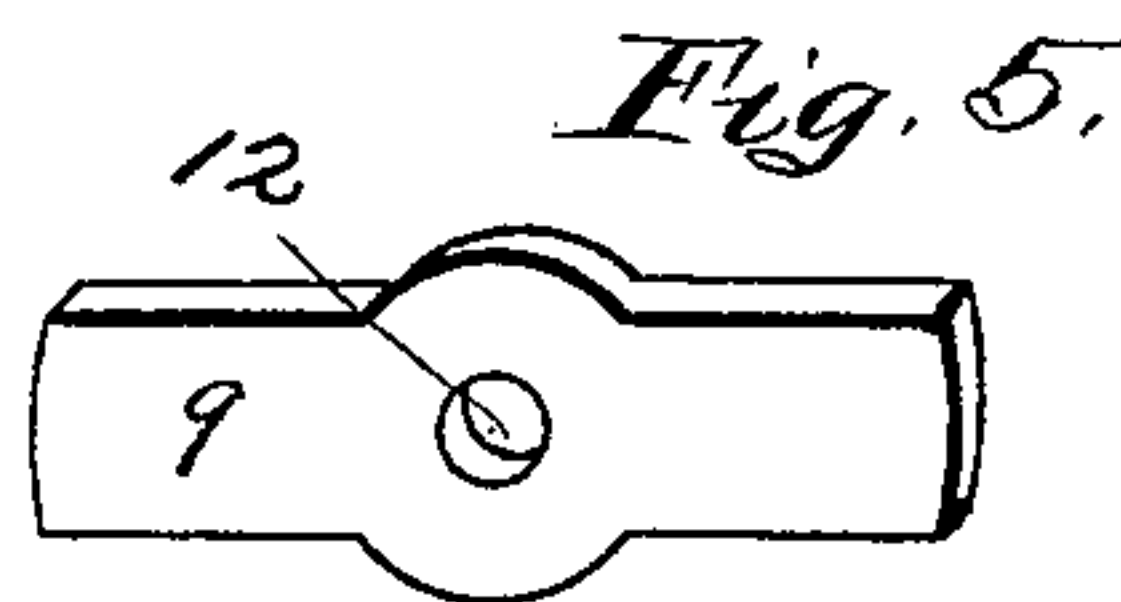
