

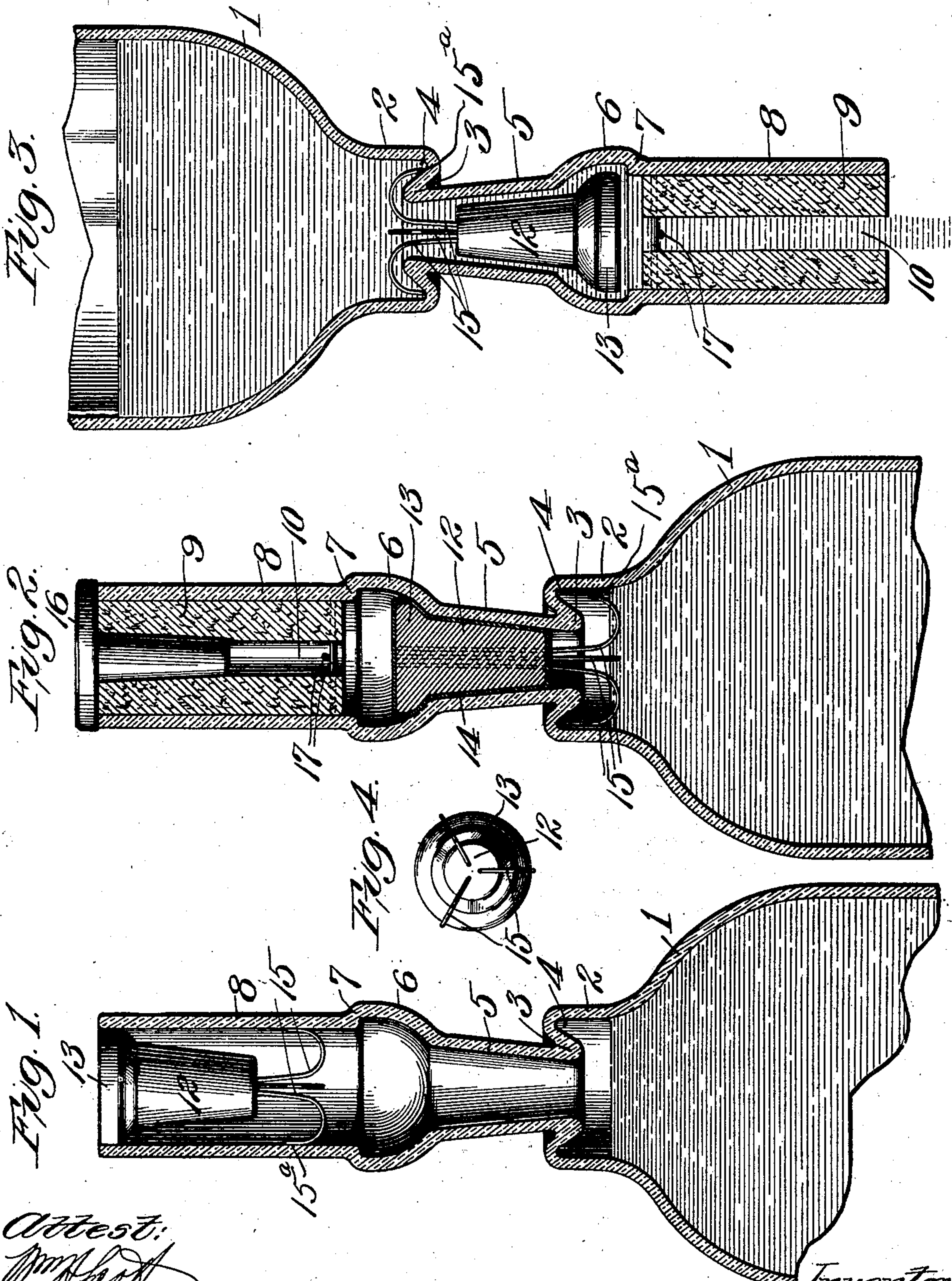
No. 880,787.

PATENTED MAR. 3, 1908.

E. GIBSON.

NON-REFILLABLE BOTTLE.

APPLICATION FILED JUNE 15, 1907.



Attest:
[Signature]
Attest.

Inventor:
Elizabeth Gibson,
by J. D. Rippey, Atty.

UNITED STATES PATENT OFFICE.

ELIZABETH GIBSON, OF DALLAS, TEXAS.

NON-REFILLABLE BOTTLE.

No. 880,787.

Specification of Letters Patent.

Patented March 3, 1908.

Application filed June 15, 1907. Serial No. 379,264.

To all whom it may concern:

Be it known that I, ELIZABETH GIBSON, a citizen of the United States, residing at Dallas, Texas, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

This invention relates to bottles of the class in which liquid contents may be poured out, but which are provided with gravity operated valves which operate automatically to close the necks of the bottles when turned or inclined to position that would cause liquid to flow into the bottle from outside sources of supply.

