

(No Model.)

A. F. MOTT & H. S. DUNN, Jr.
NON-REFILLABLE BOTTLE.

No. 603,701.

Patented May 10, 1898.

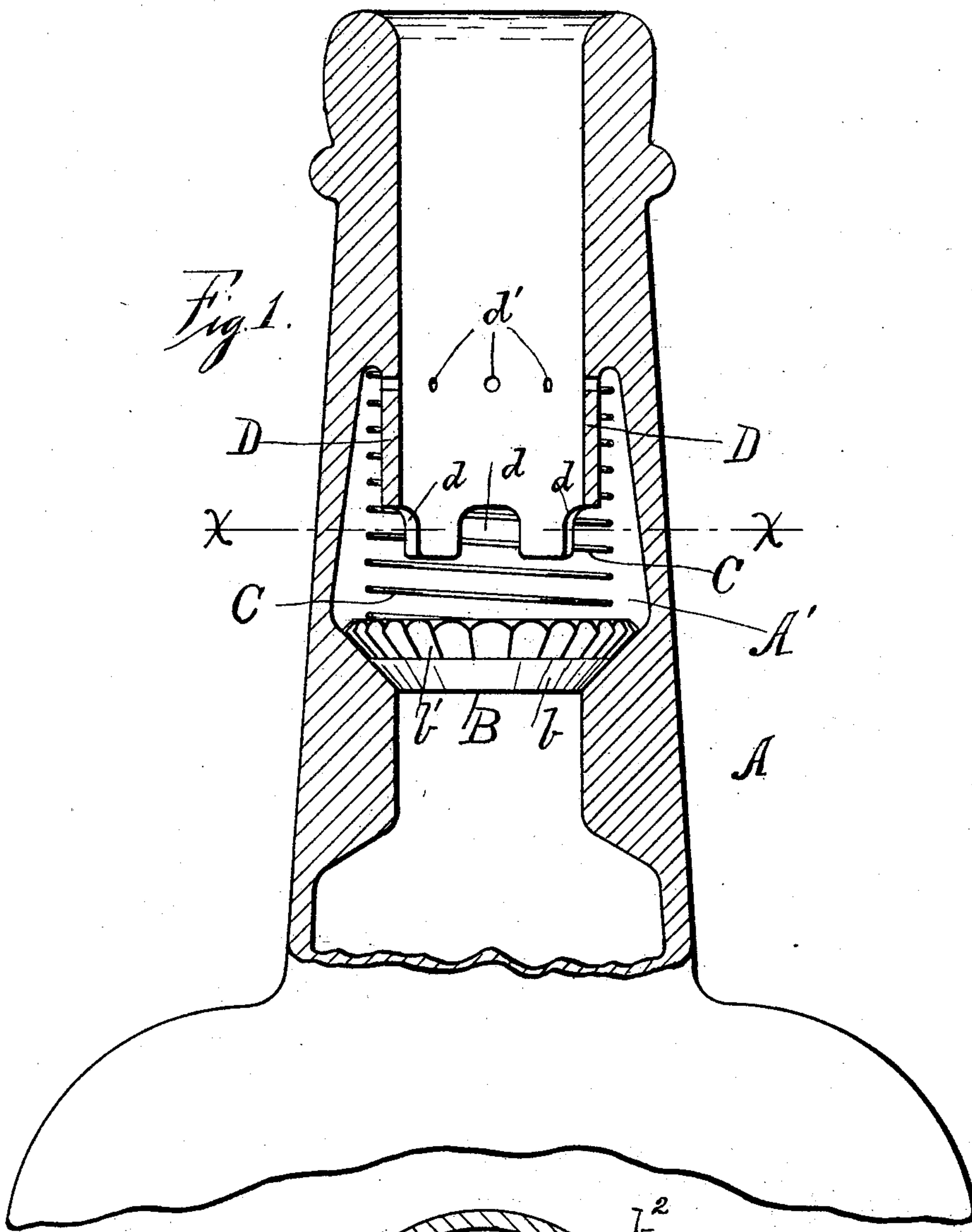
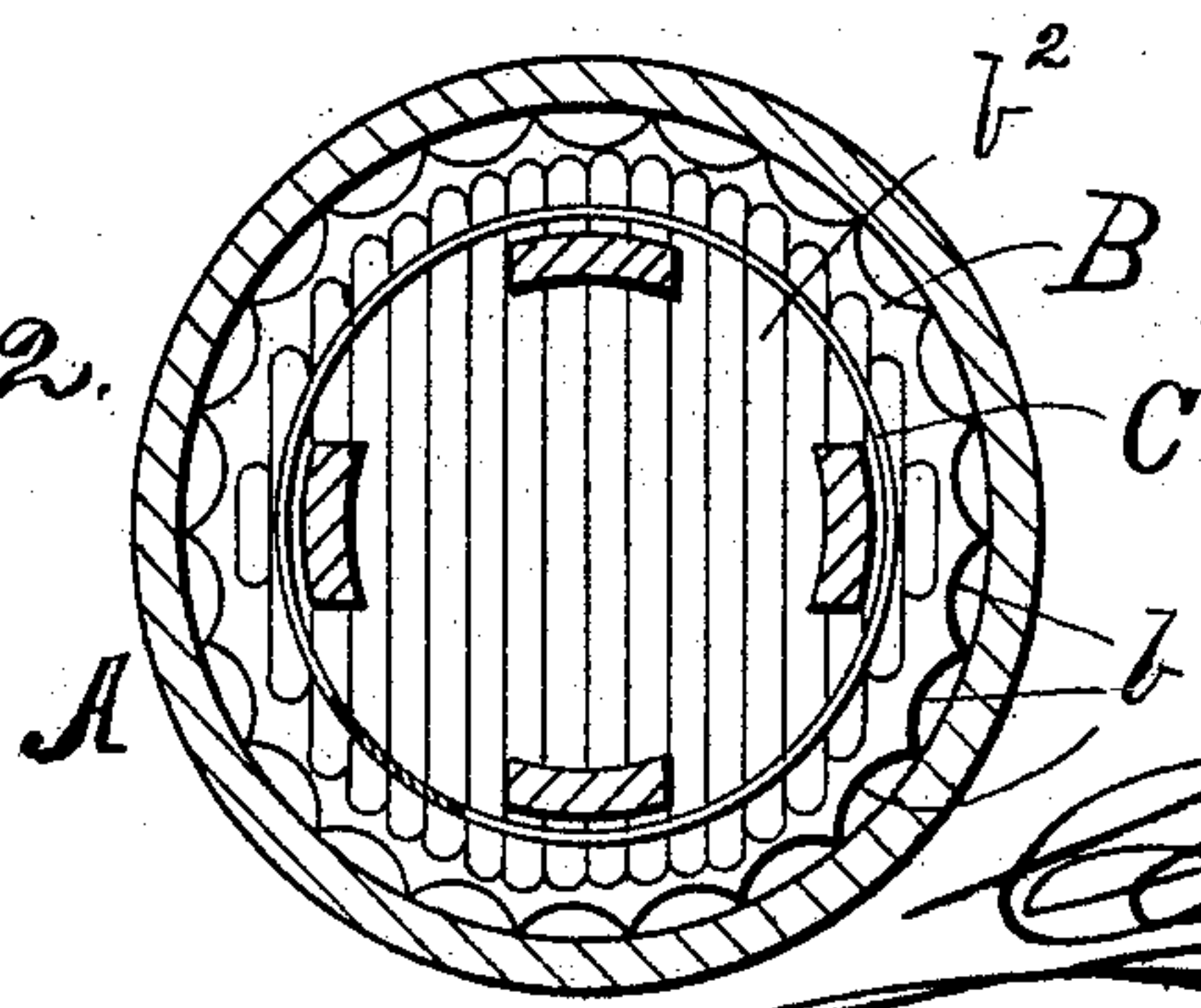


