(No Model.)

W. J. SMEALLIE.

BOTTLE WASHER.

No. 515,556. Patented Feb. 27, 1894.

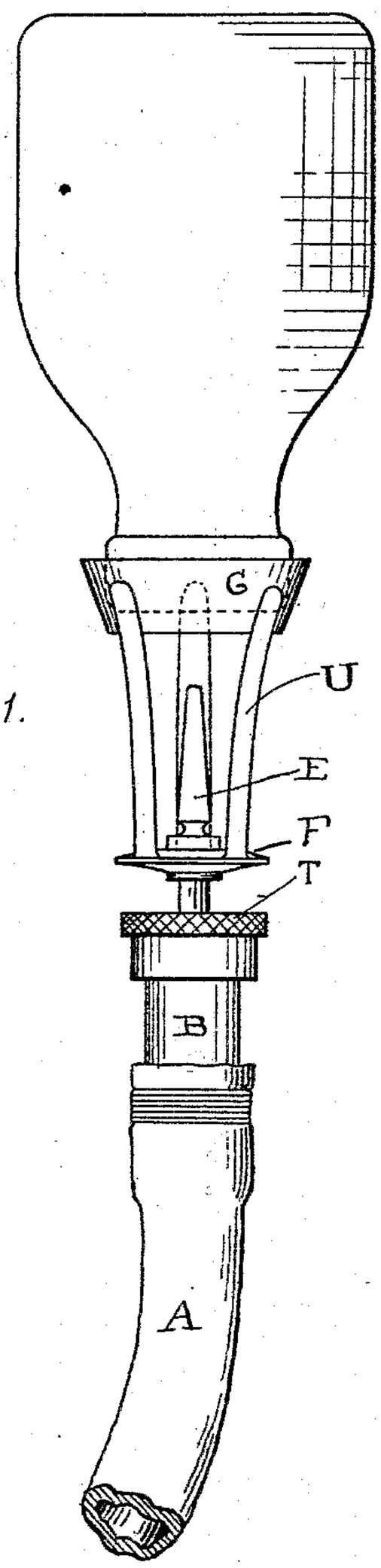

Fig. 1.

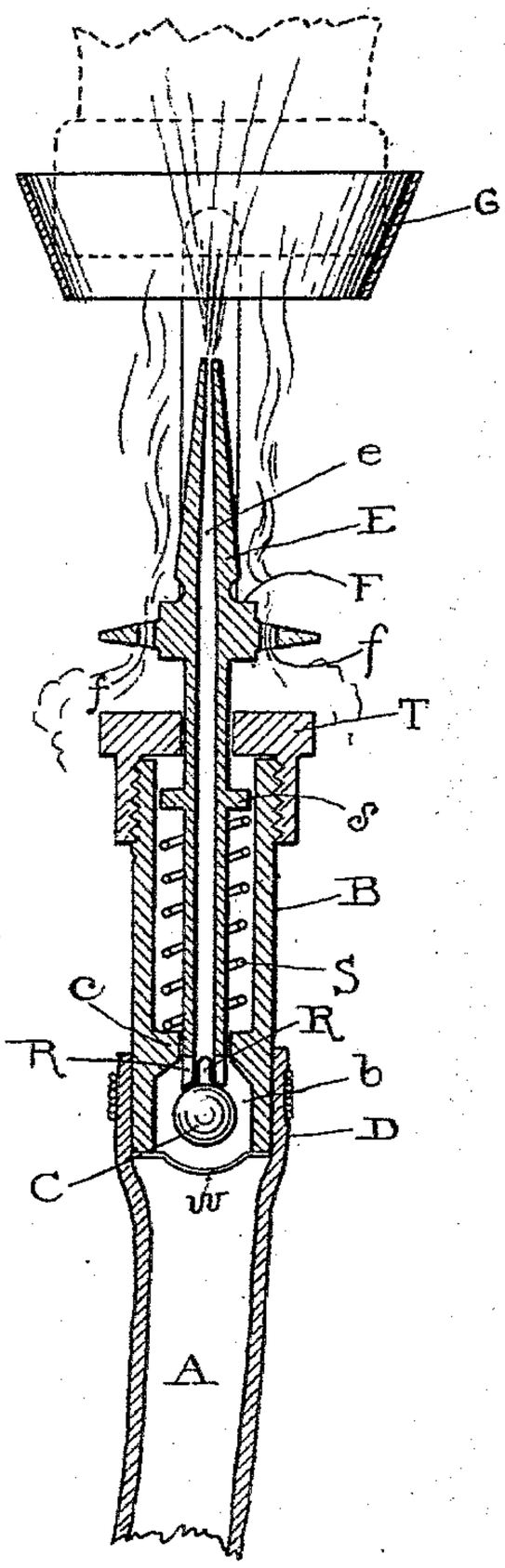

Fig. 2.

