(No Model.)

J. KRONESS & W. WUEST.

WASHING MACHINE.

No. 359,161. Patented Mar. 8, 1887.

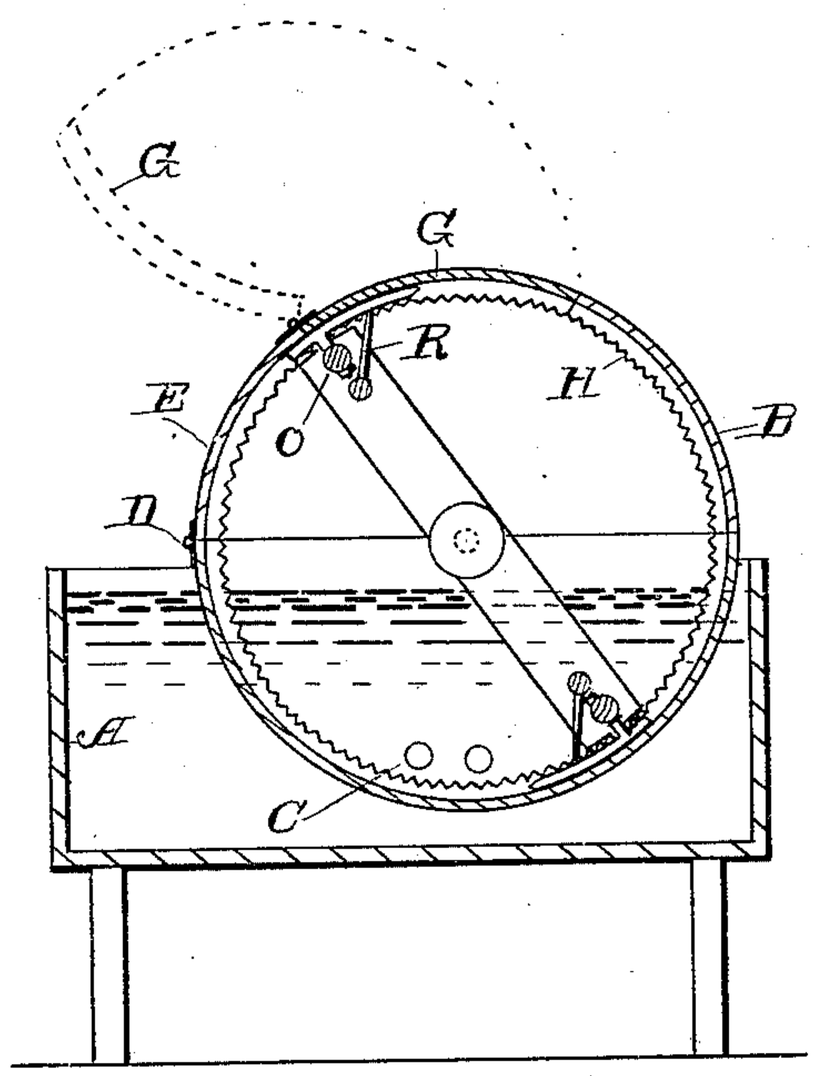

Fig. 1.

