

No. 654,266.

Patented July 24, 1900.

H. B. MASON.
NON-REFILLABLE BOTTLE.

(Application filed Mar. 6, 1900.)

(No Model.)

Fig. 1.

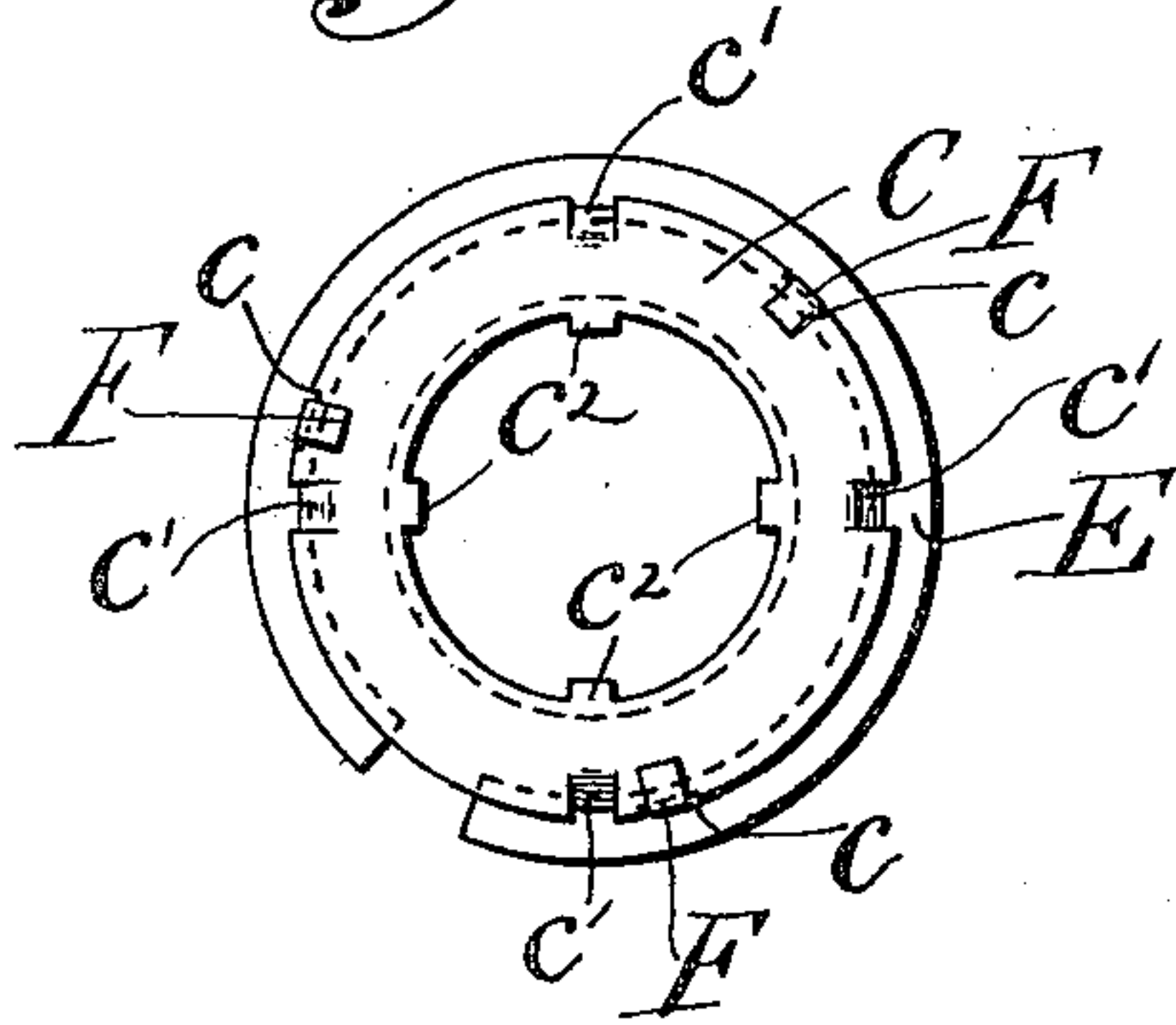


Fig. 4.

