

No. 715,591.

Patented Dec. 9, 1902.

L. LESSER.  
BOTTLE.

(Application filed Sept. 9, 1902.)

(No Model.)

Fig. 1.

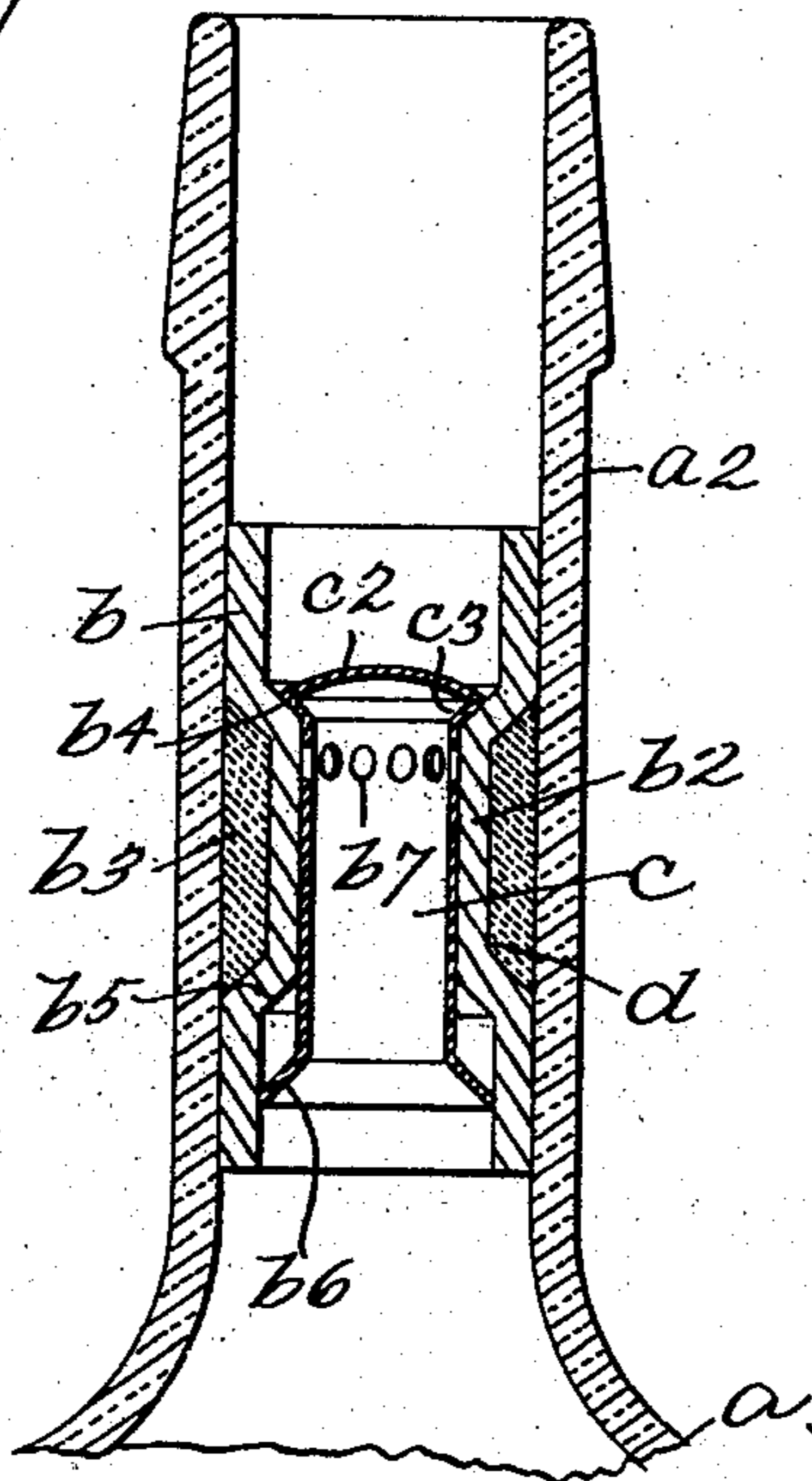
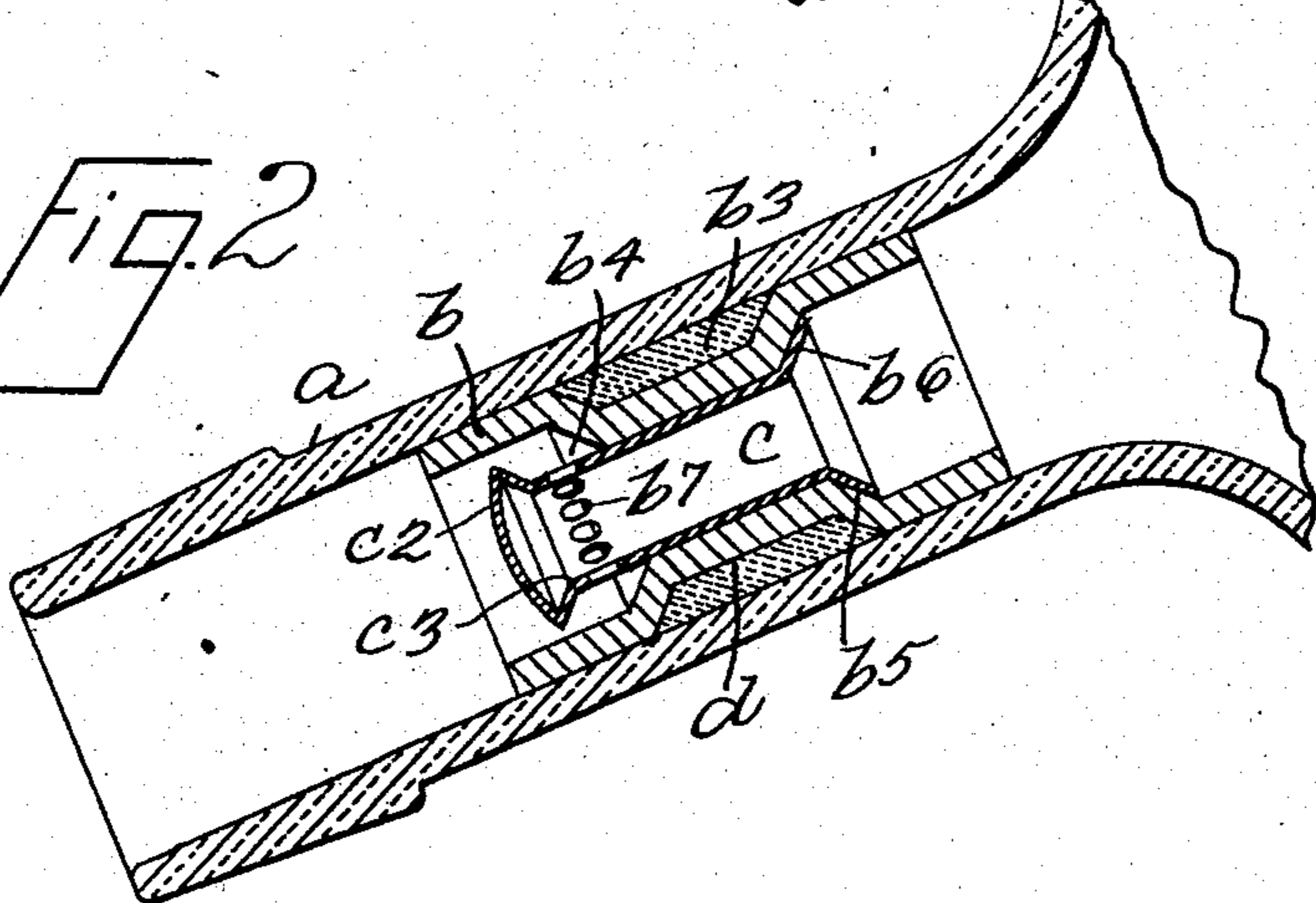


