(No Model.)

J. J. DANKS.

KEG AND BARREL WASHING MACHINE.

No. 434,430. Patented Aug. 19, 1890.

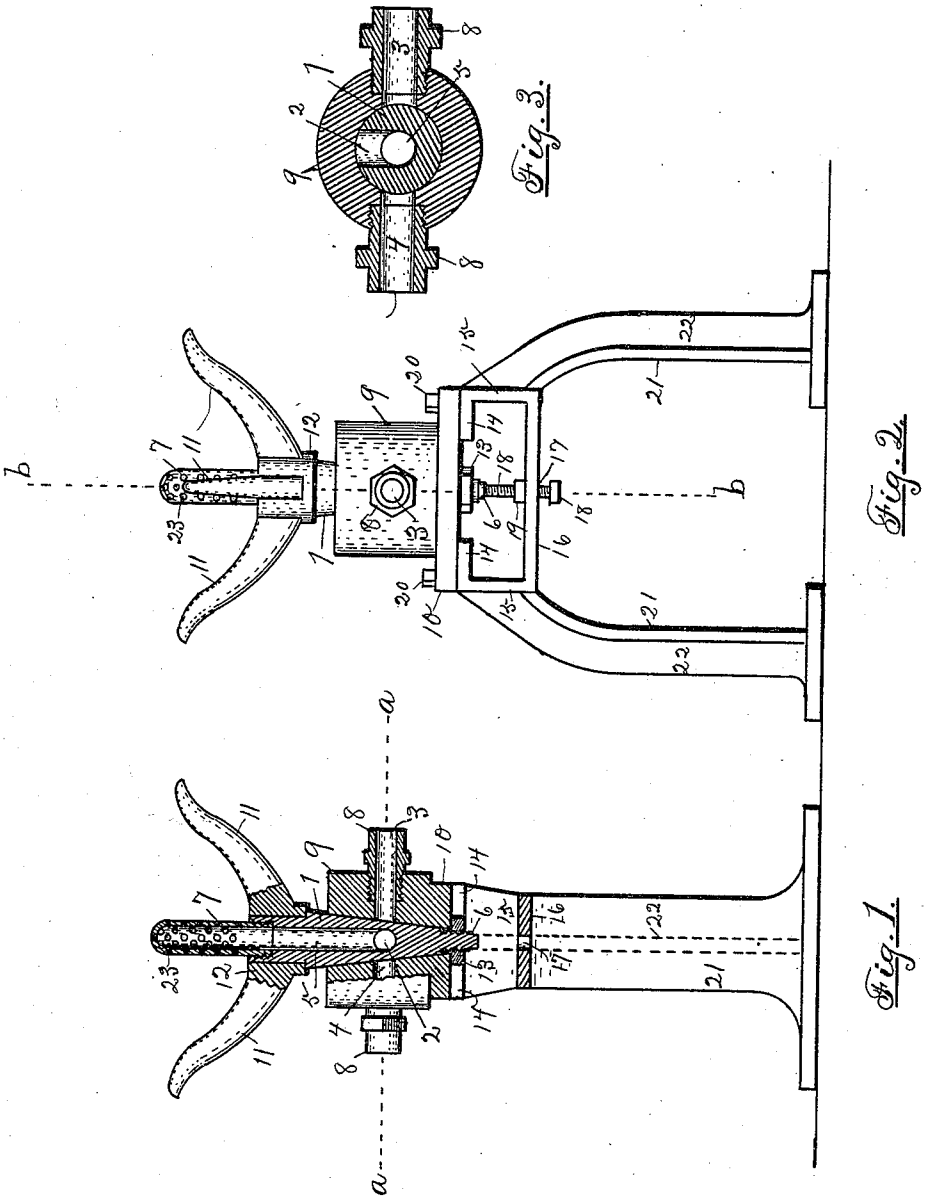


Fig. 3.

Fig. 2.

Fig. 1.

Witnesses
Henry F. Senzer
John Garelick

Inventor
Joseph J. Danks,
By Attorney
E. P. Robbins, Jr. E.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH J. DANKS, OF CINCINNATI, OHIO.

KEG AND BARREL WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 434,430, dated August 19, 1890.

Application filed March 24, 1890. Serial No. 345,045. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. DANKS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Keg and Barrel Washing Machines; 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 relates to improvements in keg and barrel washing machines.

The object of my invention is to produce a keg and barrel washing machine which will be simpler of construction, more convenient to use, less expensive, and more durable than similar previous machines. A machine similar to this is shown and described in Patent No. 330,550, for a keg-washing machine, dated November 17, 1885, and granted to H. Binder. That machine has two independent supporting-frames with a keg-holder supported by one frame and a valve supported by the other, with their respective axes parallel and an operative mechanical "connection" between them, consisting of gearing or its equivalent. The principle of construction of that machine requires such a mechanical connection between the keg-holder and the valve, and also is limited in operation to an "oscillating" turning motion. The valve part or plug has two side openings near each other, which, with the oscillating motion necessary, causes uneven wear on one side of the valve-plug and in time causes the valve to leak, when the machine must be repaired, and since such machines are worked continuously such wear results soon and is objectionable.

