

(No Model.)

J. M. & M. L. S. ESCORBIA.

BOTTLE STOPPER.

No. 325,064.

Patented Aug. 25, 1885.

FIG. 1.

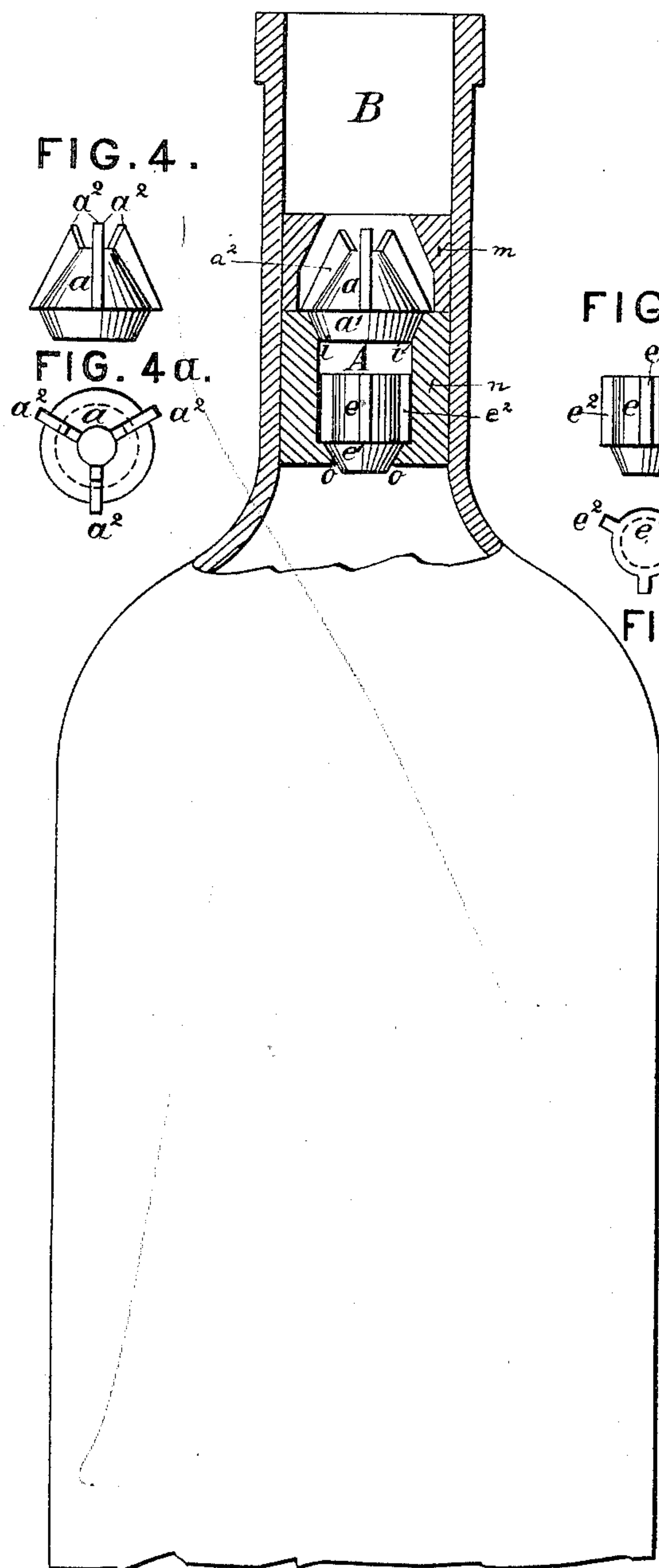


FIG. 4.

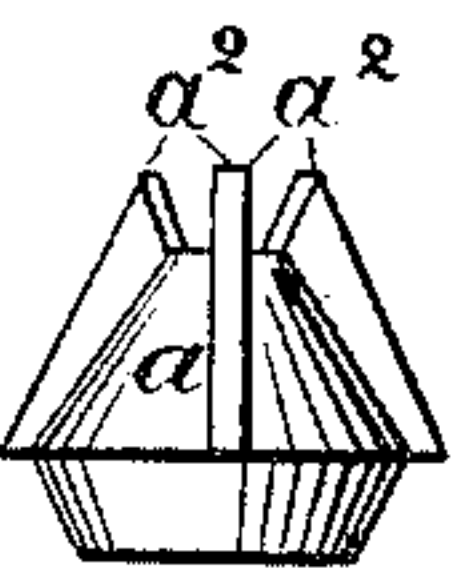


FIG. 4α.