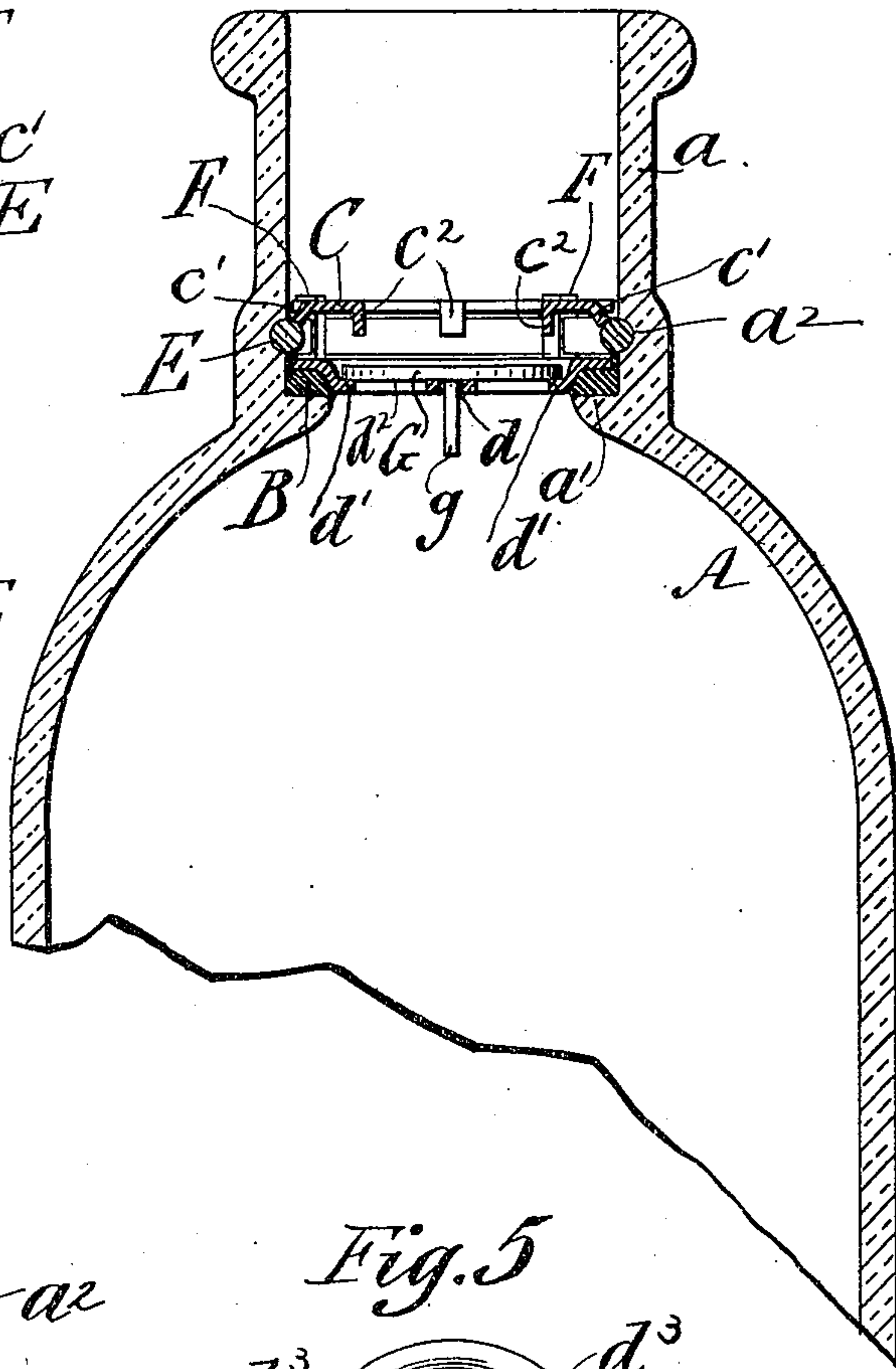


Fig. 2.

