

No. 607,923.

Patented July 26, 1898.

A. FAIRHURST.  
NON-REFILLABLE BOTTLE.

(Application filed Dec. 31, 1897.)

(No Model.)

Fig - 1 -

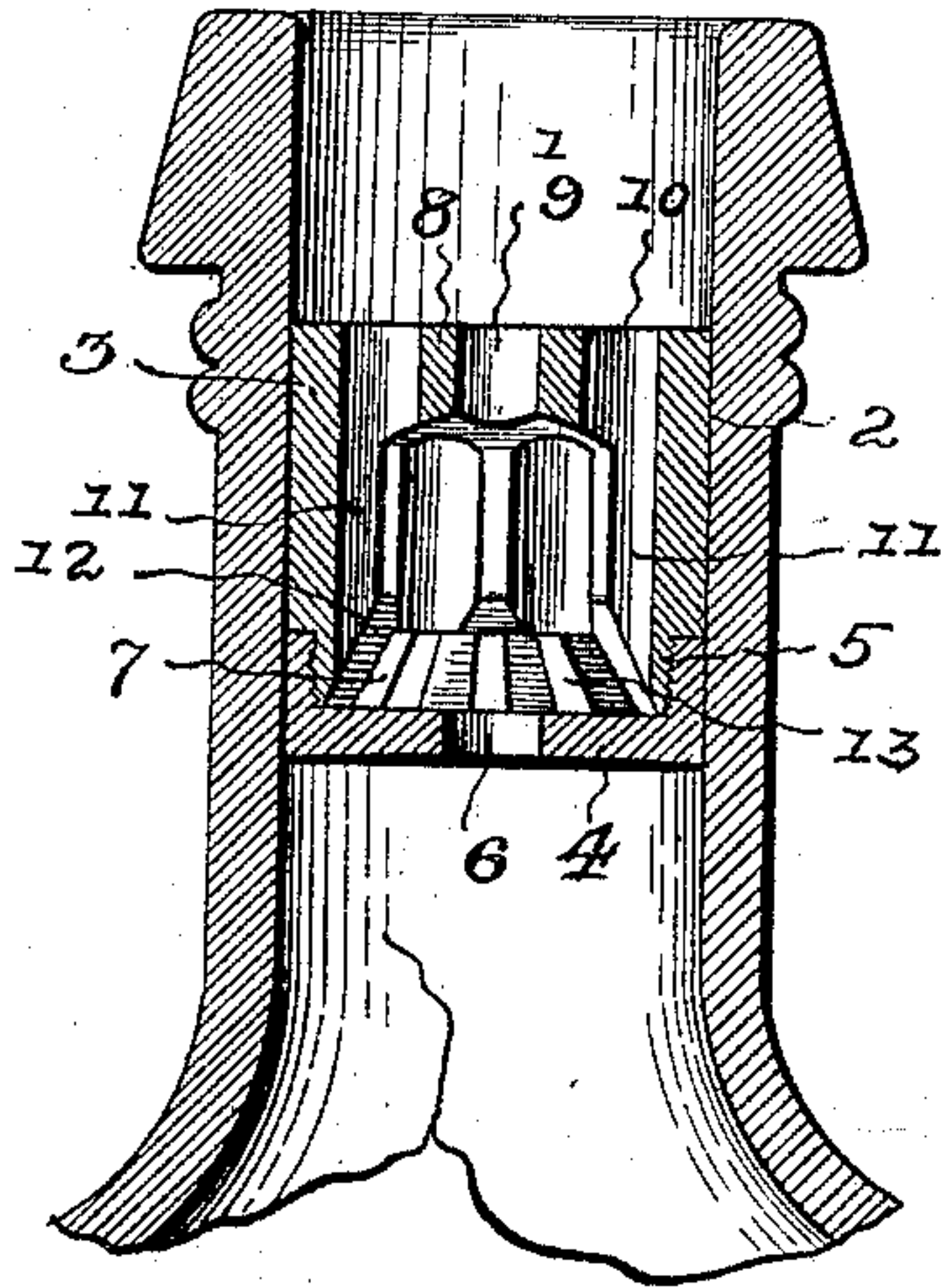


Fig - 2 -

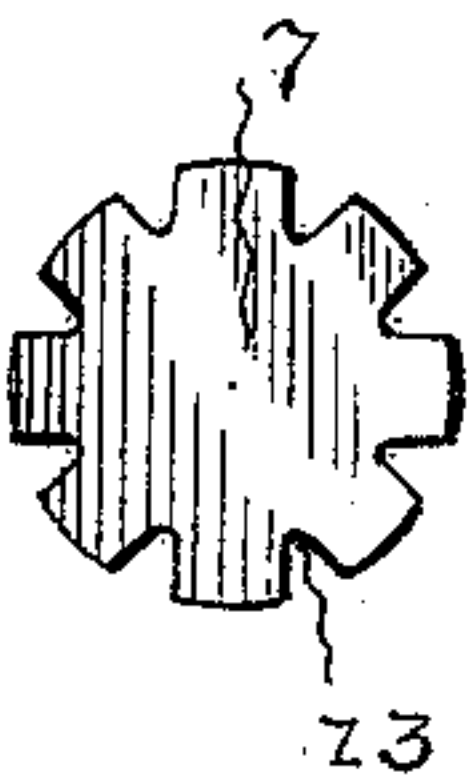


Fig - 3 -