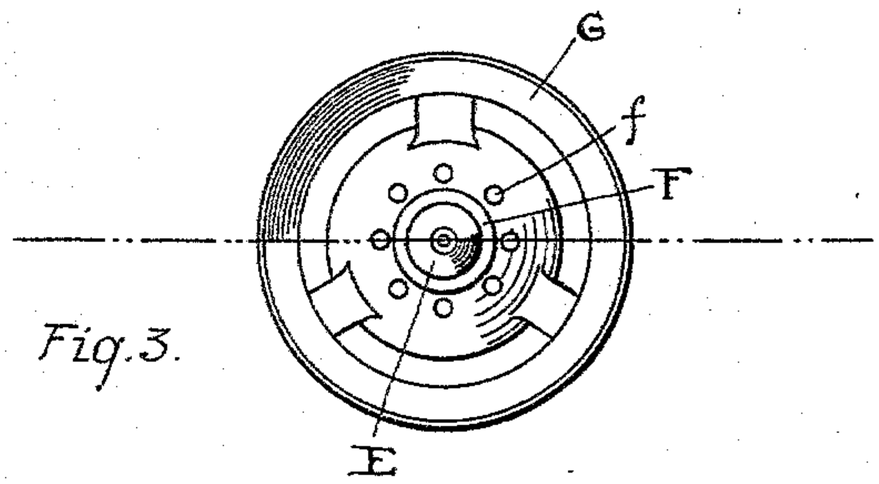

Fig. 3.

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WILLIAM J. SMEALLIE, OF AMSTERDAM, NEW YORK.

BOTTLE-WASHER.

SPECIFICATION forming part of Letters Patent No. 515,556, dated February 27, 1894.

Application filed July 26, 1893. Serial No. 481,491. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. SMEALLIE, a citizen of the United States, residing at the city of Amsterdam, county of Montgomery, State of New York, have invented a new and useful Improvement in Apparatus for Washing Bottles, of which the following is a specification.

My invention relates to improvements in automatic mechanism for cleansing bottles; and the object of my invention is to provide a simple, inexpensive and effective means for injecting water under pressure into a bottle and provide for the ready exit of the water after it has cleansed the interior of the bottle, so adjusted that upon the removal of the bottle, the water will cease to flow from my machine. I accomplish this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation. Fig. 2 is a longitudinal section, and Fig. 3 is a plan.

Similar letters refer to similar parts throughout the several views.

To the pipe or hose A, I secure in any suitable manner one end of the barrel B, said barrel B being provided at its end in contact with the hose A with a valve chamber *b*, within which I place a ball C. The lower end of the chamber *b* communicates with the interior of the hose A, and the opposite end is provided with a seat *c* for the ball C. If desired, a wire, *w*, or other device may be placed across the mouth of the chamber to prevent the escape of the ball when it is not held against its seat by the pressure of the water. Passing through the valve seat *c*, I arrange a valve stem E, within which extending its full length, is a passage way *e*. The lower end of the valve stem E is provided with slotted openings R extending through the sides of the valve stem E communicating with the passage way *e*. The ball C is in contact with the end of the valve stem E. Resting upon the seat within the barrel B and above the valve chamber *b*, I arrange a spiral spring S, the end of the spring S resting against a collar *s* on the valve stem E. The resiliency of the spring tends to lift the valve stem E out of the valve chamber *b*.

The end of the barrel B opposite the valve chamber *b* is provided with a cap T through which the valve stem E reciprocates. A short distance outside of the barrel on the valve stem E, I arrange a disk F. I sometimes arrange a series of perforations *f* in said disk through which the water flows from the bottle.

Upon the disk F, I arrange the vertical supports U which carry the collar G, thus forming a basket for the support of the bottle when placed upon my machine. The end of the valve stem E passes into the mouth of the bottle.

The operation of my invention is apparent. It is understood that the water passing through the hose A is supplied with pressure which will cause the ball C to close the valve chamber *b* by being forced against the seat *c*. The valve stem E will be pressed out of the chamber *b* by the action of the water against the ball C and also by the spring S. When a bottle is placed within the basket, its nozzle resting upon the disk F, the bottle may be pressed downward, which will force the valve stem downward against the resiliency of the spring S and the pressure of the water within the hose, opening the valve and the water will pass into the valve stem and be conducted into the bottle, where it will cleanse the bottle, and running back along the sides of the bottle and out.

What I claim as my invention, and desire to secure by Letters Patent, is—

In an apparatus for cleaning bottles, the combination, with a barrel, one end of which is provided with a valve chamber and a valve seat, of a cover upon the other end, a longitudinally movable hollow stem through the cover and the valve seat, the outer portion of which is provided with means for engaging with the bottles, and the inner end is slotted longitudinally and the intermediate portion is provided with a shoulder to fit within the barrel, a spring around the stem within the barrel, one end of which engages with the shoulder and the other end engages with the top of the valve seat, and a ball valve within the valve chamber, substantially as set forth.

WILLIAM J. SMEALLIE.

Witnesses:

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WM. S. GOING.