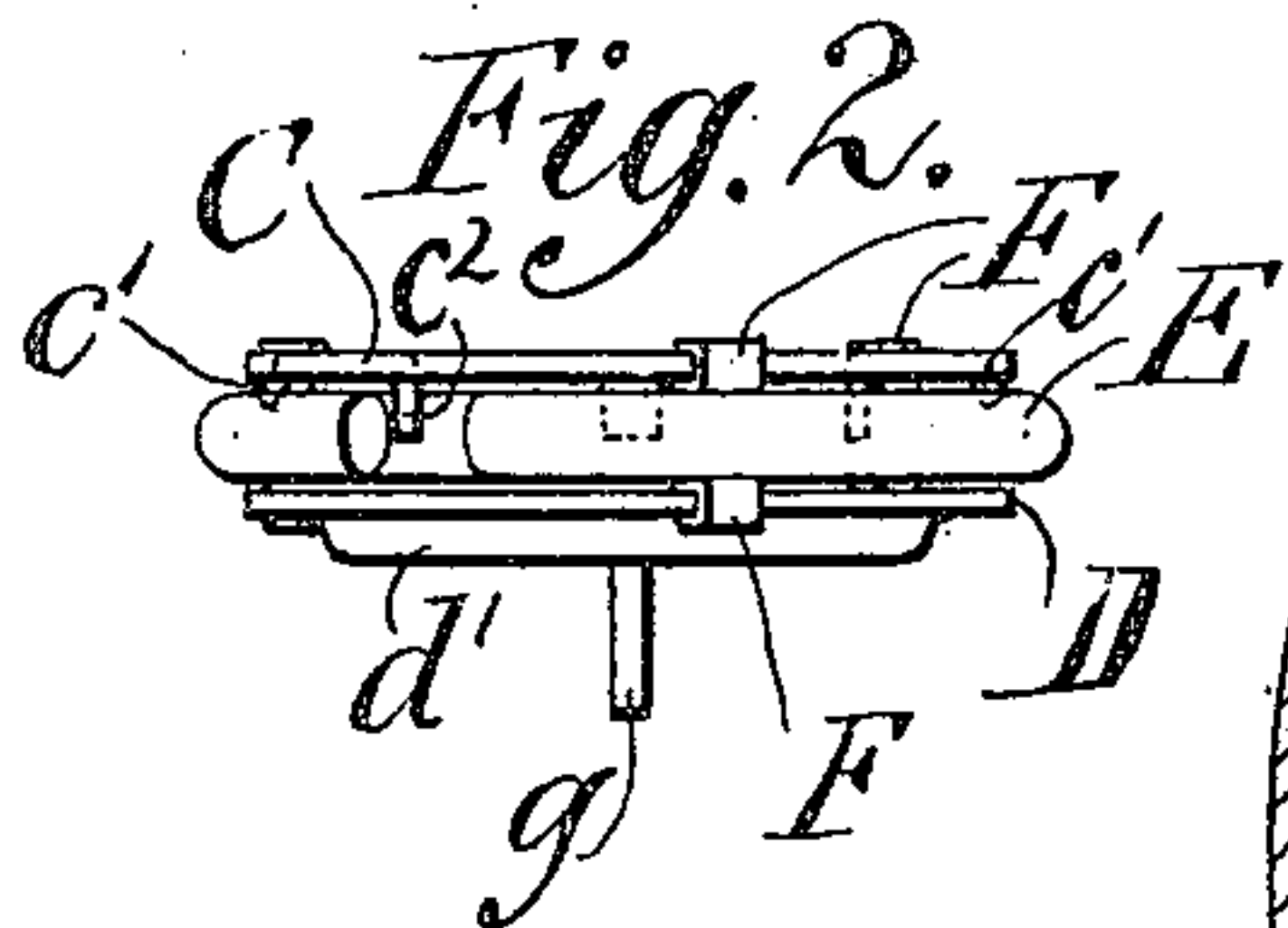


Fig. 3.

