

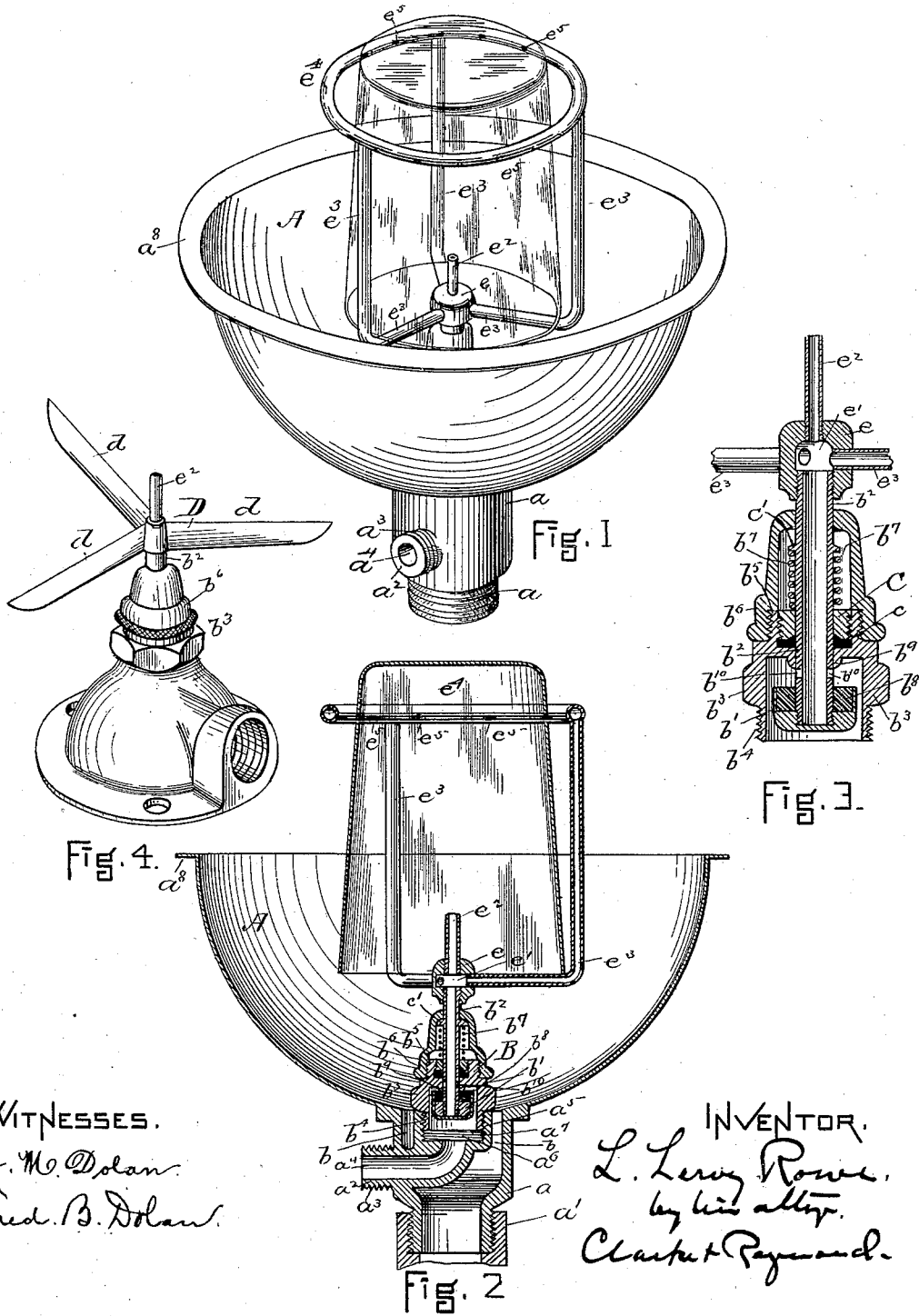
(No Model.)

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TUMBLER AND BOTTLE WASHER.

No. 378,621.

Patented Feb. 28, 1888.



WITNESSES.
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TUMBLER OR BOTTLE WASHER.

SPECIFICATION forming part of Letters Patent No. 378,621, dated February 23, 1888.

Application filed January 3, 1887. Serial No. 223,206. (No model.)

To all whom it may concern.

Be it known that I, L. LEROY ROWE, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Tumbler or Bottle Washers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The object of the invention is to provide a simple, cheap, and efficient device for washing the interior and exterior of tumblers, bottles, and other like articles.

In the drawings, Figure 1 is a perspective view of a tumbler-washer having the features of my invention. Fig. 2 is a vertical section thereof. Fig. 3 is a vertical section, enlarged, of the valve or upper section. Fig. 4 is a view, on a reduced scale, of a slight modification.

I have represented the invention in Figs. 1 and 2 as organized to wash both the exterior and interior of tumblers, bottles, &c., and in Figs. 3 and 4 as for washing the interior of such articles only. In Figs. 1 and 2 I have also represented it in connection with a basin.