In order to attain the objects above mentioned, I have devised my machine so that the axis of the valve and that of the keg-holder may coincide, and so that the valve-plug and holder may be rigidly connected together, and hence no operative mechanical connection be required between the valve and keg-holder, thus having a simple and inexpensive arrangement with a single frame. Further, I make but one side opening in the valve-plug and am enabled to rotate the keg-holder and valve in either direction continuously, thus avoiding undue wear of the parts.

Figure 1 is an end view, partly in section, along the plane *b b*, Fig. 2. Fig. 2 is an exterior side view of the complete machine. Fig. 3 is an enlarged cross-sectional view of the central parts along the horizontal plane *a a*, Fig. 1.

The same numbers refer to the same parts in different figures.

The central part 9 10 constitutes a valve-case, and is supported upon and attached to the frame 14 15 16 21 22 by bolts 20. The valve-plug 1 is made conical, and fits and turns within a correspondingly-shaped hole in the case 9. The arms 11 for supporting the key are cast integral with a hub 12, which has a central hole in which the upper end of the valve-plug 1 is secured by being driven tightly therein. A nut 13 on the lower end of the valve-plug 1 is used to adjust any wear of the plug and also to keep the plug and keg-holder in place. A set-screw 18 is supported by a cross-frame part 16 and the nut 19, and may be adjusted to suit the wear of the valve-plug 1, and is intended to take the downward pressure of the plug 1 off of its circumferential bearing and prevent the plug becoming stuck when kegs are thrown hard upon the keg-supports 11.

In the Binder machine above mentioned the nozzle-tube which enters the bung-hole is simply secured in a hole in the upper part of the hub of this keg-holder by being driven in place and soldered, and the spur-wheel, which is connected to the keg-holder, turns about the nozzle-tube as a bearing, so that the nozzle-tube frequently works loose. The nozzle-tube 7 in my device has not the function of a bearing, and is secured tightly in the upper end of the hub 12, preferably being screwed in place, and hence there is no cause for it to work loose. The nozzle 7 is a continuation of the axial hole 5 of the valve-plug 1, and has holes 23 through its sides, by which the water passes to the interior of a keg. Radial passages 3 and 4 are made in the valve-case 9, through which hot and cold water may be introduced at pleasure to the axial valve-passage 5. Fixtures 8 are screwed into the holes 3 and 4, by which to connect the hose or piping which conducts the water to the machine. Hot water can be introduced at one and cold water at the other of the holes

3 4. A radial hole 2 in the valve-plug 1 provides for communication between the axial passage 5 and the lateral holes 3 and 4. Figs. 1 and 3 show the valve-plug 1 turned so that communication is not established with either holes 3 or 4.

It is evident that the plug 1 may be rotated continuously in one direction, and thus not wear unevenly in its bearings. The frame parts 9, 10, 15, 16, and 22 are made of cast-iron. The keg-support 11 12 may be made of cast or malleable iron. The parts 1, 7, and 8 would be made of a suitable alloy.

I claim—

1. In a keg and barrel washer, the combination of a keg-holder, a rotary valve, a valve-case, and a suitable frame, the axes of the holder and the valve being coincident, substantially as set forth.

2. In a keg and barrel washer, the combination of a keg-holder, a rotary valve, a valve-case, and a supporting-frame, the frame having an open top part, and side-supporting branches, and the valve-case being suitably secured thereon, substantially as set forth.

3. In a keg and barrel washer, the combination of a keg-holder, a rotary valve, a cylindrical valve-case concentric with the valve-axis and having a rectangular base, and a supporting-frame having a rectangular top part, to which said case-base is secured, substantially as set forth.

4. In a keg and barrel washer, the combination of a rotary valve having an upwardly-opening axial passage and a radial passage communicating therewith, a valve-case having two radial passages, and a supporting-frame, the valve being arranged to turn continuously about its axis in the same direction, and the radial passages of the valve and case being adapted to communicate, substantially as set forth.

5. In a keg and barrel washer, the combination of a rotary valve having an upwardly-opening axial passage and a radial passage communicating therewith, a nozzle connected to the top of the said valve and communicating with the said axial passage, a keg or barrel holder secured to the top of the valve exterior to the said nozzle, a valve-case having radial passages adapted to communicate with the valve-passages, and a suitable supporting-frame, substantially as set forth.

6. In a keg and barrel washer, the combination of a conical rotary valve having an axial passage and a radial passage communicating therewith, a keg or barrel holder secured to the top of said valve, a valve-case, a suitable frame common for the valve and the keg-holder, having a cross part beneath the valve-case, and a set-screw held by the said cross part and against the lower end of the valve, substantially as set forth.

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

JOSEPH J. DANKS.

Witnesses:
EDWARD P. ROBBINS,
HENRY F. LENZER.