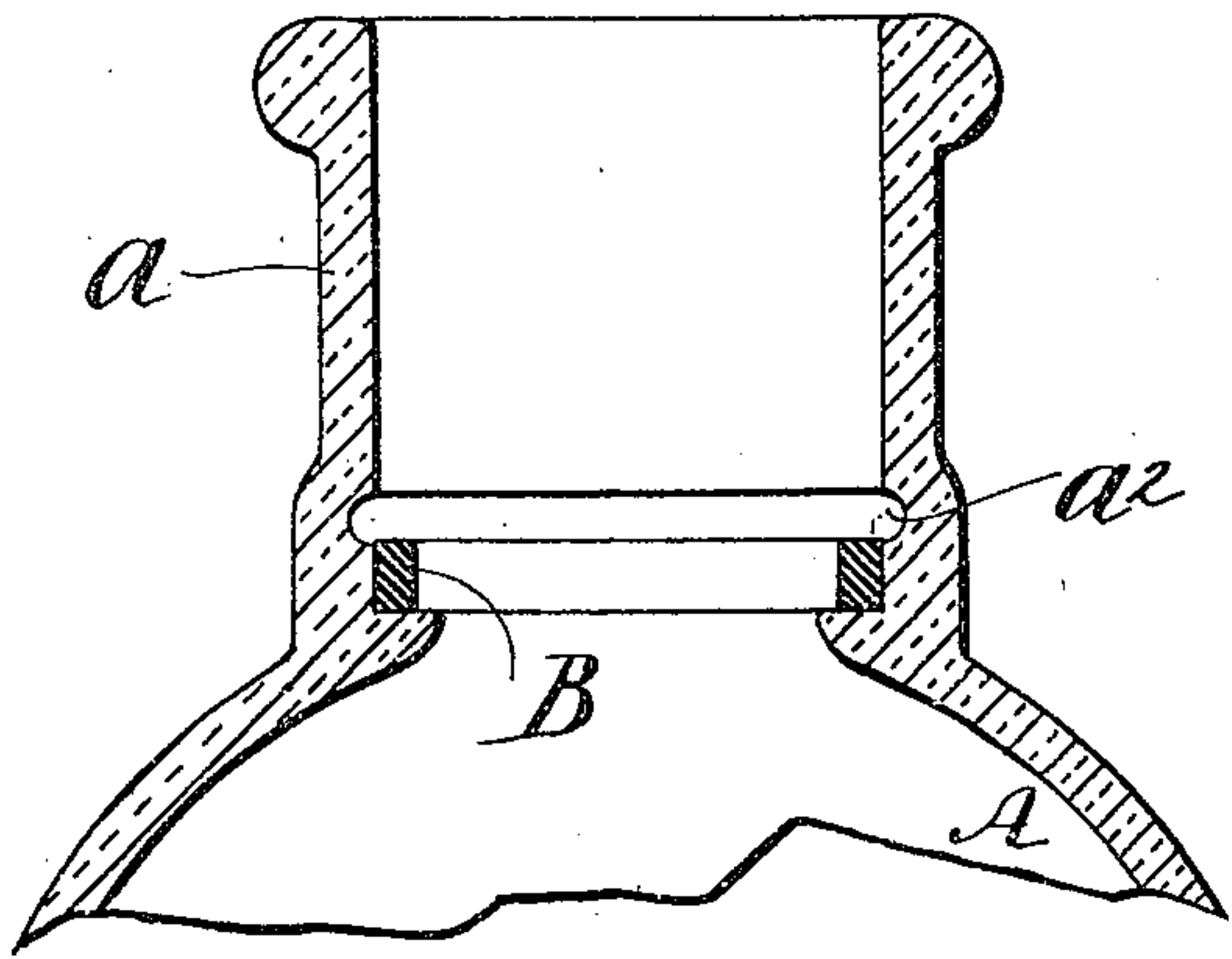


Fig. 5.

