

(No Model.)

2 Sheets—Sheet 1.

H. A. RUETER.
BOTTLE WASHER.

No. 580,003.

Patented Apr. 6, 1897.

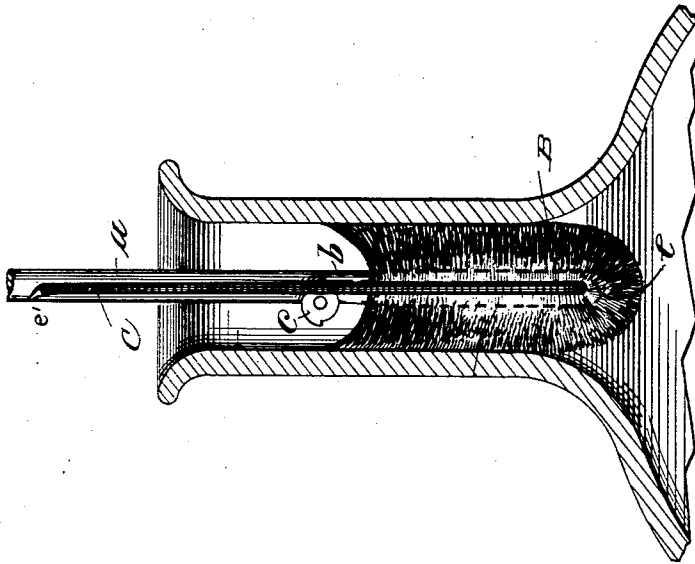


Fig. 2.

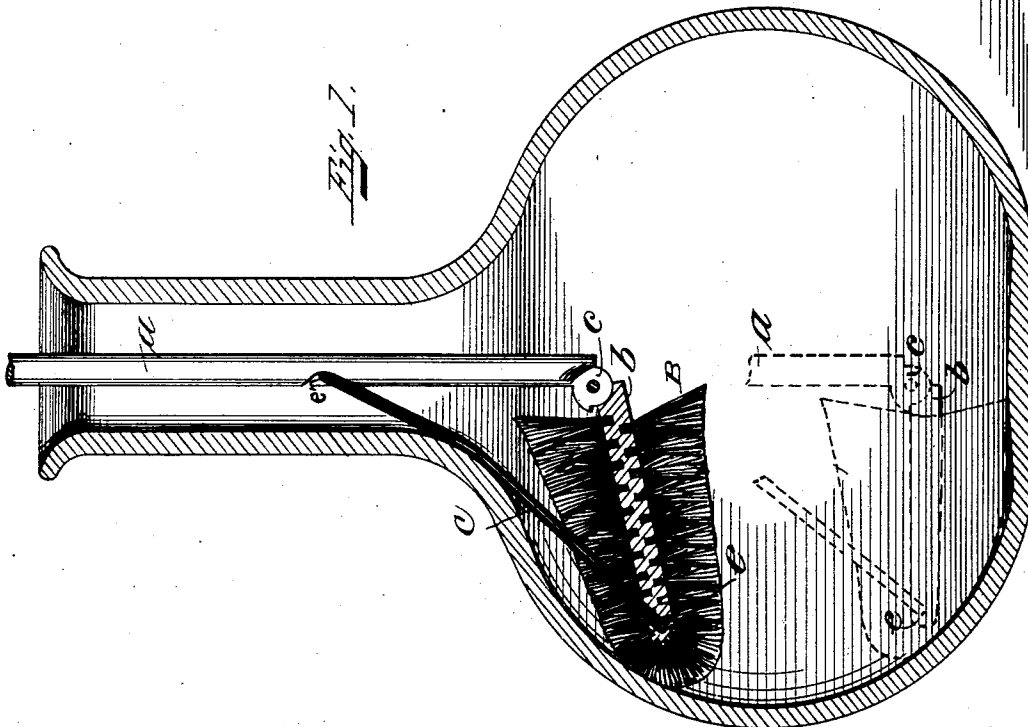


Fig. 1.