Fig. 2.



WITNESS

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ARTHUR FREEMAN MOTT AND HENRY SPOFFORD DUNN, JR., OF
BROOKLYN, NEW YORK.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 603,701, dated May 10, 1898.

Application filed August 20, 1897. Serial No. 648,901. (No model.)

To all whom it may concern:

Be it known that we, ARTHUR FREEMAN MOTT and HENRY SPOFFORD DUNN, Jr., citizens of the United States, and residents of Brooklyn, county of Kings, and State of New York, 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 letters of reference indicate corresponding parts in both figures.

This invention relates to improvements in non-refillable bottles, and has for its object to provide a cheap and effective means whereby a bottle having once been emptied cannot be refilled, such an article being invaluable as a means for preventing infringements in patent and proprietary compounds.

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

In the accompanying drawings, forming part of this specification, Figure 1 is a sectional elevation illustrating our device. Fig. 2 is a sectional view on a line xx of Fig. 1.

In the practice of our invention the interior of the neck of the bottle A has an enlargement A', the lower converging walls forming a seating for a valve B, said valve being made of any non-corrosive material, preferably glass, of sufficient weight to compress a spring C when inverted, and is substantially in shape the frustum of a cone, having a portion of its inclined surface b plain, adapted for engagement with the converging walls of the enlargement A' in the neck of the bottle A, and the remaining portion of its inclined surface b' corrugated to facilitate the flow of the liquid around said valve when the bottle is inverted. The valve is further provided upon its upper surface with a series of grooves or corrugations b^2 to prevent its being lifted by suction. A loosely-corded spring C is interposed between the upper end of the enlargement A' and the valve B for the purpose of aiding the return of the valve B to its proper seating, as heretofore described. Extending downwardly into the enlargement is a circular flange D, integral with the neck of the bot-

tle A, said flange D having a number of arched grooves d cut through its lower extremity to allow the passage of the liquid should the valve B rest over said circular flange D when the bottle is inverted. The circular flange D is further provided with a number of small drainage-openings d' at its upper extremity, where it becomes integral with the bottle-neck, for the purpose of allowing a complete drainage of the liquid from the enlarged cavity of the bottle-neck.

In operation it will be seen that by inverting the bottle A, the weight of the valve B compresses the spring C and falls away from its seating on the converging portion of the enlargement in the neck, allowing a passage of the liquid contents around said valve, thence through the mouth of the bottle, a portion of the liquid passing through the drainage-openings d' in the flange D. When the bottle is returned to its vertical position, the valve B drops back to its seating, being aided by the action of the spring C. It is evident that no liquid can be poured into the bottle nor forced in under pressure, the pressure only seating the valve tighter.

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

An improvement in bottles, comprising an annular recess in the neck and a conical valve-seat formed in the lower portion thereof, a conical grooved valve for engagement with said seat, an annular flange extended downwardly in said recess having apertures there-through for draining liquid from the bottle, and having grooves in the lower edge thereof to facilitate the outflow of liquid from the bottle, and a spring coiled around said flange and bearing upon the valve, substantially as shown and described.

In testimony that we jointly claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 16th day of August, 1897.

ARTHUR FREEMAN MOTT.

HENRY SPOFFORD DUNN, JR.

Witnesses:

E. J. CONNETTE,

CHAS. E. TEALE.