In Figs. 1 and 2 of the drawings, A is the basin. It is secured, preferably, to a metal sleeve, *a*, which has a screw-thread by which the basin is attached to the waste-pipe *a'*. The sleeve also has cast integral with it the part or section *a²*, which extends laterally from the sleeve, and has a screw-thread, *a³*, for receiving the coupling of the supply-pipe. This part *a²* is provided with a hole or supply-inlet, *a⁴*. The sleeve *a* also has cast with it the interior section, *a⁵*, which has a hole, *a⁶*, (see Fig. 2,) in continuation of the supply-inlet, and which also has the coupling *a⁷* for receiving the upper section, B, of the washer. There is a space about this interior section, *a⁵*, of the sleeve, which forms the waste-passage *b* from the basin. The basin also has preferably a flange, *a⁸*, which is adapted to rest upon the edge of a counter or support. The upper section, B, of the washer comprises a valve, *b¹*, of peculiar construction, as described below, at the lower end of the tube *b²*, through which water is discharged.

The valve has the casing *b³*, which forms the valve-chamber and which has a screw-threaded sleeve, *b⁴*, which screws into the screw sleeve

or coupling *a⁷* of the section *a⁵*. The casing also has an exterior screw-thread, *b⁵*, for the reception of the cup *b⁶*, which holds the quill or tube *b²* and spring *b⁷* for assisting in closing the valve. The valve is contained in the casing *b³*, and has a packing, *b⁸*, and is attached to the end of the quill or tube *b²*, so as to be vertically movable in relation to the valve-seat *b⁹*.

The quill or tube is provided with the holes *b¹⁰* immediately above the upper surface of the valve, so that upon the downward movement of the quill or tube the valve is pressed from its seat and the holes *b¹⁰* exposed, by which the water is permitted to escape into the discharge-passage of the quill or tube. The quill or tube passes through the stuffing box *c*, the packing of which is held by the screw-gland C. The spring for assisting in closing the valve and for restoring the tube or quill to its original position bears upon the upper surface of this gland and against a flange, *c'*, extending from the side of the quill or tube. (See Fig. 3.)

It will be seen that by this construction the valve is opened against the water-pressure, and that it is returned to its seat and held closed by water-pressure, and that the spring acts to assist in returning the valve to its seat and to hold it there.

When the device is used for washing the interior of tumblers, bottles, and other articles, I prefer to employ or use a rest, D, having three arms, *d*, and adapted to be screwed upon the quill or tube *b²*, so that the reduced or small section *e²* of the quill or tube shall extend above the upper surface of the arms, and I prefer, also, that the supporting sections or parts of the arms be made thin.

Fig. 4 is an exterior view in perspective of this modified form of my invention, and it will be understood that the interior construction thereof is substantially the same as the form of my invention shown in section in Fig. 3.

When the device is used for washing the exterior as well as the interior of tumblers or bottles, I prefer the construction shown in Figs. 1 and 2, which shows a metal block, *e*, having a screw-thread which permits it to be screwed upon the quill or tube, and having a small chamber, *e'*, in continuation of the passage of the quill or tube, which chamber opens into what is in effect an upward continuation,

e^2 , of the nozzle or tube, and which conducts the stream by which the interior of the tumbler or bottle is washed, and also into the three holes which receive the tubes e^3 , whereby the water which is used for washing the exterior is fed from the chamber e' to a ring, e^4 , which has distributing-perforations e^5 , by which the pipes not only answer the purpose of conducting the water to the distributing-ring e^4 , but their horizontal portions also act as arms or supports for holding or receiving a tumbler or bottle, thus serving the same purpose as the arms d of the rest D shown in Fig. 4.

In operation the article to be washed is placed over the small vertical teat or tube and is then pressed downward. This presses the quill or tube downward and causes the valve to be moved from its valve-seat and the water to escape through the tube in a small but forcible stream, and upon the removal of the tumbler or bottle or upon the release of the downward pressure upon the tube or quill the valve is automatically closed by the pressure or head of water and by the spring which serves to return the tube and support to their original position.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a tumbler-washer, the combination of the casting having the waste-passage b , the screw-sleeve a , the integral section a^3 for supporting the section B of the washer, and the coupling-teat a^2 , with the basin A, attached to said casting, and the section B of the tumbler or bottle washer, having the valve b' , and a

tube or quill, b^2 , for opening the same, and supporting-arms for sustaining the tumbler or bottle to be washed, substantially as described.

2. In a tumbler or bottle washer, the combination, with the valve-casing b^3 , having the valve-seat b^9 , of the quill or tube b^2 , having the flange c' and the holes b^{10} , the valve b' , carried by the said quill or tube, the stuffing-box c in the said valve-casing, the cap b^6 , having a screw-threaded connection with the said casing and serving as a vertical guide for the tube b^2 , the gland C, the spring b^7 , housed within the said cap and arranged between the said gland and flange, and rests or supports extending horizontally from the said quill or tube, substantially as set forth.

3. In a tumbler or bottle washer, the combination, with the valve-casing b^3 , having the valve-seat b^9 , of the quill or tube b^2 , having the flange c' and the holes b^{10} , the valve b' , carried by the said quill or tube, the stuffing-box c in the said valve-casing, the cap b^6 , having a screw-threaded connection with the said casing and serving as a vertical guide for the said quill or tube, the gland C, the spring b^7 , housed within the said cap and arranged between the said gland and flange, the block e , having the chamber e' , the tube or teat e^2 , extending vertically from said chamber, the tubes e^3 , extending horizontally from the said chamber and then vertically, and the perforated ring e^4 , supported by the tubes e^3 , substantially as set forth.

L. LEROY ROWE.

In presence of—

F. F. RAYMOND, 2d,
J. M. DOLAN.