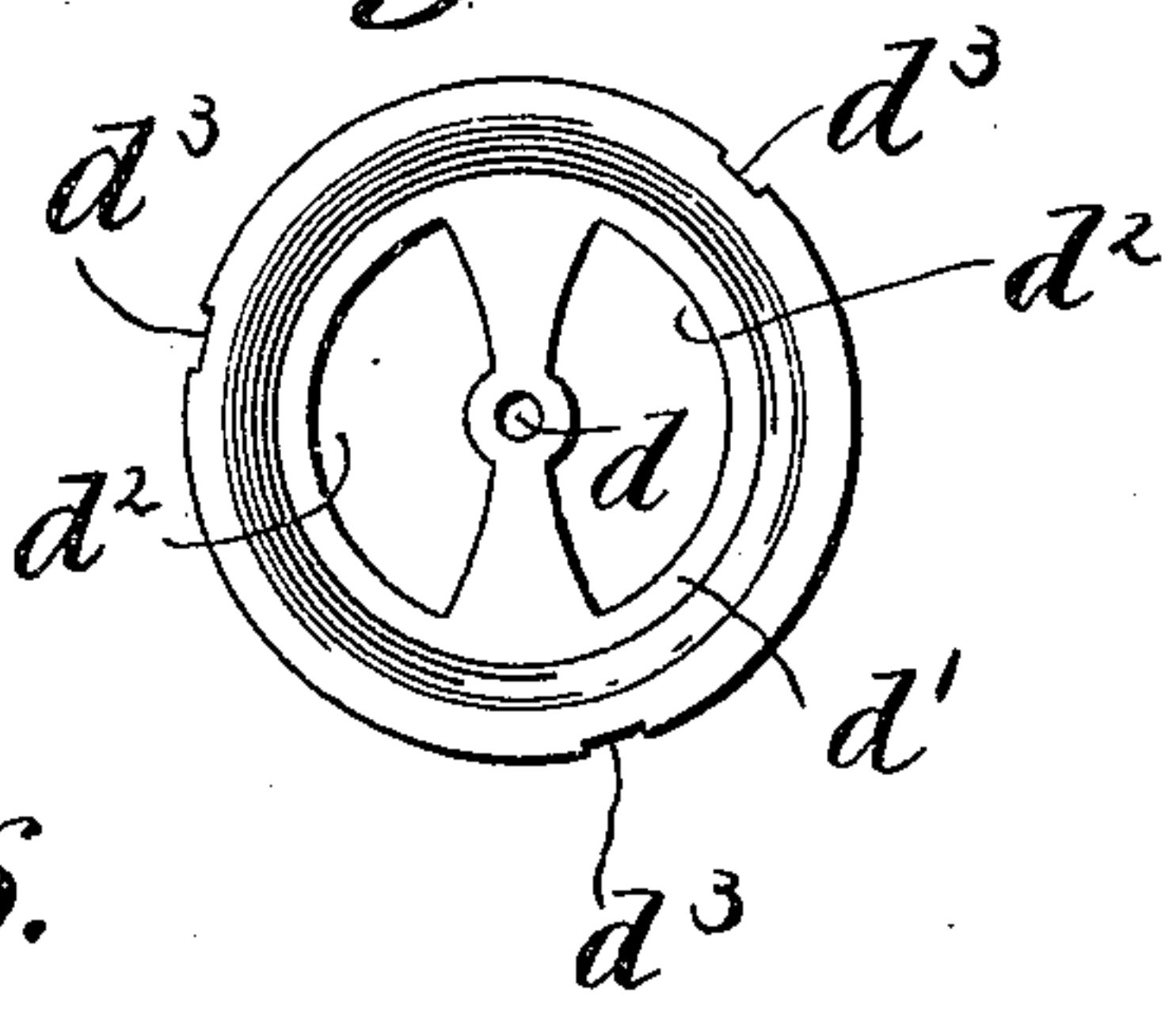
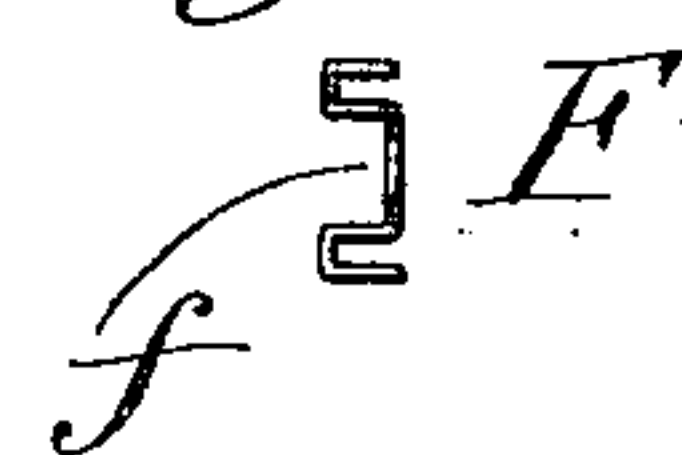


Fig. 6.



WITNESSES
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UNITED STATES PATENT OFFICE.

HAROLD BENNETT MASON, OF PETERBOROUGH, CANADA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 654,266, dated July 24, 1900.

Application filed March 6, 1900. Serial No. 7,520. (No model.)

To all whom it may concern:

Be it known that I, HAROLD BENNETT MASON, a subject of the Queen of Great Britain, and a resident of Peterborough, county of Peterborough, and Province of Ontario, Canada, 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.

This invention relates to improvements in non-refillable bottles; and the object thereof is to provide an efficient device of this character which is so constructed as to prevent refilling thereof after its original contents have been removed or emptied.