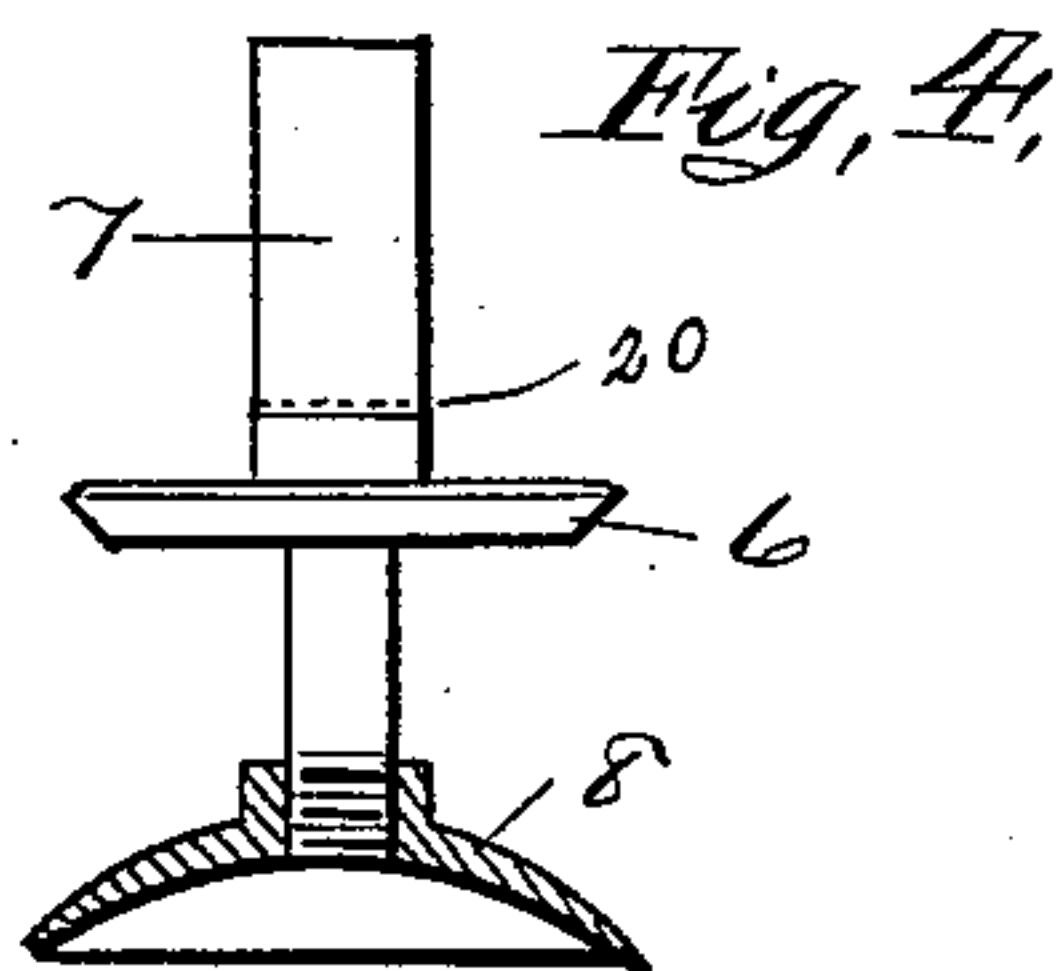
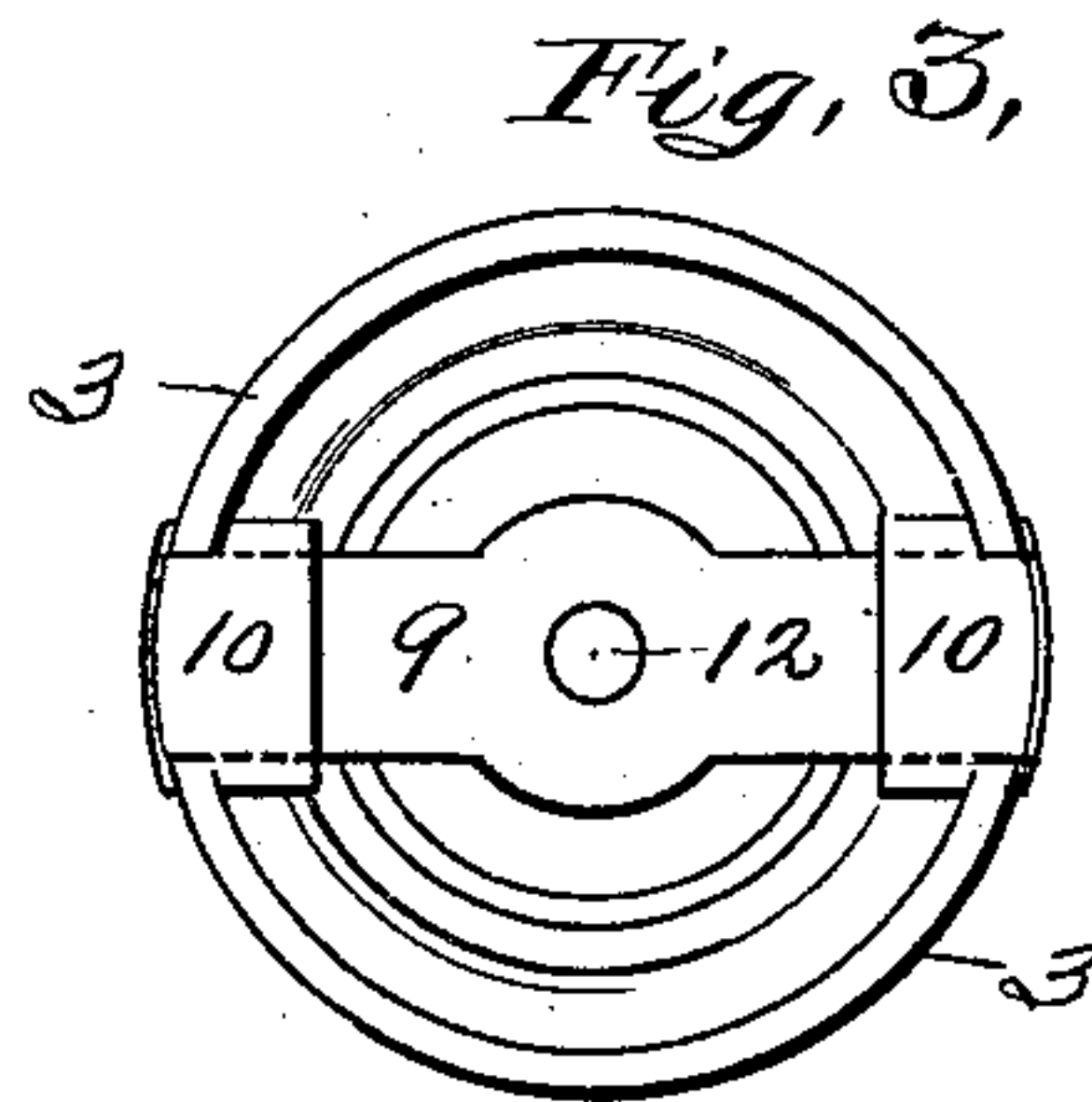
