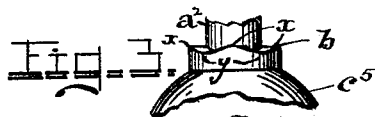
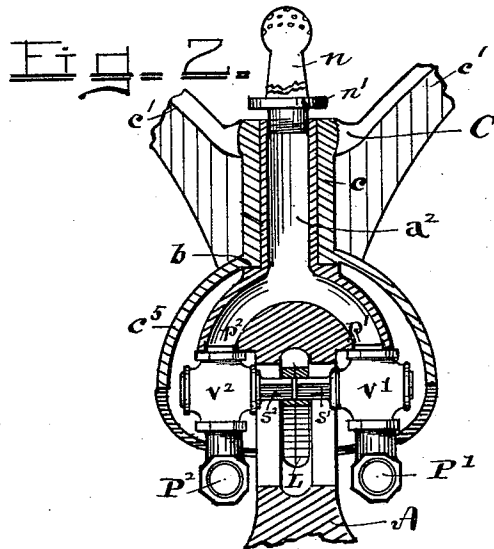
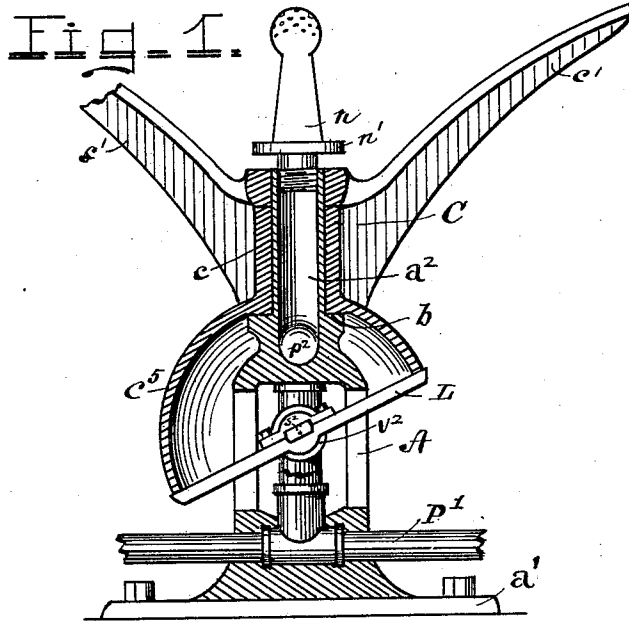


(No Model.)

E. R. BUHRMAN & R. J. MEISER.
BARREL WASHER.

No. 582,263.

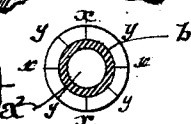
Patented May 11, 1897.



Witnesses:

James L. Foley,
Edw. R. Buhrman

Fig. 4.



Edward R. Buhrman
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Chas. M. Koca atty

UNITED STATES PATENT OFFICE.

EDWARD R. BUHRMAN AND RUDOLPH J. MEISER, OF CINCINNATI, OHIO;
SAID MEISER ASSIGNOR TO SAID BUHRMAN.

BARREL-WASHER.

SPECIFICATION forming part of Letters Patent No. 582,263, dated May 11, 1897.

Application filed July 9, 1896. Serial No. 598,540. (No model.)

To all whom it may concern:

Be it known that we, EDWARD R. BUHRMAN and RUDOLPH J. MEISER, citizens of the United States, residing at Cincinnati, Ohio, have invented new and useful Improvements in Keg-Washing Apparatus, of which the following is a specification.

Our invention relates to keg-washing apparatus, its object being to provide a convenient, efficient, and durable apparatus for use in breweries and elsewhere for washing the interior of kegs with hot and cold water.

To this end our invention consists in a stand terminating above in a water-discharging nozzle, connecting below with hot and cold water distributing pipes, provided with suitable controlling-valves and on which is mounted a horizontally-rotating keg-holder provided with a cam or other suitable controlling device, and connections governing the valves, whereby upon rotating the keg and holder the valves are alternately opened and closed.

Incidentally the construction is devised to permit any number of the structures to be conveniently arranged in consecutive series on lines of piping connecting with a water-supply.

Our invention is illustrated in the accompanying drawings, in which—

Figures 1 and 2 are vertical sections of the device in cross-planes of the axis, and Fig. 3 a detail elevation of the inclined-plane resting-surface of the keg-holder upon the stand; Fig. 4, a plan of same.

Referring now to the drawings, A designates a stand provided with a base a' and terminating above in a vertical hollow post a^2 , in the upper end of which is secured a removable nozzle n . The hollow post a^2 is branched below into two receiving ports or passages p' p^2 , provided with valves v' v^2 , forming, respectively, governing communications with the supply-pipes P' P^2 , delivering hot and cold water. The valves v' v^2 are of the rotating plug type, and the squared stems s' s^2 of their plugs project toward each other through a suitable opening in the stand to approximate contact in a common horizontal axis, so as to receive an operating-lever L in common, (or two separate levers side by side acting in unison.)

