

(No Model.)²

T. L. SEYMOUR.
BOTTLE.

No. 297,174.

Patented Apr. 22, 1884.

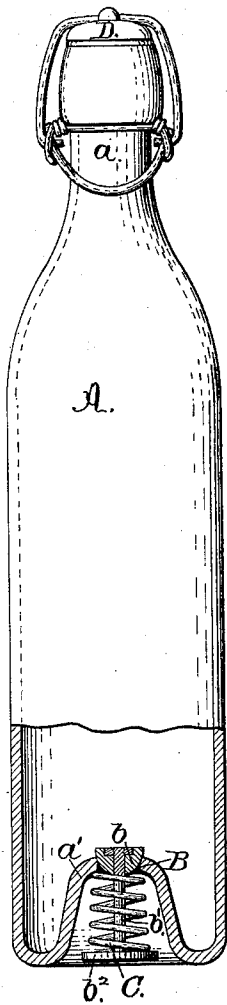


Fig. 1.

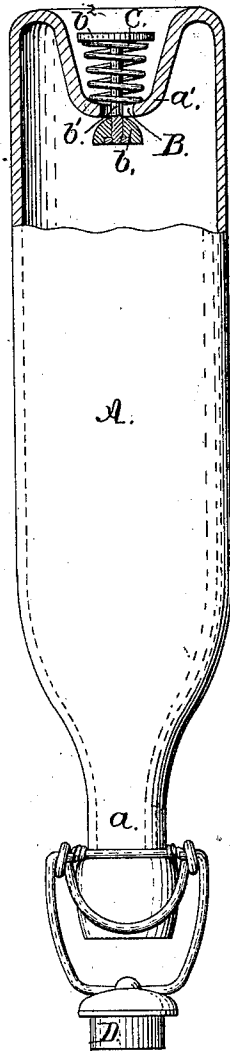


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

THEODORE L. SEYMOUR, OF ALBANY, NEW YORK.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 297,174, dated April 22, 1884.

Application filed June 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, THEODORE L. SEYMOUR, of the city and county of Albany, in the State of New York, have invented certain new and useful Improvements in Bottles, of which the following is a full and exact description.

My invention relates particularly to improvements in that kind of stoppered bottle which, when the stoppering device is displaced and the bottle inverted, will discharge its contents directly from its opened end, in contradistinction to a stoppered bottle whose contents must first pass through a siphon-tube or other like device.

To this end my invention consists in forming in the bottom of the bottle an opening containing a valve by which the said opening will be kept closed at all times, except when the contents of the bottle are to be discharged, in the manner hereinafter set forth.

In the accompanying drawings, which form part of this specification, and to which reference is made herein, Figure 1 is a side elevation of a bottle containing my improvements, the said bottle being in an upright position, with a stopper over its mouth, the lower part being shown in vertical section for the purpose of exhibiting the valve in its closed position. Fig. 2 is a like view of the bottle inverted, with the stopper removed from its mouth and the valve depressed, so as to admit air through the opening in the bottom of the bottle.

As illustrated in the drawings, A is the bottle, provided with the usual neck, *a*, and with a recessed bottom, *a'*. In the apex of the bottom *a'* an opening, B, is made, and into this opening is fitted a valve, *b*, which I preferably make of rubber or other elastic non-absorbent material, that will form an air-tight joint with the perimeter of the opening B. The valve *b* is provided with the stem *b'*, to which a head, *b²*, is attached. The recessed bottom *a'*, the valve-stem *b'*, and its head *b²* should be so proportioned that the said stem and head will be contained in the recessed bottom in such man-

ner that the bottle can stand erect on any plane surface without the head *b²* coming in contact with said surface. A spring, C, is interposed between the bottom of the bottle and the head *b²* for the purpose of keeping the valve *b* in close contact with the inner edge of the opening B.

As shown in the drawings, the stopper D is of the kind well known and commonly used that is held in place and removed by means of an arrangement of wire levers; but when preferred any different kind of stopper may be used.

When the bottle is used for containing liquids that are charged with air or gases that will exert considerable pressure, the spring C may be dispensed with, if the pressure of the contained air and gases is sufficient to keep the valve *b* closely seated against the pressure of the surrounding atmosphere. After the stopper D is removed from the mouth of the bottle, and the latter is inverted, as shown in Fig. 2, the valve *b* is pushed inward, so as to uncover the opening B and permit the air to pass through said opening into the bottle. By this means the pressure of the atmosphere upon the liquid in the bottle is equilibrated and the liquid will be discharged with the velocity due to its gravity. When the spring C is omitted, after the bottle is unstoppered and inverted, the valve *b* will then drop by its own gravity without being pressed down.

I claim as my invention—

1. A stoppered bottle of the character described, having in its bottom a vent-aperture controlled by an automatically-closing valve, as and for the purpose specified.

2. A stoppered bottle of the character described, having in its bottom a vent-aperture controlled by an automatically-closing valve, and means exterior to the bottle for operating said valve, as and for the purpose specified.

THEODORE L. SEYMOUR.

Witnesses:

JAS. W. BENTLEY,
WILLIAM H. LOW.