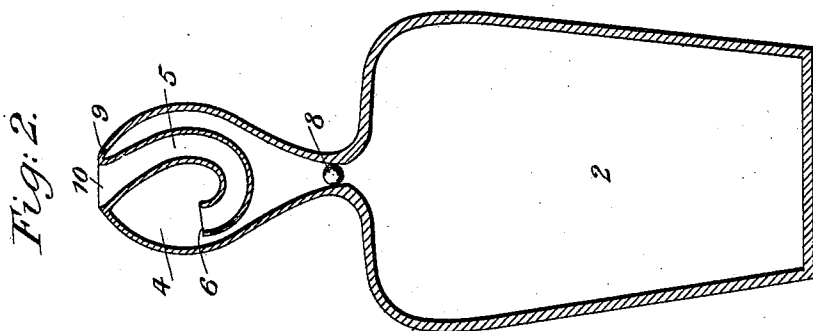
(No Model.)

C. D. MICHENER & S. HÜLLSTRUNG.

NON-FILLABLE BOTTLE.

No. 552,191.

Patented Dec. 31, 1895.



WITNESSES:
John A. Rennie
Frederick H. Smith

INVENTORS
Caroline S. Michener
and Sophie Hüllstrung
BY
Edgar Tate & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

CAROLINE DOUGAL MICHENER AND SOPHIE HÜLLSTRUNG, OF PARKESBURG, PENNSYLVANIA.

NON-FILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 552,191, dated December 31, 1895.

Application filed April 10, 1895. Serial No. 545,173. (No model.)

To all whom it may concern:

Be it known that we, CAROLINE DOUGAL MICHENER, a citizen of the United States, and SOPHIE HÜLLSTRUNG, a subject of the Emperor of Germany, and residents of Parkesburg, county of Chester, and State of Pennsylvania, have invented certain new and useful Improvements in Non-Fillable Bottles, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar numerals of reference indicate corresponding parts.

This invention relates to bottles, and the object thereof is to produce a bottle which, having been once filled, may be emptied of its contents but cannot be again refilled.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a central vertical section of our improved bottle; Fig. 2, a similar view of a slight modification thereof; Fig. 3, a similar view of the upper portion of the bottle and the neck and nozzle thereof, showing another modification; and Fig. 4, a similar view of another modification adapted for powdered substances.

Referring to the drawings, the numeral 2 designates the body of a bottle provided with a neck 3, which is enlarged at the upper end, forming a chamber 4, substantially circular in cross-section, and provided at the discharge-nozzle with an inwardly-directed curved tube or siphon 5, the lower end of which is curved upwardly, as shown at 6. The lower end of the neck is contracted to a comparatively small port or opening 7, and within the lower end of the neck is placed a ball-valve 8 adapted to close this port or opening and prevent the filling of the bottle when the same is in position. In the upper portion of the chamber 4, which surrounds the curved tube 5, is a small perforation or opening 9, adapted to serve as an egress for air when the bottle is being filled.

In constructing our improved bottle the body and neck thereof independent of the tube 5 may be formed in the usual manner, and said tube 5 afterward secured thereto in a manner readily understood by those skilled in the art

of glass-working, or the neck may be formed in two parts, to one of which will be connected the tube 5, and the separate parts thereof united in any desired manner, and we do not limit ourselves to any means of construction or method of forming the bottle and the neck thereof shown.

In operation the bottle is filled by pouring the liquid which it is desired to contain in at the nozzle 10 in the usual manner, the liquid rising in the pipe 5 and flowing out at the inner end thereof into the bottle, the air therein passing out through the perforation 9, as will be readily understood. When the bottle has been filled to the top of the body thereof the valve 9 will be introduced through the nozzle and the bottle held so as to admit of its passing out through the end of the tube 6 and the nozzle 10 then closed with a cork or plug, as usual in this class of devices. If, now, it is desired to empty the bottle of its contents or discharge a portion thereof the cork or plug is removed and the bottle held inverted or tilted, when the valve 8 will be forced from its seat by the pressure of the fluid within the bottle, which will flow forward into the chamber 4 and out through the tube 5, and this operation may be continued or repeated until the bottle has been emptied of its contents. It will be observed, however, that the bottle can not be entirely emptied through the tube 5, as a small portion of its contents will remain in the upper part of the chamber 4 when the bottle is inverted.

If, after the bottle has been emptied, or practically so, an attempt be made to refill the bottle by pouring liquid into the nozzle 10, the valve 8 will be at once reseated and no liquid can enter the body of the bottle, and this action of the valve will be the same in whatever position the bottle could be held to admit of pouring liquids thereinto.

The air-port 9, as will be observed, may be sealed after the bottle has been filled, and may be unsealed when it is desired to empty the bottle, if necessary to permit of this operation; and, if desired, when it is required to empty the bottle after it has once been filled, as hereinbefore described, the neck may be broken off at the small part thereof immediately above the body of the bottle and the

contents, which would result of course in the practical destruction of the bottle and in rendering the same unfit for use a second time, thus accomplishing the same result as if the bottle were emptied in the manner hereinbefore described, as with the valve 8 in position, as stated, it cannot be again refilled.

In Fig. 4 is shown a form of bottle adapted to receive powdered substances, such as powdered medicines, Sprudel Salts, Mellin's Food, &c., in which the ball-valve is unnecessary, as is also the curved siphon top or tube. In this form an ordinary cork or stopper 12 formed of elastic material and adapted to be compressed so as to be inserted through the smaller opening in the top is employed, and shown in dotted lines, to close the contracted neck below the enlarged chamber, or a ball-valve may be used as in the other forms, and with this construction the upper end or neck of the bottle should be broken off when it is desired to empty the bottle, or discharge a portion or all of its contents.

We do not limit ourselves to the exact form of construction and combinations of parts shown, as it is evident that many changes therein and modifications thereof may be made without departing from the scope of our invention; but,

Having fully described said invention, what we claim, and desire to secure by Letters Patent, is—

1. A bottle provided with a neck, the lower end of which is contracted, forming a valve seat, and the upper end or nozzle of which is

provided with a tube which extends inwardly and is curved upwardly toward the upper end of the neck, and a ball valve adapted to be inserted through said tube and seated on the valve-seat at the lower end of the neck, substantially as shown and described.

2. A bottle provided with a neck having an enlarged chamber in the upper end thereof and contracted at its lower end to form a valve seat, and a tube connected with the nozzle and extended downwardly and curved upwardly within said chamber, and a ball valve adapted to be inserted through said tube and seated on the valve seat at the lower end of the neck, substantially as shown and described.

3. A bottle provided with a neck, contracted at its lower end, forming a valve seat, and having an enlarged chamber therein above said valve seat, a tube connected with the nozzle of the bottle and extended inwardly within said chamber and curved upwardly therein, a ball valve adapted to be inserted through said tube and seated on the valve seat at the lower end of the neck, and means for closing the nozzle, substantially as shown and described.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of the subscribing witnesses, this 30th day of March, 1895.

CAROLINE DOUGAL MICHENER.
SOPHIE HÜLLSTRUNG.

Witnesses:

JOHN R. HUMPTON,
MARY A. MICHENER.