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Thomas. Pennon

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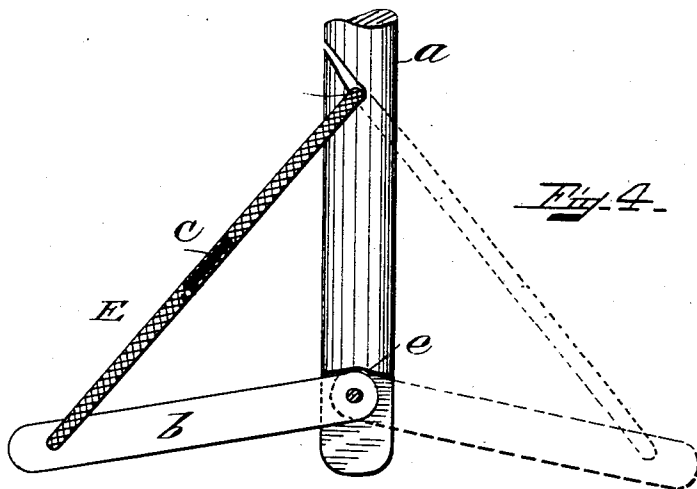
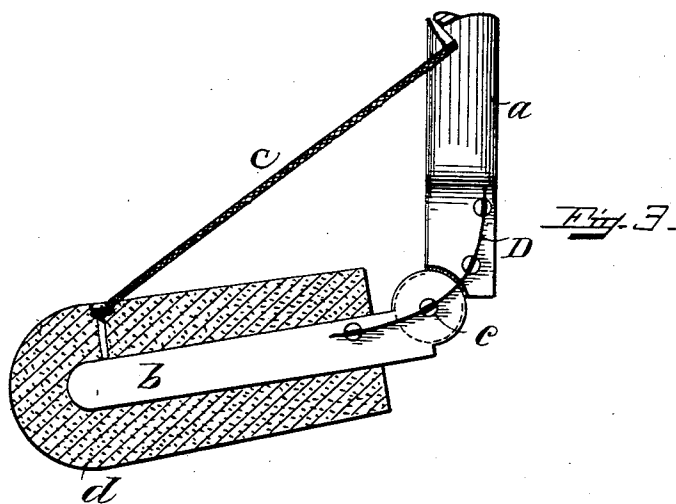
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2 Sheets—Sheet 2.

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Witnesses

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UNITED STATES PATENT OFFICE.

HENRY A. RUETER, OF BOSTON, MASSACHUSETTS.

BOTTLE-WASHER.

SPECIFICATION forming part of Letters Patent No. 580,003, dated April 6, 1897.

Application filed May 6, 1895. Serial No. 548,318. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. RUETER, a citizen of the United States, residing at Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Improvement in Devices for Cleaning Internally Bottles, Decanters, Carafes, &c., of which the following is a specification.

This invention contemplates certain new and useful improvements in devices for cleaning the interior of bottles, carafes, &c., and has for its object the production of a device of this character which shall be simple and inexpensive in construction and in which the brush or cleaner will automatically conform to and have close contact with the interior contour of the vessel being cleaned. This I accomplish by providing two rods articulated together, the lower pivoted rod or member carrying the brush or cleaner, which may consist of bristles or a piece of sponge or other material entirely surrounding said rod or member. An elastic band connected at its ends to the two rods exerts a tension on the lower rod which tends to hold the latter at an angle to the other member, its movement under tension being limited to a right angle either in one or two directions, and said band also aids in the cleansing operation by direct contact with the neck of a bottle, carafe, &c. This spring is preferably an elastic band and aids in the cleaning.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional view of a water-bottle, showing my improved cleaner inserted therein with the brush member in section, one position of the brush and its supporting member being indicated in full lines and another in dotted lines. Fig. 2 shows the manner in which the cleaner is inserted through the neck of a vessel. Fig. 3 shows the use of an additional spring. Fig. 4 shows a modified form of cleaner.

