

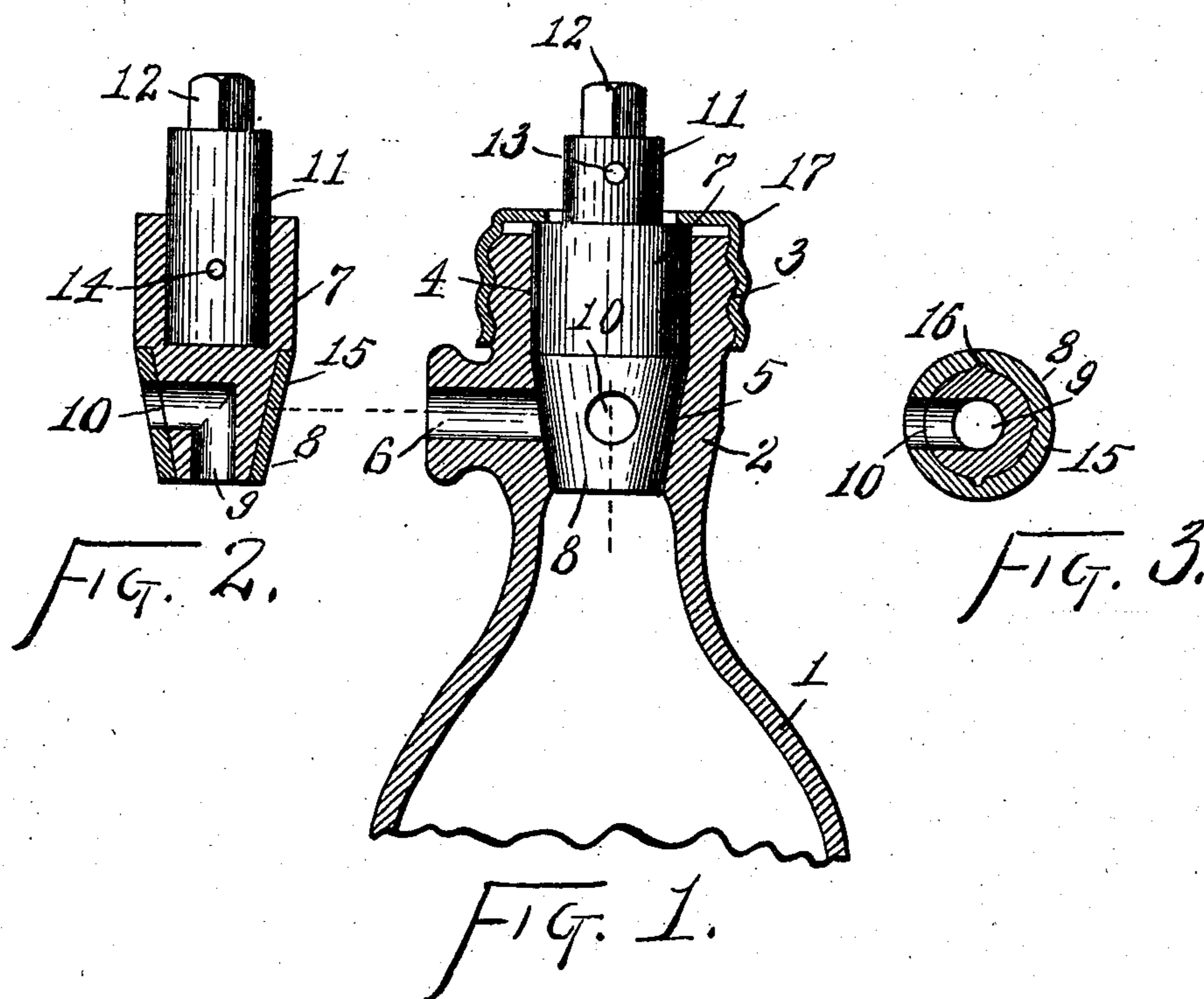
No. 700,462.

Patented May 20, 1902.

J. M. VAN METER.
BOTTLE CLOSURE.

(Application filed Mar. 17, 1902.)

(No Model.)



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Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES M. VAN METER, OF CAMBRIDGE CITY, INDIANA.

BOTTLE-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 700,462, dated May 20, 1902.

Application filed March 17, 1902. Serial No. 98,530. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. VAN METER, a citizen of the United States, residing at Cambridge City, Wayne county, Indiana, have invented certain new and useful Improvements in Bottle-Closures, of which the following is a specification.

This invention, pertaining to improvements in bottle-closures, will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a vertical section of the upper portion of a bottle provided with my improved closure, the plug being shown in closed position; Fig. 2, a vertical section of the plug, and Fig. 3 a horizontal section of the plug.