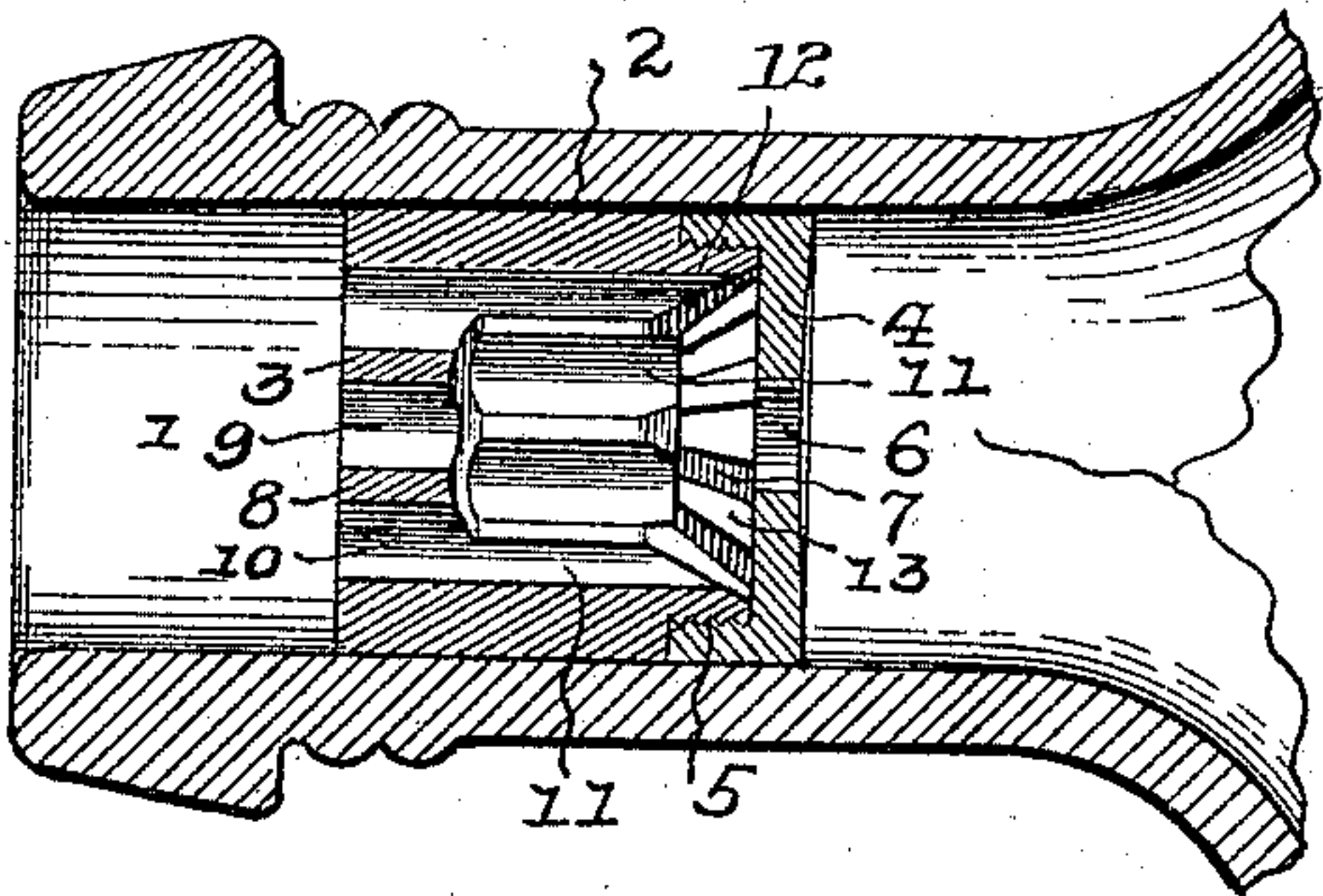


Fig - 7 -

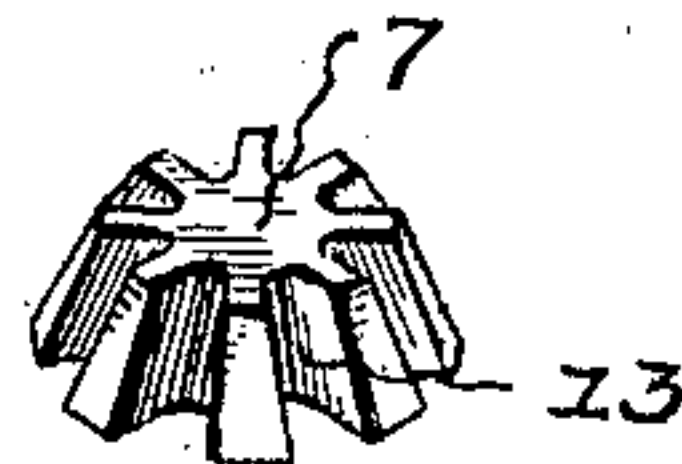


Fig - 3 -

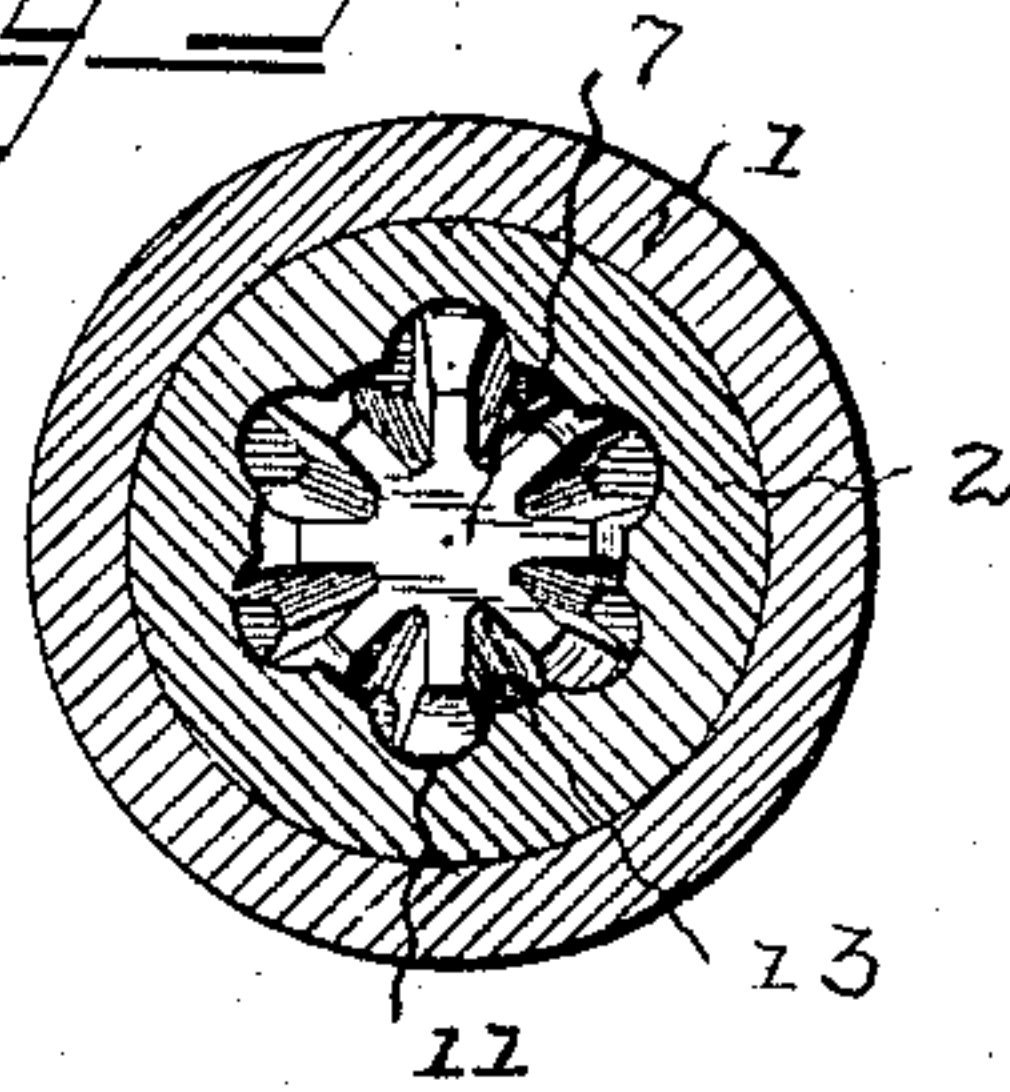