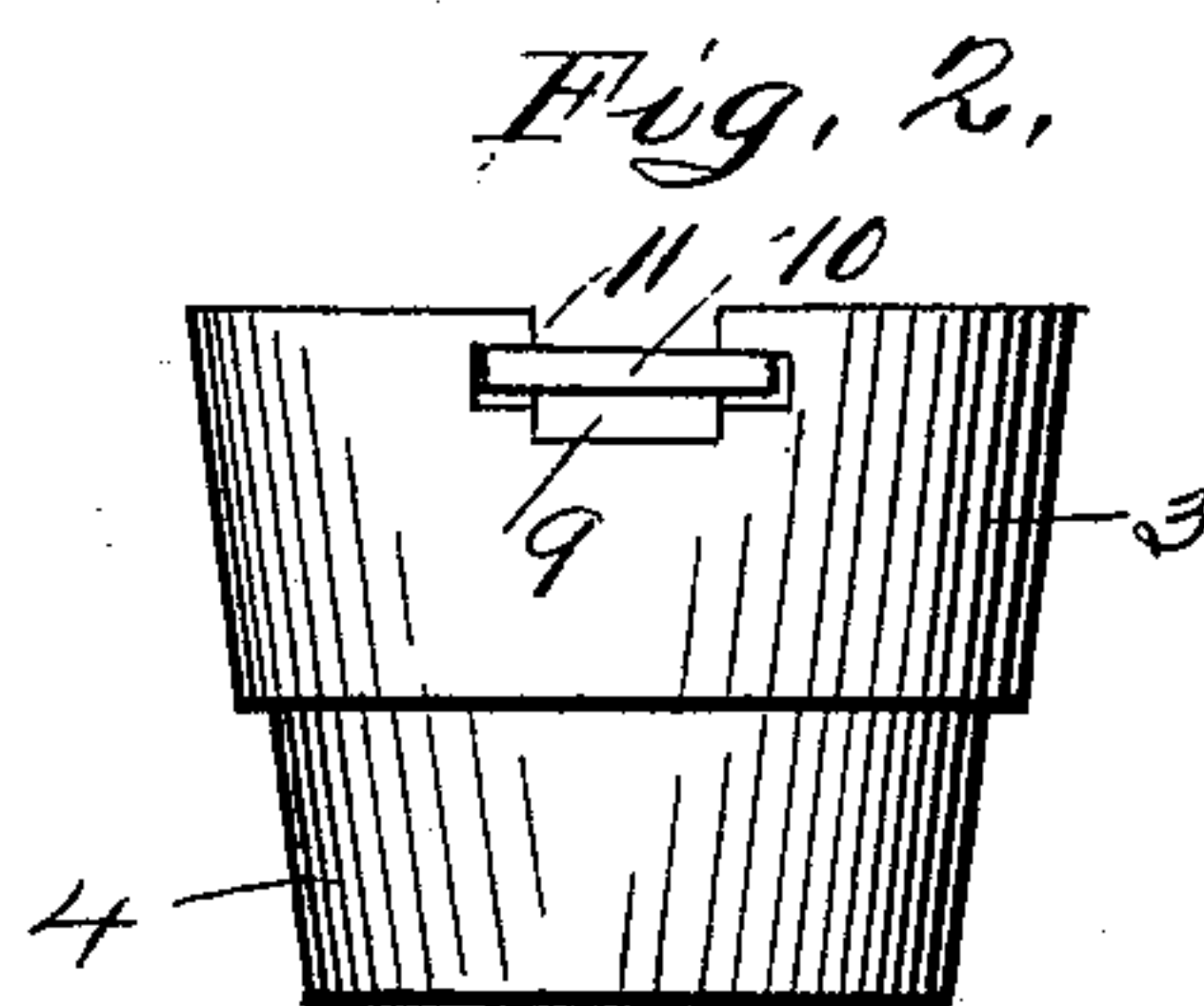
