J. Johnson,

Washing Machine.

No. 103339. Patented May 24. 1870.

Fig. 1.

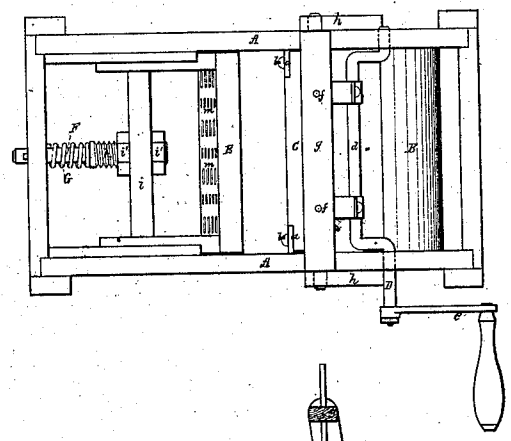


Fig. 2.

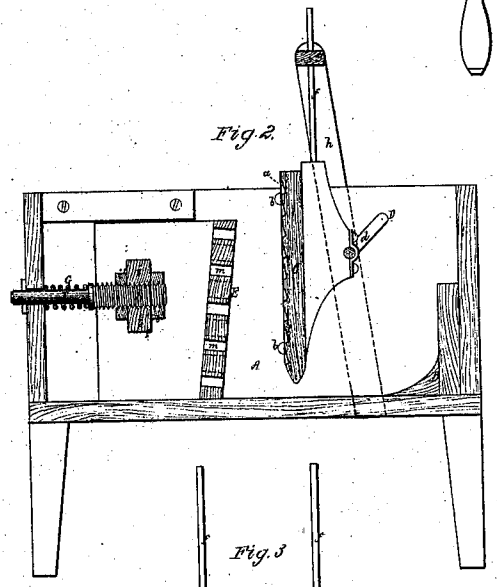


Fig. 3

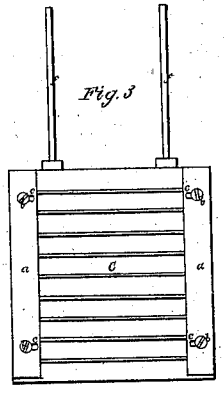
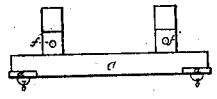


Fig. 4.



Witnesses.

S. N. Piper

L. A. Miller

Joseph Johnson.

by his attorney.

H. H. Eddy.

United States Patent Office.

JOSEPH JOHNSON, OF BOSTON, (HIGHLANDS,) MASSACHUSETTS.

Letters Patent No. 103,339, *dated May* 24, 1870.

IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, JOSEPH JOHNSON, of Boston, (Highlands,) of the county of Suffolk and State of Massachusetts, have invented an Improved Washing-Machine; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and

Figure 2, a longitudinal and vertical section of it.

Figure 3 is a front elevation of its dasher, and

Figure 4, a top view thereof.

The nature of my invention consists in the combination of a dasher, its operative cranked shaft, slide-rods, and rocker-shaft, with a curved stationary apron and a yielding perforated abutment or wash-board, arranged in the tub or suds-reservoir, substantially in manner as hereinafter described, and as represented.

Also, in the arrangement and combination of adjustable side bars or pieces with the dasher and tub.

Also, in the combination of a screw-shaft or spindle and its nuts and spring with the yielding or sliding abutment, the dasher, and its peculiar operative mechanism, arranged as, and applied to the tub in manner as hereinafter explained.

In the said drawings—

A denotes an oblong tub or reservoir, for holding the washing liquor, such reservoir having, at one end, and arranged above its bottom, as represented, a curved stationary apron or chute, B, to operate with the dasher C.

The said dasher C is a rectangular board, fluted transversely, and provided with two adjustable wings or side boards, *a a*, which are held to it by screws *b b* going through slots, *c c*, made laterally in such boards.

As the said side boards may become worn on their outer edges from time to time, they may be set up nearer to the sides of the tub, so as to cause the dasher to operate therewith as closely as possible.

The said dasher, while in operation, has an elliptical or compound motion. At its rear it is pivoted to the bell-crank *d* of a shaft, D, provided with a driving-crank, *e*, which is arranged so as to stand at one hundred and eighty degrees of a circle distant from the bell-crank.

Furthermore, from the upper edge of the dasher, two rods, *f f*, project, and extend through holes in a rocker-shaft, *g*, pivoted to two standards, *h h*, erected on the tub.

The curve of the apron corresponds with, or about with, that made by the lower edge of the dasher while passing across the said apron. The apron, however, is arranged so that, as the dasher descends by and along it, the space between it and the dasher may widen a little, so as to prevent the clothes from being caught between the two.

In front of the dasher there is arranged in the tub a movable wash-board or abutment, E, so applied to the tub as to be capable of being moved longitudinally therein.

This wash-board is perforated with numerous holes, *m m*, extended through it transversely.

A screwed spindle, F, projects from the abutment E, and goes through the end of the tub, and carries a helical spring, G, so applied to the spindle and the tub as to operate to force the abutment forward, in order to restore it to its normal position after each advance of the dasher.

This spindle is held to the abutment by having its screw *h* extended through a cross-bar, *i*, of the abutment, and, being provided with two nuts, *i' i'*, screwed upon the screw, and against opposite sides of such bar.

The screw and nuts serve to regulate the distance of the abutment from the dasher or either end of the tub.

By revolving the hand-crank *e*, the dasher will be put in operation, and, at every revolution of the crank, will not only be moved forward and backward, but upward and downward within the tub, it thus having an elliptical or peculiar compound motion imparted to it highly favorable for washing clothes when placed between it and the abutment.

During an advance of the dasher it will drive the water and clothes down the apron, and forward toward and against the abutment, and will lift or roll the clothes up, and squeeze them against the abutment, and force the water through it and the clothes.

During the retreat or rearward motions of the dasher, the water or washing liquid will rush back with the clothes.

By the action of the dasher, the clothes will be turned over and over and forward against the abutment, whereby they will be very thoroughly washed, the abutment yielding to the pressure as occasion may require.

I claim, in the improved washing-machine, as described, the combination and arrangement of the dasher C, with its adjusting side boards *a a*, the operative crank-shaft D, slide-rods *f f*, rock-shaft *g*, apron B, yielding abutment E, with its screw-spindle F, nuts *i i*, and spring G, as shown, for the purpose set forth.

JOSEPH JOHNSON.

Witnesses:

R. H. EDDY

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