Fig - 5 -

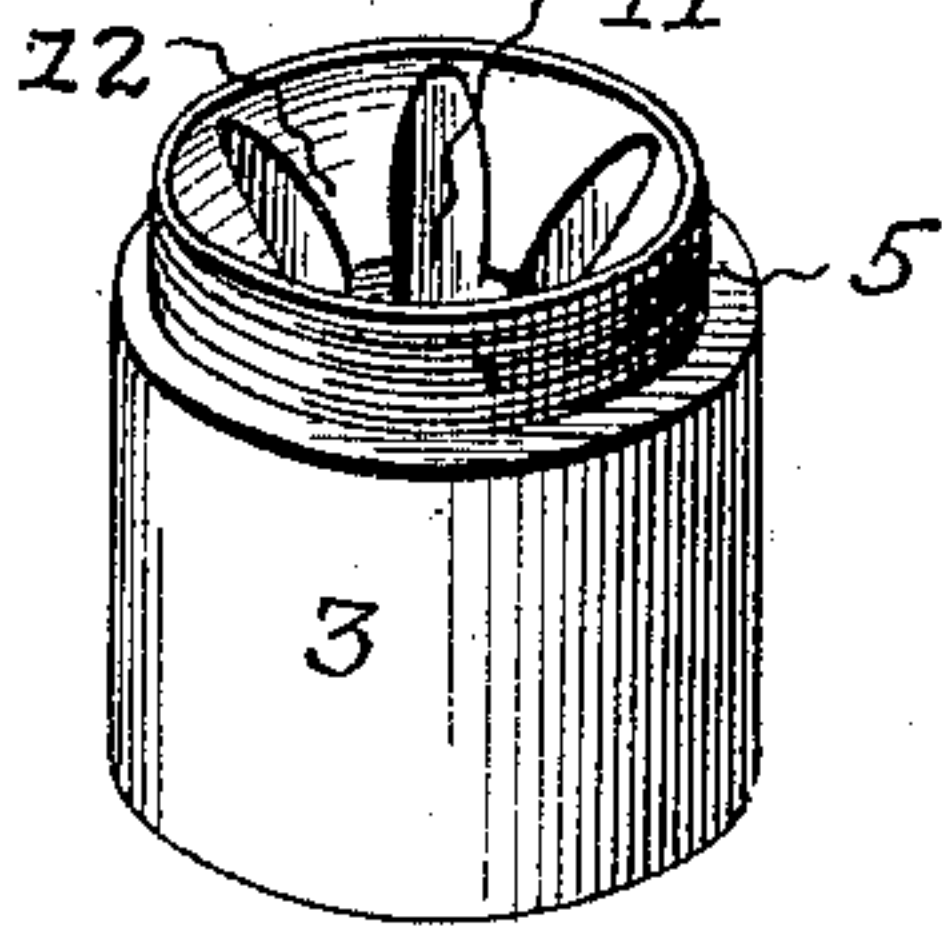


Fig - 4 -

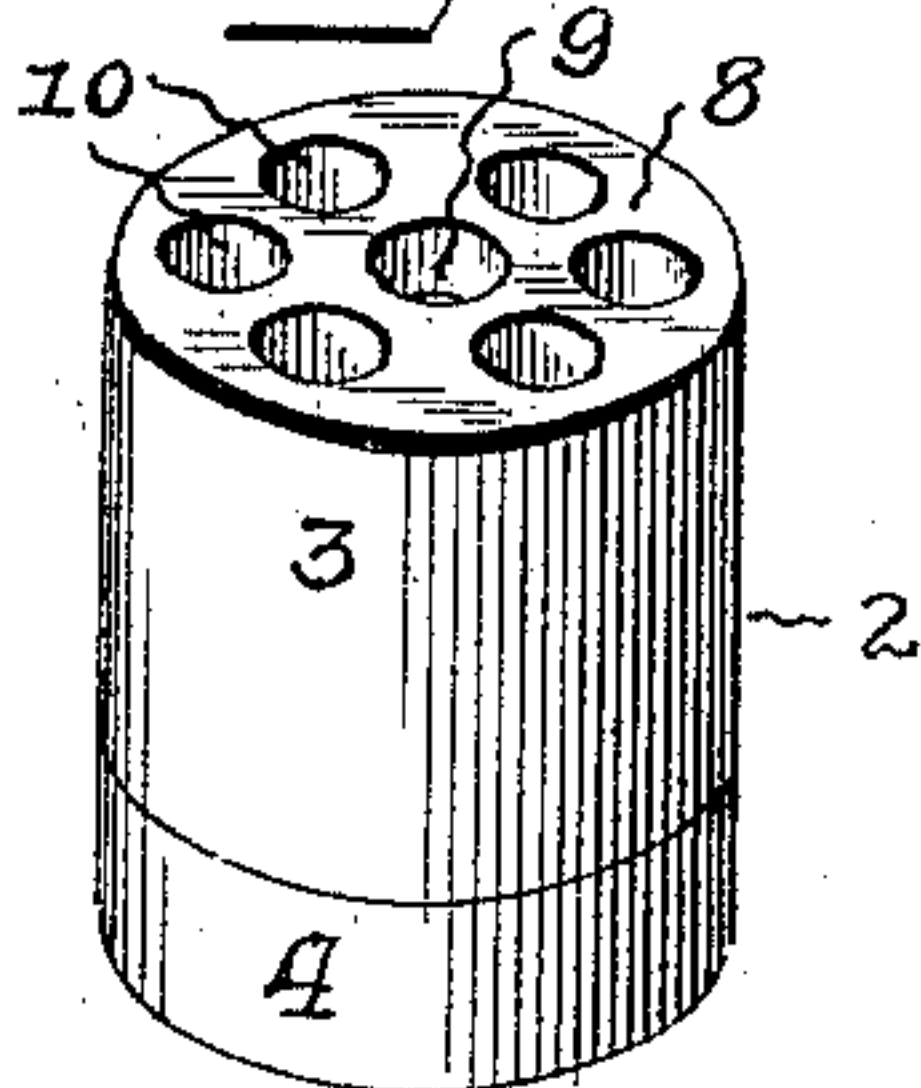
