

No. 619,741.

Patented Feb. 21, 1899.

L. GIACOMINI.  
NON-REFILLABLE BOTTLE.

(Application filed July 21, 1898.)

(No Model.)

Fig. 1.

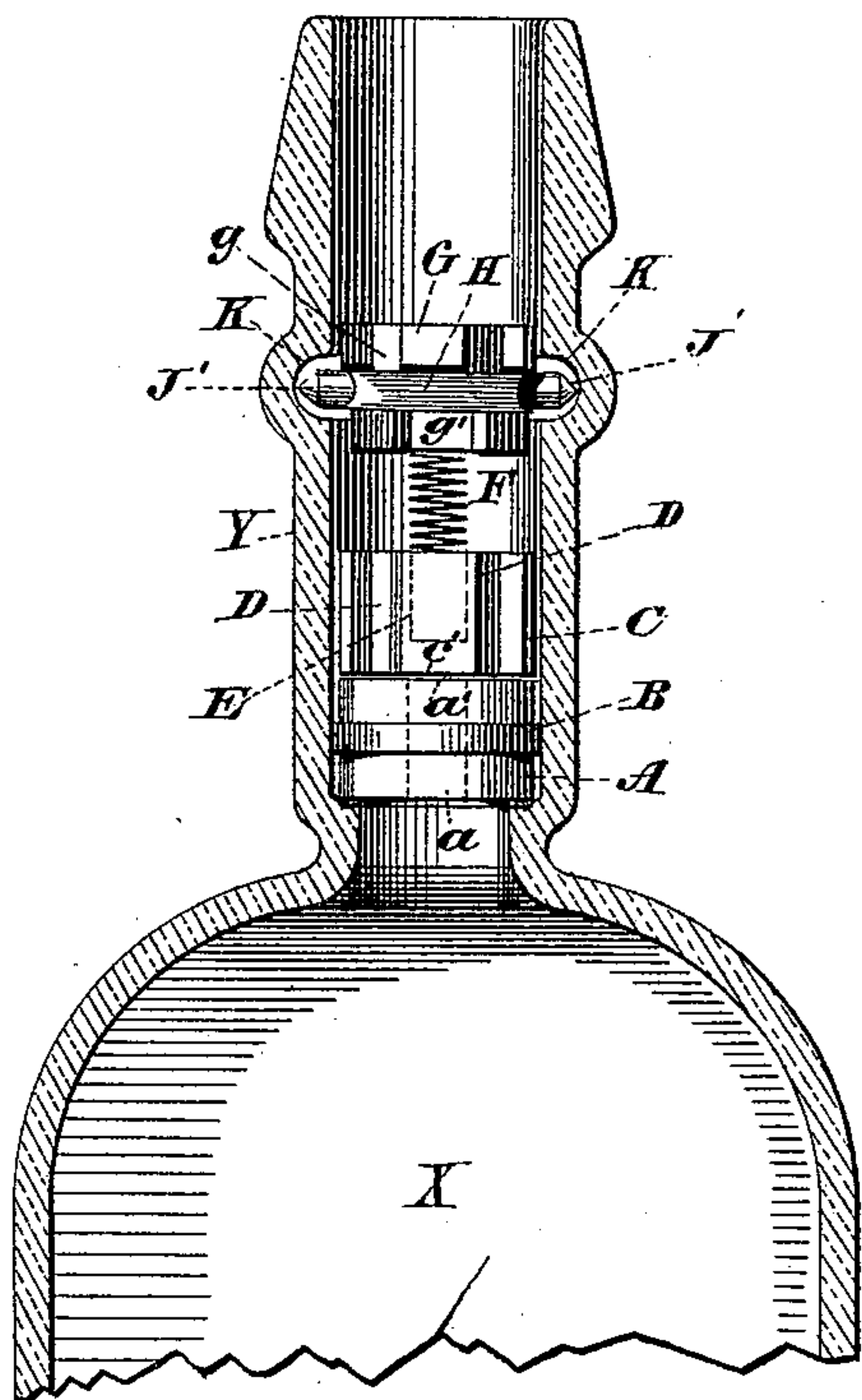


Fig. 2.

