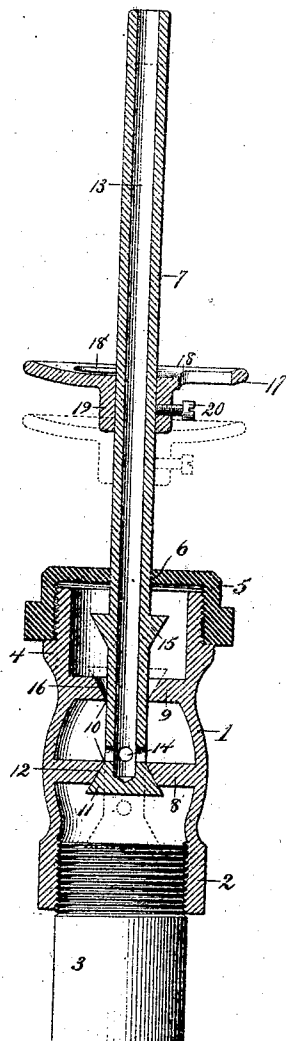


(No Model.)

L. H. F. PETER.
AUTOMATIC WASHER.

No. 358,219.

Patented Feb. 22, 1887.



Witnesses.

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C. E. Ruggles.

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UNITED STATES PATENT OFFICE.

LOUIS H. F. PETER, OF DANBURY, CONNECTICUT.

AUTOMATIC WASHER.

SPECIFICATION forming part of Letters Patent No. 358,219, dated February 22, 1887.

Application filed March 29, 1886. Serial No. 197,058. (No model.)

To all whom it may concern:

Be it known that I, LOUIS H. F. PETER, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Automatic Washers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to simplify and improve the construction of this class of devices. These ends I accomplish by means of a novel double acting check-valve and the general construction and combination of parts hereinafter fully set forth and then specifically claimed.

In describing my invention I shall refer by numbers to the accompanying drawing, forming part of this specification, said drawing being a longitudinal section of the device complete, the parts being shown in full lines in the closed position and in dotted lines in the opened position.

1 is the body or case, having a hub, 2, internally screw-threaded in the usual manner for the attachment of the supply-pipe 3. At the other end of the body is a hub, 4, which is externally screw-threaded, and is engaged by a cap, 5, said cap having a central opening, 6, through which the valve-stem 7 passes. The interior of the body or case is divided into three chambers or compartments by partitions 8 and 9. Each of these partitions is provided with a central opening, 10, through which the valve-stem passes. At the lower end of the valve-stem is a valve or disk, 11, which is upwardly beveled and fits closely in a correspondingly beveled ground-seat, 12, in the under side of partition 8. The valve-stem is provided with a central opening, 13, which extends down to disk 11. Just above this disk are apertures 14, which lead into the central opening or passage, as will be more fully explained.

15 is a downwardly-beveled disk upon the valve-stem, which is adapted to engage a correspondingly beveled ground-seat, 16, in the upper side of the upper partition, 9. Disks 11 and 15 are a sufficient distance apart, so that one only of them can be in engagement with its seat at the same time. These disks

may be made integral with the stem, as shown, or may be made separate and secured thereto in any ordinary manner.

17 is a concave plate having openings 18, a hub, 19, and a set screw, 20, by which it is adjustably secured to the valve-stem to adapt the device to washing of various-sized bottles.

The operation is as follows: The parts are shown in full lines in the closed position—that is to say, water entering the valve through the supply-pipe forces disk 11 up against its seat, thus effectually preventing the entrance of water into the second compartment.

It will be understood, of course, that this valve is capable of numerous and varied uses. It is sufficient, however, to describe it in connection with the ordinary parts of a bottle-washer. In use plate 17 is adjusted to the proper position upon the valve-stem and a bottle placed over the stem, the neck of the bottle resting on the plate. The weight of the bottle is sufficient to overcome the pressure of the water upon disk 11, which permits the stem to drop down until disk 15 rests in seat 16, as shown in dotted lines, the position of the lower disk at this time being also shown in dotted lines. When the parts are in this position, the flow of water is cut off by the engagement of the upper disk with its seat. It therefore finds escape through apertures 14, and rushes through the valve-stem into the bottle. The upper end of the valve-stem may be contracted, if found desirable.

In practice the water strikes in the angle formed by the bottom and side of the bottle, whirled around, and thoroughly washes every portion of the interior of the bottle, the water as it passes out from the bottle passing through openings 18 in the plate. The instant that the bottle is removed from the plate the pressure of the water on the lower disk acts to cut off the flow instantly, no springs whatever being used. The purpose of the third chamber is simply to afford room for the movement of the upper disk, cap 5 serving simply as a guard and as a support for the stem. The device, however, would operate perfectly without said cap. In the closed position the water cannot pass out from the first chamber. Should the pressure of the water be sufficiently strong to lift a bottle from off the stem, it can be regu-

lated in any suitable manner—as, for example, by partially turning a stop-cock. This, however, I have not deemed it necessary to show, as it forms no portion of my invention. In practice a number of these washers are used in a row or circle, and an attendant, passing along the row, removes the washed bottles and substitutes others, each bottle remaining in position upon the plate as long as may be necessary, or until it is reached again. Larger-sized devices may of course be used for beer-kegs, barrels, &c.

It will be seen that the construction is such that no packing whatever is required, while at the same time there is an absolutely tight cut-off when the device is not in operation.

It will of course be understood that I do not desire to limit myself to the exact details of construction shown and described, as it is obvious that they may be varied within reasonable limits without departing from the spirit of my invention.

I claim—

1. The body having partitions 8 and 9, each of which is provided with a central opening and a seat, in combination with a stem having a central opening and apertures leading thereto, a disk at the lower end of said stem adapted to

engage the lower seat, and another disk upon said stem adapted to engage the upper seat when the lower disk is not in engagement.

2. The body having partitions 8 and 9, each having a central opening and a seat, and a stem having a central opening, apertures leading thereto and carrying disks adapted to engage said seats, in combination with a cap adapted to engage a hub on the body and having a central opening through which the stem passes.

3. In an automatic bottle-washer, the combination of a body having two partitions provided with central openings and seats, and a stem having a central opening and apertures leading thereto and provided with disks adapted to engage said seats, with a perforated plate adjustably secured to said stem, whereby the weight of the bottle on said plate will automatically open the valve to allow water to pass through the stem, said valve being instantly closed by the force of the water when the bottle is removed.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS H. F. PETER.

Witnesses:

A. M. WOOSTER,
C. E. RUGGLES.