Referring to the drawings, *a* designates a rod, to the normally lower end of which is articulated a shorter rod *b*. They are shown in Figs. 1, 2, and 3 as being united by a hinge *c*, which by reason of the shouldered portion permits of the part or member *b* swinging in

but one direction to the extent of a right angle.

B designates the brush or cleaner, which is shown in Figs. 1 and 2 as consisting of bristles permanently attached to the rod *b*. These bristles completely inclose said rod, covering the same on all sides and at its outer end.

In lieu of the bristles the cleaner may consist of felt, silk, sponge, or like material and be removably held on rod *b*, which it entirely surrounds. This is shown at *d*, Fig. 3.

C designates a spring for exerting a tension on the pivoted rod *b* and tends to hold the latter at an angle to the rod *a*. It preferably consists of an elastic string or band rigidly attached at one end to the outer end of the rod *b*, its other end being secured to the rod *a* at a point about or a little more than equidistant from the pivotal connection between said rods, the rod *a* being preferably formed with a groove or kerf in which the end of the string is secured. The tension of this spring tends to constantly hold the rod *b* at right angles to the rod *a*, but yet permits said rods to assume a straight line when passing through the neck of the vessel, as shown in Fig. 2. In addition to this spring I sometimes use a plate-spring *D*, attached to the rods *a* and *b* at the point of pivot thereof. (See Fig. 3.)

In Fig. 4 I have shown the elastic string inclosed by a covering *E*, of suitable material, to aid in cleaning a vessel. A portion of this covering is broken away to show the inclosed spring *C*. In this figure I have also shown the rod *b* pivoted direct to the rod *a*, so as to be free to move in opposite directions under the tension of the spring, the movement of the rod *b* in either direction being limited by a shoulder *e*, formed on rod *a*, adjacent to the pivot-point.

In practice, before inserting the device into the vessel to be cleaned, the rods are turned to a straight line and then passed through the neck of the vessel, as shown in Fig. 2. If desired, water and some cleansing mixture may be first introduced into the vessel. After insertion the brush or cleaner conforms to the interior contour of the vessel under the action of the spring or springs, and by turning the rod *a* or the vessel the interior of the

latter is thoroughly cleansed, the covered elastic band aiding in cleansing the latter at points not engaged by the brush or cleaner, notably at the inner end of the neck.

- 5 A cleaning device for bottles, decanters, carafes, &c., constructed as herein described is extremely simple and inexpensive, and being composed of but few parts is not liable to readily get out of order or be deranged.
- 10 The advantages are apparent to those skilled in the art. The spring connection between the two rods *a* and *b* tends to hold the brush or cleaner in close contact with the interior of the vessel, and the covered elastic
- 15 band aids in the cleaning operation by being in direct contact with the inner end of the neck of a bottle, carafe, decanter, &c. When the cleaner is composed of other material than bristles, it may be removed from the support-
- 20 ing-rod for the purpose of being cleaned, or a new cleaner may be substituted. This movement of the pivoted member is limited, and the latter can be easily brought into straight line with the other member for in-
- 25 sersion or removal through the neck of the vessel.

I claim as my invention—

1. A bottle-cleaner composed of two rods articulated together, a cleaner entirely surrounding the lower one of said rods, and an elastic band connected at one end to the outer end of said lower rod and at its other end to the upper rod at a point beyond the articulation of said rods, as set forth. 30

2. A bottle-cleaner composed of two rods articulated together, a cleaner removably secured on the lower one of said rods, and an elastic band connected at one end to the outer end of said lower rod and at its other end to the upper rod at a point beyond the articulation of said rods, as set forth. 35 40

3. A bottle-cleaner composed of two rods articulated together, a cleaner surrounding the lower one of said rods, an elastic band or string connected at its ends to said rods and extended angularly over the point of articulation, and a covering for said band or string, substantially as set forth. 45

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