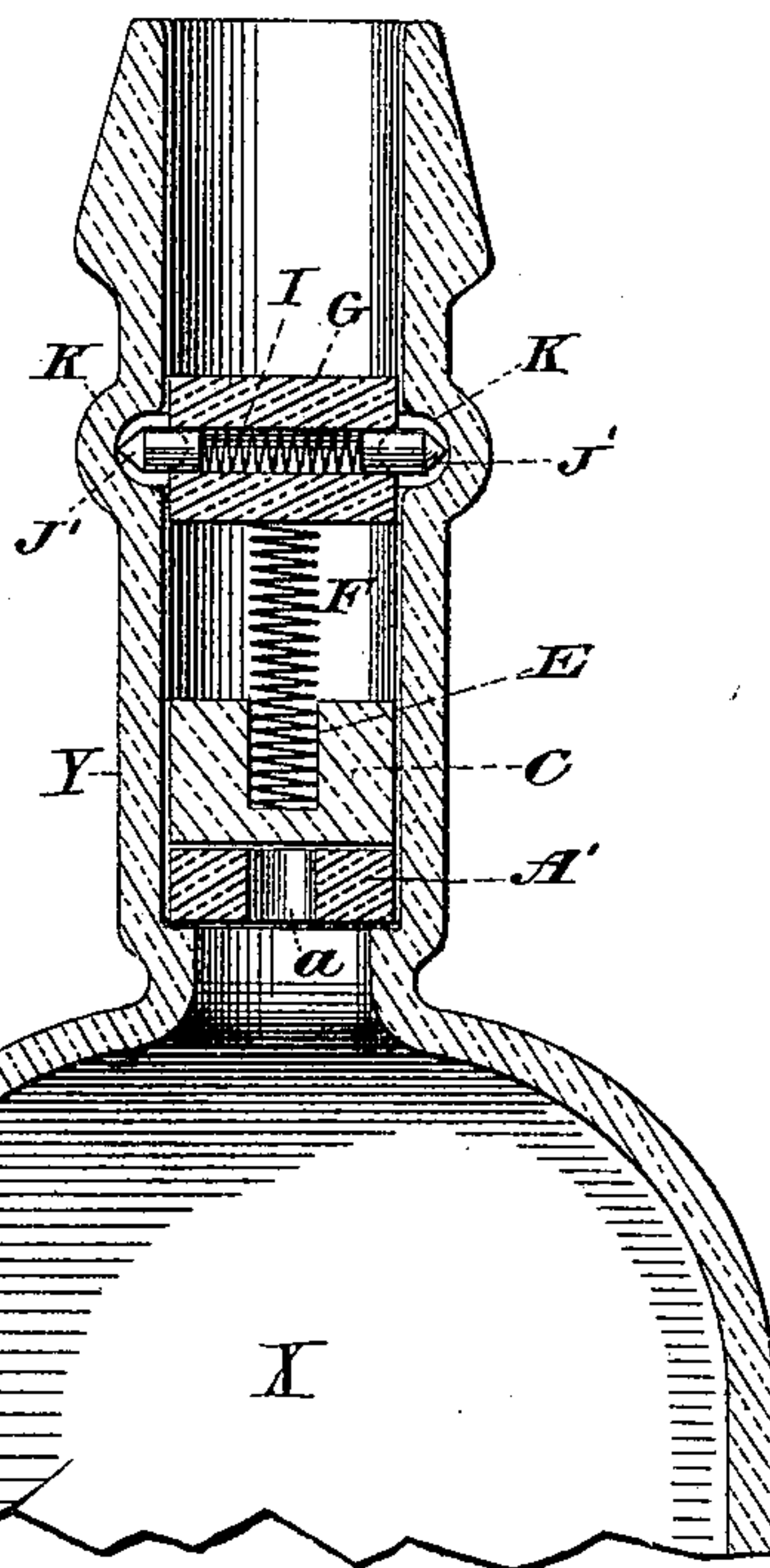


Fig. 3.