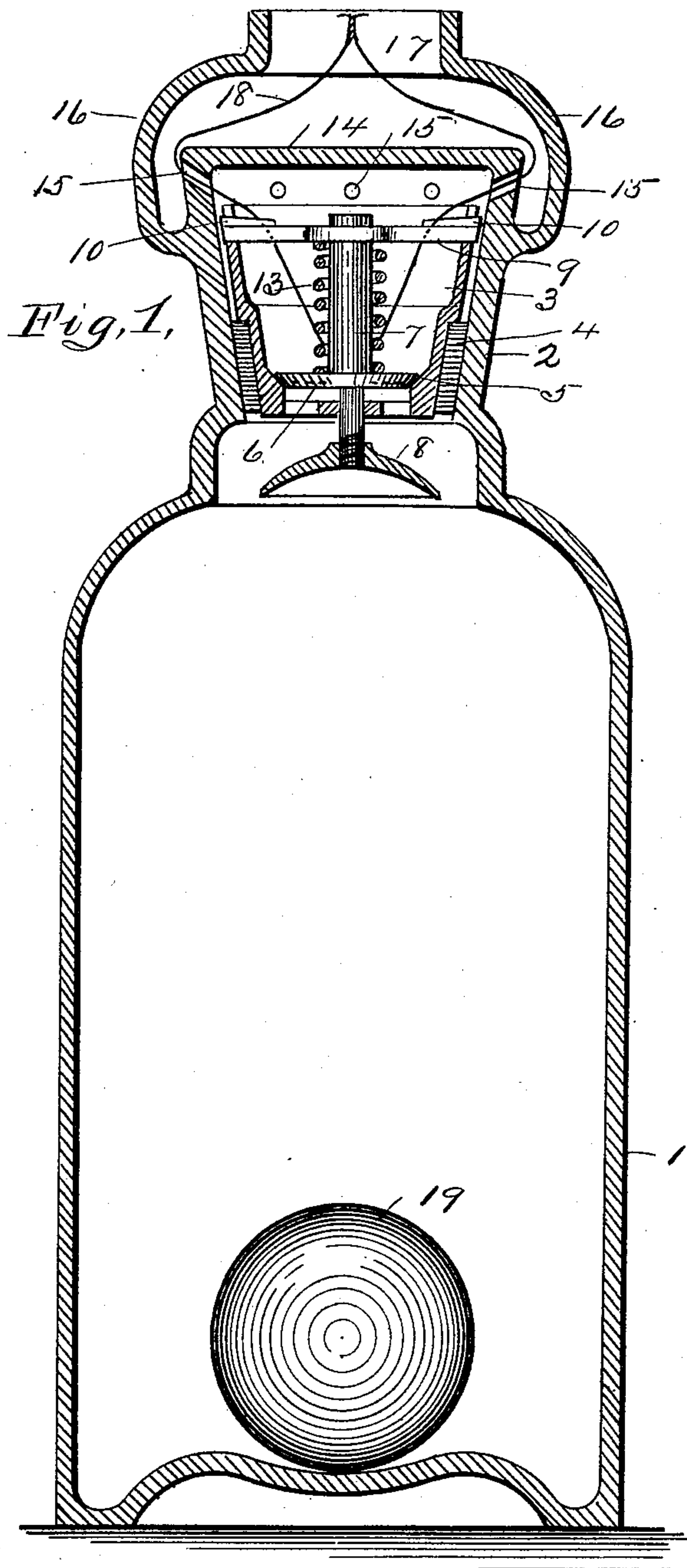