The object of the invention is to produce a bottle of the character referred to, which shall consist of a minimum number of parts, comprising, essentially, a neck or orifice in connection with the bottle provided with a valve seat in the form of an enlargement in the neck, and a valve resting within the valve seat and in a narrower tapering portion of the neck extending from the valve seat to the bottle, in combination with hooks attached to the valve and engaging within an annular groove in the bottle adjacent to the neck and allowing the valve the "play" required to permit egress of the liquid but prohibiting removal of the valve; said valve being arranged to slide back into position to close the neck of the bottle when the latter is tilted to position necessary to cause flow of liquid into the bottle.

Other objects will appear from the following description, reference being made to the accompanying drawings, in which:

Figure 1 is a vertical sectional view of a bottle neck embodying my invention, the valve being shown in the end of the neck prior to being forced to its final position. Fig. 2 is a corresponding sectional view with the valve seated in rest or closed position, and the external end of the neck closed by a stopper to prevent tampering with the valve. Fig. 3 is an inverted sectional view showing the valve in position to permit egress of the liquid. Fig. 4 is an inner end view of the valve removed from the bottle.

The bottle 1 is provided with a narrow neck supporting portion 2 which turns obliquely inward and downward, as indicated at 3, forming an annular groove 4. From the inner lower edge of the portion 3 the bottle neck extends outward in the form of a tapering extension 5, large end outward, which enlarges into a substantially semi-globular por-

tion 6. An inwardly extending off-set 7 is at the outer side of the semi-globular portion 6, and thence the neck portion 8 of the bottle extends, the same being, preferably, of uniform diameter throughout. In the outer end of the neck 8, after the bottle has been filled, a stopper 9 is fastened in any suitable manner, said stopper extending from the end of the bottle neck to a point near the off-set 7.

A small hole or bore 10 is formed axially through the stopper 9, and near the inner end thereof are two or more crossed pins or wires 11 constituting a netting to prevent the insertion of an instrument, and to prevent "play" of any inserted instrument as would be necessary in order to engage with and hold up the valve now to be described. The said valve consists of a heavy tapering body 12 in the form of an inverted truncated cone, arranged to rest within the tapering portion 5 of the bottle neck when the bottle is in upright position (Fig. 2.). An annular enlargement 13 is on the outer end of the valve body 12, said enlargement being within the semi-globular portion 6 and preventing the insertion of any instrument alongside of the body 12. The valve body, including the enlarged end 13 thereof, is entirely covered with some yielding material 14, such as rubber (Fig. 2.) which enables the valve to conform to any irregularities in the bottle neck to form an hermetic closure. This material on the outer end of the valve particularly is very thin so that no hook can be engaged therein to hold or draw out the valve as would be necessary in order to refill the bottle. A series of wire arms 15 extend from the inner end of the valve body and are formed with outwardly arched hooks 15^a on their inner ends said hooks extending beyond the inner edge of the portion 3 of the bottle neck and into the annular groove 4, thereby preventing withdrawal of the valve. These hooks are of such length that the valve is allowed slight outward movement or "play" when the bottle is inverted, so that an annular space is formed around the valve permitting flow of the liquid. Whenever the body of the bottle is lowered below the neck portion, the valve body slides to closed position preventing the refilling of the bottle. An auxiliary stopper 16 may be utilized to close the orifice through the stopper body 9. I am aware that there may be alterations and variations from the specific construction

set forth without departing from the spirit and scope of my invention. Therefore, I do not restrict myself to specific details, but

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

1. A bottle of the character described comprising a neck portion, a valve movably seated therein, and a series of hooks on said movable valve engaging within the bottle, substantially as specified.

2. A bottle comprising a neck portion having an enlargement thereon, a movable valve in the neck portion and extending into the enlargement, and a series of hooks extending from said valve into the body of the bottle.

3. A bottle comprising a neck portion tapering at its inner end and provided with an enlargement above said tapering portion, a movable valve seated in said tapering portion and in said enlargement, and a series of hooks on said valve engaged inside the bottle, substantially as specified.

4. A bottle comprising a neck having a tapering portion at its lower end and a semi-globular enlargement above said tapering portion, in combination with a valve body located in the tapering portion of the neck, an enlarged portion on said valve body within the semi-globular enlargement in the neck,

and a series of hooks on said valve body extending into the body of the bottle to prevent extraction of the valve, substantially as specified.

5. A bottle comprising a body having an internal annular groove at its upper end, a neck portion extending above said groove, a valve movably located in said neck portion, and a series of hooks on said valve engaging in the said annular groove, as and for the purpose specified.

6. A bottle comprising a body having an internal annular groove at its upper end, a tapering neck portion rising above said groove, a semi-globular enlargement above said tapering portion, a tubular neck portion above said enlargement, a valve located in said tapering portion and enlargement, hooks extending from said valve into the said annular groove, and a stopper closing the tubular neck portion, substantially as specified.

In testimony whereof, I hereunto affix my signature to this specification this 29th day of May, 1907, in the presence of two witnesses.

ELIZABETH GIBSON. [L. s.]

Witnesses:

J. D. RIPPEY,

E. E. RUDOLPH.