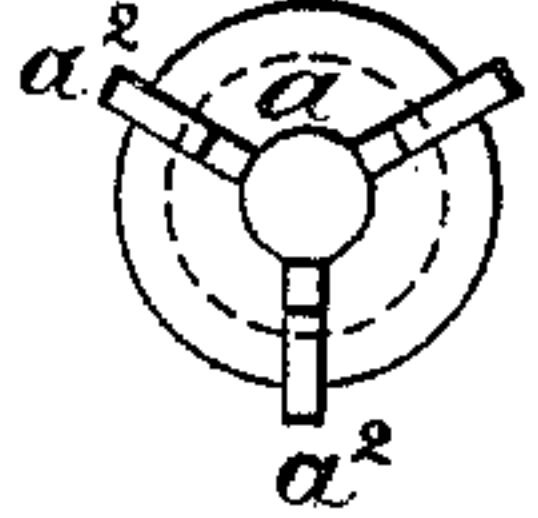


FIG. 2.

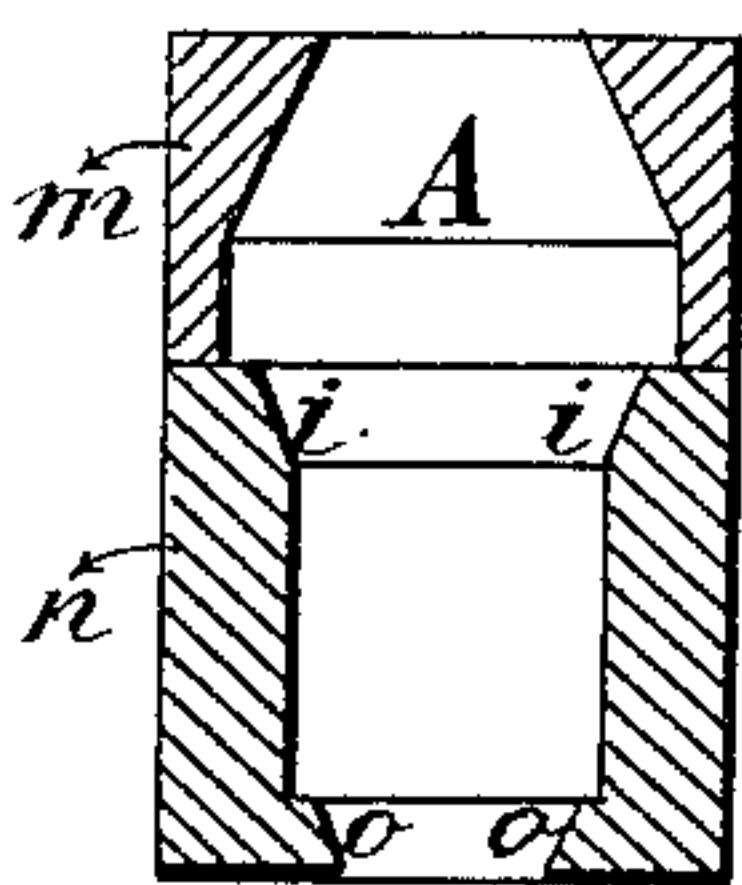


FIG. 3.

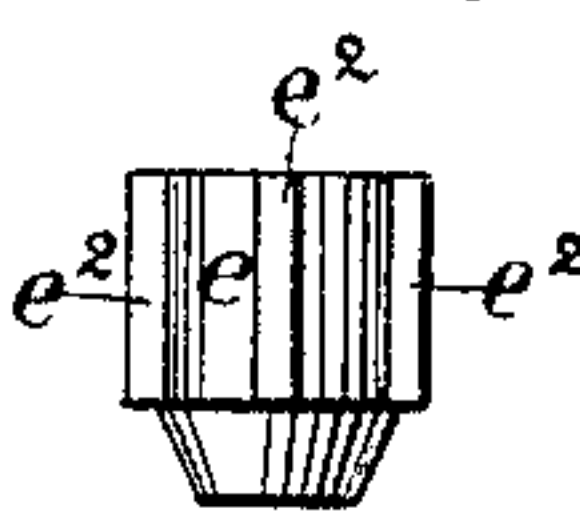


FIG. 3α.

