(No Model.)

J. MERSEREAU.

SIPHON BOTTLE.

No. 523,727. Patented July 31, 1894.

Fig. 1.

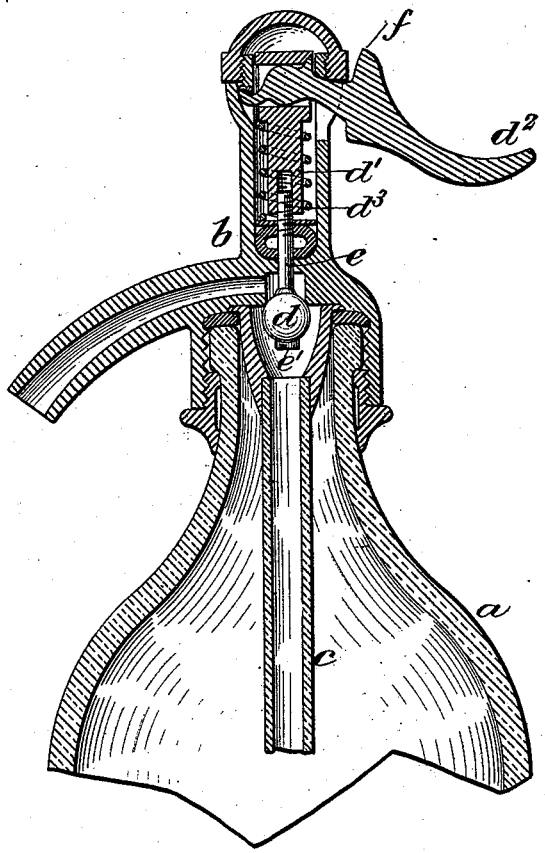

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

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SIPHON-BOTTLE.

SPECIFICATION forming part of Letters Patent No. 523,727, dated July 31, 1894.

Application filed June 21, 1893. Serial No. 478,375. (No model.)

To all whom it may concern:

Be it known that I, JACOB MERSEREAU, a citizen of the United States, and a resident of Orange, Essex county, and State of New Jersey, have invented a new and useful Improvement in Siphon-Bottles, of which the following is a specification.

The invention relates to the valve mechanism of "siphon-bottles," being an improvement upon Letters Patent No. 361,400, granted to C. De Quillfeldt, dated April 19, 1887, and consists more particularly in the construction of the valve proper in reference to its adjustment in relation to its carrying spindle and to the discharge passage, and also to render the same more durable and practical for the purpose for which it is adapted.

The invention also consists in other details of construction as will hereinafter be set forth in detail and pointed out in the claims.

Referring to the accompanying drawings,—Figure 1, represents a vertical section of the top of a siphon-bottle constructed according to my invention. Fig. 2, is a detail view of the valve and its stem; and Fig. 3, is the stem with the valve removed.

To explain in detail,—*a* is the bottle, *b* the top-piece which supports the valve-mechanism and the discharge spout, and *c* the glass tube which connects with said top-piece *b* to communicate with the discharge spout, and through which the liquid is passed from the bottle to be discharged. The above parts are of usual construction and not of my present invention.

d is the valve which is adapted for shutting off or admitting of, discharge of the liquid through the discharge spout, and is carried by a vertically moving spindle *d'* located in the neck of the top-piece *b*, which is adapted to be moved in one direction to open the valve, by means of a lever d^2 having suitable connection therewith at one end as shown, and at its opposite or free end projecting from the top-piece *b* through an opening therein, in a convenient position to be operated. This spindle *d'* is yieldingly held in a normal raised position to hold the valve in a closed position by means of a coiled spring d^3 which engages at one end with a collar or raised projection on the latter to hold the same in such described position.

The valve *d* consists of a flexible or elastic spherical shaped body, preferably formed of rubber, which is located on a spindle *e* having a screw-threaded end as a means for adjustable and detachable connection with the spindle *d'*. This adjustment of the valve in its relation to the spindle *d'* is essential for the purpose of allowing the valve to be properly adjusted to its seat when the parts are assembled, and also to allow for wear and other changes caused to the rubber by continued use as will be readily understood.

It has been found in practice that when the valve is loose upon its stem as shown and described in said Letters Patent No. 361,400, it is liable to be blown or forced from its position on the stem by the force or action of the liquid thereon when filling the bottle, which is accomplished by depressing the valve and forcing the liquid through the spout; and is also liable to be disconnected from the stem by reason of the latter being drawn therefrom by the upward action of the spring d^3. It is also necessary to remove the valve from its stem in order to reach the latter for the purpose of adjustment, thus making it difficult to properly and accurately adjust the same, as it is obvious that it is difficult to accurately adjust the position of the valve in relation to its seat when the latter is removed from its stem, the operation often requiring the removal of the valve from its stem several times before it is properly adjusted. In order to obviate such objectionable features, I have formed the stem with one or more ribs or collars e^2, and form or cure the rubber valve permanently thereon, such ribs or projections serving to hold the valve firmly and prevent its slipping or otherwise moving on the stem. I also provide the stem with a slotted head *e'*, which is not covered by the valve. By this construction the valve may be readily and accurately adjusted by means of a screw-driver or similar suitable tool, and is firmly held in position.

Another feature of my invention also consists in the construction or formation of the lever d^2. Heretofore, the upper surface or

edge of such lever has been formed as shown by the dotted line in Fig. 1, in such manner that that portion of the hand between the thumb and forefinger has been liable to be caught and pinched between the upper end of the slot in which the lever moves and the lever, when operating the latter, as will be readily understood. In order to prevent liability of such accident, I have provided the lever with a guard *f* thereon, consisting of a raised tapering projection which extends above the end wall of the slot against which the lever strikes as clearly shown, and forms a guard to prevent the hand from getting caught between said engaging surfaces as will be readily understood.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a siphon-bottle, the combination of the top-piece *b* having a discharge passage, a vertically moving spindle, an operating lever having connection with the latter, and a valve, consisting of a screw-threaded stem adapted for adjustable connection with said spindle, provided with an elastic or yielding body permanently secured thereon and with a slotted head, arranged substantially as described and for the purpose set forth.

2. In a siphon-bottle, the combination of the top-piece *b* having a discharge passage, a vertically moving spindle, a threaded stem adjustably connected with the latter, provided with a rib or projection thereon, an elastic or yielding body formed or secured over the latter, and a slotted head, substantially as described and for the purpose set forth.

JACOB MERSEREAU.

Witnesses:
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