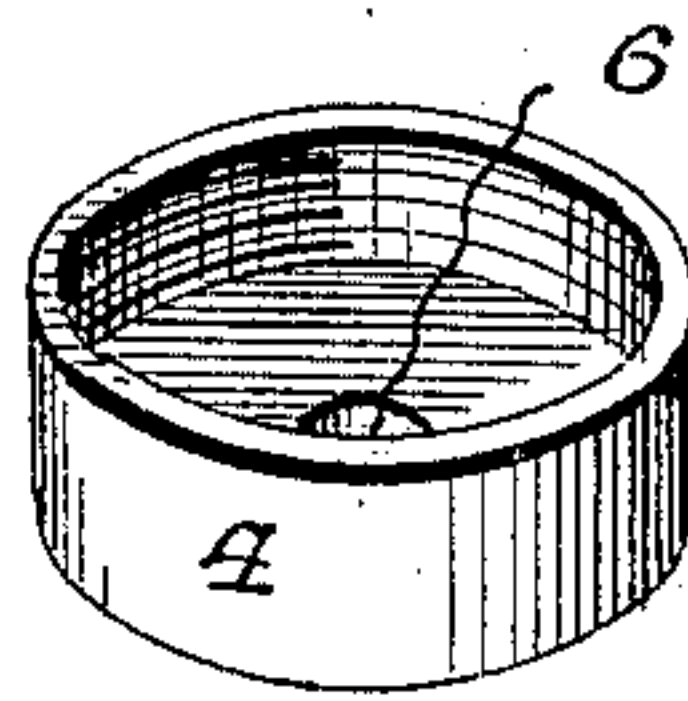


Fig - 6 -



Witnesses

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# UNITED STATES PATENT OFFICE.

