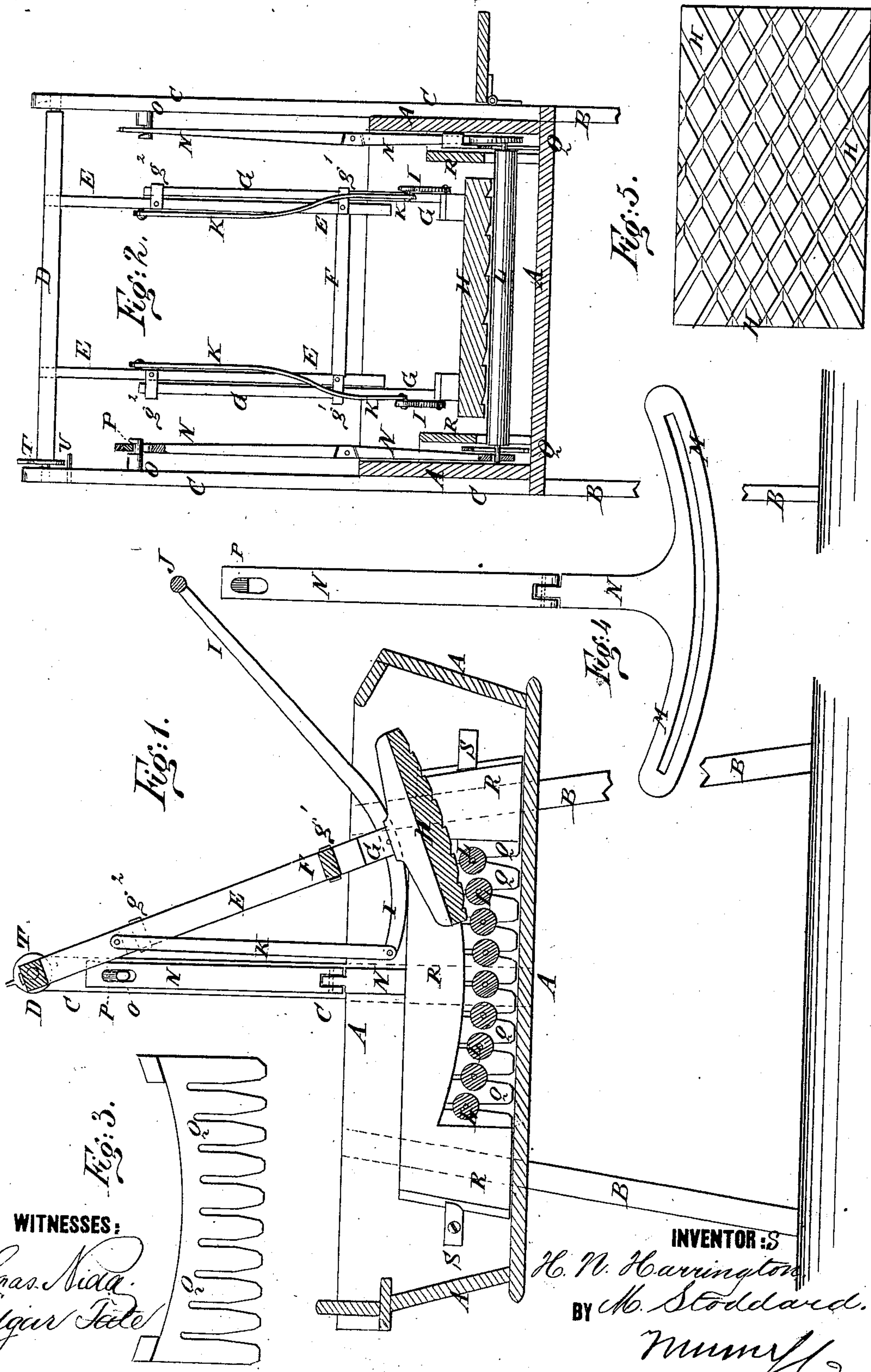


H. N. HARRINGTON & M. STODDARD.
Washing-Machines.

No. 196,799.

Patented Nov. 6, 1877.



WITNESSES:

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H. NILES HARRINGTON AND MITCHEL STODDARD, OF STOCKBRIDGE, N. Y.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **196,799**, dated November 6, 1877; application filed April 2, 1877.