(No Model.)

G. W. MASON.
BOTTLE STOPPER.

No. 605,966.

Patented June 21, 1898.



Witnesses:

Geo. W. Loun
Otto H. Hensel

Inventor:

George W. Mason
by his attorney
H. E. Harrison.

UNITED STATES PATENT OFFICE.

GEORGE W. MASON, OF SHARON, PENNSYLVANIA.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 605,966, dated June 21, 1898.

Application filed April 16, 1896. Serial No. 587,812. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MASON, a citizen of the United States, residing at Sharon, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Bottle-Stoppers; 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved bottle-stopper, the object being to provide a bottle that cannot be refilled, together with certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a sectional elevation of a bottle provided with my improved stopper, which is constructed in accordance with my invention. Fig. 2 is a side elevation of a portion of my improved stopper, showing the manner of attaching the spring-closing valve in position. Fig. 3 is a plan view of the same. Fig. 4 is a side elevation, partly in section, of the valve and the stem. Fig. 5 is a perspective view of the cross-piece for holding the valve to its seat.

To put my invention into practice and thereby provide a bottle that cannot be refilled, I form by means of a suitable mold a bottle 1, of any desired form, having an integral flaring or tapering neck 2, the diameter of which is greater at the top than at the bottom in order that a tapering cylindrical shell 3 may be retained therein. This shell 3 is for the purpose of holding a valve 6, adapted to close the mouth of the bottle 1, and it consists in a tapering or cylindrical annular shell 3, provided with a packing 4, covering a portion of the same and having formed in the base a valve-seat 5. Centrally located within this shell-holder 3 is a valve-stem formed with an integral valve 6, adapted to close the lower orifice of the shell, and the said valve and stem supported by a bearing at the top and bottom. The bearing at the base of the shell is formed integral with the same, while the upper bearing is removable and consists of a plate 9, of a suitable length, having an orifice 12 at the center for the reception of the valve-stem, and the said bear-

ing 9 held in position across the top of the shell 3 by forming recesses 11 and inserting small wedges 10, as will be seen by reference to Figs. 2 and 3 of the drawings. Arranged intermediate of the valve 6 and the top bearing 9 is a spiral spring 13, which serves as a means for holding the said valve to its seat. Formed integral with the base of the valve 6 is a downwardly-projecting stem having a threaded portion upon which a circular disked plate 8 is attached for the purpose of receiving a weight or sphere 19 when the bottle 1 is inverted or turned bottom upward. This ball 19 is of sufficient weight to overcome the resistance of the spring 13 when placed in the holder 8, and thereby open the valve 6. Arranged over the mouth of the bottle 1 to close the same is a glass disk 14, which is attached to and made a part of the bottle by fusing the meeting edges by heating the parts. Formed beneath the cover 14 and through the upper part of the neck of the bottle is a series of perforations 15, through which the contents of the bottle may be poured or discharged. Attached to the valve-stem is a fine wire 18, which is carried upward through the perforations 15 and is used as a means of lifting the valve 6 when filling the bottle 1, and the said wire 18 removed after the bottle is filled by drawing one end of the same. Placed over the upper portion of the neck 2 is a cap or cover 16, having a contracted neck or mouth 17, in which an ordinary cork (not shown) is placed to prevent the liquor in the bottle from spilling when the same is turned bottom upward. This cap or cover 16 is held in position and made integral with the bottle by heating the meeting edges to fuse the same.

In the manufacture of this bottle and stopper the ball 19 is placed within the bottle before the two covers 14 and 16 are attached to the neck 2, and when filling the bottle the wire 18 is used to lift and secure the valve away from its seat 5. After the bottle has been filled the wire 18 is withdrawn, as before described, and an ordinary cork placed in the mouth 17 of the cap 16 to confine the contents of the bottle. To pour the liquid from the bottle, it is only necessary to invert the bottle, which brings the ball 19 into the holder 8, and the weight overcoming the spring 13 will open the valve 6. When this valve 6 is

opened, the liquid will pass through the orifice thus formed and escape through the perforations 15 and from thence through the mouth 17 of the cap 16. When the bottle is
5 again brought to a perpendicular position, the ball returns to the base, and the valve 6 closes and seals the bottle.

It is obvious that a bottle and stopper constructed as described cannot be refilled after
10 the wire 18 has once been removed.

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

In combination with a bottle, a stopper arranged in the neck of the same, consisting of
15 an annular shell 3, having a suitable packing, a valve-seat formed at the base of the said shell, a valve 6, and stem having bearings within the shell 3, a spring 13, to hold the
20 said valve to its seat, a concaved plate 8, at-

tached to the valve 6 projecting into the body of the bottle, a weight 19 to open the said valve, when the bottle is inverted, a removable wire 18, attached to the valve as a means
25 of elevating the same from its seat, a cover 14, placed over the mouth, the meeting edges of which are fused, to make the same integral with the bottle, perforations formed through the neck of the bottle, and a cap 16,
30 said cap having a contracted neck 17, in which a cork is placed, all arranged and combined for service, substantially as and for the purpose described.

In testimony that I claim the foregoing I hereunto affix my signature this 31st day of
March, A. D. 1896. 35

GEORGE W. MASON. [L. S.]

In presence of—

JOHN C. THOMPSON,
OTTO A. HENSEL.