Fig. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

LEWIS LESSER, OF NEW YORK, N. Y.

## BOTTLE.

SPECIFICATION forming part of Letters Patent No. 715,591, dated December 9, 1902.

Application filed September 9, 1902. Serial No. 122,705. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS LESSER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Bottles, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide a bottle or similar vessel having a neck with a closure device, whereby the bottle when once filled and the closure device applied or secured in the neck the bottle or other vessel may be emptied of its contents, but cannot be refilled or reused.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which I have shown my improvement applied to the neck of a bottle, and in which—

Figure 1 is a central vertical section of the neck of the bottle in an upright position and provided with my improvement, and Fig. 2 a similar view showing the neck of the bottle inverted.

In the drawings forming part of this specification I have shown at *a* a part of a bottle, which is provided with the usual neck *a*<sup>2</sup>, and in the practice of my invention I provide a closure device comprising a tubular plug *b*, which is of the same diameter at the ends as the inner diameter of the neck *a*<sup>2</sup>. The plug *b* is reduced in size or contracted centrally, as shown at *b*<sup>2</sup>, and this contracted portion is preferably about one-half the length thereof, and by means of this construction an annular space *b*<sup>3</sup> is formed between the central portion of the plug *b* and the neck of the bottle when the plug is inserted into said neck. By means of this construction of the tubular plug *b* the said plug is provided in its upper end with an annular valve-seat *b*<sup>4</sup> and in its lower end with a similar annular valve-seat *b*<sup>5</sup>, and within said plug is placed a valve-tube *c*, the upper end of which is closed at *c*<sup>2</sup> and flared outwardly to form a valve *c*<sup>3</sup>, which is adapted to rest on the valve-seat *b*<sup>4</sup>, and the lower end of said valve-tube is flared outwardly to form a valve *b*<sup>6</sup>, which is adapted to rest on the valve-seat *b*<sup>5</sup>. The valve-tube *c* is also provided near its upper end with an annular row

of ports or passages *c*<sup>2</sup>, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

After the bottle or other vessel has been filled with the desired contents the central annular space around the plug *b* is filled with cement, as shown at *d*, and the said plug, with the cement adhering thereto, is forced into the neck of the bottle, and the cement will serve in the usual manner to secure the plug in the neck of the bottle in such a manner that it cannot be removed without breaking said neck. The top portion of the neck of the bottle may then be closed by an ordinary stopper in the usual manner, and when it is desired to empty the bottle said stopper is removed and the bottle is inverted or tilted, as shown in Fig. 2. In this operation the valve-plug is moved downwardly, forwardly, or outwardly and the contents of the bottle is free to flow out through the valve-tube *c* and through the ports or passages *b*<sup>7</sup> formed therein, and this operation may be continued or repeated until the bottle is entirely empty. If an attempt be made to refill the bottle by pouring liquids thereinto, the valve-tube *c* will assume the position shown in Fig. 1 and no liquids can enter the bottle.

My improvement is simple in construction and comparatively inexpensive, and changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

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

1. The herein-described closure device for bottles or similar vessels comprising a tubular plug the central portion of which is reduced in size so as to form annular valve-seats therein adjacent to each end thereof, and a tubular valve-plug placed therein and movable longitudinally therein, said valve-plug being longer than the distance between the valve-seats and the upper end thereof being closed, and the lower end thereof open, said valve-tube being also provided at both ends with outwardly-directed valve members adapted to act in connection with said valve-seats and being also

provided in the upper end thereof with ports or passages, substantially as shown and described.

2. The herein-described bottle-closure device, comprising a tubular plug, the central portion of which is reduced in size for a portion of its length and provided with two annular valve-seats, a valve-tube placed in said plug and movable longitudinally of the central portion thereof, said valve-plug being closed at one end and open at the other and provided at the ends with outwardly-flared valve members adapted to operate in connection with said valve-seats, and adjacent, to the closed end with ports or passages, substantially as shown and described.

3. The combination with the neck of a bottle of a closure device comprising a tubular plug the central portion of this reduced in

size, the reduced portion being provided at the ends with annular valve-seats, and a valve-tube mounted therein, and longer than the distance between said valve-seats, one end thereof being closed and both ends being provided with valve members adapted to operate in connection with said valve-seats, said valve-tube being also provided near the closed end with ports or passages, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 8th day of September, 1902.

LEWIS LESSER.

Witnesses:

C. E. MULREANY,  
J. C. LARSEN.