These levers operate through a vertical slot in the intermediate portion of the stand above the base, by which they are retained in position. Upon an external shoulder b at the bottom of the hollow post a^2 above its branches p' p^2 rests a rotating keg-holder C, consisting substantially of a hollow stem c , adapted to fit over and rotate upon the post a^2 as a pivot, and provided with a number (preferably four) of branching arms c' c^2 c^3 c^4 , extending radially outward and upward to receive and retain the keg to be washed. Below the stem c terminates in a hood or skirt shaped cam c^5 of semi-spherical form, having its lower edge in a plane inclined to the axis of the stand at an angle to both vertical and horizontal planes. The lower edge of the skirt c^5 rests at all times against the lever L at points equally distant from its center, as shown in Fig. 1, and oscillates the lever (or levers) by its rotation.

The valves v' v^2 are so adjusted in relation to the operating-cam c^5 that when the lever (or levers) L is in its horizontal or mid position both valves are closed, and the oscillation of the lever in one direction from the mid-position opens the cold-water valve and oscillation in the other direction opens the hot-water valve. It will be seen that the valves are thus actuated by rotation of the keg-holder C to different radial positions, two opposite positions being those of complete closure of both valves and the two intermediate opposite positions between these being open positions for the valves, respectively, for hot and cold water. In order to indicate these positions to the attendant by touch or feeling without resort to vision for accuracy of adjustment and at the same time make the device automatic in closing the valves by gravity when out of use, we form the engaging surfaces of the shoulder b as a series of equal inclined planes, each incline extending an eighth of the circle, so that there are four points x of highest elevation with declining surfaces to four mid-points y , respectively, of lowest elevation, Fig. 3. The corresponding engaging surface of the holder C is oppositely formed, the upward inclinations of one registering with the declivities of the other. The lower edge of the skirt c^5 is correspondingly varied from a strict plane

to accommodate the rising-and-falling movement thus given to the keg-holder in rotation by the inclinations of the surface *b* and maintain constant contact at all times with the lever *L*, the general action of the cam being unaffected by the feature of structure last described, excepting that the weight of the keg and holder, or of the holder alone, is thus made to assist in retaining or restoring the valves to open or closed positions, respectively. To prevent the keg-holder *C* from being lifted off the stand, (except when the apparatus is purposely taken apart,) the nozzle *n* is provided with a collar or flange *n'* of sufficient size to project over the top of the stem *a*² of the holder *C*, as shown, to prevent displacement yet permit the described vertical movement.

There is thus constituted a washing apparatus in which the holder is utilized as the element controlling the valves in either direction by its rotation, the keg being placed on the holder in the usual manner, with the nozzle entering the bung-hole and discharging in the interior of the keg. It will be observed that the valves for hot and cold water are independent of each other, each being attached to its own supply-pipe and not subject to the changes of temperature and consequent injury and wear to which a three-way cock discharging both hot and cold water is exposed. The skirt or hood *c*³ also serves to shed water from the valves beneath, thus protecting them from dirt or accidental injury.

We claim as our invention and desire to secure by Letters Patent of the United States—

1. The combination in a keg-washer, of a tubular two-ported stand, two supply-pipes connected thereto; controlling-valves in said connections; a lever connected to the stems of said valves in common and extending equally in both directions; a rotating keg-holder pivoted on said stand, and a depending skirt having its lower edge inclined and engaging the lever by contact at both sides of its pivotal center, substantially as set forth.

2. In a keg-washer, of the character indicated, the combination of a rotatable keg-holder; a hollow stand on which it is pivoted; an annular bearing-shoulder divided into a series of circumferentially-inclined planes, to

give the keg-holder a vertical movement by means of its rotation; a supply-pipe for the stand; a controlling-valve in said pipe; and connections thence to the keg-holder, whereby the rotation of the holder opens or closes said valve, and the vertical movement allows the gravity of the holder to maintain the valve open or closed according to the radial position of the holder in relation to the stand; substantially as set forth.

3. In a keg-washer, of the character indicated, the combination of a rotatable keg-holder; a hollow stand on which it is pivoted; an annular bearing-shoulder divided into a series of circumferentially inclined planes to give the keg-holder a vertical movement by means of its rotation; separate supply-pipes with connections to the stand; independent controlling-valves in said connections; and mechanism connecting the valves with the keg-holder, and actuating the same alternately by continued rotation, and, by the vertical movement, allowing the gravity of the keg and holder to maintain each valve in an open or closed relation according to the radial position of the holder in relation to the stand, substantially as set forth.

4. In a keg-washer of the character indicated, the combination of a vertically-slotted stand having a tubular head bifurcated into two descending water-passages, vertical connections from said passages to two horizontal supply-pipes adjacent to the body of the stand, controlling-valves in said connections approximately in a common axis, a cross lever or levers attached to the stems of said valves and projecting outward through the slots of the stand at opposite sides, and a rotating keg-holder pivotally seated on the tubular head and extended downwardly as a dome or skirt having inclined lower edges engaging oppositely the terminals of said levers, substantially as set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

EDWARD R. BUHRMAN.
RUDOLPH J. MEISER.

Witnesses:

L. M. HOSEA,
JAMES L. FOLEY.