In the drawings, 1 indicates the bottle; 2, its neck; 3, a screw-thread formed on the exterior of the upper extremity of the neck; 4, a cylindrical bore at the upper extremity of the neck; 5, a tapering bore in the neck below and adjoining and concentric with the cylindrical portion, this tapering portion having its smaller end below; 6, the outlet-port of the bottle, the same being disposed horizontally in the wall of the neck at about the vertical center of the tapering bore 5; 7, the cylindrical portion of a plug fitting within the bore 4; 8, the tapering portion of the same plug fitting within the tapering bore 5; 9, an axial port in the plug extending upwardly thereinto from its lower end; 10, a horizontal port in the tapering portion of the plug extending outwardly from axial port 9 and in the horizontal plane of outlet-port 6; 11, a stem projecting concentrically upward from the cylindrical portion 7 of the plug; 12, a non-circular head at the upper extremity of stem 11; 13, a diametrical hole through stem 11; 14, a diametrical pin extending through cylindrical portion 7 of the plug and through that portion of the stem socketed thereinto; 15, an elastic jacket, as of rubber or cork, upon the tapering portion of the plug, its exterior fitting the tapering bore 5 of the neck of the bottle, horizontal port 10 of the plug extending also through this jacket; 16, longitudinal ribs upon the lower portion of the plug engaging grooves in the interior of the jacket and preventing the turning of the

jacket relative to the plug, and 17 a screw-cap engaging the threads 3 of the neck of the bottle and having at its top an inwardly-turned flange engaging over the top of cylindrical portion 7 of the plug.

The use of this bottle-closure needs little explanation. Fig. 1 shows the device in closed position. By turning the plug by means of a suitable key on non-circular head 12 or by means of a pin or nail in hole 13 port 10 can be brought into line with outlet-port 6 when contents are to be withdrawn from the bottle, the plug being turned back to original position when the bottle is to be closed. The screw-cap keeps the tapering portion of the plug nicely home in its tapering seat and permits of the ready removal of the plug. The cylindrical portion 7 of the plug having a generally neat but not liquid-tight bearing in the neck of the bottle steadies the plug and prevents improper damaging side strains upon the tapering fitting of the plug, and it also furnishes an enlargement for the reception of the inserted stem 11, if such stem is provided.

The material of the plug and certain details of its construction will depend largely upon the particular uses to which the bottle is to be put. For some purposes the entire plug may be formed of one piece of wood. Where a better degree of tightness is desired than is obtainable from the wood, then the soft jacket 15 may be employed. If the usage is too severe to permit of the stem being of wood, then the stem may be of metal and inserted into the wooden plug and pinned therein, as indicated. Again, the plug, with its stem, may be formed of metal and for some purposes provided with the soft jacket 15, the ribs 16 preventing angular displacement of the jacket upon the plug. In some cases the plug may be formed entirely of glass. In constructing the device it is of course to be understood that if the plug is formed entirely of metal or of glass then it is to be nicely ground to its tapering seat.

I claim as my invention—

1. In a bottle-closure, the combination, substantially as set forth, of a bottle having a cylindrical and a subjacent tapering portion in the bore of its neck and having the

exterior of its neck screw-threaded and having a side outlet-port from the tapering portion of the bore, a plug fitting the cylindrical and tapering portion of said bore and having
5 in its lower end an axial port and a transverse port adapted to aline with the outlet-port of the neck, a cap screwed upon the neck of the bottle and engaging over the top of the plug, and a projection from the top of the
10 plug to serve in turning the plug.

2. In a bottle-closure, the combination, substantially as set forth, of a bottle having a cylindrical and a subjacent tapering portion in the bore of its neck and having the
15 exterior of its neck screw-threaded and having a side outlet-port from the tapering portion of the bore, a plug fitting the cylindrical and tapering portion of said bore and having in its lower end an axial port and a trans-
20 verse port adapted to aline with the outlet-port of the neck, a cap screwed upon the neck of the bottle and engaging over the top of the plug, and a stem secured into the top of the plug and projecting upwardly therefrom and

provided with means by which it and the plug 25 may be rotated.

3. In a bottle-closure, the combination, substantially as set forth, of a bottle having a cylindrical and a subjacent tapering portion in the bore of its neck and having the
30 exterior of its neck screw-threaded and having a side outlet-port from the tapering portion of the bore, a plug fitting the cylindrical and tapering portion of said bore and having in its lower end an axial port and a trans- 35
verse port adapted to aline with the outlet-port of the neck, a cap screwed upon the neck of the bottle and engaging over the top of the plug, a soft jacket secured upon the tapering portion of the plug, longitudinal ribs upon 40
the tapering portion of the plug and engaging the interior of said jacket, and a projection from the top of the plug to serve in turning the plug.

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