

No. 891,319.

PATENTED JUNE 23, 1908.

W. WINTERS.
NON-REFILLABLE BOTTLE.
APPLICATION FILED OCT. 12, 1907.

Fig. 1.

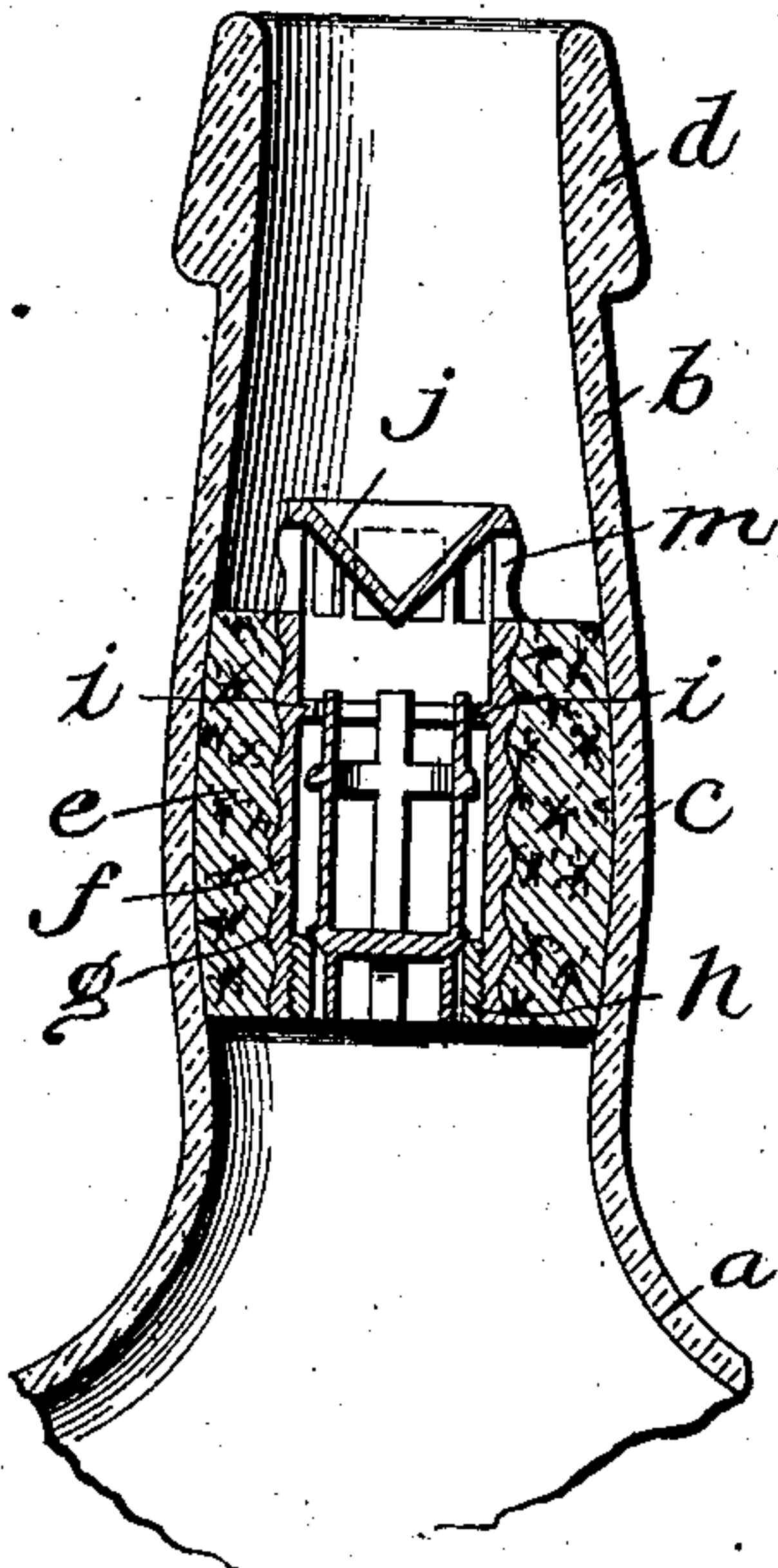


Fig. 2.