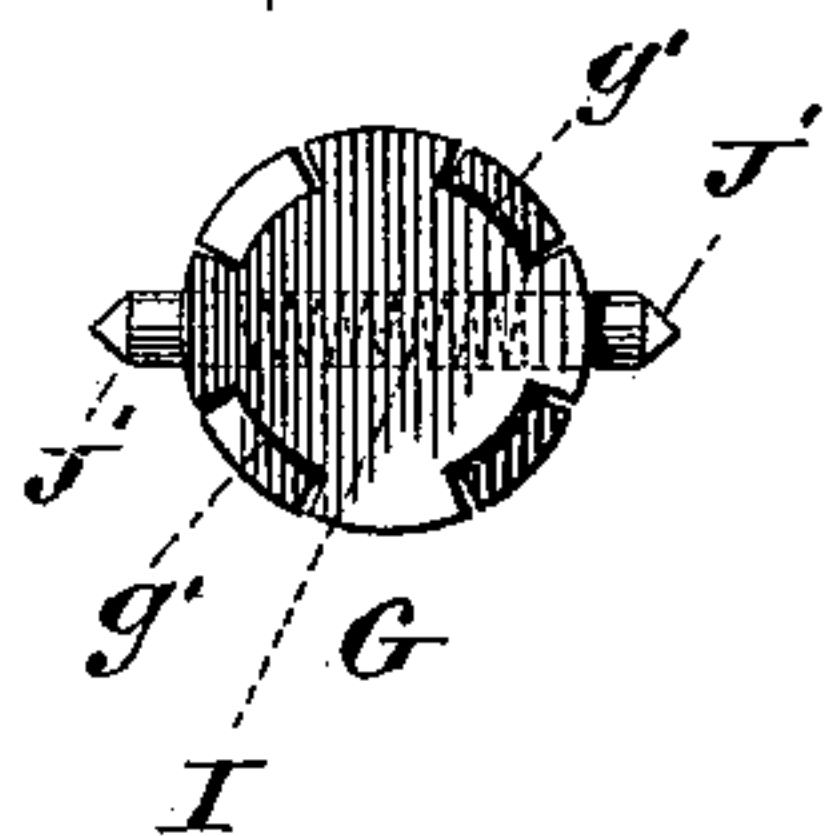


Fig. 5.

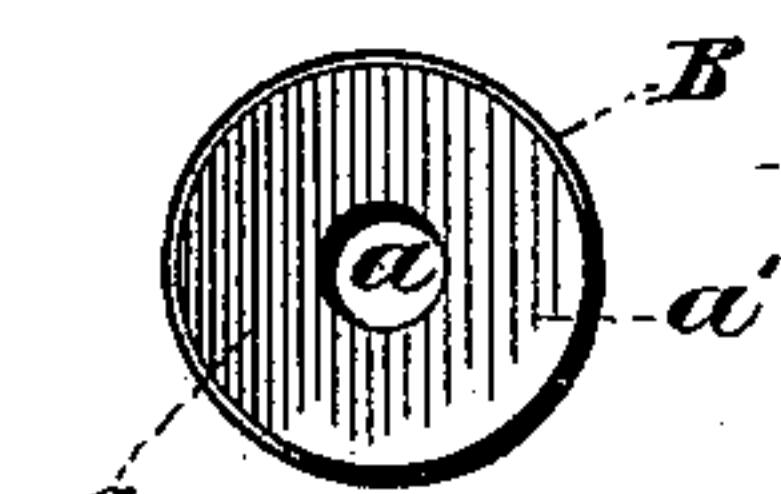


Fig. 4.

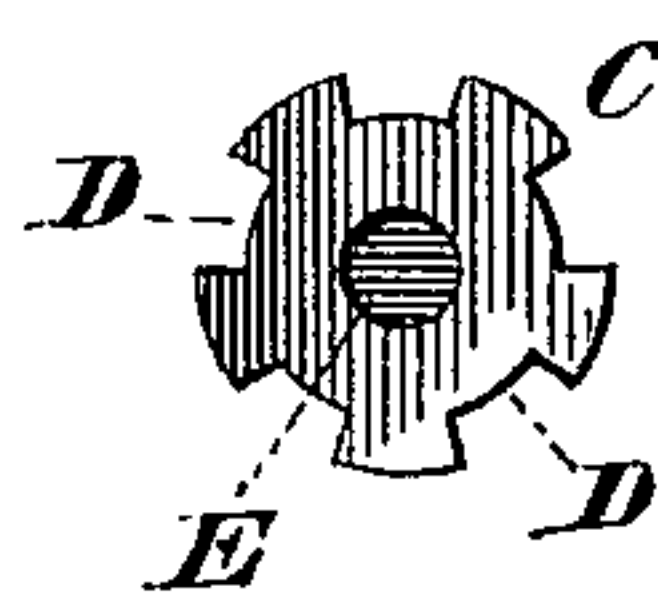
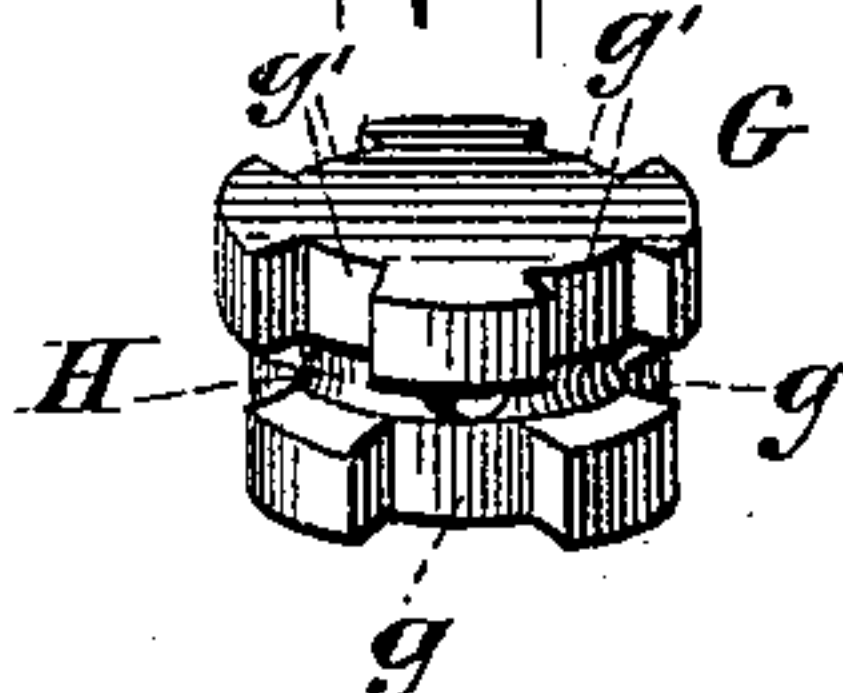


Fig. 6.