ALFRED FAIRHURST, OF LEXINGTON, KENTUCKY.

## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 607,923, dated July 26, 1898.

Application filed December 31, 1897. Serial No. 665,026. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED FAIRHURST, a citizen of the United States, residing at Lexington, in the county of Fayette and State of Kentucky, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

The invention relates to improvements in non-refillable bottles.

The object of the present invention is to improve the construction of non-refillable bottles and to provide a simple, inexpensive, and efficient device adapted to be readily applied to the neck of a bottle or analogous receptacle and capable, after the same has received its original contents, of preventing a liquid from being introduced in such receptacle, thereby preventing fraudulent refilling with an imitation liquid.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a vertical sectional view of a portion of a bottle provided with a device constructed in accordance with this invention. Fig. 2 is a similar view, the bottle being arranged in a horizontal position.

Fig. 3 is a horizontal sectional view. Fig. 4 is a detail perspective view of the valve-casing complete. Figs. 5 and 6 are detail views of the sections of the valve-casing. Fig. 7 is a detail view of the valve. Fig. 8 is a reverse plan view of the valve-disk.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates the neck of a bottle, receiving a hollow cylindrical valve-casing 2, having an interior chamber and composed of upper and lower sections 3 and 4, constructed of glass and secured within the neck of the bottle by any suitable means, such as cement or by fusing the parts by means of a blowpipe. The sections 3 and 4 are secured together preparatory to introducing the device into the neck of a bottle, the lower end of the upper section 3 being reduced and exteriorly threaded at 5 to receive the lower section, which is interiorly threaded. The lower section is provided with a central opening 6 for

the passage of the contents of the bottle, and it forms a valve-seat and receives a truncated conical valve 7, which normally rests upon the lower section or bottom of the casing to close the valve-opening.

The upper section 3 is provided at its top 8 with a central perforation 9 and an annular series of perforations 10, which are located at the upper ends of and merging into an annular series of grooves 11, extending downward from the top of the casing to the lower portion of the upper section. The lower portion of the upper section is provided with upwardly-converging walls forming a conical cavity 12 for the reception of the conical valve 7, and the latter is provided with a series of grooves or gutters 13, which form passages for the contents of the bottle when the latter is inverted below a horizontal position. The walls of the conical cavity cause the valve to lie against the bottom of the casing and close the valve-opening when the bottle is in a horizontal position or at any point between the same and a vertical position, so that a liquid cannot be forced into the bottle when the same is in such a position, and if the said bottle be placed horizontally within a vessel containing a liquid none of the contents of the vessel will enter the bottle.

When the bottle is inverted below a horizontal position, its contents may be readily decanted, the lowermost grooves of the valve forming passages for the liquid and the upper grooves serving as vents to permit the contents of the bottle to flow freely.

The invention has the following advantages: The device is exceedingly simple and inexpensive in construction, it is adapted to be readily arranged within the neck of a bottle or analogous receptacle, and it is adapted to prevent a liquid from being introduced into a receptacle after the same has received its original contents.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention, such as varying the means employed for connecting the sections of the valve-casing.

What I claim is—

1. A device of the class described, comprising a hollow casing designed to be arranged



in the neck of a bottle or analogous receptacle and provided between its top and bottom with an interior chamber having a conical lower portion, the bottom of the casing having a valve-opening and the top of the casing being provided with a series of perforations, said casing being provided with grooves formed in the walls of the conical portion of the chamber and extending upward therefrom to the perforations and merging into the same, and a valve arranged in the casing, substantially as described.

2. A device of the class described, comprising a hollow cylindrical casing provided between its top and bottom with an interior chamber having a conical lower portion, the bottom of the casing having a valve-opening

and the top of the casing being provided with an annular series of perforations, said casing being provided with grooves formed in the walls of the chamber and extending downward from the perforations to the conical portion of the chamber and terminating near the bottom thereof, and a conical valve provided at its sides with grooves extending from the bottom to the top, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALFRED FAIRHURST.

Witnesses:

VIRGIL MCCLURE,  
CLARENCE EGBERT.