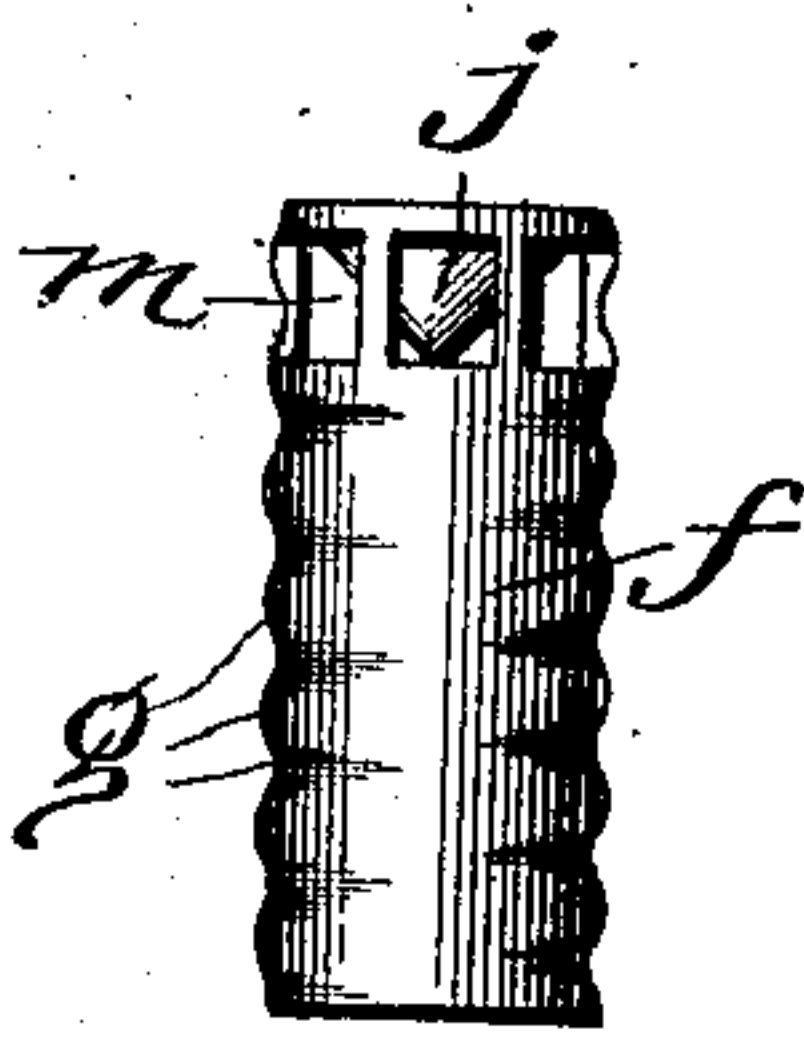


Fig. 3.

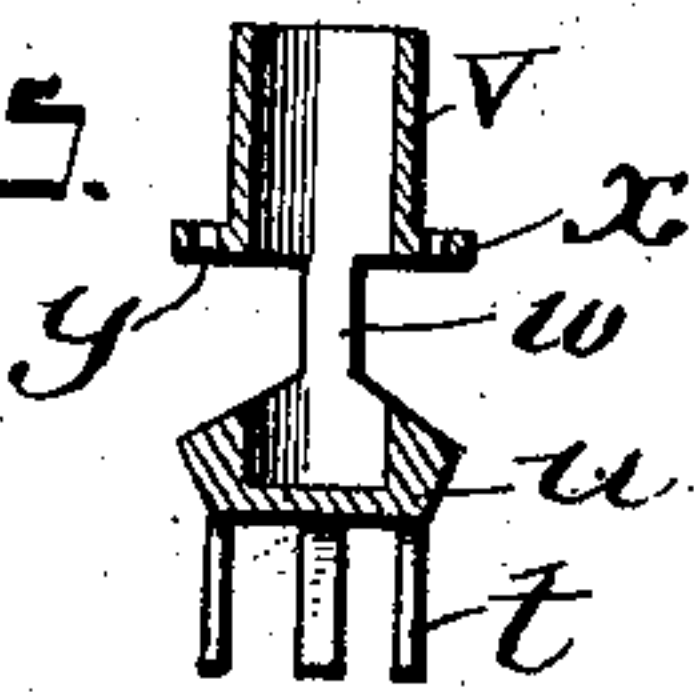


Fig. 4.