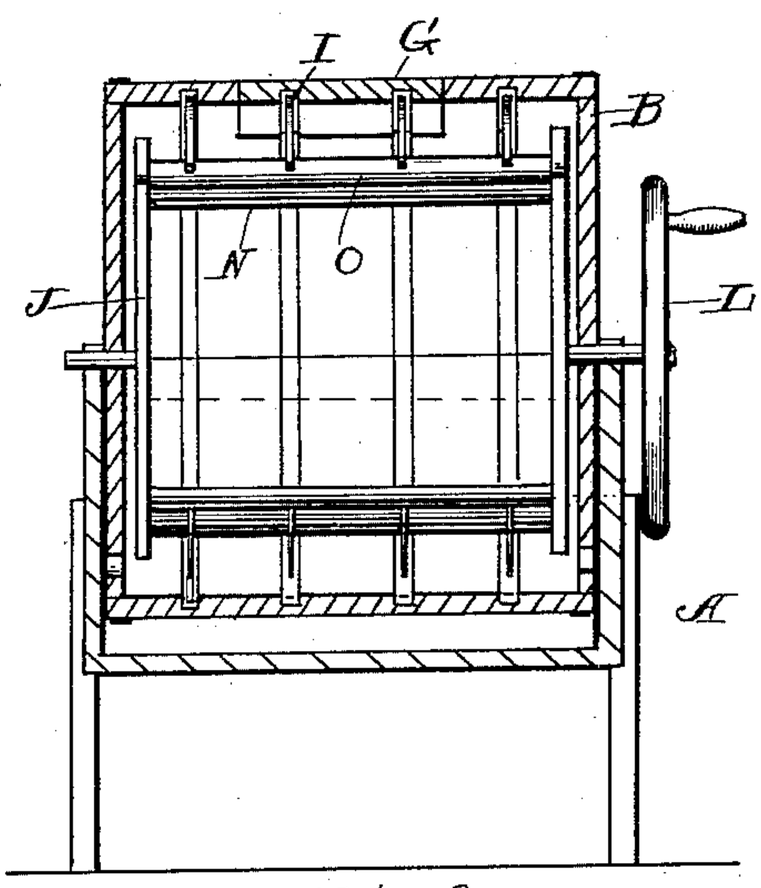

Fig. 2.

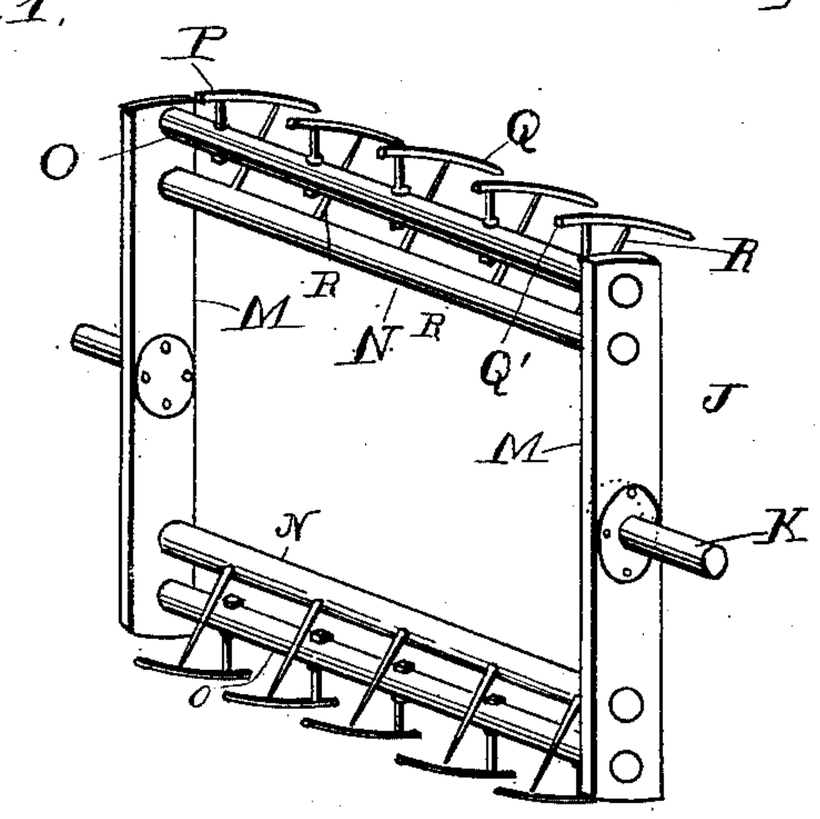

Fig. 3.

WITNESSES:

Robert Kirkpatrick.
C. H. Jones

INVENTORS:

John Kroness,
William Wuest.

By L. S. Zebley
Attorney.

UNITED STATES PATENT OFFICE.

JOHN KRONESS AND WILLIAM WUEST, OF CINCINNATI, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 359,161, dated March 8, 1887.

Application filed January 4, 1886. Serial No. 187,546. (No model.)