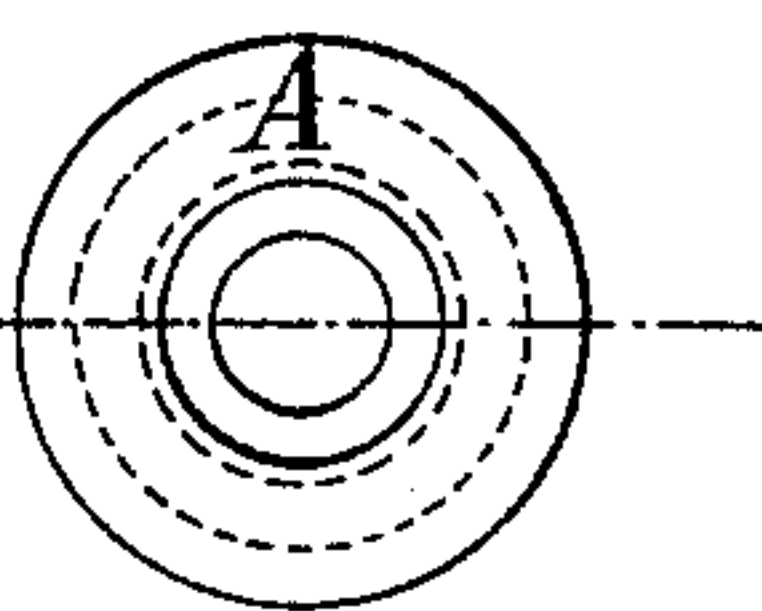
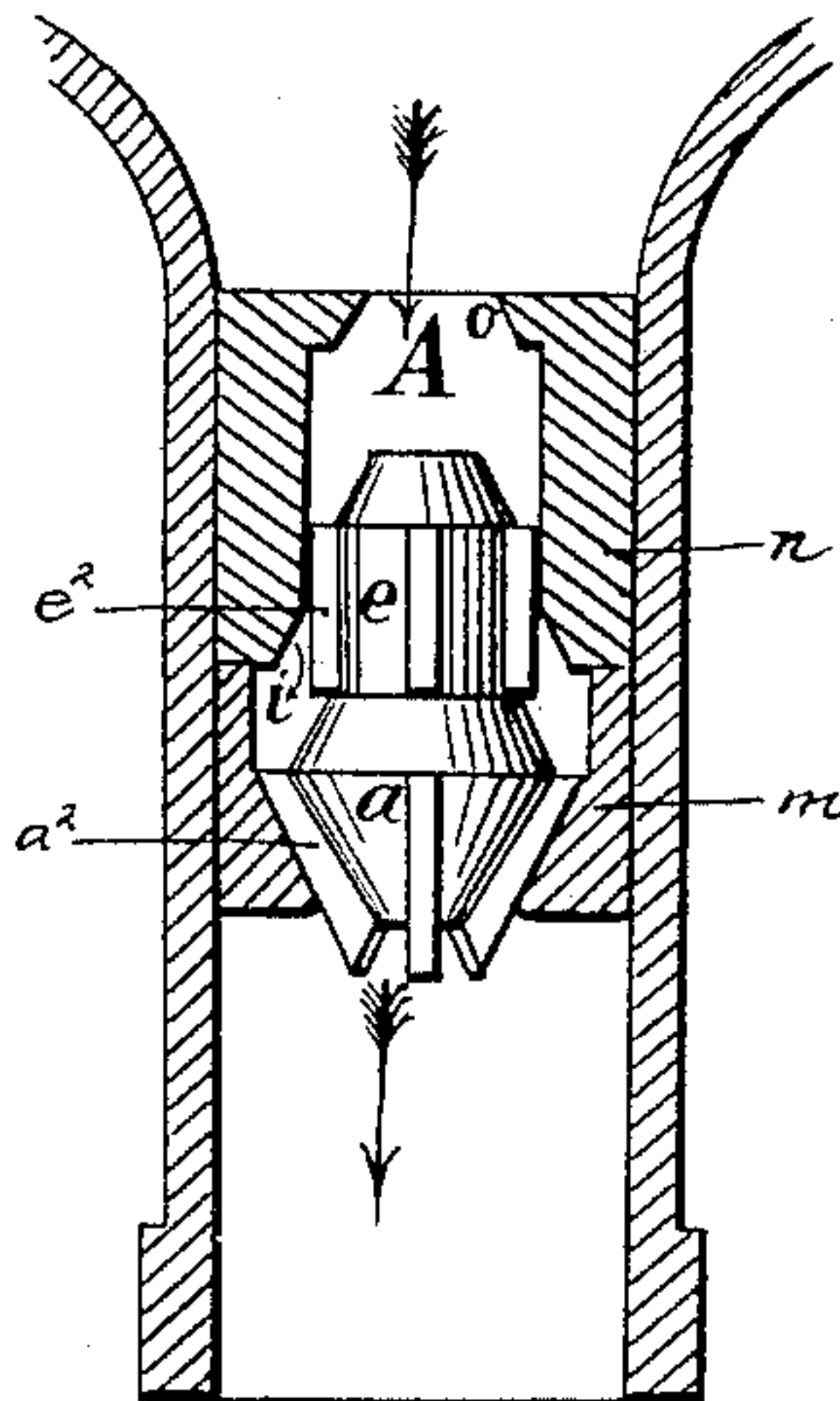