By the use of this invention manufacturers of proprietary compounds can prevent unscrupulous persons from refilling their marked bottles with spurious goods, which practice is detrimental alike to manufacturers and the public.

The device is simple in construction and inexpensive, and it can be filled, closed, and emptied as readily as an ordinary bottle.

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

In the accompanying drawings, which form part of this specification, Figure 1 is a plan view of a valved stopper forming part of my invention; Fig. 2, a side elevation thereof; Fig. 3, a vertical sectional elevation of the bottle-neck; Fig. 4, a similar view having the valved device attached therein; Fig. 5, a plan view of one of the plates comprising the structure, and Fig. 6 an end elevation of a clamp used for assembling the device.

In the practice of my invention I employ, primarily, a glass bottle A, of ordinary adapted contour, having in the lower portion of its neck *a* an annular shoulder *a'* and an interiorly-formed annular groove *a''*, which is located above the shoulder *a'*. Resting upon the shoulder *a'* is a ring or washer B, which is composed, preferably, of soft rubber; but any elastic substance may be employed.

The closing mechanism adapted to fit within the bottle-neck embodies a sheet-metal ring C, a sheet-metal disk D, and a split ring

E, composed of resilient wire, these said parts being connected to each other by means of sheet-metal clamps F. The disk D is provided centrally with an opening *d*, which engages the stem *g* of a valve G, which is normally seated upon the annular depressed valve-seat *d'*, forming part of the disk D. This disk is further supplied with fluid-outlet ports *d''*, which are normally closed by the said valve. The valve G is of a diameter larger than the opening of the sheet-metal ring C, and because of its depending stem *g*, which passes through the opening *d* of the disk D, it can move only in a vertical direction and cannot be tilted and held open by the use of a wire hook. Arranged peripherally upon the disk D is a series of recesses *d'''*, which engage the clamps F, and the ring C is also provided with a similar series of recesses *c*, which register vertically with the recesses of the disk D, the clamps being held in place by means of the split ring E, which fits within the recesses *f* of the said clamps. The ring C is also provided with a series of downwardly-projected peripheral tongues *c'*, which bear against the split ring E, and a series of similar projections *c''* to limit the upward movement of the valve G.

The rubber ring or washer B is of a normal thickness greater than the space between the shoulder *a'* and the groove *a''*, whereby when the stopping device is inserted in the bottle-neck, as illustrated by Fig. 4 of the drawings, the ring will flatten and expand around the disk D to maintain a secure water-tight joint to prevent inflow of fluid around the device.

In the operation and use of the invention the bottle is filled up to a line immediately below the shoulder *a'*. Then the stopping device is forced downwardly into the neck until the split ring E engages within the groove *a''* and the rubber washer B is compressed, as illustrated in Fig. 4 of the drawings, thus securely fastening the device within the bottle-neck and providing an efficient means to prevent refilling of the bottle. A suitable cork is then placed within the upper part of the bottle-neck, and the bottle is ready for shipping. To remove or empty its contents, it is simply necessary to pull the cork and tilt the bottle until the valve G opens by gravity.

I do not confine myself to the specific details of construction as herein shown and described, as it is obvious that under the scope of my invention I am entitled to slight structural variations. Neither do I confine myself to proportions or contour of the bottle, as in order to make the invention clear I have illustrated the bottle-neck upon an exaggerated scale.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a non-refillable bottle, the combination of a bottle having a shoulder in the lower
15 portion of its neck, with an elastic washer thereon, an annular groove above said shoulder, a disk with ports therein engaging said elastic washer, a valve normally closing the said ports, a sheet-metal ring located above
20 the said disk, a split ring for fastening the device within the said groove of the bottle-

neck, and clamps for connecting the parts to each other, substantially as shown and described.

2. As a bottle-closing device for engage- 25 ment with a bottle-neck having a groove therein, the combination of a ring having a double set of projections extended downwardly therefrom, a disk with ports therein, a valve engaged over said ports, a split spring- 30 metal ring, and clamps connecting the said parts together, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in pres- 35 ence of two witnesses, this 23d day of February, A. D. 1900.

HAROLD BENNETT MASON.

Witnesses:

ROBERT MAXWELL DENNISTOUN,
GEORGE LAWRENCE MCCLENNAN.