To all whom it may concern:

Be it known that we, JOHN KRONESS and WILLIAM WUEST, both of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of our improved washing-machine; Fig. 2, a transverse vertical section, and Fig. 3 an enlarged perspective view of the rotating dasher.

Our invention relates to an improvement in the class of articles known as "washing-machines," the principal features of which consist of a cylinder partly immersed in a tank and provided with openings, so that the water within the tank may penetrate to the inner side of the cylinder. Within this cylinder we provide a rotating dasher-frame operated by means of a crank outwardly, and having a series of forwardly-projecting arms sliding within grooves, so that the clothes may rotate around the corrugated periphery of the cylinder without balling up the goods or clogging up the machine, all of which will now be fully set forth in detail.

In the accompanying drawings, A represents the tank of a washing-machine, having at its upper part a cylinder, B, partly immersed in the said tank. This cylinder is designed to be stationary within the top of the tank, and provided at its lower side with openings C, by means of which the water within the tank A may penetrate into the cylinder B. This cylinder preferably has one-half of its parts within the tank, while the upper half is disposed so as to be provided with a hinge, D, at one side, so that it may be opened for the introduction and removal of the dasher. The upper part of this hinged section E is also provided with a supplementary lid, G, hinged thereto for the introduction or removal of the goods. The inner periphery of the cylinder is designed to be corrugated, H, and has a series of annular grooves, I, as shown in Fig. 2.

Within the cylinder we provide a rectangular frame, J, having spindles K at each end, journaled centrally within the cylinder, and a spindle at one end is designed to be provided with a crank, L, for rotating the same. This frame J is made up of the end pieces, M, to which the spindles K are attached, and of transverse pieces N and O at each end of these end pieces, M. The pieces O have a series of outwardly-projecting arms, P, with forwardly-projecting parts Q and rearwardly heel projecting parts Q'. These are designed to be of a number corresponding with the annular grooves I within the periphery or shell of the cylinder B. The inner transverse pieces, N, also are provided with a series of forwardly-projecting arms, R, to correspond with pieces P, the forward and outer ends resting against the inner face of the forwardly-projecting parts or spurs Q. As will be noticed, the inner part of the frame J is thus open, and as the frame is rotated, the arms or spurs Q rotating within the said grooves, and the goods not penetrating within these grooves I, the said forwardly-projecting spurs Q pass under the goods, and thus move them along without the liability of their clogging up beneath the under ends of the dasher or the corrugations of the cylinder, or of balling up the goods. As the frame J is rotated by means of the crank L, the goods are moved forward by the oppositely-disposed transverse pieces N and O, carrying the spurs Q and projecting pieces R, thus causing the goods to be rubbed continuously against the corrugations of the cylinder. The heel projections Q' answer the same purpose as the spurs Q when rotated backwardly.

The perforations C at the lower part of the cylinder are designed to be in such a position that the water in the tank A may pass into the cylinder, and thus the water may be changed as often as found necessary.

Having described our invention, what we claim as new is—

1. In a washing-machine, a cylinder partially immersed in a water-tank and having corrugations and a series of annular grooves, in combination with a rotating dasher provided with a series of forwardly-projecting spurs, substantially as described.

2. The combination of the cylinder provided with grooves I, as shown, the rectangular dasher-frame J, having laterally the spindles K and outwardly the crank L, the transverse pieces O, having forwardly and rearwardly projecting spurs Q and Q', and the transverse pieces N, including the pieces R, substantially as herein set forth.

3. The combination of the tank A, having therein the cylinder B, partly immersed, and provided with grooves I, as shown, the hinged section E, lid G, corrugations H, with the rectangular dasher-frame J, transverse pieces N and O, and the forwardly and rearwardly projecting arms R, and the spurs Q and Q′, engaging the grooves of the cylinder, substantially as and for the purpose as herein described.

In testimony that we claim the foregoing we have hereunto set our hands, this 8th day of December, 1885, in the presence of witnesses.

JOHN KRONESS.
WILLIAM WUEST.

Witnesses:
WM. STRUNK,
LEONARD C. SMITH.