WITNESSES:

*Gustave Dietrich.*  
*Edw. Blum.*

INVENTOR

*Luigi Giacomini*

BY *Briesen Knauth*

his ATTORNEYS



# UNITED STATES PATENT OFFICE.

LUIGI GIACOMINI, OF FLORENCE, ITALY, ASSIGNOR TO RICHARD KATZENMAYER, OF NEW YORK, N. Y.; GERONINA KATZENMAYER EXECUTRIX OF SAID RICHARD KATZENMAYER, DECEASED.

## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 619,741, dated February 21, 1899.

Application filed July 21, 1898. Serial No. 686,507. (No model.)

*To all whom it may concern:*

Be it known that I, LUIGI GIACOMINI, residing at Florence, Italy, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a full, clear, and exact description.

My invention relates to non-refillable bottles, and has for its object to produce a bottle which while allowing the contents to be poured out cannot be refilled.

To this end my invention consists in a non-refillable bottle, as hereinafter claimed.

My invention will be understood by referring to the accompanying drawings, in which—

Figure 1 is a sectional elevation of a bottle embodying my invention. Fig. 2 is a sectional elevation of a bottle likewise embodying my invention, showing a slightly-modified construction. Fig. 3 is a plan view of the guard and fastener of the bottle. Fig. 4 is a plan view of the grooved valve. Fig. 5 is a plan view of the seat-plug, and Fig. 6 is an isometric view of the guard shown in Fig. 3.

In the drawings, X represents the upper portion of the bottle, and Y represents the neck thereof. Seated in the neck of the bottle and preferably secured by cement is a seat-plug A, which is shown as apertured axially at *a*. This plug may likewise be provided with a circumferential rubber flange or sleeve B, which, however, may be dispensed with and a simple washer-shaped plug A' (shown in Fig. 2) employed. Located above the plug A is a grooved valve C, which is freely movable in the neck of the bottle and is adapted to be brought against the upper face *a'* of the plug A by the spring F. The upper face *a'* of the plug A and the lower face *c'* of the valve C are ground accurately true, so as to fit together with great exactness, so that when the valve C is pressed against the seat-plug A the aperture *a* of the plug A is securely sealed. The valve C is provided with longitudinal grooves D in its periphery and is recessed at E to receive the thrust of the spring F. This spring F likewise bears against the guard G. This guard G is divided into two parts by a circumferential groove H and is

provided with the grooves *g* in the lower portion thereof and the grooves *g'* in the upper portion thereof. These grooves are located upon opposite sides of the circumferential groove H and are staggered with respect to each other. The bottle-neck Y is provided interiorly with jogs or offsets K for the reception of sliding plugs J', which slide freely in a lateral passage or bore in the guard G, being pressed outwardly by the spring I.

It will be obvious that when the bottle is inverted the liquid will pass through the aperture *a* and press the valve C away from its seat A and permit the liquid to flow out of the bottle through the passages D, *g*, and *g'*. If it be attempted to pour liquid into the bottle, the pressure of the liquid will assist the spring F to firmly seat the valve C upon the plug A, so that while liquid may be poured out of the bottle none may be poured into the bottle, and consequently the bottle will be non-refillable.

What I claim, and desire to secure by Letters Patent, is—

In a bottle, the combination with the neck provided with jogs or recesses intermediate its ends, of the apertured seat-plug A, seated within the said neck, the sliding valve C located above the seat-plug A and provided with the longitudinal peripheral grooves or channels D and recessed at the top and also contained within the neck of the bottle, a spring F for seating the said valve C upon the seat-plug A entering the recess in the top of the valve, a guard G provided with the staggered peripheral recesses *g g'* with the intervening groove H, the lateral passage or bore and with spring-impelled plugs J' therein, the said guard G receiving the thrust of the spring F which is seated in the valve C and serves to seat the said valve C on the seat-plug A, whereby liquid may be poured out of the said bottle and the valve C cooperating with its seat-plug A will prevent the entry of liquid into the said bottle.

LUIGI GIACOMINI.

Witnesses:

H. O'NEIL,

ZENNINO GIACOMINI OTTARIA.