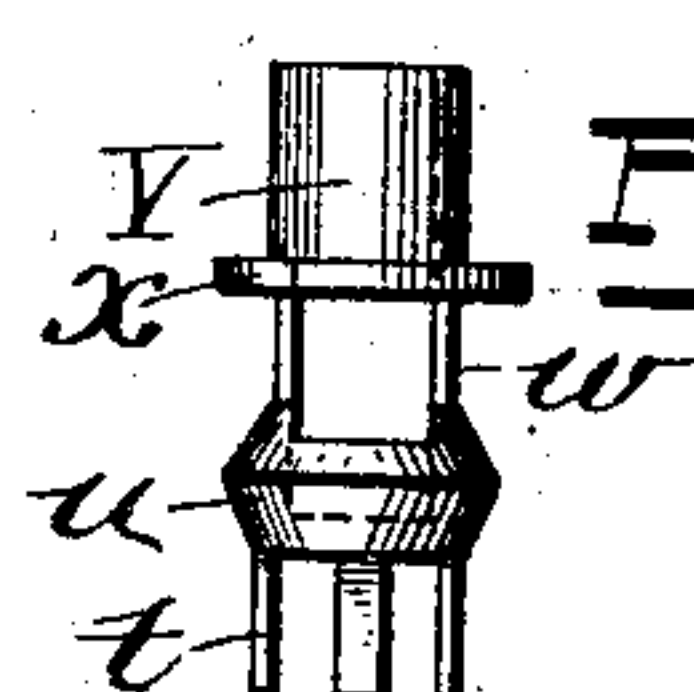


Fig. 5.

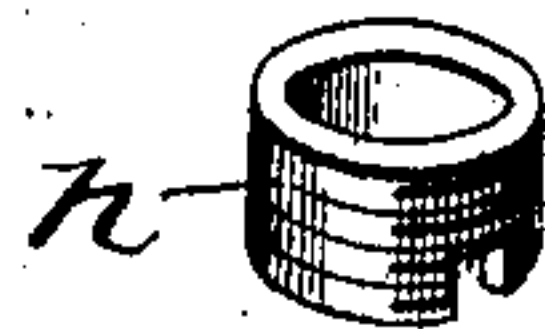
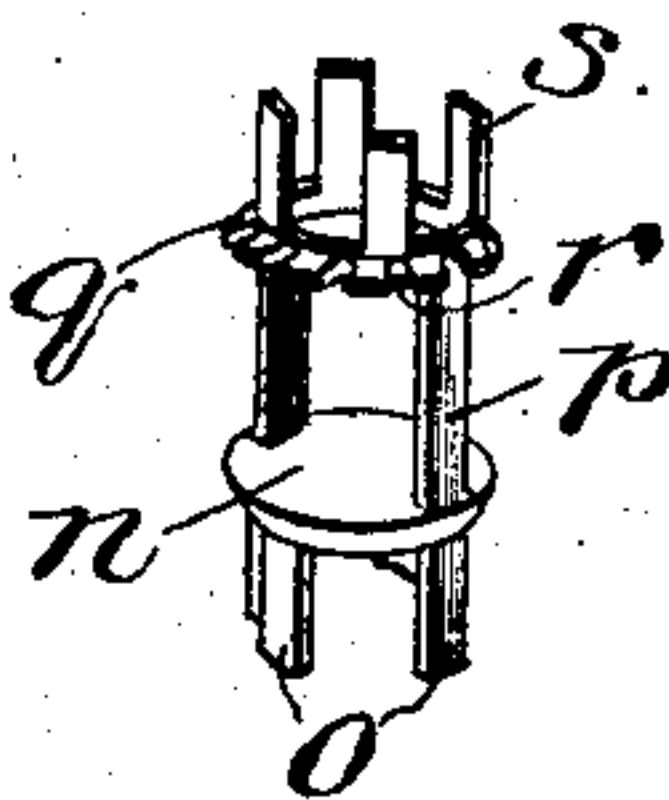


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

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NON-REFILLABLE BOTTLE.