FIG. 2α.

FIG. 5.



Witnesses:

J. D. Petersen

M. Pruning

Inventors:

Sean Marie Escorbia and  
Mrs Marguerite Louise Stephanie Escorbia  
By William Meyer Attorney

# UNITED STATES PATENT OFFICE.

JEAN MARIE ESCORBIA AND MARGUERITE LOUISE STÉPHANIE ESCORBIA,  
OF ST. ETIENNE, LOIRE, FRANCE.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 325,064, dated August 25, 1885.

Application filed June 18, 1885. (No model.)

*To all whom it may concern:*

Be it known that we, JEAN MARIE ESCORBIA and MARGUERITE LOUISE STÉPHANIE ESCORBIA, both citizens of the French Republic, and residents of St. Etienne, in the department of Loire and French Republic, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

Our invention relates to improvements in bottle-stoppers, and the object of the improvements is to prevent the refilling of bottles or other like receptacles after they have once been emptied, which invention is destined to secure the bottle or other like vessel, having the trade-mark of a certain manufacturer impressed or engraved on or otherwise inseparably connected with the receptacle-surface, from being fraudulently employed again. We attain this object by the device illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of a bottle provided with our improvements. Fig. 2 is a vertical section of the stopper-casing, and Fig. 2<sup>a</sup> a plan thereof. Fig. 3 is an elevation of the lower valve, and Fig. 3<sup>a</sup> a plan thereof. Fig. 4 is an elevation of the upper valve, and Fig. 4<sup>a</sup> a plan thereof. Fig. 5 is a vertical section of the bottle-neck when the bottle is tilted over for emptying it.

Similar letters refer to similar parts throughout the several views.

A is the stopper-casing or valve-chest of the bottle, and is composed of two parts, *m* and *n*, of which the latter is fixed at first inside the bottle-neck B by a suitable cement, as silicate of potash, &c. This part *n* is provided with two conical valve-seats, *o* and *i*, the latter larger than the former, for allowing the valve *e* to pass. The conical part *e'* of the lower valve, *e*, fits into the seat *o*, while its cylindrical part is provided with projecting ribs *e''*, guided inside the cylindrical channel of the part *n*.

The upper valve, *a*, rests partly inside the

piece *n* and partly in the piece *m*. It is composed of two frustums of cones connected at their bases. The lower cone, *a'*, forms the valve proper, to fit into the seat *i* in the piece *n*, while the upper cone bears projections *a''*, forming passages inside the channel of the piece *m* for the liquid contained in the bottle when the latter is tilted over for being emptied. This channel is cylindrical at its lower part, and diminishes its diameter toward the top in order to retain the valves within their proper positions when the bottle is tilted over.

The valves and the piece A are placed properly when the bottle has been filled. The piece A is glued in the bottle-neck by the above-mentioned cement.

It may easily be understood that the bottle can be emptied when tilted over, as both valves will slide by their proper weight in the suitable direction, thereby leaving their seats, and thus allowing the liquid to flow through the channels formed by the projections *e''* and *a''*; but no drop of liquid will run into the bottle when placed in the proper position, as both valves are resting then upon their respective seats, thus closing the bottle-neck hermetically.

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

In stoppers for bottles and other like receptacles, the combination of the pieces *m* and *n* with the valves *a* and *e*, arranged one above the other, and provided with suitable guiding projections, *a''* and *e''*, and resting in seats *i* and *o*, respectively, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 19th day of May, 1885.

JEAN MARIE ESCORBIA.

MARGUERITE LOUISE STEPHANIE ESCORBIA.

Witnesses:

GEORGES-EDMOND DELORME,  
CHARLES DREVET.