To all whom it may concern:

Be it known that we, H. NILES HARRINGTON and MITCHEL STODDARD, of Stockbridge, in the county of Madison and State of New York, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification:

Figure 1 is a vertical longitudinal section of our improved machine. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a detail view of the slotted plate. Fig. 4 is a detail view of the slotted curved bar and its hinged arm. Fig. 5 is a detail face view of rub-board.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved washing-machine, simple in construction, convenient in use, easily operated, and effective in operation.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A represents the suds-box, which may be made of any convenient shape and size, and is supported upon legs B, of such a length as to raise the machine to a suitable height. To the middle parts of the side boards of the suds-box A are attached the lower ends of two standards, C, to the upper ends of which are pivoted the ends of the cross-bar D. To the cross-bar D are attached the upper ends of two hanging bars, E, the lower ends of which are connected by a cross-bar, F. Upon the outer sides of the bars E are placed two bars, G, which slide up and down in keepers $g^1 g^2$, attached to the said bars E. To the lower ends of the bars G is attached the rub-board H, the face of which is slightly convexed, and is grooved diagonally in both directions, forming diagonal blocks. The grooves of the rub-board H are made straight upon one side and inclined upon the other side, to cause the rubber to take a better hold upon the clothes, the straight side being forward in one set of grooves, and rearward in the other. To the lower parts of the bars G are pivoted two levers, I, the forward ends of which are connected by a round, J, which serves as a handle in operating the machine. The rear ends of the levers I project, are curved upward, and to them are pivoted the lower ends of two

connecting-bars, K, the upper ends of which are pivoted to the upper parts of the bars E.

This construction enables the rub-board H to be pressed down upon the clothes with any desired force, and also enables the rub-board to be used for moving the clothes forward and back, as required.

The clothes are placed upon a series of rollers, L, placed side by side, the journals of which enter longitudinal slots in the curved bars M, so that the movement of any one of the rollers may move them all.

Upon the middle parts of the curved bars M are formed, or to them are attached, the lower ends of the bars N, which pass up along the inner sides of the standards C, and have short slots formed in their upper ends to receive the pins O, upon which they are hung, and which are attached to the said standards C. The bars N are supported upon rubber blocks P, inserted in the upper part of their slots, and which rest upon the pins O, or by other suitable springs.

The springs P allow the rollers to adjust themselves to the varying thickness of the clothes, and cause all parts of said clothes to be pressed equally.

The bars N are made in two parts, hinged to each other, so that the curved bars M may adjust themselves to the position of the rollers E, and prevent their journals from bending should one end of said rollers be pressed down lower than the other.

The rollers L are kept at the proper distance apart by the plates Q, which are slotted from their lower edges with flaring slots to receive the journals of said rollers, and are placed upon the said journals between the ends of the rollers L and the curved slotted bars M. The slotted plates Q have lugs formed upon their upper corners, which rest against the sides of the suds-box A, and against cleats attached to said sides to keep the said plates in place.

The slotted bars M, and the top and end parts of the plates Q, are covered with a guard-board, R, to prevent the clothes from coming in contact with said parts and being stained. The ends of the guard-boards R have inwardly-projecting flanges formed upon them to rest against the sides of the suds-box, and the said guard-boards are secured in place detachably

by buttons S, attached to the sides of the suds-box A, and turned against the flanged ends of the said guard-boards.

To one end of the rock-bar D is attached a single-toothed wheel, T, with its tooth projecting in such a position as to strike against a pin, U, attached to the standard C, and support the rubber when the latter is swung with and over the bar D, so as to be held by the counterpoise and leave the suds-box unobstructed. V is a leaf, which is hinged at one edge to the side of the suds-box A, so that it may be turned up into a horizontal position to serve as a shelf to receive pails, clothes, or other articles required to be conveniently accessible. The leaf V is designed to be supported, when raised, by a hinged leg or bracket.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The rub-board H, having its face grooved diagonally in both directions, with grooves

made straight upon one side and inclined upon the other, substantially as herein shown and described.

2. The combination of the slotted curved bar M, the jointed bars N, the pins O, and the rubber or other springs P with the series of rollers L and with the standards C, substantially as herein shown and described.

3. The combination of the guard-boards R with the slotted plates Q, the slotted curved bars M, and with the sides of the suds-box, substantially as herein shown and described.

4. The rubber shaft D, provided with a single-toothed wheel that catches, when said shaft is turned over, against a side stud or pin on the upright bar C, as and for the purpose specified.

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Witnesses:

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