No. 891,319.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed October 12, 1907. Serial No. 397,203.

To all whom it may concern:

Be it known that I, WILLIAM WINTERS, a citizen of the United States, residing at Grand Island, in the county of Hall and State of Nebraska, have invented certain new and useful Improvements in Non-Refillable Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in non-refillable bottles, the object being to provide a simple economical and novel construction, whereby the liquid may be poured out, and which will prevent the refilling of the bottle.

With this object in view, my invention consists in the construction and combination of parts as hereinafter described and claimed.

In the accompanying drawings—Figure 1 is a cross section of the top of a bottle showing my improved stopping means applied thereto. Fig. 2 is a side view of the valve casing detached. Fig. 3 is a side view of the valve. Fig. 4 is a side view of the removable valve seat. Fig. 5 is a cross section of a modified form of valve, and Fig. 6 is a side view of said modified form.

a represents the bottle having a neck *b*, which is flared outwardly as shown at *c*, and terminates in the ordinary thickened end *d*, which, when the bottle is shipped, may be closed by an ordinary stopper, not shown. Within the flared portion *c* is located a cork stopper *e* adapted to fit said flared portion, and which has a central aperture within which are located the valve casing and valve.

f represents the valve casing, preferably corrugated on the outside, as shown at *g*, so that it will be firmly retained within the cork *e*. This valve casing is entirely open at the bottom, and is provided with a screw thread at its lower end, with which the screw-threaded hollow valve seat *h* is adapted to engage. The valve casing is provided with an internal valve stop *i*, and with a conical top *j*, holes *m* being provided for the escape of the liquid when the bottle is inverted.

The valve is shown in Figs. 3, 5 and 6. As shown in Fig. 3 it consists of a disk *n* having

a beveled edge, and terminating in guides *o*. Connected to the disk *n* are the upright guide pieces *p*, which connect with an upper ring *q*, provided with orifices *r* through which the liquid can escape when the bottle is being drained. Above the ring *q*, a plurality of guide pieces *s* are provided. The valve shown in Figs. 5 and 6 is of similar construction, and is provided with guides *t*, a valve face *u*, a discharge tube *v* connected to the valve by uprights *w*, and a retaining ring *x* provided with draining perforations *y*.

The valve and valve casing are preferably made of hard rubber, making a cheap and convenient device, but, of course, they may be made of metal, if desired.

In assembling the parts the valve is first placed in the valve casing, and the valve seat *h* screwed home with a screw driver. The valve casing is then put into the cork *e*, the whole forced by any ordinary pusher into the neck of the bottle, and when it reaches the enlarged portion *c* of the neck of the bottle, the cork expands, holding the whole firmly in the bottle, so that it cannot be removed without breaking the bottle, or breaking the stopping device.

Having thus described my invention, I claim:—

1. The combination of a bottle provided with an enlargement, an annular cork adapted to fit in said enlargement, and a valve casing provided with a valve firmly seated in said annular cork, said valve casing being provided with a depressed conical head and outlet openings near its top, substantially as described.

2. The combination of a bottle provided with an enlargement in its neck, an annular cork adapted to fit therein, a hollow valve casing provided with a closed head and with openings near its top, said casing fitting tightly in said cork and being provided with internal valve seats, and a sliding valve provided with guiding projections, substantially as described.

3. A stopper for bottles comprising an annular cork, a hollow valve casing fitting in said cork and provided with a closed inversely conical top with discharge openings near said top, and with valve seats and a

valve provided with guiding projections adapted to slide in said valve casing, substantially as described.

4. A stopper for bottles comprising an annular cork, a valve casing roughened on the outside tightly fitting in said cork, said valve casing being hollow and provided with an inversely conical top, with discharge openings near its top and with valve seats, and a disk

valve provided with guiding projections, and a stop mounted in said valve casing, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

WILLIAM WINTERS.

Witnesses:

R. E. RIBY,

ARTHUR DENNEY.